

# Department of Commerce

Bureau of Industry & Security

as of **Mar 8, 2021**

Including all 76 "600-Series" ECCNs with items formerly in the ITAR  
and the 23 new "500-series" ECCNs

Assembled and annotated by  
**exportsInternational** USA, LLC  
See page overleaf for special instructions

– Includes new Russian Sanctions –

## Export Administration Regulations

# EAR



## How to use this EAR version annotated by Exports International USA, LLC

Welcome to the U.S. Commerce Department's **Export Administration Regulations**, updated through Mar 8, 2021.

To help you more efficiently conduct research using this document, we've added a double-asterisk just before many key words, including all 598 ECCNs. The double-asterisk string **\*\*** does not appear naturally in the EAR, so you can see all we've added by looking for **\*\*** using the Advanced Search function (not the simpler "Find" function), which is under the menu item EDIT-ADVANCED SEARCH, or keyboard shortcut (on this computer) **Ctrl-F**, or **Shift-Command-F**. This opens a single window with all instances of the found keyword or string, together with the context where it appears. By contrast, Acrobat's simple search, or "Find" function, just takes you to each result *sequentially*.

So if you EDIT-ADVANCED SEARCH for the string **3A001** it will return a long list of 275 occurrences of that string within the EAR. But if you want to zoom right to the 3A001 ECCN itself, just key in **\*\*3A001** instead. Likewise the string **country** occurs 3,110 times in the EAR. But **\*\*country** takes you right to the Country Charts (and two related entries). Similarly, you can scoot right up to the opening of **Part 730** by keying in **\*\*730**, or go to **Part 730 Supplement 1** by keying in **\*\*730-S1**. Same for all 26 Parts to the EAR (2 of which are "Reserved", or vacant, at the moment), and all 76 Supplements thereto (7 of which are currently "Reserved"). Part 747, now empty and on reserve, used to contain "Special Iraq Reconstruction License." Part 752, also empty and on reserve, used to contain rules for the Special Comprehensive License ("SCL"), which has been discontinued.

You will also find many of our annotations and highlighting throughout the EAR, some of which may be helpful to you.

If you EDIT-ADVANCED SEARCH just for the double-asterisk string **\*\*** by itself, you will see some 1,136 cases of our **\*\*** double-asterisk augmentations all at once, which gives a good illustration of how much effort we put into making the 1,738-page EAR a truly search-friendly tool.

**Internal Hyperlinks:** In the Main Table of Contents on page 3, all color-highlighted **Major Part Headings** and **Supplements** contain hyperlinks to their respective Part or Supplement within the EAR. After traveling to the Part or Supplement page, the *left-page-margin* in each contains an invisible hyperlink back to the Main Table of Contents on page 3. Similarly, each Part from Part 730 to Part 774 has its own hyperlinked sub-TOC of Sections.

**Example 1:** If you go to Part 748 on page 859, you'll see a sub-TOC for Part 748. Clicking on §748.9 in that sub-TOC takes you to the actual §748.9 on page 870, and clicking in the highlighted title of §748.9 returns you to the sub-TOC.

**Example 2:** If you start from the Main TOC on page 3, *where all the color-highlighted lines are hyperlinks*, and click on "Supplement No. 1 to Part 732; Decision Tree", you will be whisked to that Decision Tree on page 117. Afterwards, clicking on the invisible hyperlink in the left-hand margin of page 306 will return you to the Main TOC on page 3.

Searching the EAR's 1,738 pages is now virtually instantaneous, since we have embedded a search index. Should you re-save this PDF, the search index is automatically deleted, and searching slows way down. But you can easily re-create and re-embed a new search index under Tools/Document Processing/Manage Embedded Index; this takes just a few seconds.

-- Hugh Schmittle, President  
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Revised Export Categories per the ECR				
USML	CCL		Description	Effective Date
I	0Y501		Firearms	Mar 9, 2020
II	0Y602		Artillery	Mar 9, 2020
III	0Y505		Ammunition	Mar 9, 2020
IV	9Y604	0Y604	Launch Vehicles/Missiles	Jul 1, 2014
V	1C608 - 1E608		Explosives/Propellants	Jul 1, 2014
VI	8Y609	8Y620	Vessels of War	Jan 6, 2014
VII	0Y606		Tanks/Military Vehicles	Jan 6, 2014
VIII	9Y610 7Y610 (Avionics)		Aircraft and Associated Equipment	Oct 15, 2013
IX	0Y614		Training Equipment	Jul 1, 2014
X	1Y613		Personal Protective Equipment	Jul 1, 2014
XI	3Y611	9Y620	Electronics ("Interim Final Rule")	Dec 30, 2014
XII	6Y615 - 7Y611		Fire Control/NV	Dec 31, 2016
XIII	0Y617		Miscellaneous	Jan 6, 2014
XIV	1Y607		Toxicological Agents	Dec 31, 2016
XV	9Y515	3Y611 - 9Y604	Spacecraft/Satellites	Jul 1, 2014 (Radiation-hardened)   Nov 10, 2014 (All others)
XVI	0B618 - 0A607		Nuclear Weapons	Jul 1, 2014
XVII			Classified Articles, Data, Services	Oct 15, 2013
XVIII	6Y619		Directed Energy Weapons	Dec 31, 2016
XIX	9Y619		Gas Turbine Engines	Oct 15, 2013
XX	8Y620		Submersible Vessels	Jan 6, 2014
XXI			Items Not Otherwise Enumerated	Oct 15, 2013
ITAR §120.41	EAR Part 772.1		"Specially Designed" Definition	Oct 15, 2013

*This chart details the status of the Export Control Reform ("ECR") program to rewrite the USG export military regulations, one main goal being to move most military parts/components from the ITAR's US Munitions List to the EAR's Commerce Control List for export-jurisdiction purposes. As you can see, the bulk of that transition is now essentially complete.*

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**ALPHABETICAL INDEX  
TO THE COMMERCE CONTROL LIST**

This index is not an exhaustive list of controlled items.

**Supplement No. 4 to Part 774 – Commerce Control List Order of Review**  
identifies the steps to follow when reviewing the Commerce Control List.

<b>Description</b>	<b>ECCN Citation</b>
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Abrin .....	1C351.d.1
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Aero gas turbine engines..... 9A001, 9A619.a

Aerosol challenge testing chambers..... 2B352.h

Aerosol generating units specially designed for fitting to the systems  
     specified in 2B352.i.1 or .i.2..... 2B352.i.3

Aerosol inhalation equipment designed for aerosol challenge testing with  
     microorganisms, viruses, or toxins ..... 2B352.h

Aerothermodynamic test facilities ..... 9B104

Aflatoxins..... 1C351.d.2

African horse sickness virus ..... 1C351.a.1

African swine fever virus (animal pathogens) ..... 1C351.a.2

Agitators (chemical manufacturing) ..... 2B350.b

AHRS (Attitude Heading Reference Systems), source code ..... 7D002

Air traffic control software ..... 6D003.h.1

Air independent power systems (for underwater use) ..... 8A002.j

Air compressors and filtration systems designed for filling air cylinders ..... 8A992.1

Air-launch platforms for space launch vehicles (SLV) ..... 9A004.g

Air Traffic Control software application programs ..... 6D993

Airtight vaults ..... 0A981

Airborne altimeters ..... 7A006, 9A610.v

Airborne altimeters ..... 7A106, 9A610.v

Airborne communication equipment ..... 7A994

Airborne radar equipment ..... 6A998

Air-cooled diesel engines and engine blocks for armored vehicles..... 0A606

Aircraft ..... 9A610

Aircraft, civil..... 9A991.b

Aircraft, demilitarized..... 9A991.a, 9A610

Aircraft, n.e.s..... 9A991, 9A610

Aircraft, trainer ..... 9A610.a

Aircraft breathing equipment and parts ..... 9A991.e, 9A610.g

Description	ECCN Citation
Aircraft (military) pressurized breathing equipment .....	9A610.g
Aircraft inertial navigation systems & equipment .....	7A103.a
Aircraft inertial navigation systems & equipment .....	7A003
Aircraft parts and components .....	9A991.d, 9A610.x
Aircraft wing folding system software .....	0D521 No. 3
Aircraft wing folding system technology .....	0E521 No. 2
Air-launch platforms for space launch vehicles (SLV) .....	9A004.g
Alexandrite lasers.....	6A005.c.2.b
Align & expose step & repeat equipment (wafer processing) .....	3B001.f.1
Alignment equipment for equipment controlled by 7A.....	7B001
Alkylphenylene ethers or thio-ethers, as lubricating fluids .....	1C006.b.1
Alloy strips, magnetic .....	1C003.c
Alloyed materials production systems and components.....	1B002
Alloyed metal materials in powder or particulate form .....	1C002.c
Alloyed metal materials in the form of uncomminuted flakes, ribbons, or thin rods .....	1C002.d.2
Alloys, aluminides .....	1C202.a
Alloys, aluminum.....	1C002.b.4
Alloys, magnesium .....	1C002.b.5
Alloys, metal powder or particulate form .....	1C002.b
Alloys, nickel .....	1C002.b.1
Alloys, niobium.....	1C002.b.2
Alloys, titanium.....	1C202.b
Alpha-emitting radionuclides, compounds, mixtures, products or devices .....	1C236
Alternators for ground vehicles .....	0A606.y.2
Altimeters, airborne .....	7A006, 9A610.v
Altimeters, radar or laser types .....	7A106, 9A610.v
Alumina fibers .....	1C010.c Note 1
Aluminides.....	1C002.a.1
Aluminides, nickel .....	1C002.a.1.a
Aluminides, titanium.....	1C002.a.1.b
Aluminum alloys.....	1C002.b.4
Aluminum alloy/powder or particulate form .....	1C002.c.1.d
Aluminum alloys as tubes/solid forms/forgings .....	1C202.a
Aluminum electroplating equipment .....	2B999.i
Aluminum gallium nitride (AlGaN) “substrates”, ingots, boules, or other preforms of those materials .....	3C005.a
Aluminum nitride (AlN) “substrates”, ingots, boules, or other preforms of those materials .....	3C005.a
Aluminum organo-metallic compounds .....	3C003
Aluminum powder, spherical or spheroidal .....	1C111.a.1
Aluminum powder (spherical) production equipment.....	1B102
Amalgam electrolysis cells, lithium isotope separation .....	1B233.b.3

Description	ECCN Citation
Amalgam pumps, lithium and/or mercury .....	1B233.b.2
Ammonia, aqueous .....	1C980
Ammonium bifluoride .....	see ammonium hydrogen fluoride
Ammonium hydrogen fluoride .....	1C350.d.1
Ammonium nitrate, including certain fertilizers containing ammonium nitrate .....	1C997
Ammunition hand-loading equipment .....	0B505
Amorphous alloy strips .....	1C003
Amplifiers, microwave solid state .....	3A001.b.4
Amplifiers, pulse.....	3A999.d
Amplitude modulator .....	3A001.i
Analog computers .....	4A101
Analog-to-digital converters .....	3A101.a
Analog-to-digital conversion equipment .....	3A002.h
Analog-to-digital converters, integrated circuits .....	3A001.a.5
Analog-to-digital converters, integrated circuits that also store/process digitized data .....	3A001.a.14
Analyzers, network .....	3A002.e
Analyzers, signal.....	3A002.c.1
Andean potato latent virus (Potato Andean latent tymovirus).....	1C354.c.1
Andes virus .....	1C351.a.3
Angular displacement measuring instruments .....	2B206.c
Angular measuring instruments .....	2B006.b.2
Angular measuring instruments .....	2B206
Angular-linear inspection equipment (hemishells).....	2B206
Angular-linear inspection equipment (hemishells).....	2B006.c
Angular rate sensors.....	7A002
Animal pathogens .....	1C351
Annealing or recrystallizing equipment.....	3B991.b.1.c.1
Antennae, phased array .....	5A001.d
Antennae, phased array (for radar) .....	6A008.e
Anti-friction bearings and bearing systems .....	2A001
Anti-vibration mounts (noise reduction), civil vessels .....	8A002.o.3.a
Antimony hydrides.....	3C004
Application Specific Integrated Circuits (ASICs) .....	3A611.f, y.14
Aramid fibers & filamentary materials .....	1C210.a
Aramid fibers & filamentary materials .....	1C010.a
Arc remelt & casting furnaces .....	2B227.a
Argon ion lasers .....	6A205.a
Argon ion lasers .....	6A005.a
Armor body (hard) .....	1A005.b
Armor body (soft) .....	1A005.a
Armor plate (for hard body armor) .....	1A613, 1A005.b
Armor plate drilling machines .....	2B018.a

Description	ECCN Citation
Armor plate planing machines .....	2B018.b
Armor plate quenching presses .....	2B018.c
Armor (for vehicles) .....	0A606.b.2.b
Arms machinery, equipment, gear, parts, and accessories .....	2B018
Arms (small) chambering machines .....	2B018.o
Arms (small) deep hole drilling machines and drills therefor .....	2B018.p
Arms (small) rifling machines .....	2B018.q
Arms (small) spill boring machines .....	2B018.r
Aromatic polyimides .....	1C008.a.3
Aromatic polyamide-imides .....	1C008.a.2
Aromatic polyetherimides .....	1C008.a.4
Array processor microcircuits .....	3A001.a.3 Note
Array processors/assemblies .....	4A004
Array processors/assemblies .....	4A003
Arrays of aerosol generating units or spray booms, specially designed for fitting to aircraft, "lighter than air vehicles," or "UAVs" .....	2B352.h.2
Arsenic trichloride .....	1C350.b.1
Arsenic hydrides .....	3C004
Asphalt paving mixtures .....	1C980
ASICs (Application Specific Integrated Circuits) .....	3A611.f, y.14
Aspheric optical elements .....	6A004.e
Assemblies to enhance performance by aggregation of computing elements .....	4A994.c
Asynchronous transfer mode (ATM) equipment .....	5A991.c.10.d
Atomic frequency standards .....	3A002.g
Atomic transition solid state lasers .....	6A005.a or b
Attitude Heading Reference Systems (AHRS), source code software .....	7D002
Attitude control equipment for missiles .....	7A116
Audio selector panels (military aircraft) .....	9A610.y.3
Audio selector panels (submersible vessels) .....	8A620.y.11
Audio selector panels (surface vessels of war) .....	8A609.y.11
Aujeszky's disease (Suid herpesvirus 1; Pseudorabies virus) .....	1C351.a.51
Austenitic stainless steel plate, valves, piping, tanks and vessels .....	2B999.n
Autoclave temperature, pressure or atmosphere regulation technology .....	1E103
Automated control systems, submersible vehicles .....	8A002.b
Automatic drug injection systems .....	0A981
Automotive, diesel, and marine engine lubricating oil .....	1C980
Avian influenza virus .....	1C351.a.4
Aviation engine lubricating oil .....	1C980
Avionic equipment, parts, and components .....	7A994
Avionic systems, equipment, parts ... for military not on USML .....	7A611/3A611
Avionics EMP/EMI protection technology .....	7E102
Axles for ground vehicles .....	0A606.y.3

Description	ECCN Citation
Bacillus anthracis .....	1C351.c.1
Backshells, electric connector.....	3A611.y.9
Bacteria .....	1C351.c
Bacteria .....	1C354.a
Balancing machines .....	2B119.a
Balancing machines, centrifugal multiplane.....	2B229
Balancing machines, centrifugal multiplane.....	2B999.m
Ball bearings, precision hardened steel and tungsten carbide.....	1C999.a
Ball bearings, Radial.....	2A101
Ball & solid roller bearings.....	2A001.a
Band-pass filters, tunable.....	3A001.b.5
Barium metal vapor lasers .....	6A005.b
Batch mixers .....	1B117
Bathymetric survey systems or transmitting and receiving arrays .....	6A001.a.1.b
Batons, shock .....	0A503
Batons, spiked.....	0A983
Batteries (ground vehicles) .....	0A606.y.4
Batteries (lead-acid and nickel-cadmium) for military aircraft .....	9A610.y.24
Batteries, thermal .....	9A604
Bay cable systems .....	6A001.a.2.e
Bay cable systems software .....	6D003.a.3
Bayonets.....	0A501.y.16
Bacons (underwater) .....	9A610.y.20
Beam lead bonders, stored program controlled equipment .....	3B991.b.3.b
Beam steering mirrors.....	6A004.a.4
Beamforming techniques .....	6A001.a.2.c
Bearing pullers for gas turbine engines .....	9B619.y
Bearings (anti-friction) and bearing systems .....	2A001
Bearings (e.g., ball, roller, wheel) – for ground vehicles.....	0A606.y.5
Bearings, ball & solid roller.....	2A001.a
Bearings, (e.g., ball, roller, wheel) for ground vehicles.....	0A606.y.5
Bearings, high precision/temperature/special .....	2A001
Bearings, magnetic (active) .....	2A001.c
Bearings, precision hardened steel and tungsten carbide.....	1C999.a
Bellows forming dies .....	2B999.b
Bellows manufacturing equipment .....	2B999.b
Bellows seal valves .....	2A226
Bellows seal valves .....	2B350.g
Bellows sealed valves, n.e.s. ....	2A999
Bellows-forming mandrels.....	2B228.c
Bellows-forming dies.....	2B228.c
Bellows-sealed scroll-type compressors .....	2B233

Description	ECCN Citation
Bellows-sealed scroll-type vacuum pumps.....	2B233
Benzilic acid.....	1C350.b.2
Beryllium metal, alloys, compounds, or manufactures.....	1C230
Beryllium metal particulate.....	1C111.a.2.a.4
Beryllium/beryllium substrate blanks.....	6C004.d
“Biocatalysts,” and biological systems therefor, not controlled by USML Category XIV(g), “specially designed” for the decontamination or degradation of chemical warfare agents controlled in USML Category XIV (a).....	1C607.c
Biocontainment chambers.....	2B352.g.2
Biocontainment isolators.....	2B352.g.2
Biological containment facilities, ACDP level 3 or 4.....	2B352.a.1
Biological manufacturing equipment & facilities.....	2B352
Biological safety cabinets.....	2B352.g.2
“Biopolymers,” not controlled by USML Category XIV(g), “specially designed” or processed for the detection or identification of chemical warfare agents specified by USML Category XIV(a), and the cultures of specific cells used to produce them.....	1C607.b
Bismaleimides.....	1C008.a.1
Bismuth.....	1C229
Black powder guns and armament manufactured in or prior to 1890 and replicas thereof designed for use with black powder propellants.....	EAR99
Bladders for aircraft/aerospace, fuel.....	1A001.a, 9A991.d, 9A610.x
Bladders for aircraft/aerospace/missiles, fuel.....	9A610.x
Blanks, beryllium/beryllium (Be/Be) deposited material.....	6C004.d
Blanks, Zinc selenide (ZnSe) substrate.....	6C004.a
Blanks, Zinc sulphide (ZnS) substrate.....	6C004.a
Bluetongue virus.....	1C351.a.5
Boats.....	8A992.f
Body armor (hard and soft).....	1A005
Boilers, Marine.....	8A918
Bombs, smoke.....	1A984
Bonding equipment.....	3B991.b.3.b
Boosters (commercial cast or pressed).....	1C608.g
Boring equipment, large.....	2B999.h.1
Boring machines (CNC).....	2B001
Boring machines (CNC).....	2B201
Boron.....	1C011.b
Boron alloys particulate.....	1C011.b
Boron & boron compounds.....	1C225
Boron fibers.....	1C010.c Note 3
Bottom cable systems.....	6A001.a.2.e
Bottom cable systems software.....	6D003.a.3

Description	ECCN Citation
Botulinum toxin .....	1C351.d.3
Boules of electro-optic materials .....	6C004.b
Brake discs, rotors, drums, calipers, cylinders, pads, shoes for ground vehicles .....	0A606.y.1
Brake pads (steel) for military aircraft.....	9A610.y.19
Brayton cycle engine, air independent.....	8A002.j.1
Breathing air suit decontamination showers .....	2B352.a.2.b
Breathing equipment and parts, pressurized aircraft.....	9A991.e, 9A610.g
Bridge (self-launching) components for deployment by ground vehicles .....	0A606.f
Bridges & gateways, telecommunication .....	5A991.b.4.a
Bridges & gateways, telecommunication .....	5A991.c.9
Bromo acetone (CAS 598-31-2).....	1C607.a.10
Bromo methylethylketone (CAS 816-40-0).....	1C607.a.11
Brucella abortus .....	1C351.c.2
Brucella melitensis.....	1C351.c.3
Brucella suis.....	1C351.c.4
BTAT (Bis(2,2,2-trinitroethyl)-3,6-diaminotetrazine) .....	Annex to Cat 1 List of Explosives 47.a
Buckshot shotgun shells.....	0A505.b
Bulk acoustic wave devices .....	3A001.c.2
Bulk fluoride glass, low optic absorption .....	6C004.e.2
Bulletproof and bullet resistant vests.....	1A005
Burkholderia mallei (Pseudomonas mallei).....	1C351.c.5
Burkholderia pseudomallei (Pseudomonas pseudomallei) .....	1C351.c.6
Butacene.....	1C111.c.1
CA (Bromobenzyl cyanide) (CAS 5798-79-8).....	1C607.a.1
Cables, cable assemblies, and connectors – for .....	0A606.y.6
Cable systems for communications to detect surreptitious intrusion .....	5A003.a
Cables, Optical fiber .....	5A001c
CAD (Computer-aided-design) software for semiconductors .....	3D003
Cadmium telluride (CdTe) single crystals/epitaxial wafers.....	6C002.b
Cadmium zinc telluride (CdZnTe) single crystals & epitaxial wafers .....	6C002.b
Calcium.....	1C227
Calcium fluoride (CaF <sub>2</sub> ) made/coated crucibles .....	2A225.a.1
Calcium zirconate (metazirconate) (Ca <sub>2</sub> ZrO <sub>3</sub> ) crucibles .....	2A225.a.2
Calibration, test or alignment equipment for equipment controlled by 7A .....	7B001
Camera equipment, underwater , n.e.s.....	8A992.d
Camera, designed or modified for remote operation with submersible vehicle .....	8A992.a.1
Cameras, electronic framing type .....	6A003.a.4
Cameras, electronic framing type .....	6A203.b.2
Cameras, electronic streak type .....	6A003.a.3
Cameras, electronic streak type .....	6A203.b.1
Cameras, framing.....	6A003.a.4
Cameras, framing.....	6A203

Description	ECCN Citation
Cameras, high speed cinema recording .....	6A003.a.1
Cameras, imaging .....	6A003.b
Cameras, instrumentation .....	6A003.a
Cameras, mechanical high speed .....	6A203.a.2
Cameras, mechanical or electronic steak .....	6A003.a.3
Cameras, photo-optical step and repeat .....	3B991.b.2.d.1
Cameras, radiation hardened TV (or lenses therefor).....	6A203.d
Cameras, scanning & scanning camera systems.....	6A003.b.2
Cameras (still), for underwater use.....	8A992.b
Cameras, video using solid state sensors .....	6A003.b.1
Cameras and components .....	6A003
Cameras and components not controlled by 6A003 .....	6A203
Cameras and imaging devices (high-speed) and “components” therefore, “software” “specially designed” to enhance or release the performance characteristics of devices to meet or exceed the performance characteristics described in ECCN 6A203 .....	6D201
Cameras not controlled by 6A003 or 6A203 .....	6A993
Canopies, complete .....	9A992, 9A610.h
Caps, mechanical .....	3A611.y.29
Capacitors .....	3A001.e.2
Capacitors .....	3A201.a
Capacitors, high voltage.....	3A999.c
Capacitors, mica paper.....	3A611.y.5
Carbon dioxide and monoxide .....	1C980
Carbon dioxide detector for military aircraft .....	9A610.y.27
Carbon dioxide (CO <sub>2</sub> ) lasers .....	6A005.d.3
Carbon fiber & filamentary materials .....	1C010.b
Carbon fiber & filamentary materials .....	1C210.a
Carbon fiber preforms.....	1C010.e
Carbon fibrous or filamentary materials .....	1A002.b.1
Carbon monoxide (CO) lasers .....	6A005.d.2
Carbon or alumina fiber conversion equipment.....	1B001.d.4
Carbon-carbon components, resaturated pyrolyzed.....	1A102
Carbon-carbon materials, resaturated pyrolyzed .....	1C102
Carbonyl dichloride (75-44-5) (Phosgene) .....	1C355.b.1.a
Carboxy-terminated polybutadiene (CTPB) .....	1C111.b.1
Cartridge power devices .....	1C608.c
Casks for transport of radioactive material .....	2A291.c
Casting and remelt arc furnaces .....	2B227.a
Casting equipment (directional solidification or single crystal) .....	9B001.a & 9D004.c
Catalysts, platinized .....	1A225
Cathodes (Impregnated) for electronic tubes .....	3A001.b.1.c
Cathodes.....	3A001.b.1

Description	ECCN Citation
Cathodic arc deposition production equipment .....	2B005.f
Cedar, Western red.....	1C988
Cells, primary & secondary .....	3A001.e.1 or 3A991.j
Cellular radio equipment/system software.....	5D991
Centralized network control.....	5A991.e
Centralized network control development/production technology.....	5E991
Centrifugal decanters .....	2B352.c
Centrifugal fixtures for gyro bearings.....	7B003 or 7B101
Centrifugal multiplane balancing machines.....	2B999.m
Centrifugal multiplane balancing machines for flexible rotors .....	2B229.a
Centrifugal separators .....	2B352.c
Centrifuge rotor balancing equipment .....	2B229
Centrifuge rotor assembly equipment.....	2B228.a
Centrifuges capable of imparting accelerations above 100 g .....	2B122
Ceramic based materials .....	1C007
Ceramic base materials, of single or complex borides of titanium.....	1C007.a
Ceramic composite materials, useable for radomes or nose tips .....	1C107.b
Ceramic cores for blades & vanes .....	9B001.b, 9B619.a
Ceramic core manufacturing equipment.....	9B991.d, 9B619.a
Ceramic fibers.....	1C010.c Note 4
Ceramic non-composite materials.....	1C007.b
Ceramic shells for blades & vanes.....	9B001.b, 9B619.a
Ceramic shell wax pattern preparation equipment.....	9B991.e, 9B619.a
Ceramic-ceramic composite materials.....	1C007.c.1.a
Ceramic-ceramic-matrix composite materials .....	1C007.c.2
Ceramic-matrix composite materials .....	1C007.c.1.b
Cerium sulphide (Ce <sub>2</sub> S <sub>3</sub> ) made/coated crucibles .....	2A225.a.3
Chambers, aerosol challenge testing (capacity of 1 m <sup>3</sup> or more) .....	2B352.h
Changers, frequency .....	3A999.a
Changers, frequency (converters or inverters).....	3A225
Chapare virus .....	1C351.a.6
Charges, containing military explosives for civil applications.....	1C608
Charges, non-irritant smoke.....	1A984
Charges, shaped for oil well operations.....	1C608.f, 1C992.a
Chemical agents .....	1A984
Chemical disposal technology .....	1E351
Chemical incinerators .....	2B350.j
Chemical production process control software.....	1D390
Chemical production facility technology.....	1E350
Chemical warfare (CW) precursors .....	1C350
Chemical lasers .....	6A005.d.5
Chemical manufacturing equipment.....	2B350

Description	ECCN Citation
Chemical manufacturing facilities .....	2B350
Chemical mixtures, not controlled by USML Category XIV(f), “specially designed” for military use for the decontamination of objects contaminated with materials specified by USML Category XIV(a) or (b) .....	1C607.d
Chemical (precursor) mixtures and test kits .....	1C395
Chemical (precursor) mixtures, used in the production of chemical warfare agents.....	1C995
Chemical storage tanks & containers.....	2B350.c
Chemical Vapor deposition (CVD) equipment.....	3B991.b.1.i
Chemical vapor deposition (CVD) equipment, epitaxial growth .....	3B001
Chemical vapor deposition (CVD) equipment, production (fiber).....	1B001.d.2
Chemical vapor deposition (CVD) equipment, production .....	2B005.a
Chemicals, CWC Schedule 2 and 3 .....	1C355
Chemicals, precursors for toxic chemical agents.....	1C350
Chikungunya virus (Human pathogen).....	1C351.a.7
Chip carrier bonders, stored program controlled equipment .....	3B991.b.3.b
Chlamydia psittaci (Chlamydophila psittaci).....	1C351.c.7
Chlorine trifluoride (ClF <sub>3</sub> ) .....	1C238
2-Chloroethanol .....	1C350.d.2
Chloropicrin (trichloronitromethane)(76-06-2) .....	1C355.b.3
Choclo virus .....	1C351.a.8
Cholera toxin.....	1C351.d.4
Chromatography analytical instruments .....	3A999.f
Chronometry equipment .....	3A999.e.2
Cinema recording cameras.....	6A003.a.1
Circuit breakers.....	3A611.y.17
Clamps (V-Band, cushion, broomstick, hinged, and loop) for gas turbine engines .....	9A619.y.5
Classical swine fever virus (Hog cholera virus) .....	1C351.a.9
Clean room filters .....	3B991.b.4
Clicker dies .....	1B101.d
Clostridium argentinense (formerly known as Clostridium botulinum Type G), botulinum neurotoxin producing strains .....	1C351.c.8
Clostridium baratii, botulinum neurotoxin producing strains.....	1C351.c.9
Clostridium botulinum .....	1C351.c.10
Clostridium butyricum, botulinum neurotoxin producing strains.....	1C351.c.11
Clostridium perfringens, epsilon toxin producing types.....	1C351.c.12
Clostridium perfringens alpha, beta 1, beta 2, epsilon and iota toxins .....	1C351.d.5
Clothing & materials, bullet-resistant .....	1A005
CN (Phenylacetyl chloride or w-Chloroacetophenone) (CAS 532–27-4).....	1C607.a.3
CNTD (Controlled nucleation thermal decomposition) equipment.....	2B005.a.1.b
Coating application & processing technology, optic fibers .....	5E991.a.1
Coating application technology, for non-electronic substrates.....	2E003.f
Coating application & processing technology, optic fibers .....	5E001.b.3

Description	ECCN Citation
Coating equipment for prepregs/preform production .....	1B101.d
Coating & processing equipment, for non-electronic substrates .....	2B005
Coatings for reduced electromagnetic visibility or signature suppression .....	1C101, 0C617.a
Coccidioides immitis .....	1C351.e.1
Coccidioides posadasii.....	1C351.e.2
Cochliobolus miyabeanus (Helminthosporium oryzae).....	1C354.b.2
Cold-cathode tubes.....	3A228.a
Colletotrichum coffeanum var. virulans (Colletotrichum kahawae) .....	1C354.b.1
Colletotrichum kahawae (Colletotrichum coffeanum var. virulans) .....	1C354.b.1
Color center lasers.....	6A005.c.1, c.2 or c.3
Column, absorption or distillation .....	2B350.e
Column, liquid-liquid exchange, for lithium amalgams .....	1B233.b.1
Combined cycle engines/components.....	9A011, 9A619
Combustion regulation devices, missile engines .....	9A118
Common channel signaling equipment/systems.....	5A991.c.8
Common channel signaling, technology for the development of equipment employing .....	5D001.c.5
Communications cable systems to detect surreptitious intrusion .....	5A003.a
Communication channel controllers .....	5A991.b.4.b
Communication equipment, airborne.....	7A994
Communication (mobile) equipment, assemblies and components.....	5A991.g
Communications interception devices, parts and accessories.....	5A980, 5D980 or 5E980
Communications Systems (underwater) .....	5A001.b.1
Compasses.....	8A609.y.5, 8A620.y.5, 8A992.j, 9A610.y.13
Compasses (gyro-astro) & other position or orientation deriving devices .....	7A004
Compasses (gyro-astro) & devices, other than those of 7A004.....	7A104
Complex programmable logic devices (CPLD).....	3A001.7.a, 3A991.d
Components made from Fluorinated compounds .....	1A001
Components/structures for spacecraft.....	9A010
Composite conductors, superconductive .....	1C005
Composite or laminate development software.....	1D002
Composite structures, as tubes.....	1A202
Composite structures or laminates .....	1A002
Composite (structural) production equipment, n.e.s.....	1B999.e
Composite (structural) production equipment controlled by 1B999, software for .....	1D999
Composite materials, ceramic-ceramic .....	1C007.c.1.a
Composites production equipment .....	1B001
Composite structures for propulsion systems or space vehicles.....	9A110, 9A619.x
Composite structures for unmanned aerial vehicles .....	9A610.t
Composites (structural) production equipment.....	1B101
Compound rotary tables for machine tools.....	2B008.d
Compound semiconductor integrated circuits .....	3A001.a.11

Description	ECCN Citation
Compound semiconductor photocathodes .....	6A002.a.2.c.3
Compressors.....	9A619.x
Compressors, bellows-sealed scroll-type.....	2B233
Compressors, turboexpander.....	1B232
Compressors, turbo/centrifugal/axial flow.....	9A619.x
Computer, electronic assemblies & equipment & components ...	4A001, 4A003, 4A004 or 4A994
Computer, electronic components .....	4A101
Computer, electronic components .....	4A102
Computers, parts, components, accessories... for military applications, not on USML .....	3A611
Computer aided design (CAD) equipment for semiconductor devices or integrated circuits .....	3B991.b.2.c
Computer-aided-design (CAD) software for IC's & semiconductors.....	3D003
Computer interconnect equipment.....	4A003.g
Computer/assemblies/components, neural.....	4A004.b
Computer/assemblies/components, optical.....	4A004.c
Computers, electronic assemblies, and related equipment and components not controlled by 4A001 or 4A003 .....	4A994
Computers, analog & analog ruggedized .....	4A101
Computers for fingerprint equipment .....	4A980
Computers, digital ruggedized .....	4A101
Computers/assemblies/components, systolic array.....	4A004.a
Computers, analog .....	4A001
Computers, digital .....	4A003
Computers, digital .....	4A004
Computers, digital.....	4A001
Computers, hybrid.....	4A102
Computers, parts, components ... for military application not on USML.....	4A611/3A611
Computers and electronic assemblies (hybrid), and specially designed components therefor.....	4A994.k
Computers, with extended operating temperature range .....	4A001.a.1
Computers, radiation hardened .....	4A001.a.2
Concealment and deception equipment (military), i.e. special paints, decoys, smoke or obscuration equipment and simulators .....	0A617
Concealed object detection equipment .....	2A984, 2D984 or 2E984
Condensers for use in nuclear reactors .....	2A290.a
Condensers or heat exchangers .....	2B350.d
Conductive polymers .....	1C001.c
Conductors, superconductive composite .....	1C005
Congo-Crimean hemorrhagic fever virus (a.k.a. Crimean-Congo hemorrhagic fever virus).....	1C351.a.10
Connector backshells, electric .....	3A611.y.9
Conotoxins .....	1C351.d.6

Description	ECCN Citation
Construction equipment “specially designed” for military use .....	0A617.y.1
Contactors .....	3A611.y.27
Contagious bovine pleuropneumonia ( <i>Mycoplasma mycoides subspecies mycoides</i> SC (small colony)).....	1C351.c.16
Containers, ISO intermodal containers for packing defense articles or “600 series” items ....	0A617.y.3
Containers, chemical.....	2B350.c
Containment devices (not enumerated under ECCN 1B608 or in USML Category IV or V) for the testing of high explosives or explosive devices .....	1B234
Containment facilities .....	2B352.a.1
Continuity of operation software .....	3D005
Continuous mixers .....	1B118
Control units for metallurgical melting & casting furnaces.....	2B227
Control systems, on-line development of gas turbine engines .....	9B002, 9B619.a
Controllable-pitch propellers .....	8A002.o.2.a
Controlled atmosphere melting & casting furnaces.....	2B227
Controlled environment (vacuum or inert gas) induction furnaces .....	2B226
Controlled nucleation thermal decomposition (CNTD) equipment.....	2B005.a.1.b
Controllers, machine tool (CNC).....	1B001.a
Controllers for high explosive handling robots .....	2B207
Controllers, robot .....	2B007
Conventional military steel helmets.....	1A613.y.1
Converter integrated circuits.....	3A001.a.5
Converters, frequency .....	3A225
Converters, frequency extender .....	3A001.b.7
Cooling fluids - electronic .....	1C006.d
Cooling fluids, fluorocarbon electronic .....	1C006.d
Cooling systems, freon and chilled water .....	1B999.d
Copper or phosphor bronze mesh packings .....	1A226
Copper metal vapor lasers.....	6A005.b
Coprocessor microcircuits .....	3A001.a.3 Note
Correlation-velocity sonar log equipment .....	6A001.b
Counter Improvised Explosive Device equipment .....	5A001.h
Coxiella burnetii.....	1C351.c.13
CR (Dibenz-(b,f)-1,4-oxazepine) (CAS 257-07-8) .....	1C607.a.4
Crime science laboratories, parts and accessories, nonmilitary mobile.....	9A980
Crimean-Congo hemorrhagic fever virus (a.k.a. Congo-Crimean hemorrhagic fever virus) .....	1C351.a.10
Cross (tangential) flow filtration equipment.....	2B352.d
Crossed-field amplifier tubes.....	3A001.b.1.b
Crucibles, liquid actinide resistant.....	2A225
Crucibles, tantalum .....	2A225.b or c
Cryocoolers for optical sensors, space qualified.....	6A002.d.1

Description	ECCN Citation
Cryocoolers for optical sensors, non-space qualified .....	6A002.d.2
Cryogenic and superconductive equipment, parts, components, accessories .....	9A620
Cryogenic and superconductive test equipment .....	9B620
Cryogenic and superconductive software .....	9D620
Cryogenic and superconductive technology .....	9E620
Cryptanalytic equipment and components, mass market.....	5A992
Cryptanalytic systems, equipment and components .....	5A004.a
Cryptographic activation token.....	5A002.b, 5D002.b, 5E002.b
Cryptographic enabling systems, equipment, integrated circuits, etc.....	5A002.b
Cryptographic enabling/activation software .....	5D002.b
Cryptographic enabling/activation technology .....	5E002.b
Cryptographic equipment and components, mass market .....	5A992
Cryptologic equipment, software for the development, production or use of, mass market ..	5D992
Cryptologic equipment and components, mass market. ....	5A992
Cryptographic systems, equipment and components for data confidentiality > 56 bits .....	5A002.a
Crystal pullers and furnaces.....	3B991.b.1.c
CS (o-Chlorobenzylidenemalononitrile or o-Chlorobenzalmalononitrile) (CAS 2698-41-1) .....	1C607.a.2
CTPB (Carboxy-terminated polybutadiene) .....	1C111.b.1
Cultivation chamber holding devices (including, <i>inter alia</i> , single-use cultivation chambers with rigid walls).....	2B352.b.2.b
Custom integrated circuits .....	3A001.a.2 or a.10
Cutting tool inserts, single diamond point .....	2B998.b
Cutting machines, gears .....	2B003
Cutting equipment for prepregs/preform production .....	1B101.d
CVD (Chemical vapor deposition) equipment .....	1B001.d.2
CVD (Chemical vapor deposition) equipment .....	2B005.a
CVD (Chemical vapor deposition) equipment .....	1B101.c.2
CVD (Chemical vapor deposition) furnaces, other than those controlled by 2B005.a, designed or modified for the densification of carbon-carbon composites .....	2B105
CW (Chemical warfare) precursors .....	1C350
Cyanogen chloride (506-77-4).....	1C355.b.1.b, 1E355.b.2
Cyber hacking systems, equipment and components .....	5A004
Cylinder wall lubrication technology, diesel engines .....	9E003.e.3
DACs (Digital-to-analog converters).....	3A001.a.5
DBRN (Data Based Referenced Navigation) system technology.....	7E004.a.7
DADE (1,1-diamino-2,2-dinitroethylene, FOX-7) (CAS 145250-81-3) ..List of Explosives Annex to Cat. 1	
Damping, flotation or lubricating fluids .....	1C006.c
Data acquisition systems for gas turbine engine development .....	9B002, 9B619.a
Data (message) switching equipment, systems, components and assemblies .....	5A991.c.1

Description	ECCN Citation
Data acquisition equipment for wind tunnels, automatic.....	9B005
Data Based Referenced Navigation (DBRN) systems for underwater navigation, technology .....	7E004.a.7
Datagram packet routing or switching equipment .....	5A991.c.3
Decanters, centrifugal .....	2B352.c
Decontamination equipment .....	1A004 or 1A995
Decontamination equipment (military) for toxicological agents .....	1A607.g
Deep-hole drilling machines .....	2B001.f
Defect, error or contaminant detection equipment for wafers or substrates .....	3B992.b.1
Deformable mirrors.....	6A004.a.1
Degassing equipment .....	2B350
DEGDN (diethylene glycol dinitrate).....	1C111.c.5
Demolition blocks .....	0A604.a
Depleted Uranium.....	1A290
Depth sounders.....	6A001.a.1
Design integration of guidance sets, software .....	7D103
Detection and protection equipment and components .....	1A004, 1A995, 2B351 or 2B352
Detection equipment (military) for toxicological agents .....	1A607.h
Detection equipment, seismic .....	6A999.a
Detection equipment, radiation.....	1A004, 1A995 or 1A999.a
Detection equipment, radiographic.....	1A999.b
Detection systems for explosives and detonators .....	1A004.d, 2A983, 2D983 or 2E983
Detection or location systems or transmitting and receiving arrays (acoustic) .....	6A001.a.1.b
Detectors, optical .....	6A002.a
Detectors, radiation hardened .....	6A102
Detectors, space-qualified solid state optical.....	6A002.a.1
Detonation cord.....	1A008 or 1C992.c
Detonator detection.....	2A983, 2D983 or 2E983
Detonators and multipoint initiation systems .....	3A229
Detonator firing sets, for multiple detonators of 3A232 .....	1A007 or 3A229
Detonators, electric or non-electric.....	1C608.d or 1C992.e
Detonators, exploding bridge wire (EBW) .....	1A007
Detonators, exploding bridge (EB) .....	1A007
Detonators, exploding foil initiators (EB) .....	1A007
Detonators for military explosives.....	0A604
Detonators, slapper (electric).....	1A007
Deuterium fluoride-carbon dioxide (DF-CO <sub>2</sub> ) lasers.....	6A005.d.5
Deuterium fluoride (DF) lasers.....	6A005.d.5
Di-isopropylamine .....	1C350.d.8
Diacetoxyscirpenol .....	1C351.d.7
Dials, indicator .....	3A611.y.26
Dialkyl (Me, Et, n-Pr or i-Pr) N,N-dialkyl (Me, Et, n-Pr, or i-Pr)-phosphoramidates ..	1C355.a.2.c

Description	ECCN Citation
Diamond cutting tool inserts, single point .....	2B998.b
Diamond film substrate development/production technology .....	3E003.d
Diaphragm valves .....	2B350.g
Dibromodimethyl ether (CAS 4497-29-4) .....	1C607.a.7
Dibromotetrafluoroethane based damping or flotation fluids.....	1C006.c.1
Dichlorodimethyl ether (ClCi) (CAS 542-88-1) .....	1C607.a.8
Die bonder, stored program controlled .....	3B991.b.3.a
Diesel engines for submarines .....	8A620.d
Diesel engines, nonmagnetic .....	8A609.b
Diesel engines (air-cooled) and engine blocks for armored vehicles.....	0A606.c
Dies, bellows-forming.....	2B228.c
Diesel engines, n.e.s.....	9A990
Diesel cycle engine, air independent .....	8A002.j
Diethyl chlorophosphite.....	1C350.d.5
Diethyl ethylphosphonate .....	1C350.b.3
Diethyl methylphosphonate .....	1C350.b.4
Diethyl methylphosphonite.....	1C350.b.5
Diethyl phosphite .....	1C350.c.1
Diethyl-N, N-dimethylphosphoramidate .....	1C350.b.6
Diethylamine.....	1C350.d.3
Diethylaminoethanol.....	1C350.d.4
Diethylene glycol dinitrate (DEGDN).....	1C111.c.5
Diffusion bonding technology, metal working .....	2E003.b.1.b
Diffusion bonding technology/data, super alloys or Ti alloys.....	2E003.b.2.b
Diffusion bonding tools, dies, molds or fixtures.....	1B003
Digital array processors .....	3A001.a.3 Note
Digital computers.....	4A003
Digital computers.....	4A994.b
Digital computers, electronic assemblies & related equipment.....	4A003
Digital computers, electronic assemblies & related equipment.....	4A001
Digital computers, logic processors .....	4A003
Digital computers, ruggedized .....	4A101
Digital computers, signal processing .....	4A003
Digital computers, vector processors.....	4A003
Digital computer electronic assemblies, parallel processing .....	4A003.c
Digital computer systems .....	4A004
Digital computer systems .....	4A003.c
Digital computer systems .....	4A003.b
Digital computer systems.....	4A001
Digital coprocessors.....	3A001.a.3 Note
Digital differential analyzer, ruggedized .....	4A101
Digital electronic control software for propulsion systems, aerospace test	

Description	ECCN Citation
facilities or air breathing aero-engine test facilities.....	9D003, 9D619
Digital exchanges, telecommunication .....	5A991.c
Digital instrumentation data recorders.....	3A002.a.6
Digital signal processors .....	4A003
Digital time delay generators .....	3A999.e1
Digital-to-analog converter integrated circuits (DACs) .....	3A001.a.5
Digitally controlled radio receivers .....	5A001.b.5
Digitizers, waveform.....	3A002.h
Diisopropylaminoethanethiol hydrochloride .....	1C350.b.7
Dimensional inspection or measuring systems or equipment not controlled by 2B006 or 2B206.....	2B996
Dimensional inspection machines.....	2B206
Dimensional inspection equipment/systems .....	2B006.a
Dimensional inspection equipment/systems .....	2B006.c
Dimensional measuring equipment, instruments/systems .....	2B006.b
Dimethyl ethylphosphonate .....	1C350.b.12
Dimethyl methylphosphonate .....	1C350.b.13
Dimethyl phosphite.....	1C350.c.2
Dimethylamine.....	1C350.d.9
Dimethylamine hydrochloride .....	1C350.d.10
Dinitrogen tetroxide ( ) .....	1C111.a.3.b
Dinitrogen trioxide.....	1C111.a.3.a
Dinitrogen pentoxide .....	1C111.a.3.c
2,2' Dinitropropanol .....	1C018
Diodes, laser.....	6A005.d.1
Diortho tolyl-urethane.....	1C018.g
Diphenyl urethane .....	1C018.f
Direct view imaging equipment.....	6A002.c
Direct-acting hydraulic pressing technology for metal working .....	2E003.b.2.c
Direct Digital Synthesizer (DDS) integrated circuits .....	3A001.a.13
Direction finding equipment & components, surveillance .....	5A001.e
Direction finding equipment, parts & components, navigation, not controlled under 7A003 or 7A103 .....	7A994
Direction finding systems, equipment & components, navigation (inertial) .....	7A003
Direction finding systems, equipment & components, navigation, not controlled under 7A003 .....	7A103
Directional solidification casting control software .....	9D004.c
Directional solidification casting equipment .....	9B001.a, 9B619.a
Discharge type arms.....	0A503
Discrete microwave transistors .....	3A611.d
Discrete microwave transistor technology .....	3E611.b.4
Display, 3D (software for) .....	7D004.g

Description	ECCN Citation
Disruptors.....	1A006.b
Disruptors.....	1A006.b
Dissemination equipment (military) for riot control agents in 1C607.a.....	1A607.e
Distillation columns, hydrogen-cryogenic.....	1B228
Distillation towers, packings .....	1A226
Dive computers .....	8A992.j
Diver deterrent acoustic systems .....	8A002.r
DNAN (2,4-dinitroanisole) (CAS 119-27-7).....	Annex to Cat 1 “List of Explosives” 44
Dobrava-Belgrade virus .....	1C351.a.11
Doppler laser interferometers (DLIs).....	6A225
Double-door pass-through decontamination autoclaves.....	2B352.a.2.a
Double seal valves .....	2B350.g
Drilling equipment .....	2B999.h
Drilling machines, deep-hole .....	2B001.f
Drone (military) production facilities .....	9B610.c
Dummy rounds and blank rounds (unless linked or belted), not incorporating a lethal or non-lethal projectile(s) .....	EAR99
Dye lasers.....	6A005.c
Dye lasers.....	6A205
Dynamic adaptive routing equipment.....	5A991.c.9
Dynamic wavefront (phase) measuring equipment .....	6A004.f
Dynamic adaptive routing software .....	5D991.a
E-beam welders.....	2B999.e
Earth moving equipment, large.....	2B999.h.2
Eastern equine encephalitis virus.....	1C351.a.12
EB-PVD (Electron beam physical vapor deposition) equipment .....	2B005.c
Ebolavirus (includes all members of Ebolavirus genus).....	1C351.a.13
Eddy current test equipment for nuclear reactors .....	2A291.d
EDMs, non-wire feed types .....	2B001.d
EDMs, wire feed type .....	2B991d.1
Ejection seat mounted survival aids for military aircraft.....	9A610.y.6
Electric cattle prods.....	0A503
Electric detonators, explosive .....	3A232a
Electric fans .....	3A611.y.2
Electric propulsion engines.....	8A002o.2.b
Electrical contacts .....	3A611.y.19
Electrical discharge machines, non wire feed (CNC).....	2B001.d
Electrical discharge machines (EDM) of the wire feed type .....	2B991.d.2
Electrical guide pins.....	3A611.y.20
Electrically driven explosive detonators.....	3A232.a
Electro-optic materials .....	6C004
Electro-optical device manufacturing equipment and systems.....	3B991.b Note

Description	ECCN Citation
Electro-optical integrated circuits .....	3A001.a.6
Electrolysis cells, amalgam lithium isotope separation .....	1B233.b.3
Electrolytic cells for fluorine production .....	1B225
Electrolytic cells for fluorine production not controlled by 1B225 .....	1B999.a
Electromagnetic interference (EMI) protection technology .....	7E102
Electromagnetic isotope separators.....	1B226
Electromagnetic pulse (EMP) protection, detectors .....	6A102
Electromagnetic pulse (EMP) protection technology, avionics.....	7E102
Electromagnetic pulse (EMP) recovery software .....	3D005
Electromagnetic radiation sensors, optical fiber .....	6A002.d.3.a
Electromagnetic signature reduction devices.....	1A101
Electromagnetic signature reduction materials .....	1C101
Electromagnetic underwater communications systems .....	5A001.b.1.b
Electromagnets, superconductive .....	3A201.b
Electromagnets, superconductive .....	3A001.e.3
Electron beam cutting machines (CNC) .....	2B001.e.1.b
Electron beam equipment for mask making/semiconductor devices.....	3B001.f.2
Electron beam equipment for projection image transfer.....	3B991.b.2.g
Electron beam melting furnaces.....	2B227.b
Electron beam physical vapor deposition (EB-PVD) equipment .....	2B005.c
Electron beam sensitive resist materials .....	3C002.b
Electron beam systems, for probing semiconductor devices .....	3B992.b.5
Electron beam systems.....	3B991.b.1.j
Electron beam test systems .....	3B992.b.5
Electron bombardment mass spectrometers.....	3A233.d
Electron tube manufacturing equipment and components.....	3B991.a
Electron tube inspection or testing equipment and components.....	3B992.a
Electronic assemblies.....	4A003
Electronic assemblies and related equipment not controlled by 4A001 or 4A003 .....	4A994
Electronic assemblies specially designed to provide feedback capability in systems controlled by 2B006.b.3.....	2B006.b.4
Electronic cameras .....	6A003.a.5
Electric chairs.....	0A981
Electrical connectors.....	3A611.y.1
Electronic components.....	3A001
Electronic components.....	3A201
Electronic components.....	3A101
Electronic components (military) .....	3A611
Electronic components and materials inspection or testing equipment, components and accessories .....	3B992
Electronic components and materials manufacturing equipment .....	3B991
Electronic components and materials manufacturing equipment,	

Description	ECCN Citation
not controlled by 3B001 .....	3C001
Electronic computers .....	4A994.a
Electronic computers & related equipment.....	4A001, 4A003, 4A004 or 4A994
Electronic computers & related equipment.....	4A101
Electronic computers & related equipment.....	4A102
Electronic cooling fluids .....	1C006.d
Electronic framing cameras .....	6A203.b.2
Electron sensing devices .....	6A002.a.2.a.2.b
Electronic streak cameras & streak tubes .....	6A003.a.3
Electronic streak cameras & streak tubes .....	6A203.b.1
Electrostatic Discharge (ESD) recovery software .....	3D005
Electronically steerable antennae, phased array .....	5A001.d
Electroplating equipment .....	2B999.i
EMP/EMI protection technology, avionic systems .....	7E102
EMP/ESD recovery software .....	3D005
Encoders, rotary input shaft type, and rings, discs or scales therefor .....	3A001.f
Encryption equipment, assemblies & components .....	5A002
Encryption hardware components.....	Cat 5 pt 2 Note 3 (b)
Encryption software .....	5D002
End effectors, robot.....	2B207
End effectors, robot.....	2B007
Energetic ionic materials.....	Annex to Cat 1 List of Explosives 48
Energy storage capacitors .....	3A001.e.2
Engines, diesel n.e.s. ....	9A990
Engines (marine), n.e.s.....	8A992.g
Engines (submarine), n.e.s.....	8A992.g
Engines (air breathing reciprocating or rotary internal combustion type) .....	9A012.b.4
Enterohaemorrhagic E. coli (EHEC) .....	1C351.c.17
Environmental chambers .....	1B018.b, 9B106, or 9B610.b
Environmental chambers, capable of simulating flight conditions.....	9B106, 9B610.b
Environmental test facilities for 7A611 (except 7A611.y) or guidance equipment .....	7B611
Epitaxial growth equipment.....	3B001.a
Epitaxial growth stored program controlled equipment .....	3B991.b.1.d
Epitaxial wafers, Cadmium telluride (CdTe).....	6C002.b
Epoxy resin matrix impregnated carbon fibers or filamentary materials .....	1C010.e Note 1
Equine morbillivirus (Hendra virus).....	1C351.a.18
Equipment (i.e., test, inspection, and production equipment) and related commodities “specially designed” for the “development,” “production,” repair, overhaul, or refurbishing of commodities enumerated or otherwise described in USML Category XVIII.....	6B619.a
Equipment (military) “specially designed” for the destruction of chemical warfare agents .....	1B607.a

Description	ECCN Citation
Equipment and tooling “specially designed” for the “development,” “production,” repair, overhaul, or refurbishing of commodities controlled by 1A607.e, .f, .g, .h, or .j or by USML Category XIV(f) .....	1B607.c
Erbium oxide (erbia) (Er <sub>2</sub> O <sub>3</sub> ) made/coated crucibles .....	2A225.a.4
Etching stored program controlled equipment.....	3B991.b.1.h
Ethers, as lubricating fluid .....	1C006.b.1
Ethyl centralites .....	1C018.a
Ethyl chlorofluorophosphate.....	1C350.d.11
Ethyl dichlorophosphate .....	1C350.d.12
Ethyl difluorophosphate.....	1C350.d.13
Ethyl iodoacetate (CAS 623-48-3).....	1C607.a.14
Ethyl phenyl urethane .....	1C018.e
Ethyl phosphinyl dichloride.....	1C350.b.15
Ethyl phosphinyl difluoride .....	1C350.b.16
Ethyl phosphonous dichloride.....	1C350.b.15
Ethyl phosphonous difluoride.....	1C350.b.16
Ethyl phosphonyl dichloride .....	1C350.b.17
Ethyl-NN-diphenylurea (ethyl unsymmetrical diphenylurea) .....	1C018.d
Ethyldibromoarsine (CAS 683-43-2) .....	1C607.a.9
Ethyldiethanolamine (139-87-7).....	1C350.c.3
Evaporators for concentrated lithium hydroxide solution .....	1B233.b.4
Exchange columns, liquid-liquid for lithium amalgams.....	1B233.b.1
Exchanges, telecommunication.....	5A991.c
Excimer lasers.....	6A005.d.4
Execution of human beings, equipment for .....	0A981
Expert systems - integration systems technology .....	2E003.e
Exploding foil initiators (EFI) .....	1A007
Exploding bridge (EB) detonators .....	1A007
Exploding bridge wire (EBW) detonators .....	1A007
Explosive, high .....	1C239
Explosive/munitions environment handling robots .....	2B007.b
Explosive detection.....	1A004.d
Explosive detonator firing sets.....	1A007.a
Explosives or detonator detection equipment, software, or technology ..	2A983, 2D983 or 2E983
Explosive detonators, electric .....	1A007.b or 3A232
Explosive devices , charges, components - commercial.....	1C608, 1A008 or 1C992.1
Explosives (military) production equipment .....	1B018.a
Explosives (military) in charges for civil applications .....	1A008 or 1C608
FADEC (Full authority digital electronic engine control) software .....	9D003, 9D619
FADEC (Full authority digital electronic engine control) technology .....	9E003.h, 9E619
Fan blade (hollow) technology .....	9E003, 9E619
Fans, electric .....	3A611.y.2

Description	ECCN Citation
Fast Fourier Transform (FFT) processors.....	3A001.a.12
Fast switching function modules or assemblies.....	3A228.c
Fast fourier transform processors, acoustic signal processing.....	6A001.a.2.c
Fault tolerance FADEC software.....	9D003, 9E619
Fermenters (biological processing), and components designed for such fermenters .....	2B352.b
Fertilizers containing ammonium nitrate .....	1C997
Fiber, equipment for the production of .....	1B999
Fiber and filamentary material.....	1C010
Fiber and filamentary material.....	1C210
Fiber converting equipment, polymeric to carbon or silicon carbon .....	1B001.d.1
Fiber laser components .....	6A005.e.3
Fiber optic cable.....	5A001.c
Fiber optic gyro coil winding machines .....	7B003
Fiber optic magnetometers.....	6A006.c
Fiber optic hull penetrators/connectors.....	8A002.c
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Fiber, rare-earth metal doped double-clad .....	6C005.b
Fiber reinforcement, production equipment .....	1B001.d
Fiber straining equipment .....	1B001.d.1
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Fibrous or filamentary materials.....	1C010
Fibrous or filamentary materials, carbon .....	1A002.b.1
Fibrous and filamentary materials for use in composite structures .....	1C990
Fibrous or filamentary material production equipment .....	1B001
Fibrous or filamentary material production equipment .....	1B101.c
Fibrous and filamentary materials development, production or use technology .....	1E994
Field programmable gate arrays (FPGA).....	3A001.a.7, 3A991.d
Field programmable interconnects (FPIC).....	3A001.a.7, 3A991.d
Field programmable logic arrays (FPLA).....	3A001.a.7, 3A991.d
Field programmable logic devices (FPLD).....	3A001.a.7, 3A991.d
Field test equipment to evaluate or calibrate the operation of systems described in USML Category XII(a), (b), or (c) .....	7B611
Filament winding machines .....	1B001.a
Filament winding machines .....	1B101.a
Filament winding machines .....	1B201
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Film type integrated circuits .....	3A001.a Note 2
Filter canisters.....	1A004 or 1A995
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Description	ECCN Citation
Filters for clean rooms .....	3B991.b.4
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Filters (hydraulic, fuel, oil, air) for ground vehicles .....	0A606.y.8
Filters, optical .....	6A994.a
Filters for hydraulic/oil/fuel systems in military aircraft .....	9A610.y.8
Filters for pneumatic/hydraulic/oil/fuel systems in submersible vessels.....	8A620.y.2
Filters for pneumatic/hydraulic/oil/fuel systems in surface vessels of war .....	8A609.y.2
Finger barriers .....	3A611.y.31
Finger cuffs .....	0A983
Fingerprint analyzers, cameras and equipment.....	3A981
Fingerprint equipment, computers for .....	4A980
Fingerprinting powders, dyes, inks .....	1A985
Finishing machines, gear .....	2B003
Finishing machines, gear .....	2B003
Fins.....	8A992.i
Firearms (except shotguns) .....	0A501
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Firearms, muzzle-loading (black powder) .....	0A501 Note 3
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Fireworks displays .....	1C608.j or 1C992.k
Fissile materials, special or other.....	0C002
Flanges, vacuum .....	2B999.k
Flares, non-irritant smoke .....	1A984
Flash discharge X-ray generators.....	3A201.c
Flash X-ray machines .....	3A999.c
Flexible rotor centrifugal balancing machines.....	2B229.a
Flexible sensors for hydrophones .....	6A001.a.2.a.1
Flexible nozzles, thrust vector control sub-system .....	9A106.c
Flexible waveguide .....	3A991.h
Flight management system integration technology .....	7E104
Flight control servo valves.....	9A106.e
Flight control systems for non-military UAVs .....	7A116
Flight control systems for military UAVs or drones .....	9A610.w
Flight control systems - software .....	7D003.e and 7D004
Flight instrument systems, integrated .....	7A103.b
Flight instrument trainer, military.....	9A610.t
Flight control system development technology .....	7E004
Flight control actuator technology .....	7E004.a.5

Description	ECCN Citation
Flip-guards .....	3A611.y.32
Flow-forming machines .....	2B009
Flow-forming machines .....	2B109
Flow-forming machines .....	2B209
Flow-forming machines .....	2B999I
Fluid energy mills .....	1B119
Fluoride compounds (bulk).....	6C994.a.1
Fluoride glass (bulk) .....	6C994.a.2
Fluorinated silicone fluid .....	1C006.b.2
Fluorinated compounds, components .....	1A001
Fluorinated compounds, unprocessed.....	1C009
Fluorinated phosphazene elastomers .....	1C009.c
Fluorinated polyimide .....	1C009.b
Fluorine .....	1C999.f
Fluorine production (electrolytic cells).....	1B225
Fluorocarbon electronic cooling fluids .....	1C006.d
Fluorophosphate glass.....	6C004.e
Fluorocarbon electronic cooling fluids .....	1C006.d
Fluxgate magnetometer technology .....	6E003.f
Fly cutting machines .....	2B001.b.4 or 2B992.b
Fly-by-light flight control system software .....	7D003.e, 7D004.c
Fly-by-light or fly-by-wire technology .....	7E004.b
Fly-by-wire flight control system software.....	7D003.e, 7D004.c
Fly-by-wire systems for military UAVs or drones .....	9A610.w
Fly-by-wire systems for missiles .....	7A116
Fly-by-wire control system technology .....	7E004.b
Foam, syntactic for underwater use (in any stage of manufacture) .....	8C001 or 8A002.a.4
Foam mirror structures, lightweight .....	6A004.a.3
Focal plane arrays, direct view .....	6A002.c.2 or c.3
Focal plane arrays, linear & 2D .....	6A002.a.3
Focal plane arrays, non-space qualified.....	6A002.a.3.g
Focal plane arrays, space qualified. ....	6A002.a.1.d
Focal-plane array performance determining equipment.....	3B992.b.4.c
Fogging or spraying systems, specially designed for fitting to aircraft, “lighter than air vehicles,” or “UAVs” .....	2B352.h.1
Foot-and-mouth disease virus .....	1C351.a.14
Fording (water) kits for ground vehicles .....	0A606.e
FPGA's (Field programmable gate arrays) .....	3A001.a.7
FPLA's (Field programmable logic arrays) .....	3A001.a.8
Fracking fluid.....	0A998.b.2
Framing cameras, electronic type .....	6A203.b.2
Framing cameras, mechanical.....	6A203.a.1

Description	ECCN Citation
Framing tubes & solid state imaging devices .....	6A203.b.3
Framing cameras, electronic type .....	6A003.a.4
Francisella tularensis.....	1C351.c.14
Free electron laser magnet wiggler manufacturing or inspection equipment .....	6B995.a.1
Free electron laser photo injector manufacturing or inspection equipment.....	6B995.a.2
Freeze drying equipment (steam, gas, or vapor sterilizable) .....	2B352.e
Freon and chilled water cooling systems .....	1B999.d
Frequency agile (frequency hopping) radio equipment .....	5A001.b.3
Frequency agile systems .....	5A002.e
Frequency agile tubes .....	3A001.b.1
Frequency hopping development technology .....	5E001.b.4
Frequency analyzers (signal analyzers) .....	3A002.c
Frequency changers .....	3A999.a
Frequency changers (converters or inverters) .....	3A225
Frequency changers (a.k.a. converters or inverters) and generators, “software” “specially designed” for the “use” of .....	3D201
Frequency changers (a.k.a. converters or inverters) and generators, “software” “specially designed” to enhance or release the performance characteristics of equipment to meet or exceed the performance characteristics in ECCN 3A225 .....	3D202
Frequency extenders, mixers/converters.....	3A001.b.7
Frequency network analyzers .....	3A002.e
Frequency standards, atomic.....	3A002.g
Frequency synthesized signal generators.....	3A002.d
Frequency synthesizer, electronic assemblies.....	3A001.b.11
Fuel oils.....	1C980
Fuel cell air independent power systems .....	8A002.j
Fuel lines and hoses for gas turbine engines.....	9A619.y.3
Fuel filters for gas turbine engines.....	9A619.y.4
Full Authority Digital Electronic Engine Control software.....	9D003, 9D619
Functional (truth table) testing equipment, for integrated circuits .....	3B002.b
Fungi, human and zoonotic pathogens and “toxins” .....	1C351.e
Fungi, plant pathogens .....	1C354.b
Furnaces .....	2B226
Furnaces, Chemical Vapor Deposition (CVD), other than those controlled by 2B005.a, designed or modified for the densification of carbon-carbon composites .....	2B105
Furnaces .....	2B227
Fused silica glass.....	6C004.e
GaAs photocathodes .....	6A002.a.2.c.3
GaInAs photocathodes .....	6A002.a.2.c.3
Galleys (military aircraft) .....	9A610.y.9
Galleys (submersible vessels).....	8A620.y.3
Galleys (surface vessels of war) .....	8A609.y.3

Description	ECCN Citation
Gallium organo-metallic compounds.....	3C003
Gallium III/V compound substrates, hetero-epitaxial grown-multi-layer .....	3C001.c
Gallium nitride (GaN) “substrates”, ingots, boules, or other preforms of those materials.....	3C005.a
Gallium selenide .....	6C004.b.5
Gallows .....	0A981
Gas centrifuge rotor assembly equipment.....	2B228.a
Gas krytron tubes .....	3A228.a
Gas or full face masks.....	1A004 or 1A995
Gas centrifuge rotor balancing equipment.....	2B229
Gas, manufactured, synthetic or natural liquid produced or derived from Naval Petroleum Reserves .....	1C984
Gas discharge & ion lasers.....	6A005.a
Gas and oil exploration equipment, software, and data .....	0A998
Gas lasers .....	6A005.a
Gas monitoring systems, toxic.....	2B351
Gas sterilizable freeze drying equipment.....	2B352.e
Gas turbine aeroengines, civil non-certified/supersonic.....	9A001
Gas turbine blade, manufacturing or measuring equipment .....	9B001, 9B619
Gas turbine blade technology.....	9E003.a, 9E619
Gas turbine blades, vanes or tip shroud casting equipment, tooling or fixtures .....	9B991, 9B619
Gas turbine brush seal production/test equipment .....	9B003, 9B619
Gas turbine components, solid state joining equipment .....	9B004, 9B619
Gas turbine engine development systems/instrumentation.....	9B002, 9B619
Gas turbine engine development control systems or instrumentation .....	9B002, 9B619
Gas turbine engine propulsion systems assemblies/components.....	9A003, 9A619
Gas turbine engine technology.....	9E003, 9E619
Gas turbine engine development and use software.....	9D004, 9D619
Gas turbine engine monitoring system software.....	9D619.b.11
Gas turbine engines, parts and components, not controlled by 9A001 or 9A101 .....	9A991, 9A619
Gas turbine engines & assemblies/components, marine.....	9A002
Gas turbine test/flow modeling software .....	9D004.a, 9D619
Gas turbine (aero engine) test software .....	9D004.b, 9D619
Gaskets, aircraft/aerospace use .....	1A001.a, 9A610.x
Gaskets, ground vehicles .....	0A606.y.9
Gaskets, vacuum .....	2B999.k
Gate silicon intensifier target (SIT) videcon tubes .....	6A203.b.3.b
Gateways & bridges.....	5A991.b.4.b
Gauges, hydraulic, pneumatic, fuel and lubrication .....	3A611.y.35
Gauges and indicators (analog cockpit).....	9A610.y.2
Gauges and indicators (submersible vessels).....	8A620.y.10
Gauges and indicators (surface vessels of war).....	8A609.y.10

Description	ECCN Citation
GDMS (Glow discharge mass spectrometers).....	3A233.b
Gear honing, shaving, grinding, cutting, and finishing machines .....	2B003
Gearmaking and/or finishing machinery not controlled by 2B003 .....	2B993
Gel propellant control systems.....	9A106.d
Generator systems, neutron.....	3A231
Generators and other equipment for nuclear plants .....	2A290
Generators, digital time delay .....	3A999.e1
Generators, for ground vehicles .....	0A606.y.2
Generators, field – “specially designed for military use.....	0A617.y.4
Generators, high-current pulse for detonators .....	3A229
Generators, high-speed pulse .....	3A230
Generators, marx.....	3A999.c
Generators, portable electric .....	2A994
Genetically-modified microorganisms.....	1C353
Germanium, hetero-epitaxial grown multi-layer substrates.....	3C001.b
Gimbals, optical control.....	6A004.d.3
Glass fiber or filamentary materials.....	1C210.b
Glass fiber, for optical communications .....	5A001.c
Glass matrix reinforced composite materials.....	1C007.c.1.a
Glass preforms, for optical fiber production.....	5C991
Glass Windows, nuclear radiation shielding.....	1A227
Glass, high homogeneity.....	6C004.e.3
Global positioning system (GPS) equipment & components .....	7A005, 7A105 or 7A994
Glove boxes .....	0B999
Gloves, protective .....	1A004 or 1A995
Glow discharge mass spectrometers (GDMS).....	3A233.b
GNSS (Global Navigation Satellite Systems) ranging signals decryption software .....	7D005
Goatpox virus.....	1C351.a.15
Gold (Au) metal vapor lasers.....	6A005.b
GPS equipment, other than those of 7A005 .....	7A105
GPS (Global positioning system) equipment/components .....	7A005
Gradiometers & components, gravity .....	6A007.c
Gradiometers & components, gravity .....	6A107
Gradiometers & components, magnetic.....	6A006
Graphite, fine grain recrystallized bulk .....	1C107.a
Graphite, bulk .....	1C107.a
Graphite, pyrolytic or fibrous reinforced .....	1C107.b
Graphite, nuclear-grade, not intended for use in a nuclear reactor.....	1C298
Gravimeters (Gravity meters) & components, gravity .....	6A007.a
Gravimeters (Gravity meters) & components, gravity .....	6A007.b
Gravimeters (Gravity meters) & components, gravity .....	6A107
Gravity meter (gravimeters) products & calibration equipment.....	6B007

Description	ECCN Citation
Gravity meters.....	6A997
Gravity gradiometers & components.....	6A007.c
Gravity meters (gravimeters) & components.....	6A007.b
Gravity meters (gravimeters) & components.....	6A007.a
Gravity meters (gravimeters) software.....	6D003.g
Gravity gradiometers & components.....	6A107
Gravity meters (gravimeters) & components.....	6A107
Gravity gradiometer software.....	6D003.g
Greases.....	1C980
Grenades, non-irritant smoke.....	1A984
Grinding machines (CNC).....	2B991.d.1
Grinding machines, gear.....	2B003
Grinding machines.....	2B201.b
Grinding machines.....	2B001.c
Ground fault circuit interrupters.....	3A611.y.18
Ground vehicles & related commodities.....	0A606
Grounding straps.....	3A611.y.25
Guanarito virus.....	1C351.a.16
Guanidine nitrate.....	1C011.c or 1C608.m
GUDN (Guanylurea dinitramide) FOX-12 (CAS 217464-38-5).....	Annex to Cat 1 List of Explosives 46
Guidance sets usable in missiles.....	7A117
Guillotines.....	0A981
Gun barrel rifling and broaching machines and tools therefor.....	0B602
Gun barrel trepanning machines.....	0B602
Gun boring and turning machines.....	0B602
Gun honing machines.....	0B602
Gun, immobilization.....	0A503
Gun jump screw lathes.....	2B018.j
Gun rifling machines.....	2B018.k
Gun, shotgun.....	0A502
Gun straightening presses.....	2B018.l
Gun, stun.....	0A503
Guns and armament manufactured between 1890 and 1919.....	0A602.a
Gyro dynamic balance stations.....	7B003 or 7B101
Gyro tuning test stations.....	7B003 or 7B101
Gyro run-in/motor test stations.....	7B003 or 7B101
Gyro evacuation/fill stations.....	7B003 or 7B101
Gyro-astro compasses & devices.....	7A104
Gyros & gyro components.....	7A102
Gyros.....	7A002
Gyroscope production/manufacturing/test equipment.....	7B003

Description	ECCN Citation
Hacking systems, equipment and components .....	5A004
Hafnium oxide (hafnia) (HfO <sub>2</sub> ) made/coated crucibles .....	2A225.a.5
Hafnium metal, alloys & compounds .....	1C231
Hafnium fluoride (HfF <sub>4</sub> ) glass .....	6C004.e
Hair type absorbers .....	1C001.a Note 1.a
Handcuffs .....	0A982
Handling equipment for propellants and their constituents .....	1B115
Handling systems, semiconductor wafers .....	3B001.e
Hantaan virus .....	1C351.a.17
Harbor entrance detection devices for submersible vessels.....	8A620.c
Hard surface coated substrates.....	3B991.b.2.b.1
Harnesses, complete.....	9A992, 9A610.h
Heading sensors, towed hydrophones.....	6A001.a.2.b.4
Heading sensors .....	6A001.a.2.d
Heat exchangers for use in nuclear reactors .....	2A290.a
Heat exchangers & condensers .....	2B350.d
Heat pipe cooled mirrors.....	6A005.e.1
Heat sinks.....	3A611.y.3
Helicopter system development technology .....	7E004.c
Helicopter power transfer system technology.....	9E003.d, 9E610
Helium, enriched.....	1C232
Helium refrigeration units.....	1B231.b.1
Helium.....	1C980
Helium-3 .....	1C232
Helix Tubes.....	3A001.b.1.a.4
Helix traveling wave tubes (TWTs) technology .....	3E611.b.1
Helmet, military, shells, liners, comfort pads .....	1A613.c and .y.1
Helminthosporium oryzae (Cochliobolus miyabeanus).....	1C354.b.2
Hemishell dimensional inspection equipment/systems .....	2B006.d
Hendra virus (Equine morbillivirus).....	1C351.a.18
Herpesvirus (Suid herpesvirus 1; a.k.a. Pseudorabies virus, Aujeszky's disease) .....	1C351.a.51
Hetero-epitaxial grown multi-layer substrates.....	3C001
Hetero-structure semiconductor technology .....	3E003.b
High energy storage capacitors.....	3A001.e.2
High explosive containment vessels, chambers, containers, and similar containment devices not enumerated under ECCN 1B608 or in USML Category IV or V.....	1B234
High power pulse shaping networks .....	3A999.c
High voltage capacitors.....	3A999.c
High voltage triggers.....	3A999.c
High-speed pulse generators .....	3A230
High-speed cameras .....	6A003
High-speed cameras and imaging devices and “components” therefore not controlled	

Description	ECCN Citation
by ECCN 6A003 .....	6A203
High-speed cameras and imaging devices and “components” therefore, “software” “specially designed” to enhance or release the performance characteristics of devices to meet or exceed the performance characteristics described in ECCN 6A203 .....	6D201
High-vacuum service equipment .....	2B999.k
High-velocity gun systems.....	2B232
Hinges for ground vehicles .....	0A606.y.11
HIPS (Hot Isostatic Presses) .....	2B204
HIPS (Hot Isostatic Presses) .....	2B004
HIPS (Hot Isostatic Presses) .....	2B104
Hog cholera virus (classical swine fever virus) .....	1C351.a.9
Hollow cylinder centrifugal balancing machines .....	2B229.b
Holographic sights .....	0A504.b
Holographic sights that have focal plane array (visible wavelength only), technology for ...	0E504
Honing machines, gear .....	2B003
Honing machines, gear.....	2B003
Horses by sea .....	0A980
Hoses (brake) for ground vehicles .....	0A606.y.1
Hoses (cooling systems) for ground vehicles .....	0A606.v.7
Hoses (fuel) for gas turbine engines .....	9A619.y.3
Hoses (fuel and hydraulic) for military aircraft .....	9A610.y.10
Hoses (hydraulic system) for ground vehicles.....	0A606.y.10
Hoses for pneumatic/hydraulic/oil/fuel systems in surface vessels of war.....	8A609.y.2
Hoses (pneumatic) for ground vehicles .....	0A606.y.13
Hot isostatic presses (HIPS) .....	2B204
Hot isostatic densification technology/data, Al/Ti/Superalloys.....	2E003.b.2.d
Hot isostatic presses (HIPS).....	2B004
Hot cap sealers (semi-automatic or automatic) for ceramic microcircuit .....	3B991.b.3.c
Hot cell manipulators.....	2B225
Hot cells .....	0B999
Hot isostatic presses (HIPS) .....	2B104
HT-2 toxin.....	1C351.d.8
HTPB (Hydroxy-terminated polybutadiene) propellant additive .....	1C111.b.2
Hull penetrators/connectors, fiber optic.....	8A002.c
Human pathogens and “toxins” .....	1C351
Hybrid integrated circuits .....	3A001.a Note 2
Hybrid rocket propulsion systems .....	9A009
Hybrid computers & components .....	4A001
Hybrid computers and electronic assemblies.....	4A994.k
Hybrid computers .....	4A102
Hybrid computer electronic systems/electronic assemblies .....	4A001.a
Hybrid rocket motors and components .....	9A109

Description	ECCN Citation
Hydraulic fluids .....	1C980
Hydraulic fluids .....	1C996
Hydraulic forming equipment.....	2B999.b
Hydraulic fracturing items .....	0A998.b
Hydraulic fracturing ‘proppant,’ ‘fracking fluid,’ and chemical additives therefor .....	0A998.b.2
Hydraulic pressing, direct-acting technology .....	2E003.b.1.c
Hydraulic stretch-forming machines and dies technology.....	2E003.c
Hydrazine.....	1C111.d
Hydrides of Antimony, arsenic & phosphorus .....	3C004
Hydrocarbon oils, synthetic .....	1C996
Hydroclave temperature, pressure or atmosphere regulation technology.....	1E103
Hydrodynamic calculations/modeling, software for.....	0D999.c
Hydrofoil vessel technology .....	8E002.c.3
Hydrogen.....	1C980
Hydrogen cyanide (74-90-8).....	1C355.b.1.c, 1E355.b.3
Hydrogen fluoride.....	1C350.d.14
Hydrogen fluoride (HF) lasers .....	6A005.d.5.a
Hydrogen isotope storage & purification systems .....	1B231.b.2
Hydrogen refrigeration units.....	1B231.b.1
Hydrogen sulphide-water exchange tray columns .....	1B229
Hydrogen-cryogenic distillation columns.....	1B228
Hydrophone arrays, towed acoustic.....	6A001.a.2.b
Hydrophone arrays (towed) acoustic data processing source code .....	6D003.a.2
Hydrophones .....	6A001.a.2.a
3-Hydroxy-1-methylpiperidine .....	1C350.d.15
Hydroxy-terminated polybutadiene (HTPB) .....	1C111.b.2
ICP/MS (Inductively coupled plasma mass spectrometers) .....	3A233.a
III/V and II/VI semiconductor materials purifying or processing equipment .....	3B991.b.1.b
III/V compound substrates, gallium or indium .....	3C001.c
Identification plates and nameplates.....	3A611.y.33
Identification plates for gas turbine engines .....	9A619.y.7
Igniters .....	1C608.e or 1C992.f
Image enhancement, digital equipment .....	4A003
Image enhancement equipment.....	4A994.f
Imaging devices .....	6A002
Imaging device manufacturing equipment and systems .....	3B991.b Note
Image intensifier tubes & components .....	6A002.a.2
Image intensifier tubes, direct view .....	6A002.c.1 or c.3
Image transfer equipment .....	3B991.b.2
Imaging cameras .....	6A003.b
Imaging cameras with focal plane arrays of 6A002.a.3.....	6A003.b.4
Imaging cameras with image intensifiers of 6A002a.2.a.....	6A003.b.3

Description	ECCN Citation
Imaging cameras incorporating solid-state detectors specified by 6A002.a.1.....	6A003.b.5
Imaging devices .....	6A203.b.3
Imaging equipment, visible & infrared .....	6A002.c
Imaging satellites .....	9A515
Imaging sensors, multispectral and monospectral .....	6A002.b
Immobilization guns and projectiles .....	0A503
Immunotoxins and vaccines.....	1C991
Impregnated cathodes for electronic tubes .....	3A001.b.1.c
Imprint lithography equipment .....	3B001.f.2
Improvised explosive devices (specially designed or modified disposal equipment , components, and accessories) .....	1A006
Improvised Explosive Devices (IED) activation devices .....	5A001.h
IMU platform balance fixture .....	7B003 or 7B101
IMU platform tester .....	7B003 or 7B101
IMU stable element handling fixture .....	7B003 or 7B101
Incinerators designed to destroy the chemicals controlled by 1C350.....	2B350.j
Independent (air) power systems underwater .....	8A002.j
Indicator dials.....	3A611.y.26
Indicator heads designed/modified for use with balancing machines in 2B119.a.....	2B119.b
Indium organo-metallic compounds .....	3C003
Indium III/V compounds substrates.....	3C001.c
Induction coil magnetometers.....	6A006.c
Induction furnace, controlled environment inert gas .....	2B226
Induction furnace, vacuum.....	2B226
Inductively coupled plasma mass spectrometers (ICP/MS) .....	3A233.a
Industrial process control hardware/systems designed for power industries.....	1B999.c
Industrial process control hardware/systems designed for power industries controlled by 1B999, software for.....	1D999.a
Inert gas environment induction furnaces .....	2B226
Inertial Measurement Equipment.....	7A003.c
Inertial measurement equipment.....	7A003
Inertial measurement unit tester (IMU module) .....	7A003, 7B003 or 7B101
Inertial navigation, systems/equipment/components .....	7A103.a
Inertial navigation, systems/equipment/components .....	7A003
Inertial navigation systems not controlled by 7A003 or 7A103 .....	7A994
Inertial navigation system software, source code .....	7D002
Inertial reference Systems (IRS).....	7A003.c
Inertial sensors, optical fiber.....	6A002.d.3.a
Inflatable boats and components.....	8A992.f
Inflation cartridges .....	8A992.i
Influenza virus (Reconstructed 1918 influenza virus) .....	1C351.a.41
Information security defeating, weakening or bypassing systems, equip. and components...	5A004

Description	ECCN Citation
Information security equipment software, mass market .....	5D992
.....	
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Information security equipment and components, mass market.....	5A992
Information security software .....	5D002
Information security systems/equipment/devices/components.....	5A002
Information security technology, mass market.....	5E992
Information security - test, inspection, and production equipment .....	5B002
Infrared detectors, industrial space qualified .....	6A002.a.1
Infrared sensors, industrial .....	6A002.c
Infrared viewers (police model).....	9A980
Inhibited red fuming nitric acid (IRFNA).....	1C111.a.3.e
Initiation systems, single or multipoint (electric) .....	3A232.b
Injector (free electron laser photo) manufacturing or inspection equipment.....	6B995.a.2
Inorganic overlay coating application technology .....	2E003.f
Inorganic chemicals listed in Supp. No. 1 to part 754 produced or derived from the Naval Petroleum Reserves .....	1C980
Inorganic fibers & filamentary materials .....	1C010.c
Inspection equipment (linear-angular for hemishells) .....	2B006.d
Inspection equipment for composite materials .....	1B001.f
Inspection machines (dimensional), devices or systems, other than those in 2B006 .....	2B206
International Space Station being developed, launched, and operated under the supervision of NASA and “parts,” “components,” “accessories” and “attachments” that are “specially designed” for the ISS. ....	9A004.w and .x
Instrumentation for gas turbine development .....	9B002, 9B619
Instrumentation for wind tunnels .....	9B005
Instrumentation systems, inertial navigation .....	7A003
Instrumentation cameras .....	6A003.a
Integrated circuit assembly equipment .....	3B991.b.3
Integrated circuit, Direct Digital Synthesizer (DDS).....	3A001.a.13
Integrated circuit test equipment, microwave.....	3B002.c
Integrated circuit test equipment, for (truth table) testing .....	3B002.b
Integrated circuit, masks .....	3B001.g, 6B002
Integrated circuits, compound semiconductor .....	3A001.a.11
Integrated circuits, custom .....	3A001.a.10
Integrated circuits, general purpose .....	3A001.a
Integrated circuits, microwave .....	3A001.b.2
Integrated circuits, radiation hardened.....	3A001.a.1
Integrated circuits and assemblies manufacturing equipment and systems.....	3B991.b
Integrated circuit and assembly testing equipment.....	3B992.b.4.b
Integrated circuit computer-aided-design (CAD) software .....	3D003

Description	ECCN Citation
Integrated circuits and assemblies inspection or testing equipment and systems.....	3B992.b
Integrated flight instrument systems/components .....	7A103.b
Integrated Navigation Systems, designed or modified for use in missiles .....	7A103.c
Integrated Services Digital Network technology .....	5E991
Integrated system source code, avionic/mission systems .....	7D003.c
Integration software for expert systems .....	2E003.e
Integration technology for flight management systems.....	7E104
Intensity modulator .....	3A001.i
Intercepting systems and equipment, communications .....	5A001.f
Intercepting devices, communications.....	5A980
Interconnect equipment (Computer).....	4A003.g
Interconnection equipment.....	3B991.b.1.1
Interface equipment (military) for use in collecting or processing samples of chemical warfare agents.....	1A607.j
Interferometers, velocity (VISARs).....	6A225
Interlacing machines .....	1B001.c
Intermediate amplifier equipment.....	5A991.b Note a.3
International Space Station parts components accessories attachments .....	9A004.w-y
Interruption, ground fault circuit .....	3A611.y.18
Interstages for missiles.....	9A117
Intrinsic magnetic gradiometers.....	6A006.c.3
Inverse synthetic aperture radar (ISAR) .....	6A008.d
Inverters (Frequency changers or converters).....	3A225
Iodo acetone (CAS 3019-04-3).....	1C607.a.12
Ion beam equipment for mask making/semiconductor devices .....	3B001.f.2
Ion beam equipment for projection image transfer.....	3B991.b.2.g
Ion beam sensitive resist materials .....	3C002.b
Ion beam system, manufacturing, repairing, physical layout analysis and testing of masks or semiconductor devices.....	3B992.b.6
Ion implantation equipment .....	3B001.b
Ion implantation equipment .....	3B991.b.1.g
Ion implantation production equipment.....	2B005.b
Ion lasers .....	6A005.a
Ion or laser beam lithography mask or reticle fabrication equipment .....	3B991.b.2.d.2
Ion plating production equipment.....	2B005.g
Ion-enhanced diffusion equipment .....	3B991.b.1.g
ISDN development/production technology .....	5E991
Isolated live cultures .....	see Cultures
Isolators capable of use with biological agents.....	2B352.f.2
Isostatic presses, hot .....	2B104
Isostatic presses, hot .....	2B204
Isostatic presses, hot.....	2B004

Description	ECCN Citation
Isostatic presses, n.e.s. ....	2B999.a
Isotope separators, electromagnetic .....	1B226
James Webb Space Telescope (JWST) and “parts,” “components,” “accessories” and “attachments” that are “specially designed” for the JWST .....	9A004.u and .v
Jamming equipment .....	5A001.f.3
Japanese encephalitis virus .....	1C351.a.19
Jet engine lubricating oil .....	1C980
Jet vane, thrust vector control sub-systems.....	9A106.c
Jet engines/components, pulse .....	9A111
Jigs and fixtures for use in the manufacture of firearms, ordnance, and other stores and appliances for land, sea, or aerial warfare .....	2B018.n
Joule-Thomson self-regulating minicoolers .....	6A002.d.2.b.6
Joy sticks .....	3A611.y.4
Jumpers, electrical.....	3A611.y.24
Junin virus.....	1C351.a.20
Kerr or Pocket cells, electro-optical shuttering.....	6A203.b.3.c
Kick motors.....	9A004
Knobs .....	3A611.y.34
Krytron tubes, gas .....	3A228.a
Kyasanur Forest disease virus.....	1C351.a.21
Laboratories (mobile), crime science.....	9A980
Laguna Negra virus.....	1C351.a.22
Laminate or composite development software .....	1D002
Laminates & composite structures, organic metal or carbon.....	1A002
Laminates, rockets/propulsion systems/space vehicles .....	9A110
Land inertial navigation equipment .....	7A003
Land-based gravity meters production equipment.....	6B007
Laser acoustic detection equipment .....	6A005.a
Laser based linear position feedback units .....	2B006.b.2
Laser based measuring instruments .....	2B006.b.3.a
Laser beam cutting machines (CNC).....	2B001.e.1.c
Laser beam equipment for mask making/semiconductor devices .....	3B001.f.2
Laser beam lithography mask or reticle fabrication equipment.....	3B991.b.2.d.2
Laser beam systems, for probing semiconductor devices.....	3B992.b.5
Laser communication technique technology .....	5E001.b.2
Laser diagnostic equipment .....	6A005.f.2
Laser diodes .....	6A005.d.1
Laser diodes designed for telecommunication.....	5A991.b Note b.4
Laser, fiber (components) .....	6A005.e.3
Laser gyro mirror characterization equipment.....	7B102
Laser microphone.....	6A005.g
Laser pointing devices for use on firearms .....	0A504.f

Description	ECCN Citation
Laser pointing devices for use on firearms that have focal plane array (visible wavelength only), technology for .....	0E504
Laser radar altimeters.....	7A106
Laser radar or Light Detection & Ranging (LIDAR) equipment .....	6A008.j
Laser radar systems.....	6A108
Laser ring gyro test equipment .....	7B002
Laser, technology.....	6E003.e
Laser welding machines.....	2B999.c
Lasers .....	6A005
Lasers .....	6A205
Lasers .....	6A995
Lasers for direct write on wafers .....	3B991.b.2.h
Lassa virus .....	1C351.a.23
Lathes (CNC).....	2B001.a
Latches for ground vehicles.....	0A606.y.11
Launch support equipment.....	9A115, 9A610.f
Launch vehicle components/structures .....	9A010, 9A610.x
Lavatories for military aircraft.....	9A610.y.11
Lavatories for submersible vessels .....	8A620.y.4
Lavatories for surface vessels of war.....	8A609.y.4
LAX-112 (3,6-diamino-1,2,4,5-tetrazine-1,4-dioxide).....	Annex to Cat 1 List of Explosives 47.b
Leg irons .....	0A982
Lenses for radiation hardened TV cameras .....	6A203.d
Lidar equipment (Laser radar) .....	6A008.j
Life jackets.....	8A992.i
Life rafts for military aircraft.....	9A610.y.12
Light gas guns(Multistage) systems .....	2B232
Light systems, fuses, and components, for ground vehicles.....	0A606.y.12
Light systems, Stroboscopic .....	8A992.c
Light systems, underwater .....	8A002.g
Light systems, underwater .....	8A002.d.2
Lights, underwater .....	8A992.j
Lights, search .....	0A617.y.1 and .y.2
Lightweight composite or foam mirror structures .....	6A004.a.3
Lightweight monolithic mirrors.....	6A004.a.2
Lightweight turbofan/turbojet engines.....	9A101, 9A619.a
Line terminating equipment.....	5A991.b Note a.2
Linear displacement measuring systems containing a laser .....	2B006.b.3.a, 2B206.c
Linear position feedback units or sensors .....	2B006.b.2
Linear measuring equipment/instruments.....	2B006.b.3
Linear focal plane arrays .....	6A002.a.3
Linear-angular inspection equipment for hemishells.....	2B006.d

Description	ECCN Citation
Liquid oxidizers, various nitrous oxides.....	1C608.m, 1C111.a.3
Liquid or water jet cutting machines (CNC).....	2B001.e.1.a
Liquid lasers.....	6A005.c
Liquid propellant tanks .....	9A103
Liquid rocket propulsion systems & components.....	9A106
Liquid rocket propulsion systems & components.....	9A006
Liquid rocket propulsion systems .....	9A005
Liquid, slurry and gel propellant control systems.....	9A106.d
Liquid propellant rocket engines .....	9A105
Liquid-liquid exchange columns, for lithium amalgams .....	1B233.b.1
Lithium metal, alloys, compounds, mixtures, products or devices.....	1C233
Lithium isotope separation facilities, plant and equipment .....	1B233
Lithium amalgam electrolysis cells .....	1B233.b.3
Lithium amalgam pumps .....	1B233.b.2
Lithograph templates .....	3B001.i
Lithography equipment, imprint.....	3B001.f.2
Lithography equipment, mask making for semiconductor wafer-processing .....	3B001.f
Lithography mask or reticle fabrication equipment.....	3B991.b.2.d.2
Lithography software .....	3D003
Location & object detection systems or transmitting and receiving arrays, acoustic ..	6A001.a.1.b
Logic arrays, field programmable (FPLA) .....	3A001.a.8
Logic processors and assemblies .....	4A003
Louping ill virus.....	1C351.a.24
Low Light Level (LLL) camera software .....	6D003
Lubricating materials .....	1C006.b
Lubricating oil.....	1C980
Lujo virus .....	1C351.a.25
Lumpy skin disease virus.....	1C351.a.26
Lymphocytic choriomeningitis virus .....	1C351.a.27
Lyssavirus (including rabies virus and all other members of the Lyssavirus genus) .....	1C351.a.40
Machine tools, E-beam .....	2B001.e.1.b
Machine tools, laser .....	2B001.e.1.c
Machine tools, numerically controlled .....	2B001
Machine tools, numerically controlled .....	2B201
Machine tools, numerically controlled and using a Magnetorheological finishing (MRF) process.....	2B002
Machine tools, numerically controlled, optical finishing .....	2B002
Machine tools, water/other liquid jet .....	2B001.e.1.a
Machine tool assemblies, units or inserts .....	2B998
Machine tool components and assemblies for 2B006 & 2B007 equipment.....	2B008
Machine tool cutting tools .....	2B008
Machine tools for generating optical quality surfaces .....	2B992

Description	ECCN Citation
Machine tools for grinding (CNC).....	2B001.c
Machine tools for grinding (CNC).....	2B201.b
Machines for milling (CNC).....	2B001.b
Machines for milling (CNC).....	2B201.a
Machine tools for turning, grinding, and milling .....	2B991.d.1
Machines for turning (CNC).....	2B001.a
Machine tool rotary position feedback units.....	2B006.c
Machine tool spindles .....	2B008.d
Machining centers (CNC).....	2B201
Machining centers (CNC).....	2B001
Machupo virus .....	1C351.a.28
Magnaporthe oryzae (Pyricularia oryzae).....	1C354.b.6
Magnesium (high purity) .....	1C228
Magnesium alloy, powder or particulate form .....	1C002.c.1.e
Magnesium alloys .....	1C002.b.5
Magnesium, metal and alloys of.....	1C011.a
Magnesium oxide (MgO) made or coated crucibles.....	2A225.a.6
Magnesium metal particulate.....	1C111.a.2.a.4
Magnetic alloy strips.....	1C003.c
Magnetic anomaly detection software .....	6D003.f.2
Magnetic bearings (suspension).....	2A001.c
Magnetic compensation systems for magnetic and underwater electric field sensors .....	6A006.d
Magnetic compensation systems software.....	6D003.f.1
Magnetic disk storage .....	3A002.a.6
Magnetic and Electric Field Sensors “software” .....	6D003.f
Magnetic gradiometers.....	6A006.c
Magnetic gradiometers, intrinsic .....	6A006.c.2
Magnetic metals .....	1C003
Magnetically enhanced, sputtering equipment .....	3B991.b.1.f
Magnetometers.....	6A006
Magnetometers not controlled by 6A006 .....	6A996.a
Magnetometer systems.....	6A006
Magnetostrictive alloys.....	1C003.b
Mandrels for rotor assembly, bellows forming.....	2B228.a
Mandrels, bellows-forming .....	2B228.c
Mandrels (precision) for filament winding machines.....	1B201
Manganin gauges, pressure.....	6A226.a
Manifolds (air, fuel, oil) for gas turbine engines .....	9A619.y.8
Manipulators, remote .....	2B225
Manipulators, for submersibles .....	8A002.i
Manned, tethered submersible vehicles .....	8A001.a

Description	ECCN Citation
Manned, untethered submersible vehicles .....	8A001.b
Manufactured gas and synthetic natural gas produced or derived from	
Naval Petroleum Reserves .....	1C984
Map cases for military aircraft .....	9A610.y.28
Maraging steel .....	1C116
Maraging steel .....	1C216
Marburgvirus (includes all members of Marburgvirus genus) .....	1C351.a.29
Marine acoustic systems .....	6A001.a
Marine boiler .....	8A992.l
Marine engines and parts (both inboard and outboard, n.e.s.) .....	8A992.g
Marine gas turbine engines .....	9A002
Marine, terrestrial acoustic equipment .....	6A991
Marx generators .....	3A999.c
Mask, gas or full face .....	1A004 or 1A995
Mask or reticle altering holders or equipment .....	3B991.b.2.d.3
Mask or reticle fabrication equipment .....	3B991.b.2.d
Mask or reticles or pellicles, stored program controlled inspection equipment .....	3B991.b.2.e
Mask software .....	3D003
Mask substrate blanks .....	3B001.j
Masks .....	8A992.i
Masks, integrated circuits of 3A001 .....	3B001.g
Masks, for optical sensors .....	6B002
Masks, mask substrates, mask-making equipment .....	3B991.b.2
Mass spectrometers & ion sources (UF6 enrichment plant) .....	3A233
Mass spectrometers, n.e.s. ....	3A999.b
Materials for reduced electromagnetic reflectivity .....	1C101
Materials “specially designed” for ground vehicles and related commodities controlled by 0A606 and not elsewhere specified on USML .....	0C606
Materials “specially designed” for surface vessels of war and related commodities controlled by 8A609 .....	8C609
Miscellaneous materials “specially designed” for military use .....	0C617
Matrix, organic .....	1A002.b
MCT (HgCdTe) crystals & epitaxial wafers .....	6C002.b
Measurement equipment, radiation .....	1A999.a
Measurement equipment, underwater velocity .....	6A001.b
Measuring instruments or systems, dimensional .....	2B006
Measuring and analysis equipment .....	3B992.b.2
Measuring systems (linear displacement) containing a laser .....	2B006.b.1.c, 2B206.c
Mechanical cameras, framing .....	6A003.a.1, 2 or 3
Mechanical caps .....	3A611.y.29
Mechanical plugs .....	3A611.y.30
Mechanical-seal or inflatable-seal walkthrough doors .....	2B352.a.2.c

Description	ECCN Citation
Media access units .....	5A991.b Note a.12
Medical countermeasures equipment (military) for use against chemical warfare agents .....	1A607.k
Medical facilities for submersible vessels .....	8A620.y.6
Medical facilities for surface vessels of war .....	8A609.y.6
Melting furnaces .....	2B227.b
Mercury amalgam pumps .....	1B233.b.2
Mercury cadmium telluride crystals & epitaxial wafers .....	6C002.b
MERS-related coronavirus (Middle East respiratory syndrome-related coronavirus) ...	1C351.a.30
Metal alloy powders or particulate form .....	1C002.c
Metal alloy particulate .....	1C111.a.2.a.4
Metal alloys .....	1C002.b
Metal alloys, aluminum or titanium .....	1C202
Metal alloys, beryllium .....	1C230
Metal alloys, boron .....	1C011.b
Metal alloys, hafnium .....	1C231
Metal alloys, lithium .....	1C233
Metal alloys, powder and material production systems and components .....	1B002
Metal alloys, tungsten .....	1C226
Metal alloys, tungsten or molybdenum .....	1C117
Metal alloys, zirconium .....	1C234
Metal coated fiber preforms .....	9A110
Metal coated fiber preforms for fiber prepreps in 9C110 .....	9C110
Metal or carbon matrix .....	1A002.b
Metal embrittlement agents .....	0A617
Metal-organic compounds, aluminum/gallium/indium .....	3C003
Metal particulate .....	1C011
Metal powder production equipment .....	1B102
Metal vapor lasers .....	6A005.b
Metal working process tools, die & fixture technology .....	2E003.b.1
Metal working manufacturing processes technology .....	2E003.b
Metallo-organic or polymeric materials .....	1C007.e
Metallurgical melting & casting furnaces .....	2B227
Metals or carbon coated fibers .....	1C010.e
Metals with high initial relative (magnetic) permeability .....	1C003.a
Methyl benzilate .....	1C350.d.16
Methyl centralites .....	1C018.a
Methyl chlorofluorophosphate .....	1C350.d.17
Methyl dichlorophosphate .....	1C350.d.18
Methyldiethanolamine (105-59-9) .....	1C355.b.2.b
Methyl difluorophosphate .....	1C350.d.19
Microbiological disposal technology .....	1E351

Description	ECCN Citation
Microchannel plates, image intensifier tubes.....	6A002.a.2
Microcomputer microcircuits.....	3A001.a.3
Microcontroller microcircuits .....	3A001.a.3
Microcyclus ulei (syn. Dothidella ulei) .....	1C354b.3
Microcystins (Cyanginosins) .....	1C351d.9
Microelectronic circuits (e.g., integrated circuits and micro-circuits) rated, certified, or otherwise specified or described as meeting or exceeding all the characteristics in 9A515.d and that are “specially designed” for defense articles, “600 series” items, or items controlled by 9A515 .....	9A515.d
Microelectronic circuits (e.g., integrated circuits and micro-circuits) that are rated, certified, or otherwise specified or described as meeting or exceeding all the characteristics in 9A515.e and that are “specially designed” for defense articles controlled by USML Category XV or items controlled by 9A515.....	9A515.e
Microfluorination ion sources.....	3A233.f
Micromachined Angular Rate Sensors .....	7A994
Microorganisms, genetically modified .....	1C353
Microphones .....	3A611.y.6
Microprocessor microcircuits .....	3A001.a.3
Microprocessor microcircuits above 530 MTOPS development/production technology.....	3E002.g
Microwave amplifiers, solid state.....	3A001.b.4
Microwave frequency extenders, mixers/converters .....	3A001.b.7
Microwave integrated circuit test equipment.....	3B002.c
Microwave integrated circuits.....	3A001.b.2
Microwave modules.....	3A001.b.2
Microwave or millimeter wave components .....	3A001.b
Microwave or millimeter wave components software.....	3D001
Microwave or millimeter wave components technology.....	3E001
Microwave “monolithic integrated circuits” (MMIC) power amplifiers.....	3A611.c, 3A001.b.2
Microwave Monolithic Integrated Circuit (MMIC) power amplifier technology.....	5E001.d or .e, 3E611.b.3, 3E001
Microwave power amplifiers .....	3A001.b.8
Microwave power modules (MPM).....	3A001.b.9
Microwave transistors (discrete).....	3A001.b.3
Microwave test receivers .....	3A002.f
Microwave wave components.....	3A001.b
Middle East respiratory syndrome-related coronavirus (MERS-related coronavirus) ...	1C351.a.30
MIG welders .....	2B999.d
Military commodities.....	0A919
Military components .....	3A611
Military construction equipment.....	0A617.y
Military electronics (equipment, end items, systems) .....	3A611

Description	ECCN Citation
Military explosive production equipment.....	1B018.a
Military ferries, bridges and pontoons.....	0A617
Military flame throwers with an effective range less than 20 meters.....	0A602.b
Military harbor entrance detection devices (magnetic, pressure, and acoustic).....	8A620
Military helmet.....	0A018
Military training equipment.....	0A614
Military vehicles.....	0A606
Military vehicle fording kits.....	0A606
Military vehicle self-launching bridge components.....	0A606
Millimeter wave components.....	3A001.b
Milling machines, (CNC) with two or more coordinated axes.....	2B001.b
Milling machines, (CNC) with two or more coordinated axes.....	2B201.a
Milling machines (CNC).....	2B991.d.1
Mills, fluid energy.....	1B119
Mining equipment.....	2B999.h
Mirror assemblies/segments, space assembly.....	6A004.c.3
Mirror characterization equipment, reflectometers.....	7B102.b
Mirror structures, lightweight foam or composite type.....	6A004.a.3
Mirrors, actively cooled or heat pipe cooled.....	6A005.e.1
Mirrors, beam steering.....	6A004.a.4
Mirrors, cockpit for military aircraft.....	9A610.y.15
Mirrors, optical.....	6A005.e.2
Mirrors, optical.....	6A004.a
Missile engine combustion regulation devices.....	9A118
Missile (usable) guidance sets.....	7A117
Missile telemetry.....	5A101
Missile modeling, simulation & integration software.....	9D103
Mixed Oxides of Nitrogen (MON).....	1C111.a.3.d
Mixers, batch.....	1B117
Mixers, continuous.....	1B118
Mixers, frequency extenders.....	3A001.b.7
Mobile communications equipment, assemblies and components.....	5A991.g
Modeccin.....	1C351.d.10
Modeling/simulation of guidance sets, software.....	7D103
Modems.....	5A991.b.2
Modular time interval meter.....	3A999.e2
Modules, microwave.....	3A001.b.2
Modules/assemblies, fast switching function.....	3A228.c
Molecular beam epitaxial growth equipment using gas sources.....	3B001.a.3
Molecular beam epitaxial growth equipment.....	3B991.b.1.e
Molecular beam mass spectrometers.....	3A233.e
Molybdenum alloy fibers.....	1C010.c Note 2

Description	ECCN Citation
Molybdenum & tungsten metals & alloys .....	1C117
Monel equipment including valves, piping, tanks and vessels .....	2B999.f
Monel plate .....	1C999.c
Monitoring equipment, radiation .....	1A999.a
Monitoring systems, toxic gas .....	2B351
Monkeypox virus .....	1C351.a.31
Monolithic integrated circuits .....	3A001.a Note 2
Monolithic integrated circuit repair or trimming laser equipment.....	3B991.b.1.m
Monolithic Microwave Integrated Circuit (MMIC) amplifiers .....	3A001.b.12
Monospectral imaging sensors.....	6A002.b
Motion control boards for machine tools.....	2B991.b
Motion simulators or rate tables .....	2B120
Multi-chamber central wafer handling systems .....	3B001.e
Multi-channel interval meter.....	3A999.e2
Multichip modules .....	3A611.h, y.16
Multi-data-stream processing equipment, development or production technology for .....	4E993
Multi-element detector arrays .....	6A002.a.3
Multi-layer hetero-epitaxial material substrates & wafers.....	3C001
Multi-layer masks (with phase shift layer), for integrated circuits.....	3B001.h
Multichip integrated circuits .....	3A001.a Note 2
Multichip modules .....	3A611.h, y.16
Multilevel security capability, equipment.....	5A002.d
Multimode optical fiber & cables, high tensile strength.....	5A001.c
Multiple-seal pumps.....	2B350.i
Multiplex equipment.....	5A991.b Note a.7
Multipoint initiation systems .....	3A232.b
Multipoint restraint devices .....	0A982
Multispectral imaging sensors .....	6A002.b
Multistage light gas gun systems .....	2B232
Multi-walled piping incorporating a leak detection port .....	2B350.h
Murray Valley encephalitis virus.....	1C351.a.32
Mycoplasma capricolum subspecies capripneumoniae ("strain F38").....	1C351.c.15
Mycoplasma mycoides subspecies mycoides SC (small colony) (a.k.a. contagious bovine pleuropneumonia).....	1C351.c.16
N,N Diethylacetamide .....	1C350.d.20
N,N-Diethylbutanamide.....	1C350.d.21
N,N-Diethylformamide.....	1C350.d.22
N,N-Diethylisobutanamide .....	1C350.d.23
N,N-Diethylpropanamide .....	1C350.d.24
N,N-diisopropyl-beta-aminoethane thiol .....	1C350.b.8
N,N-diisopropyl-(beta)-amino ethanol .....	1C350.b.9

Description	ECCN Citation
N,N-diisopropyl-beta-aminoethyl chloride.....	1C350.b.10
N,N-diisopropyl-(beta)-aminoethyl chloride hydrochloride.....	1C350.b.11
N,N-Diisopropylbutanamidine.....	1C350.d.25
N,N-Diisopropylformamidine.....	1C350.d.26
N,N-Dimethylacetamidine.....	1C350.d.27
N,N-Dimethylbutanamidine.....	1C350.d.28
N,N-Dimethylformamidine.....	1C350.d.29
N,N-Dimethylisobutanamidine.....	1C350.d.30
N,N-Dimethylpropanamidine.....	1C350.d.31
N,N-Dipropylacetamidine.....	1C350.d.32
N,N-Dipropylbutanamidine.....	1C350.d.33
N,N-Dipropylformamidine.....	1C350.d.34
N,N-Dipropylisobutanamidine.....	1C350.d.35
N,N-Dipropylpropanamidine.....	1C350.d.36
NBC (Nuclear, biological and chemical) detection system software.....	1D003
NBC (Nuclear, biological and chemical) detection system libraries or parametric technical databases.....	1E002.g
NN-Diphenylurea (unsymmetrical diphenylurea).....	1C018.b
Name plates and identification plates.....	3A611.y.33
Nanocrystalline alloy strips.....	1C003.c
Natural gas liquids and derivatives produced or derived from Naval Petroleum Reserves.....	1C983
Navigation, airborne comm. & other avionics equip. technology.....	7E004, 7E994
Navigation, airborne communication and other avionics software.....	7D004, 7D994
Navigation/avionics equipment, systems, parts, components ... for military.....	7A611, 3A611
Navigation direction finding equipment.....	7A004-7A008, 7A103-7A105, 7A994
Navigation Satellite Systems ranging signals decryption software.....	7D005
Navigation systems, equipment & components, inertial.....	7A103
Navigation systems, equipment & components, inertial.....	7A003
Navigation systems, equipment, parts ... for military not on USML.....	7A611/3A611
Navigation systems, underwater sonar.....	7A008
NDT (non-destructive test) inspection equipment (3D).....	1B001.f
NDT (non-destructive test) inspection equipment.....	9B007
Neodymium lasers.....	6A005.d.6
Neodymium lasers.....	6A205.f
Nets (submarine or torpedo).....	8A620.e
Network analyzers.....	3A002.e
Network access controllers contained in computer equipment.....	4A994.i
Network access controllers contained in telecommunications.....	5A991.b.4.a
Neural computers/assemblies/components.....	4A004.b
Neural network integrated circuits.....	3A001.a.9
Neutron generator systems & tubes.....	3A231

Description	ECCN Citation
Neutronic calculations/modeling, software for.....	0D999.a
Newcastle disease virus .....	1C351.a.33
Nickel alloy.....	1C002.b.1
Nickel alloy/powder or particulate form .....	1C002.c.1.a
Nickel aluminides .....	1C002.a.1
Nickel electroplating equipment.....	2B999.i
Nickel metal (made from powder).....	1C240
Nickel powder.....	1C240
Night vision devices.....	6A002.a.2, 6A003.b.3, 6A003.b.4, 6A202 or 6A203
Night vision technology.....	6E002 or 6E101
Niobium alloys.....	1C002.b.2
Niobium alloy/powder or particulate form .....	1C002.c.1.b
Nipah virus .....	1C351.a.34
3-Nitroaza-1,5 pentane diisocyanate.....	1C018.l
Nitric acid.....	1C999.e
Nitrided niobium-titanium-tungsten alloy crucibles.....	2A225.a.7
2-Nitrodiphenylamine.....	1C111.c.3 or 1C018.h
Nitrogen dioxide (dinitrogen tetroxide).....	1C111.a.3.b
Nitroglycerin (in medicinal form).....	1C992.l
Nitroguanidine .....	1C011.d
P-Nitromethylaniline.....	1C018.i
N,N-Dialkyl (Me, Et, n-Pr or i-Pr) aminoethyl-2-chlorides and corresponding protonated salts .....	1C355.a.2.d
N,N-Dialkyl (Me, Et, n-Pr or i-Pr) aminoethane-2-ols and corresponding protonated salts .....	1C355.a.2.e
N,N-Dialkyl (Me, Et, n-Pr or i-Pr) aminoethane-2-thiols and corresponding protonated salts .....	1C355.a.2.f
N,N-Dialkyl (Me, Et, n-Pr or i-Pr) phosphoramidic dihalides .....	1C355.a.2.b
N-Nonanoylmorpholine, (MPA) (CAS 5299-64-9).....	1C607.a.6
Noise reduction equipment for vessels, acoustic mounts .....	8A002.o.3.a
Noise cancellation systems for vessels, active.....	8A002.o.3.b
Noise reduction systems for vessels, active.....	8A002.o.3.b
Non-destructive inspection equipment .....	1B001.f
Non-destructive test inspection equipment, rocket motor .....	9B007
Non-fluorinated polymeric substances .....	1C008
Non-fluorinated polymeric manufactures .....	1A003
Non-irritant smoke flares, canisters, grenades and charges.....	1A984
Non-lethal or less-lethal grenades and projectiles .....	0A503
Non-linear optical materials.....	6C004.c
Non-planar absorbers.....	1C001.a Note 1.b
Non-tunable continuous wave (CW) lasers .....	6A005.a or 6A995.e
Non-tunable pulsed lasers.....	6A005.b or 6A995.d

Description	ECCN Citation
Non-tunable solid state lasers .....	6A005a or b or 6A995.f
Nozzles, for producing pyrolytically derived materials.....	1B116
Nozzles, rocket motor (liquid) .....	9A106.b
Nuclear material handling and processing equipment .....	2A291
Nuclear materials, facilities, and equipment software .....	0D001
Nuclear plant commodities, parts and accessories.....	2A291.d
Nuclear reactor, eddy current test equipment .....	2A291.d
Nuclear reactor equipment.....	2A291
Nuclear reactor, simulators .....	2A291.b
Nuclear reactor, ultrasonic test equipment.....	2A291.d
Nuclear technology for the development, production or use of nuclear materials, facilities, and equipment .....	0E001
Nucleic acid assemblers and synthesizers (partly or entirely automated) .....	2B352.j
Numerical control for machine tools - software .....	2D002 and 2D003
Numerical control units for machine tools and numerically controlled machine tools, n.e.s.....	2B991
Numerically controlled machine tools that can be equipped with electronic devices for simultaneous contouring control .....	2B991.c
O-ring for ground vehicles.....	0A606.y.9
Object detection and location systems or transmitting and receiving arrays (acoustic).....	6A001.a.1.b
Ocean salvage systems.....	8A001.e
Off highway wheel tractors.....	9A990
Oil and gas exploration equipment, software, and data .....	0A998
Oil well cartridges .....	1C608.f or 1C992.g
Oil lines and tubes for military gas turbine engines .....	9A619.y.2
Oil tank and reservoirs for military gas turbine engines.....	9A619.y.1
Oil, lubricating, cutting, or quenching .....	1C980
Oils, distillate fuel.....	1C980
Omsk hemorrhagic fever virus.....	1C351.a.35
On-highway tractors.....	9A990
O,O-Diethyl phosphorodithioate.....	1C350.d.6
O,O-Diethyl phosphorothioate.....	1C350.d.7
Operating systems for real time processing equipment, software .....	4D993.c
Operating system software for real time processing equipment.....	4D993.c
Optical absorption materials, low .....	6C994.a
Optical components, space-qualified .....	6A004.c
Optical components for lasers.....	6A005.e
Optical components for lasers.....	6A004.b
Optical computers .....	4A004.c
Optical control equipment.....	6A004.d
Optical detectors, radiation hardened .....	6A102

Description	ECCN Citation
Optical detectors & sensors .....	6A002
Optical element inspection or testing equipment and components.....	3B992.a
Optical element manufacturing equipment and components.....	3B991.a
Optical elements, aspheric .....	6A004.e
Optical equipment.....	6A005.f
Optical equipment.....	6B004
Optical equipment other than optical surface scattering measurement equipment.....	6B004.b
Optical fabrication technologies .....	6E003.d.2
Optical fabrication technologies .....	6E993.a
Optical fiber characterization equipment.....	5A991.b Note b.3
Optical fiber couplers or connectors for underwater use .....	8A002.c
Optical fiber & accessories, communications.....	5A001.c
Optical fiber preforms.....	6C994.b
Optical fiber preforms.....	5C991
Optical fibers/fiber cable, sensing.....	6A002.d.3
Optical fiber sensing elements, hydrophones .....	6A001.a.2.a.2
Optical filters .....	6A994.a
Optical filters technology.....	6E993.b
Optical finishing processes .....	2B002.d
Optical (Infrared) tracking (range) radars.....	6A108.b.2
Optical integrated circuits.....	3A001.a.6
Optical materials .....	6C994
Optical materials, with non-linear characteristics.....	6C004.b.3
Optical mirrors (reflectors) .....	6A004.a
Optical mirrors (reflectors) .....	6A005.e.2
Optical sensing fibers not controlled by 6A002 .....	6C992
Optical Sensors .....	6A992
Optical sensor cryocoolers.....	6A002.d.1
Optical sensors - flight control systems - technology.....	7E004
Optical sensors, optical fiber.....	6A002.d.3
Optical sensor materials.....	6C002
Optical sighting devices for firearms.....	0A504
Optical sighting devices for firearms that have focal plane array (visible wavelength only), technology for .....	0E504
Optical surface coating/treatment technology .....	6E003.d.1
Optical switching equipment .....	5A991.c.10.c
Optical switching equipment, technology for the development of equipment employing.....	5E001.c.3
Optical-electro shutters, Kerr or Pockel cells .....	6A203.b.3.c
Optics .....	6A994
Optics, (optical components) .....	6A004
Optics software .....	6D003.d

Description	ECCN Citation
Optimization of rocket systems trajectory technology .....	7E104
Organic fibers & filamentary materials .....	1C010.a
Organic matrix .....	1A002.a
Organo-metallic compounds .....	3C003
Oropouche virus .....	1C351.a.36
Oscillators or oscillator assemblies .....	3A001.b.10
Oscilloscopes (high-speed) .....	3A002.a.7
Oscilloscopes (analog and digital) .....	3A992
Oxide matrix reinforced materials .....	1C007.c.1.a
Oxidizer or mixture, composed of fluorine and halogens, oxygen or nitrogen .....	1C608.m
Oxygen Iodine (O <sub>2</sub> -I) laser .....	6A005.d.5.c.1
PABXs (Private Automatic Branch exchanges) .....	5A991.c
Packet switching equipment .....	5A991.c.10
Parachutes, military .....	9A610.h
Paraffin wax .....	1C980
Parametric technical databases .....	1E002.g
Particle accelerators .....	1B999.b
Particle flow detection microphone .....	6A005.g
Passenger seats for military aircraft .....	9A610.y.16
Particle measuring systems employing lasers .....	3B992.b.7
Parts for “600 series” or defense articles .....	3A611.y
Passive coherent location systems or equipment .....	5A001.g
Passive sensors, direction finding systems .....	7A115
Passive acoustic systems .....	6A001.a.1.d
Pathogens, genetically modified microorganisms .....	1C353.a
Pathogens, animal .....	1C351
Pathogens, human .....	1C351
Pathogens, plant .....	1C354
Pathogens, zoonotic .....	1C351
PBAA (Polybutadiene-acrylic acid) .....	1C111.b.3
PBAN (Polybutadiene-acrylic acid-acrylonitrile) .....	1C111.b.4
PEEK (Polyether ether ketone) .....	1C998
PEK (Polyether ketone) .....	1C998
PEKEKK (Polyether ketone ether ketone ketone) .....	1C998
PEKK (Polyether ketone ketone) .....	1C998
1,1,3,3,3-Pentafluoro-2-(trifluoromethyl)-1-propene (382-21-8) (PFIB) ..	1C355.a.1.a, 1E355.a.1
Perfluoroaliphatic-ethers, monomeric or polymeric .....	1C006.d.1.a
Perfluoroalkanes .....	1C006.d.1.d
Perfluorocycloalkanes .....	1C006.d.1.c
Perfluoropolyalkylether-triazines, monomeric or polymeric .....	1C006.d.1.a
Performance improvement software, navigation systems .....	7D003.a
Performance improvement source code, navigation systems .....	7D003.b and 7D004

Description	ECCN Citation
Peronosclerospora philippinensis (a.k.a. Peronosclerospora sacchari).....	1C354.b.7
Peste-des-petits ruminants virus .....	1C351.a.37
Petroleum products produced or derived from Naval Petroleum Reserves .....	1C982
PFIB (1,1,3,3,3-Pentafluoro-2-(trifluoromethyl)-1-propene (382-21-8) .....	1C355.a.1.a
Phase electro-optic modulator.....	3A001.i
Phased array antennae (in radar).....	6A008.e
Phased array antennae (in radar).....	5A001.d
Phased array antennae.....	5A991.f
Phenylcarbylamine chloride (CAS 622-44-6) .....	1C607.a.13
Phenylene, as lubricating fluids .....	1C006.b.1
Phoma glycinicola (formerly Pyrenochaeta glycines) .....	1C354.b.12
Phosgene: Carbonyl dichloride (75-44-5).....	1C355.b.1.a, 1E355.b.1
Phosphate glass .....	6C004.e
Phosphor bronze or copper mesh packings.....	1A226
Phosphor image plates, storage.....	1A999.b
Phosphorus hydrides .....	3C004
Phosphorus oxychloride.....	1C350.c.4
Phosphorus pentachloride .....	1C350.c.5
Phosphorus pentasulphide.....	1C350.d.37
Phosphorus trichloride .....	1C350.c.6
Photo-enhanced CVD equipment .....	3B991.b.1.i
Photo-enhanced diffusion equipment .....	3B991.b.1.g
Photo-optical step and repeat cameras .....	3B991.b.2.d.1
Photocathodes .....	6A002.a.2.c
Photographic still cameras, underwater .....	8A001.e
Photographic still cameras, for underwater use.....	8A992.b
Photomultiplier tubes .....	6A202
Photovoltaic arrays, space qualified or radiation hardened .....	3A001.e.4
Physics-based simulation “software” specially designed for the “development” of lithographic, etching or deposition processes .....	3D003
Piezoelectric sensing elements, hydrophones .....	6A001.a.2.a.2.b
Pinacolone.....	1C350.d.38
Pinacolyl alcohol.....	1C350.b.20
Piping, austenitic stainless steel.....	2B999.n
Piping, fittings and valves of or lined with stainless steel, copper-nickel alloy or other alloy steel .....	2A992
Piping, monel .....	2B999.f
Piping, multi-walled incorporating a leak detection port.....	2B350.h
Piping, stainless steel .....	2B999.g
Piping, vacuum .....	2B999.k
Pitch-impregnated fibers.....	1C010.e
Planar absorbers .....	1C001.a Note 1, c, d, or e

Description	ECCN Citation
Plant pathogens, bacteria or fungi.....	1C354
PLAs (Programmable Logic Arrays) .....	3A001.a.8
Plasma arc jet facilities .....	9B104
Plasma atomization & melting furnaces .....	2B227.b
Plasma-enhanced CVD (PECVD) equipment .....	3B991.b.1.i
Plasma enhanced or plasma assisted CVD production equipment .....	2B005.a.1.c
Plasma spraying production equipment, with controlled atmosphere .....	2B005.d
Plasma wind tunnels .....	9B104
Platforms, complete .....	9A992, 9A610.h
Platinized catalysts.....	1A225
Plugs, mechanical .....	3A611.y.30
Pocket cell electro-optical shuttering.....	6A203.b.3.c
Police helmets and shields .....	0A979
Polyarylene ketones .....	1C008.d
Polybiphenylenethersulphone .....	1C008.f
Polybromotrifluoroethylene .....	1C006.c.3
Polybutadiene-acrylic acid (PBAA) .....	1C111.b.3
Polybutadiene-acrylic acid-acrylonitrile (PBAN).....	1C111.b.4
Polycarbosilazanes.....	1C007.e.3
Polychlorotrifluoroethylene .....	1C006.c.2
Polycrystalline alumina fibers .....	1C010.c Note 1
Polycrystalline or ceramic substrates.....	3C005.b
Polycrystalline silicon and materials production equipment .....	3B991.b.1.a
Polydiorganosilanes, precursor for silicon carbide.....	1C007.e.1
Polyether ketone ether ketone ketone (PEKEKK).....	1C998
Polyether ketone (PEK) .....	1C998
Polyether ether ketone (PEEK).....	1C998
Polyether ketone ketone (PEKK).....	1C998
Polyetherimides, fibrous & filamentary materials composed of .....	1C010.d.1.a
Polygraphs.....	3A981
Polymeric or metallo-organic materials.....	1C007.e
Polymeric substances .....	1C111.b
Polymeric substances, non-fluorinated .....	1C008
Polymeric substances, non-fluorinated .....	1C998
Polysilazanes, precursor for silicon nitride.....	1C007.e.2
Polythiophene .....	1C001.c.3
Porcine enterovirus type 9 (swine vesicular disease virus) .....	1C351.a.52
Porcine Teschovirus (Teschén disease virus) .....	1C351.a.38
Porous nickel metal.....	1C240
Portable electric generator development or production software .....	2D994
Portable electric generators.....	2A994
Positioning equipment/components, global .....	7A005

Description	ECCN Citation
Positioning equipment .....	7A105
Positioning systems, acoustic.....	6A001.a.1.d
Positioning tables or rate tables .....	2B120
Positioning tables or rate tables .....	2B121
Positive resists for semiconductor lithography .....	3C002.a.1
Post-flight data processing software .....	6D103
Post-quantum cryptographic algorithms .....	5A002.a.4 Technical Notes paragraph 2.c
Potassium bifluoride .....	1C350.d.39
Potassium cyanide.....	1C350.d.40
Potassium fluoride .....	1C350.d.41
Potassium hydrogen fluoride (see potassium bifluoride).....	1C350.d.39
Potassium titanyl arsenate (KTA).....	6C004.b.1
Potato Andean latent tymovirus (Andean potato latent virus).....	1C354.c.1
Potentiometers.....	3A611.y.7
Powassan virus.....	1C351.a.39
Powder metallurgy rotor component manufacturing equipment .....	9B009
Power generating equipment, nuclear reactor.....	0A002
Power supplies, direct current high power (dc) .....	3A226
Power supplies, direct current high-voltage .....	3A227
Power systems, air independent, for underwater use.....	8A002.j
Precision mandrels for filament winding machines.....	1B201
Precision rotor forming mandrels .....	2B209.b
Precision tracking systems, usable for missiles .....	6A108.b
Precursors for toxic chemical agents .....	1C350
Preform production equipment .....	1B101.d
Preforms, metal coated, for fiber prepregs in 9C110.....	9C110
Preforms production equipment.....	1B001
Preforms production equipment, n.e.s. ....	1B999.e
Preforms production equipment controlled by 1B999, software for .....	1D999.b
Preforms, fibrous or filamentary materials .....	1C010.e
Preforms, glass for optical fibers .....	5C991
Preforms for space vehicles (metal coated fiber).....	9A110
Preforms, fibrous or filamentary materials .....	9A110
Preforms, metal coated fiber (for propulsion systems).....	9A110
Prepreg production equipment.....	1B001.e
Prepreg production equipment.....	1B101.d
Prepregs production equipment, n.e.s. ....	1B999.e
Prepregs production equipment controlled by 1B999, software for. ....	1D999.b
Prepregs, fibrous or filamentary materials.....	1C010.e
Prepregs, resin impregnated fiber, for 9A110 items.....	9C110
Prepregs production equipment .....	1B001
Prepregs, when impregnated with phenolic or epoxy resins.....	1C010.e Note 2

Description	ECCN Citation
Prepregs, fibrous or filamentary materials .....	9A110
Presses, hot isostatic .....	2B204
Presses, hot isostatic .....	2B104
Presses, hot isostatic.....	2B004
Presses, hot isostatic n.e.s. ....	2B999.a
Pressure transducers.....	2B230
Pressure regulators, air cylinders, hoses, valves and backpacks.....	8A992.h
Pressure sensors, manganin & quartz .....	6A226
Primary cells and secondary cells .....	3A001.e.1.a or 3A991.j
Printed circuit boards for numerical control units, machine tools or feed back devices .....	2B998.c
Printed circuit boards & populated circuit card assemblies.....	3A611.g, y.15
Private automatic branch exchanges (PABXs).....	5A991.c
Probing (test) systems, semiconductor devices .....	3B002.d
Process control hardware/systems designed for power industries .....	1B999
Process control hardware/systems designed for power industries controlled by 1B999, software for .....	1D999.a
Process control systems for use in nuclear reactor equipment .....	2A290.b
Process control systems for use in nuclear material handling and processing equipment.....	2A291.a
Processing equipment for bay or bottom cable systems .....	6A001.a.2.e.3
Processors, digital array .....	3A001.a.3 Note
Processors, digital signal.....	3A001.a.3 Note
Processors, digital signal.....	4A003
Processors, digital array .....	4A003
Production facilities, reentry vehicles.....	9B116
Production equipment, propulsion systems & components .....	9B115, 9B619
Production equipment, reentry vehicles.....	9B115
Production facilities, rockets/propulsion systems.....	9B116
Profilometers.....	7B002.b
Program proof and validation software for real time processing equipment.....	4D993
Programmable gate & logic arrays (FPGA's & FPLA's), field.....	3A001.a.7
Programmable & logic arrays (FPGA's & FPLA's), field .....	3A001.a.8
Programmable logic devices (PLD).....	3A611.f, y.14
Programming controls for filament winding machines .....	1B201
Projectile accelerators .....	2B232
Projection image transfer equipment .....	3B991.b.2.g
Projection telescopes, laser diagnostics .....	6A005.f.4
Projectors, acoustic .....	6A001.a.1.c
Proppant .....	0A998.b.2
Prolifometers, to characterize mirrors for laser gyro equipment .....	7B102.c
Propellant additives and agents.....	1C111.c

Description	ECCN Citation
Propellants and constituent materials .....	1C111
Propellant (liquid) production equipment and components.....	1B115
Propellant (liquid) test and handling equipment and components.....	1B115
Propellant (solid) production equipment and components .....	1B117
Propellants, having nitrocellulose.....	1C608.a
Propellers and systems used with reciprocating engines for military aircraft .....	9A610.y.25
Propeller blades or propfans composite technology .....	9E003.b.2, 9E610.y
Propeller noise reduction technology.....	8E002.a
Propeller noise reduction software.....	8D002
Propulsion equipment, nuclear.....	0A002
Propulsion systems/components, production equipment.....	9B115, 9B619
Propulsion systems, rocket.....	9A005
Propulsion equipment, underwater .....	8A992.j
Propulsion, satellites .....	9A515
Propulsion system components/structures, launch-vehicle.....	9A010
Propulsion system composite components/structures.....	9A110, 9A619.x
Propulsion system use software .....	9D101, 9D610.a
Propulsion systems, rocket.....	9A009
Propulsion systems, rocket.....	9A007
Propulsive substances .....	1C111.a
Propyleneimine .....	1C608.l
Protection equipment (military) for toxicological agents .....	1A607.f
Protective and detection equipment.....	1A004, 1A995 or 2B351
Protective clothing, Independently ventilated.....	2B352.g.1
Protective suits, gloves, shoes.....	1A004, 1A995 or 2B352.g.1
Proximity focused image intensifier tubes.....	6A203.b.3.a
Pseudomonas mallei (Burkholderia mallei).....	1C351.c.5
Pseudomonas pseudomallei (Burkholderia pseudomallei) .....	1C351.c.6
Pseudorabies virus (Aujeszky's disease; Suid herpesvirus 1) .....	1C351.a.51
Psychological stress analysis equipment .....	3A981
Public Address (PA) systems for military aircraft.....	9A610.y.18
Public Address (PA) systems for submersible vessels .....	8A620.y.1
Public Address (PA) systems for surface vessels of war.....	8A609.y.1
Puccinia graminis ssp. graminis var. graminis / Puccinia graminis ssp. graminis var. stakmanii (Puccinia graminis [syn. Puccinia graminis f. sp. tritici]).....	1C354.b.4
Puccinia striiformis (syn. Puccinia glumarum).....	1C354.b.5
Pulsating Chemical Vapor Deposition production equipment.....	2B005.a.1.a
Pulse amplifiers.....	3A999.c
Pulse excited Q switched neodymium-doped lasers.....	6A205.f
Pulse generators, high-current for detonators .....	3A229
Pulse generators, high-speed .....	3A230
Pulse jet engines/components .....	9A111

Description	ECCN Citation
Pulse radar cross-section measurement systems & components .....	6B008
Pulse shaping networks, high power.....	3A999.c
Pulsed electron accelerators.....	3A201.c
Pumpjet propulsion systems .....	8A002.p
Pumps, high pressure .....	0A998.b.3
Pumps, liquid propellant.....	9A106.d
Pumps, lithium amalgam .....	1B233.b.2
Pumps, mercury or lithium amalgam.....	1B233.b.2
Pumps, multiple-seal.....	2B350.i
Pumps, potassium amide in liquid ammonia .....	1B230
Pumps, seal-less .....	2B350.i
Pumps, vacuum.....	2B231
Pumps, vacuum.....	2B350.i
Pumps designed for industrial service .....	2B999.j
Pumps designed to move molten metals by electromagnetic force .....	2A993
Pyrolitic deposition nozzles .....	1B116
Pyrolitic deposition systems (“isostatic presses”, other than those controlled by 2B004) .....	2B104
Pyrolitic deposition systems (chemical vapor deposition furnaces, other than those controlled by 2B005.a).....	2B105
Pyrolitic deposition systems, for rocket nozzles and reentry vehicle nose tips .....	2B117
Pyrolitically derived materials production technology.....	1E104
Pyrolized carbon-carbon components.....	1A102
Pyrolized carbon-carbon materials .....	1C102
Pyrolysis equipment, for rocket nozzles and reentry vehicle nose tips (“isostatic presses”, other than those controlled by 2B004) .....	2B104
Pyrolysis equipment, for rocket nozzles and reentry vehicle nose tips (chemical vapor deposition furnaces, other than those controlled by 2B005.a) .....	2B105
Pyrolysis equipment, for rocket nozzles and reentry vehicle nose tips (other than those controlled by 2B004, 2B005.a, 2B104, or 2B105) .....	2B117
Pyrolysis process control equipment, for “isostatic presses”, other than those controlled by 2B004 .....	2B104
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3-Quinuclidone .....	1C350.d.42
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Description	ECCN Citation
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Real time processing equipment operating system software .....	4D993.c
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Resin impregnated fiber prepregs, propulsion & space systems .....	9A110
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Restraint devices, law enforcement, including leg irons, shackles, and handcuffs; straight jackets, stun cuffs; shock belts; shock sleeves, multipoint restraint devices, restraint chairs .....	0A982
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Semiconductor devices manufacturing equipment and systems.....	3B991.b
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Signature suppression devices, treatments & fittings .....	1A101
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Silicon microcircuits .....	3A001.a
Silicon carbide wafers or semiconductor substrates, ingots, boules or preforms .....	3C005.a
Silicon-on-sapphire integrated circuits .....	3A001.a Note 2
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Description	ECCN Citation
Sodium azide.....	1C992.1
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Sodium cyanide.....	1C350.d.44
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Sodium hexafluorosilicate .....	1C350.d.46
Sodium (Na) metal vapor lasers.....	6A005.b
Sodium sulfide .....	1C350.d.47
<i>Software, see product group D for controls in each category</i>	
Software, adaptive control .....	2D002.b.2
Software, adaptive control .....	2D992.a
Software, dedicated, for toxic gas monitoring systems and their dedicated detecting components controlled by 2B351 .....	2D351
Software, electronic devices .....	2D002
Software, for coordinating function of multiple subsystems for use in missiles .....	9D105
Software, for potable electric generator development or production .....	2D994
Software for Nuclear materials, facilities and equipment.....	0D001
Software, numerical control.....	2D002 and 2D003
Software, real time processing in machine tools .....	2D002.b
Software, real time processing equipment operating systems .....	4D993.c
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“Software” specially designed or modified for the “development”, “production” or “use” of items controlled by 2A290 or 2A291 .....	2D290
“Software” specially designed or modified for the “development”, “production” or “use” of equipment controlled by 2A983 .....	2D983
“Software” specially designed or modified for the “development”, “production” or “use” of equipment controlled by 2B991, 2B993, or 2B996, 2B997, and 2B998.....	2D991
“Software” specially designed or modified for the “development”, “production” or “use” of items controlled by 2A992 or 2A993 .....	2D993
“Software” “specially designed” for ground vehicles and related commodities controlled by 0A606, 0B606, or 0C606 .....	0D606
“Software” “specially designed” for commodities controlled by 0A617, “equipment” controlled by 0B617, or materials controlled by 0C617 .....	0D617
“Software” specially designed for the “development” of the equipment controlled by 3A003.....	3D004
“Software” “specially designed” for the “development,” “production,” operation, failure analysis or anomaly resolution of commodities controlled by 9A515.d .....	9D515.d
“Software” “specially designed” for the “development,” “production,” operation, failure analysis or anomaly resolution of commodities controlled by 9A515.e .....	9E515.e
Solar cells, cell-interconnect-coverglass (CIC) assemblies, solar panels, and solar arrays (space qualified) .....	3A001.e.4 or 3A991
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Description	ECCN Citation
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Solenoids, superconductive .....	3A201.b
Solid propellant rocket engines.....	9A107
Solid rocket propulsion systems .....	9A007
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Solid state cameras.....	6A003.b.1
Solid state joining equipment, tools/dies/fixtures .....	9B004
Solid state imaging devices.....	6A203.b.3
Solid-state imaging devices .....	6A002
Solid-state pulsed power switching thyristor devices and thyristor modules .....	3A001.g
Solid state lasers, tunable.....	6A005.c
Solid state microwave amplifiers.....	3A001.b.4
Solid-state power semiconductor switches, diodes, or 'modules' .....	3A001.h
Sonar, active individual .....	6A001.a.1.e
Sonar processing equipment .....	6A001.a.2.b
Sonar log equipment .....	6A001.b
Sonar, Side Scan Sonar (SSS) designed for seabed imaging.....	6A001.a.1.a.3
Sonar, Synthetic Aperture Sonar (SAS) designed for seabed imaging.....	6A001.a.1.a.3
Sonar, underwater navigation system .....	7A008
Sonar signal processing equipment.....	6A001.a.1.d Note a
SONET (Synchronous Optical Network) technology.....	5E001.b.4
SONET (Synchronous Optical Network) technology.....	5E991.a.2
Sounding rocket use software .....	9D101
Sounding rockets.....	9A104
Source code automatic generation software .....	4D993.b
Source code, development of avionic goods as specified.....	7D004
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Space-qualified focal plane arrays .....	6A002. a.1.d
Space-qualified or radiation hardened photovoltaic arrays .....	3A001.e.1.c
Space-qualified solid state detectors .....	6A002.a.1
Space-qualified optical components .....	6A004.c
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Spacecraft buses.....	9A515
Spacecraft on-board systems.....	9A515
Spacecraft payloads .....	9A515
Spacecraft and related commodities .....	9A004 or 9A515
Spacecraft components .....	9A515 or 9A010
Spacecraft inertial navigation equipment/components .....	7A003
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Description	ECCN Citation
Speakers .....	3A611.y.11
Spectrometry analytical instruments .....	3A999.f
Spherical or spheroidal aluminum powder .....	1C111.a.1
Spiked batons .....	0A983
Spin forming machines .....	2B009
Spin forming machines .....	2B209
Spin forming machines .....	2B9991
Spin forming machines capable of flow-forming functions .....	2B209
Spin forming machines combining spin-forming and flow-forming function.....	2B009
Spindle assemblies .....	2B998.a
Spindle assemblies, machine tools.....	2B008.d
Spray booms or arrays of aerosol generating units, specially designed for fitting to aircraft, lighter than air vehicles,” or “UAVs” .....	2B352.i.2
Spray cooling thermal management systems .....	3A003
Spray-drying equipment capable of drying toxins or pathogenic microorganisms .....	2B352.f
Spraying or fogging systems, specially designed for fitting to aircraft, “lighter than air vehicles,” or “UAVs” .....	2B352.i.1
Spraying production equipment, plasma with controlled atmosphere.....	2B005.d
Spread spectrum development technology techniques .....	5E001.b.4
Spread spectrum radio equipment.....	5A001.b.3
Spread spectrum spreading code generation.....	5A002.e
Sprytron tubes, vacuum .....	3A228.a
Sputter deposition production equipment .....	2B005.e
Sputtering equipment, magnetically enhanced .....	3B991.b.1.f
SQUIDs (Superconducting quantum interference devices) .....	6A006.a.1
St. Louis encephalitis virus .....	1C351.a.50
Staging mechanisms for missiles .....	9A117
Stainless steel plate .....	1C999.b
Staphylococcus aureus enterotoxins, hemolysin alpha toxin, and toxic shock syndrome toxin (formerly known as Staphylococcus enterotoxin F).....	1C351.d.14
‘Star trackers’ and components therefor .....	7A004
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Steam sterilizable freeze drying equipment.....	2B352.e
Steel, maraging .....	1C216
Steel, maraging .....	1C116
Steel, Titanium-stabilized duplex stainless (Ti-DSS).....	1C118
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Stealth materials, coatings and treatments for signature suppression.....	0C617.a
Step & repeat equipment, semiconductor wafer processing.....	3B001.f.1
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Storage phosphor image plates .....	1A999.b
Storage tanks, containers, receivers (chemical, with total internal volume greater	

Description	ECCN Citation
than 100 L) and prefabricated repair assemblies therefor .....	2B350.c
Stored program controlled (SPC) switching equipment .....	5A991.c
Stored program controlled (SPC) switching equipment, equipment for the development of equipment employing .....	5B001.b
Stored program controlled (SPC) switching equipment, software for the development of equipment employing .....	5D001.d
Stored program controlled (SPC) switching equipment, technology for the development of equipment employing .....	5E001.c
Stored program controlled equipment controlled by 3B, software for use of .....	3D002
Stored program controlled crystal pullers .....	3B991.b.1.c.2
Straight jackets .....	0A982
Strap down/gimbal inertial navigation systems or equipment .....	7A003
Streak cameras, mechanical type .....	6A203.a.2
Streak cameras, mechanical or electronic .....	6A003.a.3
Streak tubes, electronic streak cameras .....	6A203.b.1
Streak cameras, electronic type .....	6A203.b.1
Striplines to provide low inductance path to detonators .....	3A234
Stroboscopic light systems .....	8A992.c
Structural composites production equipment .....	1B101
Structures and composite structures, laminate, and manufacturers for missiles .....	9A110
Stun guns .....	0A503
Stun cuffs .....	0A982
Submarine diesel engines .....	8A620.d
Submarine engines, n.e.s. ....	8A992.g
Submarine nets .....	8A620.e
Submarine vessel positioning systems, acoustic .....	6A001.a.1.d
Submersible systems .....	8A992.e
Submersible vessels, cargo and transport .....	8A620
Submersible vessels, military .....	8A620
Submersible vessels, oceanographic and associated commodities .....	8A620
Submersible vehicles operation software (unmanned) .....	8D999
Submersible vehicles/vehicle systems, equipment, or components (non-military) .....	8A002.a
Submersible vehicles/vehicle systems or equipment (non-military) .....	8A001
Substrate development/production technology, diamond film .....	3E003.d
Substrates, for X-ray masks .....	3B991.b.2.b.2
Substrates, hard surface coated .....	3B991.b.2.b.1
Substrates, multi-layer hetero-epitaxial materials .....	3C001
Substrates, semiconductor with resist coating .....	3C002
Substrates with at least one epitaxial layer of silicon carbide, gallium nitride, aluminum nitride or aluminum gallium nitride .....	3C006

Description	ECCN Citation
Suid herpesvirus 1 (Aujeszky's disease; Pseudorabies virus) .....	1C351.a.51
Suits, protective.....	1A004, 1A995 or 2B352.f.1
Sulphur dichloride.....	1C350.c.7
Sulphur monochloride.....	1C350.c.8
Supercomputers, see Computers	
Superconducting quantum interference devices (SQUIDs).....	6A006.a.1
Superconductive composite conductor .....	1C005
Superconductive gates, current switching.....	3A001.d.1
Superconductive electrical equipment .....	9A620.b
Superconductive electromagnetic sensors .....	6A996.b
Superconductive electromagnets or solenoids .....	3A201.b
Superconductive electromagnets or solenoids .....	3A001.e.3
Superconductive devices or circuits.....	3A001.d
Superconductive quantum interference devices (SQUIDs) .....	6A006.a.1
Superconductive propulsion engines .....	8A002.o.2.c
Superconductive electromagnetic sensors .....	6A996
Superconductive electronic device technology.....	3E003.c
Superplastic forming technology, metal working .....	2E003.b.1.a
Superplastic forming tools, dies, molds or fixtures .....	1B003
Superplastic forming technology/data, Al/Ti/Super alloys.....	2E003.b.2.a
Surface acoustic wave devices.....	3A001.c.1
Surface coating & processing equipment .....	2B005
Surface effect vehicles technology .....	8E002.c.1, c.2
Surface finishing equipment .....	3B991.b.1.k
Surface irregularity measuring equipment/instruments .....	2B006.c
Surface skimming (shallow bulk) acoustic wave devices.....	3A001.c.1
Surface vessel positioning systems, acoustic.....	6A001.a.1.d
Surface vessels & components.....	8A609
Surface vessels of war and related commodities .....	8A609
Surface wave radar, high frequency.....	3A611.e
Surreptitious interception devices.....	5A980
Surreptitious interception systems and equipment .....	5A001.f
Surreptitious interception systems and equipment, software for .....	5D001 or 5D980
Surreptitious interception systems and equipment, technology for .....	5E001 or 5E980
Survey equipment, surface vessel .....	6A001.a.1.a.1
Survey equipment, underwater .....	6A001.a.1.a.2
Survey systems or transmitting and receiving arrays, bathymetric .....	6A001.a.1.b
Swine fever virus (African) .....	1C351.a.2
Swine fever virus (Hog cholera virus) .....	1C351.a.9
Swine vesicular disease virus (Porcine enterovirus type 9).....	1C351.a.52
Switch fabric development/production technology .....	5A991.c.10
Switches, filtered and unfiltered mechanical .....	3A611.y.21

Description	ECCN Citation
Switching devices, modules or assemblies .....	3A228
Switching equipment, stored program controlled .....	5A991.c
Synchronous Digital Hierarchy (SDH) technology .....	5E001.b.4
Synchronous Digital Hierarchy (SDH) technology .....	5E991.a.2
Synchronous Optical Network technology (SONET).....	5E001.b.4
Synchronous Optical Network technology (SONET).....	5E991.a.2
Synchytrium endobioticum.....	1C354.b.9
Synthetic Aperture Sonar (SAS) designed for seabed imaging .....	6A001.a.1.a.3
Syntactic foam, underwater use .....	8C001
Synthetic crystalline laser host material .....	6C005
Synthetic diamond material .....	6C004.f
Synthetic aperture radar (SAR).....	6A008.d
Systolic array computers/assemblies/components .....	4A004.a
T-2 toxin.....	1C351.d.15
Tanks, austenitic stainless steel.....	2B999.n
Tanks, chemical storage (capacity greater than 100 L) .....	2B350.c
Tanks, monel.....	2B999.f
Tanks, stainless steel.....	2B999.g
Tank turret rings and sprockets induction hardening machines.....	2B018.m
Tank turret bearing grinding machines .....	2B018.s
Tantalum crucibles coated with tantalum carbide/nitride/boride.....	2A225.c
Tantalum made or lined crucibles .....	2A225.b
Tape designed for testing recording equipment of entry 3A002a.....	3A002.a
Tape bonders, stored program controlled equipment .....	3B991.b.3.b
Tape recording equipment .....	3A002.a
Tape-laying machines .....	1B101.b
Tape-laying machines .....	1B001.b
Tar sands .....	1C981
Tear gas.....	1A984
Tear gases and riot control agents .....	1C607.a
<i>Technology, see product group E for controls for each category.</i>	
Technology, airborne equipment .....	7E004.a
Technology, development of frequency hopping techniques .....	5E001.b.4
Technology, development of spread spectrum techniques .....	5E001.b.4
Technology, “development,” “production,” or “use” of “software” controlled by ECCN 3D201 or 3D202 .....	3E202
Technology, diamond substrate film.....	3E003.d
Technology, for commodities controlled by 8A609, 8B609, or 8C609, or “software” controlled by 8D609 .....	8E609
Technology, for ground vehicles and related commodities in 0A606, 0B606, 0C606 or software in 0D606.....	0E606
Technology, for items controlled by 0A617, 0B617, 0C617, 0D617.....	0E617

Description	ECCN Citation
Technology, for items controlled by 8A620, 8B620 or 8D620 .....	8E620
Technology, gas turbine engine components .....	9E003.c, 9E619
Technology, gas turbine engine components .....	9E003.a, 9E619
Technology, helicopter power transfer systems.....	9E003.d, 9E619
Technology, hetero-structure semiconductor development .....	3E003.b
Technology, high output type diesel engines.....	9E003.e
Technology, integration software for expert systems .....	2E003.e
Technology, “production” or “use” of “software” controlled by ECCN 6D201 .....	6E202
“Technology” specially designed or modified for the “development”, “production” or “use” of equipment controlled by 2A983, or the “development” of software controlled by 2D983 .....	2E983
Technology “required” for the “development” or “production” of commodities controlled by ECCN 6A002.f - ROICs .....	6A002.f
“Technology” “required” for the “development,” “production,” operation, failure analysis or anomaly resolution of commodities controlled by 9A515.d.....	9E515.d
“Technology” “required” for the “development,” “production,” failure analysis or anomaly resolution of commodities controlled by 9A515.e .....	9E515.e
Technology, superconductive electronic device .....	3E003.c
Technology, tilt rotor/wing power transfer systems development.....	9E003.d, 9E610.a
Technology, vacuum microelectronic device .....	3E003.a
TEGDN (Triethylene glycol dinitrate) propellant additive .....	1C111.c.2
Telecommunications equipment .....	5A001
Telecommunications equipment, parts, components for a military application .....	5A611, 3A611
Telecommunications equipment, high and low temperature tolerant .....	5A991.a
Telecommunication equipment not controlled by 5A001 .....	5A991
Telecommunications equipment/system software .....	5D001.c.1
Telecommunications interception equipment .....	5A001.f
Telecommunication monitoring equipment .....	5A001.f
Telecommunication test, inspection and production equipment .....	5B001
Telecommunications test equipment.....	5B991
Telecommunications transmission equipment, equipment for the development of equipment employing .....	5B001.b
Telecommunications transmission equipment, software for the development of equipment employing .....	5D001.d
Telecommunications transmission equipment, technology for the development of equipment employing .....	5E001.c
Telemetry & telecontrol equipment for missiles.....	5A101
Television cameras (radiation hardened), or lenses therefor .....	6A203.d
Television cameras, underwater.....	8A002.d.1.b
Television cameras, underwater.....	8A002.d.1
Television cameras, underwater .....	8A002.d.1.a
Television cameras, underwater.....	8A992.a.2

Description	ECCN Citation
Television systems (camera, lights, monitoring and signal transmission equipment), remote operation with submersible vehicle .....	8A992.a.1
Tellurium (Te).....	6C002.a
Tempest type equipment .....	5A003.b
Tension stretchers for prepregs/preform production .....	1B101.d
Terminal interface equipment .....	4A994.i
Terrestrial, marine acoustic equipment.....	6A991
Terrestrial equipment, specially designed for spacecraft.....	9A515
Teschen disease virus (Porcine Teschovirus) .....	1C351.a.38
Test benches/stands, for rockets/motors/rocket engines.....	9B117
Test, calibration or alignment equipment for equipment controlled by 7A.....	7B001
Test equipment - propellants and their constituents .....	1B115
Test equipment - specially designed for testing finished or unfinished semiconductor devices.....	3B002
Test facilities and equipment “specially designed” for military certification, qualification, or testing of commodities controlled by 1A607.e, .f, .g, .h, or .j or by USML XIV(f), except for XIV(f)(1).....	1B607.b
Test, inspection, and production commodities for military electronics.....	3B611
Test models for defense articles.....	0A617
Test receivers, microwave .....	3A002.f
Test tape designed for recording equipment of entry 3A002a.....	3A002.a
Testing equipment, for electronic components .....	3B992.b.4
Test, inspection, development and production equipment for Category 5 items.....	5B
Tetrazines .....	Annex to Cat 1 List of Explosives 47
Tetrodotoxin.....	1C351.d.16
TEX (4,10-Dinitro-2,6,8,12-tetraoxa-4, 10- diazaisowurtzitane) .....	Annex to Cat 1 List of Explosives 45
Thallium arsenic selenide (Tl <sub>3</sub> AsSe <sub>3</sub> or TAS) .....	6C004.b.3
Thecaphora solani .....	1C354.b.11
Thermal batteries .....	9A604
Thermal ionization mass spectrometers (TIMS).....	3A233.c
Thermal sensors, optical fiber.....	6A002.d.3
Thermoplastic liquid crystal copolymers.....	1C008.b
Thermoset resin impregnated materials .....	1C210.c
Thio-ethers, as lubricating fluids .....	1C006.b.1
Thiodiglycol.....	1C350.b.22
Thionyl chloride.....	1C350.c.9
Thrust tabs, thrust vector control subsystems .....	9A106.c
Thrust vector control sub-system.....	9A106.c
Thrusters, satellites .....	9A515
Thulium-YAG (Tm:YAG) lasers.....	6A005.c.1, c.2 or c.3
Thulium-YSGG (Tm:YSGG) lasers .....	6A005.c.1, c.2 or c.3

Description	ECCN Citation
Thumbcuffs .....	0A983
Thumbscrews .....	0A983
Thumbwheels .....	3A611.y.22
Thyristor devices and modules, solid-state pulsed power switching .....	3A001.g
Tick-borne encephalitis virus (Far Eastern subtype, formerly known as Russian Spring-Summer encephalitis virus) .....	1C351.a.53
Tick-borne encephalitis virus (Siberian subtype, formerly known as West Siberian virus) .....	1C351.b.3
Tilletia indica .....	1C354.b.10
Tilt rotor/tilt wing power transfer system technology .....	9E003.d, 9E610.a
Tilting spindles for machine tools.....	2B009.c
Time delay general, electronic equipment for .....	3A999.e
Time interval measurement, electronic equipment for .....	3A999.e
Time or frequency domain processing & correlation equipment .....	6A001.a.2.c
TIMS (Thermal ionization mass spectrometers).....	3A233.c
Tires (aircraft) .....	9A610.y.1
Tires (ground vehicles), except run flat .....	0A606.15
Titanium alloys .....	1C002.b.3
Titanium alloys, as tubes/solid forms/forgings .....	1C202.b
Titanium alloy/powder or particulate form .....	1C002.c.1.c
Titanium aluminides .....	1C002.a.2
Titanium-based alloys .....	1C002.b.3
Titanium doped sapphire laser host material .....	6C005.a
Titanium-sapphire (Ti: Al <sub>2</sub> O <sub>3</sub> ) lasers .....	6A005.c.1, c.2 or c.3
Titanium-stabilized duplex stainless steel 9Ti-DSS).....	1C118
TMETN (trimethylolethane trinitrate) .....	1C111.c.4
Tooling and equipment “specially designed” for the “development,” “production,” repair, overhaul, or refurbishing of commodities controlled by 1A607.e, .f, .g, .h, or .j or by USML Category XIV(f) .....	1B607.c
Tooling for powder metallurgy rotor component manufacture .....	9B009
Torpedo nets.....	8A620.e
Torquemeter assembly software .....	9D619.b.9
Torture, specially designed implements of .....	0A983
Touchpads .....	3A611.y.28
Tow-placement machines .....	1B001.g, 1B101.a
Towed acoustic hydrophone arrays .....	6A001.a.2.b
Toxic gas monitors and monitoring systems .....	2B351
Toxins .....	1C350, 1C351, 1C355 or 1C395
Trackballs.....	3A611.y.12
Tracking radar.....	6A008.1.1
Tracking systems, precision .....	6A108.b.1
Tracking systems .....	6A008.1

Description	ECCN Citation
Tractors and parts.....	9A990
Transceivers, radio.....	5A001.b.2 through 10
Transceivers, radio.....	5A991.b.6 or 7
Transcoders (translation encoders).....	5A991.b Note a.6
Transducers, wall skin friction.....	9B008
Transducers, acoustic projectors.....	6A001.a.1.c
Transformers, electric.....	3A611.y.13
Transient recorders (Waveform digitizers).....	3A002.h or 3A992.g
Transistor test equipment, S-parameter measurement.....	3B002.a
Transistors, microwave.....	3A001.b.3, 3A611.d
Translation encoders (transcoders).....	5A991.b Note a.6
Transmission fluids, automatic.....	1C980
Transmission equipment.....	5A991.b
Transmission equipment for Improvised Explosive Devices (IED).....	5A001.h
Transmissions for tracked combat vehicles.....	0A606.d
Transmit/receive or transmit modules, transmit/receive MMICs or transmit MMICs...3A001.b.12	
Transmit/receive or transmit module technology.....	3E611.b.2, 3E001
Transmultiplex equipment.....	5A991.b Note a.9
Transport, handling, activation, and launch equipment.....	9A115
Traveling wave tubes (TWTs), industrial.....	3A001.b.1.a
Tributyl phosphate.....	1C999.d
Triethanolamine.....	1C350.c.10
Triethanolamine hydrochloride.....	1C350.d.48
Triethyl phosphite.....	1C350.c.11
Triethylene glycol dinitrate (TEGDN).....	1C111.c.2
Triggered spark-gaps.....	3A228.b
Triggers, high voltage.....	3A999.c
Tri-isopropyl phosphite.....	1C350.d.49
Trimethyl phosphite.....	1C350.c.12
Tritium, compounds & mixtures.....	1C235
Tritium plant or facilities equipment.....	1B231.b
Tritium production recovery, extraction & concentration handling facilities or plant.....	1B231.a
Tritium targets for production of tritium and related development and production technology.....	1A231
Tubes, gas krytron.....	3A228.a
Tubes, vacuum sprytron.....	3A228.a
Tunable band-pass filters.....	3A001.b.5
Tunable lasers.....	6A005.c
Tunable lasers, solid state.....	6A005.c.1, c.2 or c.3
Tungsten alloys.....	1C004
Tungsten alloy, parts.....	1C226

Description	ECCN Citation
Tungsten carbide, parts .....	1C226
Tungsten & molybdenum metal & alloys .....	1C117
Tungsten, parts .....	1C226
Turbines for use in nuclear reactors .....	2A290.a
Turbines, aero gas engines, test software.....	9D004.b, 9D619
Turbines, gas aero engines .....	9A001, 9A619.a
Turbo prop engines .....	9A619.a
Turbocompound engines.....	9A101
Turboexpanders and turboexpander-compressors .....	1B232
Turbofan & turbojet engines, lightweight.....	9A101, 9A619
Turboprop engine systems specially designed for items controlled by 9A012 .....	9A102.a
Turning machines for optical quality surfaces.....	2B992.a
Turning machines (CNC).....	2B991.d.1
Turning machines.....	2B201.c
Turning machines (CNC).....	2B001.a
TV cameras (radiation-hardened), or lenses therefor .....	6A203.d
TV cameras, radiation-hardened, not specified in 6A203 .....	6A999.b
Two dimensional focal plane arrays .....	6A002.a.3
TWTs (Traveling Wave Tubes) .....	3A001.b.1.a
UAVs (non-military).....	9A012.a
UAV (military) production facilities .....	9B610.c
Ultra high temperature ceramic composites .....	1C107.d.3
Ultrasonic test equipment for nuclear reactors .....	2A291.d
Underwater breathing apparatus, self-contained.....	8A992.h
Underwater cameras, photographic .....	8A002.d, e or f
Underwater camera equipment, n.e.s. ....	8A992.d
Underwater communications systems.....	5A001.b.1
Underwater ElectroMagnetic Receivers (UEMR) .....	6A006.e
Underwater ElectroMagnetic Receivers (UEMR) software .....	6D003.f.3 or f.4
Underwater electric field sensors.....	6A006.b
Underwater lights.....	8A992.j
Underwater noise reduction technology .....	8E002
Underwater (propeller) noise reduction software .....	8D002
Underwater propulsion equipment.....	8A992.j
Underwater rebreathing apparatus .....	8A620.f
Underwater robots, computer controlled .....	8A002.h
Underwater sonar navigation systems .....	7A008
Underwater systems or equipment and parts, not controlled by 8A002 .....	8A992
Underwater television cameras .....	8A992.a.2
Underwater vehicles, industrial .....	8A001
Underwater velocity measurement equipment.....	6A001.b
Underwater vessel positioning systems, acoustic .....	6A001.a.1.d

Description	ECCN Citation
Underwater vision systems .....	8A002.d
Underwater vision systems .....	8A992.a
Unmanned aerial vehicles, not specified in 9A102 .....	9A120, 9A610
Unmanned aerial vehicles and associated systems, production equipment .....	9B010, 9A610
Unmanned aerial vehicles, associated equipment, systems, and components .....	9A012.b, 9A610
Unmanned air vehicle systems (UAVs) Non-military .....	9A012.a
Unmanned submersible vehicles .....	8A001.c.1
Unmanned submersible vehicle operation software .....	8D999
Unmanned tethered submersible vehicles .....	8A001.c.2
Unmanned untethered submersible vehicles .....	8A001.c.1
Uranium, depleted .....	1A290
Uranium titanium alloys .....	1C004
Urine collection bags/pads/cups/pumps for military aircraft .....	9A610.y.21
Vaccines and immunotoxins .....	1C991
Vacuum electronic devices .....	3A001.b
Vacuum furnaces .....	2B226
Vacuum furnaces .....	2B227
Vacuum induction furnaces .....	2B226
Vacuum induction furnace, power supplies .....	2B226
Vacuum melting, remelt & casting furnaces .....	2B227
Vacuum microelectronic device development/production technology .....	3E003.a
Vacuum pumps .....	2B231
Vacuum pumps .....	2B350.i
Vacuum pumps, bellows-sealed scroll-type .....	2B233
Vacuum tubes, electronic microwave .....	3A001.b.1
Vacuum sphytrion tubes .....	3A228.a
Vacuum valves, piping, flanges, gaskets .....	2B999.k
Valves, austenitic stainless steel .....	2B999.n
Valves, bellows seal .....	2A226
Valves, bellows .....	2B350.g
Valves (check) for hydraulic and pneumatic systems in military aircraft .....	9A610.y.4
Valves, double-seal .....	2B350.g
Valves, of or lined with stainless steel, copper-nickel alloy or other alloy steel (not having the characteristics of valves controlled by 2B350.g) .....	2A992
Valves, diaphragm .....	2B350.g
Valves, monel .....	2B999.f
Valves, multiple seal incorporating a leak detection port .....	2B350.g
Valves, non-return (check) .....	2B350.g
Valves, stainless steel .....	2B999.g
Valves, vacuum .....	2B999.k
Vapor sterilizable freeze drying equipment .....	2B352.e
Variola virus .....	1C351.a.54

Description	ECCN Citation
Vector processing unit technology.....	3E002
Vector processors/assemblies .....	4A003
Vehicle position determination software .....	6D103
Vehicles, “specially designed” for a military use .....	0A606.a
Vehicles, unarmed, off-road, and armored .....	0A606.b.1
Velocity interferometers (VISARs) .....	6A225
Velocity measurement equipment, underwater.....	6A001.b
Venezuelan equine encephalitis virus .....	1C351.a.55
Ventilated full or half (protective clothing) suits.....	2B352.f.1
Verocytotoxin producing E. coli (VTEC) .....	1C351.c.17
Verotoxin .....	1C351.d.13
Vesicular stomatitis virus.....	1C351.a.56
Vessels, austenitic stainless steel .....	2B999.n
Vessel positioning systems, acoustic .....	6A001.a.1.d
Vessel noise reduction equipment .....	8A002.o.3
Vessels, marine .....	8A001, 8A609, 8A620
Vessels, marine systems or equipment .....	8A992
Vessels, monel .....	2B999.f
Vessels, stainless steel .....	2B999.e
Vests, bulletproof & bullet resistant .....	1A005
Vibration test equipment, acoustic.....	9B006
Vibration test equipment, parts and components .....	9B990
Vibration test equipment using digital control techniques .....	2B116
Vibrio cholerae.....	1C351.c.21
Video cameras incorporating solid state sensors .....	6A003.b.1
Vinylidene fluoride copolymers, components of.....	1A001
virulans, fungi (Colletotrichum kahawae) .....	1C354.b.1
Virus protection software, mass market.....	5D992
Viruses .....	1C351 or 1C353
Viruses, animal pathogens .....	1C351.a
Viruses, human pathogens .....	1C351.a or .b
Viruses, plant pathogens .....	1C354.c
Viscous software, 2D or 3D engine flow modeling.....	9D004.a
Viscumin (Viscum album lectin 1).....	1C351.d.17
Vision systems, underwater .....	8A992.a
Vision systems, underwater .....	8A002.d
Voice print identification and analysis equipment and parts .....	3A980
Volkensin .....	1C351.d.18
Wafer handling systems, semiconductor .....	3B001.e
Wafer processing, semiconductor manufacture .....	3B001.e
Wafer probing equipment .....	3B992.b.3
Wafer production align and expose equipment .....	3B991.b.2.f

Description	ECCN Citation
Wafers, semiconductor with function determined .....	3A001.a
Wafers, comprising multiple epitaxially grown layers .....	3C001
Wall skin friction transducers .....	9B008
War implement machinery, equipment, gear, and specially designed parts and accessories therefor .....	2B018
Water cannon systems for riot or crowd control, and “parts” and “components” “specially designed” therefor .....	0A977
Water cannon systems “software” “specially designed” for the “development,” “production” or “use” of commodities controlled by 0A977 .....	0D977
Water cannon systems “technology” “required” for the “development” or “production” of commodities controlled by 0A977 .....	0E977
Water (deep) fording kits for ground vehicles .....	0A606.e
Water jet cutting machines (CNC) .....	2B001.e.1.a
Water jet (pumpjet) propulsion systems .....	8A002.p
Waterplane area vessels (small) .....	8E002.c.4
Water tanks (potable) and accessories for military aircraft .....	9A610.y.17
Water tanks (potable) and accessories for submersible vessels .....	8A620.y.7
Water tanks (potable) and accessories for surface vessels of war .....	8A609.y.7
Water tunnels, propulsion model acoustic field measurement .....	8B001
Water-hydrogen sulphide exchange tray columns .....	1B229
Wave division multiplex equipment .....	5A991.b.5
Waveform digitizers (Transient recorders) .....	3A002.h
Wax pattern preparation equipment, ceramic shell .....	9B991.e
Weaving machines .....	1B001.c
Weight belts .....	8A992.i
Welders, MIG .....	2B999.d
Welders, E-beam .....	2B999.e
Welding machines, laser .....	2B999.c
Western equine encephalitis virus .....	1C351.a.57
Western red cedar, logs and timber .....	1C988
Wet-spinning equipment for refractory ceramics .....	1B101.c.3
Wet-spinning equipment for refractory ceramics .....	1B001.d.3
Wetsuits .....	8A992.i
Wide-swath bathymetric survey systems .....	6A001.a.1
Wigglers (free electron laser magnet) manufacturing or inspection equipment .....	6B995.a.1
Wind tunnel aero-model technology .....	9E003.b.1
Wind tunnel, control systems .....	9B005
Wind tunnels, usable for missiles .....	9B105
Winding machines, fiber optic gyro coil .....	7B003
Windows, glass for nuclear radiation shielding .....	1A227
Windows (ground vehicle), except those for armored vehicles .....	0A606.y.16
Windshield water and wiper systems for military aircraft .....	9A610.y.22

Description	ECCN Citation
Wing folding system software .....	0D521 No. 3
Wing folding system technology .....	9E003.j
Work stations, as computers having a CTP above 260 Mtops .....	4A003.b
X-ray converters.....	1A999.b
X-ray equipment for projection image transfer .....	3B991.b.2.g
X-ray generators, radiographic .....	3A201.c
X-ray machines, flash .....	3A999.c
X-ray (non planar) inspection equipment, rocket motors .....	9B007
Xanthomonas albilineans .....	1C354.a.1
Xanthomonas axonopodis pv. citri (Xanthomonas campestris pv, citri A) (Xanthomonas campestris pv. citri).....	1C354.a.2
Xanthomonas oryzae.....	1C354.a.3
Xanthomonas oryzae pv. oryzae (syn. Pseudomonas campestris pv. oryzae) .....	1C354.a.3
Yellow fever virus.....	1C351.a.58
Yersinia pestis .....	1C351.c.22
Yttrium oxide (yttria) (Y <sub>2</sub> O <sub>3</sub> ), crucibles made or coated .....	2A225.a.8
Zinc germanium biphosphide .....	6C004.b.4
Zinc germanium diphosphide .....	6C004.b.4
Zinc germanium phosphide.....	6C004.b.4
Zinc selenide (ZnSe), substrate blanks .....	6C004.a
Zinc sulphide (ZnS), substrate blanks.....	6C004.a
Zirconium fluoride (ZrF <sub>4</sub> ) glass .....	6C004.e
Zirconium metal particulate .....	1C111.a.2.a.1
Zirconium metal, alloy, compounds, or manufacturers .....	1C234
Zirconium oxide (zirconia) (ZrO <sub>2</sub> ) made/coated crucibles .....	2A225.a.9
Zoonotic pathogens and “toxins” .....	1C351

*Note: Prior to October 15, 2013, the CCL contained certain ECCNs that were only included as cross references to items subject to the export control regulations administered by the Nuclear Regulatory Commission. ECCNs formerly listed on the CCL that, as of October 15, 2013 were subject to the export licensing authority of the Nuclear Regulatory Commission at 10 CFR part 110 are: 0A001, 0B001, 0B002, 0B003, 0B004, 0B005, 0B006, 0C001, 0C002, 0C004, 0C005, 0C006, 0C201 and 1C012. See Section § 774.1(b) for additional information.*

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**§ 730.1** WHAT THESE REGULATIONS COVER

In this part, references to the Export Administration Regulations (EAR) are references to 15 CFR chapter VII, subchapter C. The EAR are issued by the United States Department of Commerce, Bureau of Industry and Security (BIS) under laws relating to the control of certain exports, reexports, and activities. In addition, the EAR implement antiboycott law provisions requiring regulations to prohibit specified conduct by United States persons that has the effect of furthering or supporting boycotts fostered or imposed by a country against a country friendly to United States. Supplement No. 1 to part 730 lists the control numbers assigned to information collection requirements under the EAR by the Office of Management and Budget pursuant to the Paperwork Reduction Act of 1995.

**§ 730.2 STATUTORY AUTHORITY**

The EAR have been designed primarily to implement the Export Administration Act of 1979, as amended, 50 U.S.C. app. 2401-2420 (EAA). There are numerous other legal authorities underlying the EAR. These are listed in the *Federal Register* documents promulgating the EAR and at the beginning of each part of the EAR in the Code of Federal Regulations (CFR). From time to time, the President has exercised authority under the International Emergency Economic Powers Act with respect to the EAR (50 U.S.C. 1701-1706 (IEEPA)). The EAA is not permanent legislation, and when it has lapsed, Presidential executive orders under IEEPA have directed and authorized the continuation in force of the EAR.

**§ 730.3 “DUAL USE” AND OTHER TYPES OF ITEMS SUBJECT TO THE EAR**

**\*\*dual-use**

The term “dual use” is often used to describe the types of items subject to the EAR. A “dual-use”

item is one that has civil applications as well as terrorism and military or weapons of mass destruction (WMD)-related applications. The precise description of what is “subject to the EAR” is in § 734.3, which does not limit the EAR to controlling only dual-use items. In essence, the EAR control any item warranting control that is not exclusively controlled for export, reexport, or transfer (in-country) by another agency of the U.S. Government or otherwise excluded from being subject to the EAR pursuant to § 734.3(b) of the EAR. Thus, items subject to the EAR include purely civilian items, items with both civil and military, terrorism or potential WMD-related applications, and items that are exclusively used for military applications but that do not warrant control under the International Traffic in Arms Regulations (ITAR) (22 CFR parts 120 et seq.).

#### § 730.4 OTHER CONTROL AGENCIES AND DEPARTMENTS

In addition to the departments and agencies mentioned in §730.3 of this part, other departments and agencies have jurisdiction over certain narrower classes of exports and reexports. These include the Department of Treasury's Office of Foreign Assets Control (OFAC), which administers controls against certain countries that are the object of sanctions affecting not only exports and reexports, but also imports and financial dealings. For your convenience, Supplement No. 3 to part 730 identifies other departments and agencies with regulatory jurisdiction over certain types of exports and reexports. This is not a comprehensive list, and the brief descriptions are only generally indicative of the types of controls administered and/or enforced by each agency.

#### § 730.5 COVERAGE OF MORE THAN EXPORTS

The core of the export control provisions of the EAR concerns exports from the United States. You will find, however, that some provisions give broad meaning to the term “export”, apply to transactions outside of the United States, or apply to activities other than exports.

##### (a) *Reexports*

Commodities, software, and technology that have been exported from the United States are generally subject to the EAR with respect to reexport. Many such reexports, however, may go to many destinations without a license or will qualify for an exception from licensing requirements.

##### (b) *Foreign products*

In some cases, exports from abroad, reexports or transfers (in-country) of items produced outside of the United States are subject to the EAR when they contain more than the *de minimis* amount of controlled U.S.-origin content as specified in § 734.4 of the EAR or when they are the direct product of specified “technology,” “software,” or a “plant or major component of a plant” as specified in § 736.2(b)(3) of the EAR.

##### (c) *Scope of “exports”*

Certain actions that you might not regard as an “export” in other contexts do constitute an export subject to the EAR. The release of technology to a foreign national in the United States through such means as demonstration or oral briefing is deemed an export. Other examples of exports under the EAR include the return of foreign equipment to its country of origin after repair in the United States, shipments from a U.S. foreign trade zone, and the electronic transmission of non-public data that will be received abroad.

##### (d) *U.S. person activities*

To counter the proliferation of weapons of mass destruction, the EAR restrict the involvement of “United States persons” anywhere in the world in exports of foreign-origin items, or in providing services or support, that may contribute to such proliferation.

### § 730.6 CONTROL PURPOSES

The export control provisions of the EAR are intended to serve the national security, foreign policy, nonproliferation of weapons of mass destruction, and other interests of the United States, which in many cases are reflected in international obligations or arrangements. Some controls are designed to restrict access to items subject to the EAR by countries or persons that might apply such items to uses inimical to U.S. interests. These include controls designed to stem the proliferation of weapons of mass destruction and controls designed to limit the military and terrorism support capability of certain countries. The effectiveness of many of the controls under the EAR is enhanced by their being maintained as part of multilateral control arrangements. Multilateral export control cooperation is sought through arrangements such as the Nuclear Suppliers Group, the Australia Group, and the Missile Technology Control Regime. The EAR also include some export controls to protect the United States from the adverse impact of the unrestricted export of commodities in short supply.

### § 730.7 LICENSE REQUIREMENTS AND EXCEPTIONS

A relatively small percentage of exports and reexports subject to the EAR require an application to BIS for a license. Many items are not on the Commerce Control List (CCL) (Supplement No. 1 to §774.1 of the EAR), or, if on the CCL, require a license to only a limited number of countries. Other transactions may be

covered by one or more of the License Exceptions in the EAR. In such cases no application need be made to BIS.

### § 730.8 HOW TO PROCEED AND WHERE TO GET HELP

#### (a) *How the EAR are organized*

The Export Administration Regulations (EAR) are structured in a logical manner. In dealing with the EAR you may find it helpful to be aware of the overall organization of these regulations. In order to determine what the rules are and what you need to do, review the titles and the introductory sections of the parts of the EAR.

**(1) How do you go about determining your obligations under the EAR?** Part 732 of the EAR provides steps you may follow to determine your obligations under the EAR. You will find guidance to enable you to tell whether or not your transaction is subject to the EAR and, if it is, whether it qualifies for a License Exception or must be authorized through issuance of a license.

**(2) Are your items or activities subject to the EAR at all?** Part 734 of the EAR defines the items and activities that are subject to the EAR. Note that the definition of “items subject to the EAR” includes, but is not limited to, items listed on the Commerce Control List in part 774 of the EAR.

**(3) If subject to the EAR, what do the EAR require?** Part 736 of the EAR lists all the prohibitions that are contained in the EAR. Note that certain prohibitions (General Prohibitions One through Three) apply to items as indicated on the CCL, and others (General Prohibitions Four through Ten) prohibit certain activities and apply to all items subject to the EAR unless otherwise indicated.

**(4) Do you need a license for your item or activity? What policies will BIS apply if you do need to submit license application?** The EAR have four principal ways of describing license requirements:

(i) The EAR may require a license to a country if your item is listed on the CCL and the Country Chart in part 738 of the EAR tells that a license is required to that country. Virtually all Export Control Classification Numbers (ECCN) on the CCL are covered by the Country Chart in part 738 of the EAR. That part identifies the limited number of entries that are not included on the Chart. These ECCNs will state the specific countries that require a license or refer you to a self-contained section, i.e., Short Supply in part 754 of the EAR, or Embargoes in part 746 of the EAR. If a license is required, you should consult part 740 of the EAR which describes the License Exception that may be available for items on the CCL. Part 742 of the EAR describes the licensing policies that BIS will apply in reviewing an application you file. Note that part 754 of the EAR on short supply controls and part 746 on embargoes are self-contained parts that include the available exceptions and licensing policy.

(ii) A license requirement may be based on the end-use or end-user in a transaction, primarily for proliferation reasons. Part 744 of the EAR describes such requirements and relevant licensing policies and includes both restrictions on items and restrictions on the activities of U.S. persons.

(iii) A license is required for virtually all exports to embargoed destinations, such as Cuba. Part 746 of the EAR describes all the licensing requirements, license review policies and License Exceptions that apply to such destinations. If your transaction involves one of these countries, you should first look at this part. This part also describes controls that may be maintained under the EAR to implement UN sanctions.

(iv) In addition, under §§736.2(b)(9) and (10) of the EAR, you may not engage in a transaction knowing a violation is about to occur or violate any orders, terms, and conditions under the EAR. Part 764 of the EAR describes prohibited transactions with a person denied export privileges or activity that violates the terms or conditions of a denial order.

**(5) How do you file a license application and what will happen to the application once you do file it? What if you need authorization for multiple transactions?** Parts 748 and 750 of the EAR provide information on license submission and processing. If your application is denied, part 756 of the EAR provides rules for filing appeals.

**(6) How do you clear shipments with the U.S. Customs Service?** Part 758 of the EAR describes the requirements for clearance of exports.

**(7) Where do you find the rules on restrictive trade practices and boycotts?** Part 760 of the EAR deals with restrictive trade practices and boycotts.

**(8) Where are the rules on recordkeeping and enforcement?** Part 762 of the EAR sets out your recordkeeping requirements, and parts 764 and 766 of the EAR deal with violations and enforcement proceedings.

**(9) What is the effect of foreign availability?** Part 768 of the EAR provides rules for determining foreign availability of items subject to controls.

**(10) Do the EAR provide definitions and interpretations?** Part 770 of the EAR contains interpretations and part 772 of the EAR lists definitions used.

*(b) Why the EAR are so detailed*

Some people will find the great length of the EAR and their extensive use of technical terms intimidating. BIS believes, however, that such detail and precision can and does serve the interests of the public. The detailed listing of technical parameters in the CCL establishes precise, objective, criteria. This should, in most cases, enable you to ascertain the appropriate control status. Broader, more subjective criteria would leave exporters and reexporters more dependent upon interpretations and rulings by BIS officials. Moreover, much of the detail in the CCL is derived from multilaterally adopted lists, and the specificity serves to enhance the uniformity and effectiveness of international control practices and to promote a “level playing field”. The detailed presentation of such elements as licensing and export clearance procedures enables you to find in one place what you need to know to comply with pertinent requirements. Of special importance is the detailed listing of License Exception criteria, as these will enable you to determine quickly, and with confidence, that you may proceed with a transaction without delay. Finally, some of the detail results from the need to draft the EAR with care in order to avoid loop-holes and to permit effective enforcement.

*(c) Where to get help*

Throughout the EAR you will find information on offices you can contact for various purposes and types of information. General information including assistance in understanding the EAR, information on how to obtain forms, electronic services, publications, and information on training programs offered by BIS, is available from the Office of Export Services at the following locations:

Outreach & Educational Services Division  
U.S. Department of Commerce  
14<sup>th</sup> and Pennsylvania Avenue, N.W.,  
Room H1099D

Washington, DC 20230  
Tel: (202) 482-4811  
Fax: (202) 482-2927

-and-

Bureau of Industry and Security  
Western Regional Office  
U.S. Department of Commerce  
2302 Martin St., Suite 330  
Irvine, California 92612  
Tel: (949) 660-0144  
Fax: (949) 660-9347

-and-

Bureau of Industry and Security  
Western Regional Office  
Northern California Branch  
U.S. Department of Commerce  
160 W. Santa Clara Street  
Suite 725  
San Jose, CA 95113  
Tel: (408) 998-8806  
Fax: (408) 998-8677

**§ 730.9 ORGANIZATION OF THE  
BUREAU OF INDUSTRY AND  
SECURITY**

The head of the Bureau of Industry and Security is the Under Secretary for Industry and Security. The Under Secretary is assisted by a Deputy Under Secretary for Industry and Security, the Assistant Secretary for Export Administration, the Assistant Secretary for Export Enforcement, the Director of Administration, the Director of the Office of Congressional and Public Affairs, and the Chief Information Officer. The functions and authorities of the Under Secretary are described in the Department’s Organizational Order 10-16. The Department’s organizational and administrative orders are available via Office of Management and Organization’s Web page on the Department’s Web site at

<http://www.osec.doc.gov/omo/DMPHome.htm>.

The principal functions of the Bureau that directly affect the public are carried out by two units: Export Administration and Export Enforcement.

(a) Export Administration is headed by the Assistant Secretary for Export Administration, who is assisted by a Deputy Assistant Secretary. Its substantive work is carried out by six sub-units: the Office of Nonproliferation and Treaty Compliance, the Office of National Security and Technology Transfer Controls, the Office of Exporter Services, the Operating Committee, the Office of Strategic Industries and Economic Security and the Office of Technology Evaluation. The functions of the Operating Committee are described in §750.4(f)(1) of the EAR. The roles of the other units are described on BIS's Web site at <http://www.bis.doc.gov/about/programoffices.htm>

(b) Export Enforcement is headed by the Assistant Secretary for Export Enforcement who is assisted by a Deputy Assistant Secretary. Its substantive work is carried out by three sub-units: the Office of Export Enforcement, the Office of Enforcement Analysis and the Office of Antiboycott Compliance. The roles of these units are described on BIS's Web site at

<http://www.bis.doc.gov/about/programoffices.htm>

(c) BIS is also assisted in its work by six technical advisory committees. The procedures and criteria for establishing and operating the technical advisory committees is at supplement No. 2 to this part. Information about the specific roles of each committee, meeting schedules, and membership selection is available on BIS's Web site at <http://tac.bis.doc.gov/>.

### § 730.10 ADVISORY INFORMATION

The general information in this part is just that—general. To achieve brevity, so as to give you a quick overview, the information in this part is selective, incomplete, and not expressed with regulatory precision. The controlling language is the language of succeeding parts of the EAR and of any other laws or regulations referred to or applicable. The content of this part is not to be construed as modifying or interpreting any other language, or as in any way limiting the authority of BIS, any of its components, or any other government department or agency. You should not take any action based solely on what you read in this part.

**SUPPLEMENT NO. 1 TO PART 730 - INFORMATION COLLECTION  
REQUIREMENTS UNDER THE PAPERWORK REDUCTION ACT: OMB CONTROL  
NUMBERS**

This Supplement lists the control numbers assigned to the information collection requirements for the Bureau of Industry and Security by the Office of Management and Budget (OMB), pursuant to the Paperwork Reduction Act of 1995. This Supplement complies with the requirements of section 3506(c)(1)(B)(i) of the Paperwork Reduction Act requiring agencies to display current control numbers assigned by the Director of OMB for each agency information collection requirement.

<b>Collection number</b>	<b>Title</b>	<b>Reference in the EAR</b>
0694-0004	Foreign Availability Procedures and Criteria	part 768
0694-0009	Approval of Triangular Transactions Involving Commodities Covered by a U.S. Import Certificate	§748.10(e)
0694-0012	Report of Requests for Restrictive Trade Practice or Boycott—Single or Multiple Transactions	part 760 and §762.2(b)
0694-0013	Computers and Related Equipment EAR Supplement 2 to Part 748	part 774
0694-0016	Delivery Verification Certificate	§§748.13 and 762.2(b)
0694-0017	International Import Certificate	§748.10
0694-0021	Statement by Ultimate Consignee and Purchaser	§§748.11 and 762.2(b)
0694-0026	Short Supply Regulations - Petroleum Products	§754.3
0694-0047	Technology Letter of Explanation	Supplement No. 2 to part 748, paragraph (o)(2)
0694-0058	Procedure for Voluntary Self-Disclosure of Violations	§§762.2(b) and 764.5
0694-0073	Export Controls of High Performance Computers	Supplement No. 2 to part 748, paragraph (c)(2), and §762.2(b)
0694-0088	Simplified Network Application Processing+ System (SNAP+) and the Multipurpose Export License Application	parts 746, 748, and §762.2(b)
0694-0093	Import Certificates And End-User Certificates	§§ 748.9, 748.10, 762.5(d), 762.6, 764.2(g)(2)
0694-0096	Five Year Records Retention Period	part 760, §762.6(a)
0694-0100	Requests for Appointment of Technical Advisory Committee	Supplement No. 1 to part 730
0694-0102	Registration of U.S. Agricultural Commodities For Exemption From Short Supply Limitations on Export, and Petitions For The Imposition of Monitoring Or Controls On Recyclable Metallic Materials; Public Hearings	§§754.6 and 754.7
0694-0107	National Defense Authorization Act (NDAA)	§§740.7, 742.12

Collection number	Title	Reference in the EAR
0694-0122	Licensing Responsibilities and Enforcement	§§ 744.15(b) and 748.4 and Part 758
0694-0125	BIS Seminar Evaluation	N/A
0694-0126	Export License Services - Transfer of License Ownership, Requests for a Duplicate License	§750.9
0694-0129	Export and Reexport Controls For Iraq	§§ 732.3, 738, 744.18, 746.3(b)(1), 750, 758, 762, 772, 774
0694-0132	Voluntary Self-Disclosure of Antiboycott Violations	§ 764.8
0694-0134	Procedure for parties on the Entity List or the Unverified List to Request Removal or Modification of their Listing	§§ 744.15 and 744.16
0694-0137	License Exceptions and Exclusions	§734.4, Supplement No. 2 to part 734, §§ 740.3(d), 740.4(c), 740.9(a)(2)(viii)(B), 740.9(c), 740.12(b)(7), 740.17, 740.18, Supp. No. 2 to part 740, §§ 742.15, 743.1, 743.3, 754.4, 762.2(b) and Supplement No. 1 to part 774
0607-0152	Automated Export System (AES) Program	§§ 740.1(d), 740.3(a)(3), 754.4(c), 758.1, 758.2, and 758.3 of the EAR

**SUPPLEMENT NO. 2 TO PART 730 - TECHNICAL ADVISORY COMMITTEES**

*(a) Purpose*

The purpose of this Supplement is to describe the procedures and criteria for the establishment and operation of Technical Advisory Committees.

*(b) Technical advisory committees*

Any producer of articles, materials, or supplies, including technology, software, and other information, that are subject to export controls, or are being considered for such controls because of their significance to the national security of the United States, may request the Secretary of Commerce to establish a technical advisory committee, under the provisions of section 5(h) of the Export Administration Act of 1979, as amended (EAA) to advise and assist the Department of Commerce and other appropriate U.S. Government agencies or officials with respect to questions involving technical matters; worldwide availability and actual utilization of production technology; licensing procedures that affect the level of export controls applicable to a clearly defined grouping of articles, materials, or supplies, including technology, software, or other information; and exports and reexports subject to all controls that the United States maintains including proposed revisions of any such controls. If producers of articles, materials, or supplies, including technology, software, and other information, that are subject to export controls because of their significance to the national security of the United States, wish a trade association or other representative to submit a written request on their behalf for the appointment to a TAC, such request shall be submitted in accordance with paragraph (b)(4) of this Supplement.

**(1) Form and substance of requests.** Each request for the appointment of a TAC shall be submitted in writing to:

Assistant Secretary for Export Administration  
14th Street and Pennsylvania Ave., NW.  
Room 2099B  
Washington, DC 20230

The request shall include:

(i) A description of the articles, materials, or supplies including technology and software, in terms of a clear, cohesive grouping (citing the applicable Export Control Classification Numbers where practical);

(ii) A statement of the reasons for requesting the appointment of a TAC; and

(iii) Any information in support of any contention that may be made that the request meets the criteria described in paragraph (b)(2) of this Supplement.

**(2) Consideration of request for establishment of a TAC.** The Department of Commerce will review all requests for the establishment of a TAC to determine if the following criteria are met:

(i) That a substantial segment of the industry producing the specified articles, materials, or supplies including technology desires such a committee; and

(ii) That the evaluation of such articles, materials, or supplies including technology and software for export control purposes is difficult because of questions involving technical matters, worldwide availability and actual utilization of production and software technology, or licensing procedures.

**(3) Requests by a substantial segment of an industry.** In determining whether or not a substantial segment of any industry has requested

the appointment of a TAC, the Department of Commerce will consider:

(i) The number of persons or firms requesting the establishment of a TAC for a particular grouping of commodities, software and technology in relation to the total number of U.S. producers of such items; and

(ii) The volume of annual production by such persons or firms of each item in the grouping in relation to the total U.S. production. Generally, a substantial segment of an industry (for purposes of this Supplement) shall consist of:

(A) Not less than 30 percent of the total number of U.S. producers of the items concerned; or

(B) Three or more U.S. producers who produce a combined total of not less than 30 percent of the total U.S. annual production, by dollar value of the items concerned; or

(C) Not less than 20 percent of the total number of U.S. producers of the items concerned, provided that the total of their annual production thereof is not less than 20 percent of the total U.S. annual production, by dollar value.

(iii) If it is determined that a substantial segment of the industry concerned has requested the establishment of a TAC concerning a specific grouping of items that the Department of Commerce determines difficult to evaluate for export control purposes, BIS will establish and use the TAC requested.

**(4) Requests from trade associations or other representatives.** Requests from trade associations or other representatives of U.S. producers for the establishment of a TAC must comply with the provisions of paragraphs (b)(1) through (3) of this Supplement. In addition, in order to assist BIS in determining whether the criteria described in paragraph (b)(3) of this Supplement have been met, a trade association or

other representative submitting a request for the establishment of a TAC should include the following information:

(i) The total number of firms in the particular industry;

(ii) The total number of firms in the industry that have authorized the trade association or other representative to act in their behalf in this matter;

(iii) The approximate amount of total U.S. annual production by dollar value of the items concerned produced by those firms that have authorized the trade association or other representative to act in their behalf; and

(iv) A description of the method by which authorization to act on behalf of these producers was obtained.

**(5) Nominations for membership on TACs.** When the Department of Commerce determines that the establishment of a TAC is warranted, it will request nominations for membership on the committee among the producers of the items and from any other sources that may be able to suggest well-qualified nominees.

**(6) Selection of industry members of committee.** Industry members of a TAC will be selected by the Department of Commerce from a list of the nominees who have indicated their availability for service on the committee. To the extent feasible, the Department of Commerce will select a committee balanced to represent all significant facets of the industry involved, taking into consideration such factors as the size of the firms, their geographical distribution, and their product lines. No industry representative shall serve on a TAC for more than four consecutive years. The membership of a member who is absent from four consecutive meetings shall be terminated.

(7) **Government members.** Government members of a TAC will be selected by the Department of Commerce from the agencies having an interest in the subject matter concerned.

(8) **Invitation to serve on committee.** Invitations to serve on a TAC will be sent by letter to the selected nominees.

(9) **Election of Chair.** The Chair of each TAC shall be elected by a vote of the majority of the members of the committee present and voting.

(c) *Charter*

(1) No TAC established pursuant to this Supplement shall meet or take any action until an advisory committee charter has been filed with the Assistant Secretary for Export Administration of the Department of Commerce and with the standing committees of the Senate and of the House of Representatives having legislative jurisdiction over the Department. Such charter shall contain the following information:

- (i) The committee's official designation;
- (ii) The committee's objectives and the scope of its activities;
- (iii) The period of time necessary for the committee to carry out its purposes;
- (iv) The agency or official to whom the committee reports;
- (v) The agency responsible for providing the necessary support for the committee;
- (vi) A description of the duties for which the committee is responsible, and, if such duties are not solely advisory, a specification of the authority for such functions;

(vii) The estimated annual operating costs in dollars and years for such committee;

(viii) The estimated number and frequency of committee meetings;

(ix) The committee's termination date, if less than two years from the date of the committee's establishment; and

(x) The date the charter is filed.

(d) *Meetings*

(1) Each TAC established under the provisions of the EAA and paragraph (b) of this Supplement shall meet at least once every three months at the call of its Chair unless it is specifically determined by the Chair, in consultation with other members of the committee, that a particular meeting is not necessary.

(2) No TAC may meet except at the call of its Chair.

(3) Each meeting of a TAC shall be conducted in accordance with an agenda approved by a designated Federal government employee.

(4) No TAC shall conduct a meeting in the absence of a designated Federal government employee who shall be authorized to adjourn any advisory committee meeting, whenever the Federal government employee determines adjournment to be in the public interest.

(e) *Public notice*

Notice to the public of each meeting of a TAC will be issued at least 20 days in advance and will be published in the *Federal Register*. The notice will include the time and place of the meeting and the agenda.

(f) *Public attendance and participation*

(1) Any member of the public who wishes to do so may file a written statement with any TAC before or after any meeting of a committee.

(2) A request for an opportunity to deliver an oral statement relevant to matters on the agenda of a meeting of a TAC will be granted to the extent that the time available for the meeting permits. A committee may establish procedures requiring such persons to obtain advance approval for such participation.

(3) Attendance at meetings of TACs will be open to the public unless it is determined pursuant to §10(d) of the Federal Advisory Committee Act to be necessary to close all, or some portion, of the meeting to the public. A determination that a meeting or portion thereof be closed to the public may be made if all or a specific portion of a meeting of a TAC is concerned with matters described in §552(b) of Title 5, U.S.C.

(4) Participation by members of the public in open TAC meetings or questioning of committee members or other participants shall not be permitted except in accordance with procedures established by the committee.

(5) Every effort will be made to accommodate all members of the public who wish to attend.

**(g) Minutes**

(1) Detailed minutes of each meeting of each TAC will be kept and will contain a record of the persons present, a complete and accurate description of the matters discussed and conclusions reached, and copies of all reports received, issued, or approved by the TAC.

(2) The accuracy of all the minutes will be certified to by the TAC Chair.

**(h) Records**

(1) Subject to §552 of Title 5, U.S.C. and Department of Commerce Administrative Order 205-12, “Public Information,” and “Public Information” regulations issued by the Department of Commerce that are contained in 15 CFR part 4, Subtitle A, the records, reports, transcripts, minutes, appendices, working papers, draft, studies, agenda, or other documents that were made available to or prepared for or by each TAC will be available for public inspection and copying.

(2) Each TAC will prepare once each year a report describing its membership, functions, activities, and such related matters as would be informative to the public consistent with the policy of §552(b) of Title 5, U.S.C.

(3)(i) Requests for records should be addressed to:

Bureau of Industry and Security  
 Freedom of Information  
 Records Inspection Facility  
 U.S. Department of Commerce  
 Room 4513  
 Washington, DC 20230  
 Telephone (202) 482-2593

(ii) Rules concerning the use of the Records Inspection Facility are contained in 15 CFR part 4, Subtitle A, or may be obtained from this facility.

**(i) Compensation**

If the Department of Commerce deems it appropriate, a member of a TAC may be reimbursed for travel, subsistence, and other necessary expenses incurred in connection with the member's duties.

**(j) Scope of advisory committee functions**

All TACs are limited to the functions described in their charters.

*(k) Duration of committees*

Each TAC will terminate at the end of two years from the date the committee was established or two years from the effective date of its most recent extension, whichever is later. Committees may be continued only for successive two-year periods by appropriate action taken by the authorized officer of the Department of Commerce prior to the date on which such advisory committee would otherwise terminate. TACs may be extended or terminated only after consultation with the committee.

*(l) Miscellaneous*

(1) TACs established in accordance with paragraph (b) of this supplement must conform to the provisions of the Federal Advisory Committee Act (Public Law 92-463), Office of Management and Budget Circular A-63 (Revision of March 1974), “Advisory Committee Management,” Department of Commerce Administrative Order 205-12, “Public Information,” the applicable provisions of the EAA, and any other applicable Department of Commerce regulations or procedures affecting the establishment or operation of advisory committees.

(2) Whenever the Department of Commerce desires the advice or assistance of a particular segment of an industry with respect to any export control problem for which the service of a TAC, as described in paragraph (b) of this Supplement is either unavailable or impracticable, an advisory committee may be established pursuant to the provisions of section 9 of the Federal Advisory Committee Act. Such committees will be subject to the requirements of the Federal Advisory Committee Act, OMB Circular A-63 (Revision of March 1974), “Advisory Committee Management,” Department of Commerce Administrative Order 205-12, “Public Information,” and any other applicable Department of Commerce regulations or procedures affecting the establishment or operation of advisory committees.

(3) Nothing in the provisions of this Supplement shall be construed to restrict in any manner the right of any person or firm to discuss any export control matter with the Department of Commerce or to offer advice or information on export control matters. Similarly, nothing in these provisions shall be construed to restrict the Department of Commerce in consulting any person or firm relative to any export control matter.

**SUPPLEMENT NO. 3 TO PART 730 - OTHER U.S. GOVERNMENT DEPARTMENTS AND AGENCIES WITH EXPORT CONTROL RESPONSIBILITIES**

Note: The departments and agencies identified with an asterisk control exports for foreign policy or national security reasons and, in certain cases, such controls may overlap with the controls described in the EAR (see part 734 of the EAR).

DEFENSE SERVICES AND DEFENSE ARTICLES

\* Department of State

Directorate of Defense Trade Controls

Tel. (202) 663-2700

Fax: (202) 261-8695

Internet: <http://www.pmdtcc.state.gov/index.html>

22 CFR parts 120 through 130

DRUGS, CHEMICALS AND PRECURSORS

Chemicals: Drug Enforcement Administration

Office of Diversion Control

Import-Export Unit

Tel. (202) 307-4916

Fax: (202) 307-4702

Internet: [http://deadiversion.usdoj.gov/imp\\_exp/index.html](http://deadiversion.usdoj.gov/imp_exp/index.html)

21 CFR parts 1311 through 1313

Controlled Substances: Drug Enforcement Administration

Office of Diversion Control

Import-Export Unit

Tel. (202) 307-7182 or (202) 307-7181

Fax: (202) 307-7503

Internet: [http://deadiversion.usdoj.gov/imp\\_exp/index.html](http://deadiversion.usdoj.gov/imp_exp/index.html)

21 CFR 1311 through 1313

Drugs and Biologics: Food and Drug Administration

Import/Export

Tel. (301) 594-3150

Fax: (301) 594-0165

21 U.S.C 301 *et seq.*

Investigational drugs permitted: Food and Drug Administration

International Affairs

Tel. (301) 443-4480

Fax: (301) 443-0235

21 CFR 312.1106

FISH AND WILDLIFE CONTROLS; ENDANGERED SPECIES

Department of the Interior  
Chief Office of Management Authority  
Tel. (703) 358-2093  
Fax: (703) 358-2280  
50 CFR 17.21, 17.22, 17.31, 17.32

FOREIGN ASSETS AND TRANSACTIONS CONTROLS

\* Department of Treasury  
Office of Foreign Assets Control, Licensing  
Tel. (202) 622-2480  
Fax: (202) 622-1657  
31 CFR parts 500 through 590

MEDICAL DEVICES

Food and Drug Administration  
Office of Compliance  
Tel. (301) 594-4699  
Fax: (301) 594-4715  
21 U.S.C. 301 *et seq.*

NATURAL GAS AND ELECTRIC POWER

Department of Energy  
Office of Fuels Programs  
Tel. (202) 586-9482  
Fax: (202) 586-6050  
10 CFR 205.300 through 205.379 and 590

NUCLEAR MATERIALS AND EQUIPMENT

\* Nuclear Regulatory Commission  
Office of International Programs  
Tel. (301) 415-2344  
Fax: (301) 415-2395  
10 CFR part 110

NUCLEAR TECHNOLOGY; TECHNICAL DATA FOR NUCLEAR WEAPONS/SPECIAL NUCLEAR MATERIALS

\* Department of Energy  
Office of Export Control Policy & Cooperation (NA-24)  
Tel. (202) 586- 2331  
Fax: (202) 586-1348  
10 CFR part 810

OCEAN FREIGHT FORWARDERS

Federal Maritime Commission  
Office of Freight Forwarders  
Tel. (202) 523-5843  
Fax: (202) 523-5830  
46 CFR part 510

PATENT FILING DATA SENT ABROAD

\* Department of Commerce  
Patent and Trademark Office  
Licensing and Review  
Tel. (703) 308-1722  
Fax: (703) 305-3603, 3604  
37 CFR part 5

U.S. FLAGGED OR U.S. MANUFACTURED VESSELS OVER 1,000 GROSS TONS

U.S. Maritime Administration  
Division of Vessel Transfer and Disposal  
Tel. (202) 366-5821  
Fax: (202) 366-3889  
46 CFR part 221

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### **§ 732.1 STEPS OVERVIEW**

#### **(a)(1) Introduction**

In this part, references to the EAR are references to 15 CFR chapter VII, subchapter C. This part is intended to help you determine your obligations under the EAR by listing logical steps in §732.2 through §732.5 of this part that you can take in reviewing these regulations. A flow chart describing these steps is contained in Supplement No. 1 to part 732. By cross-references to the relevant provisions of the EAR, this part describes the suggested steps for you to determine applicability of the following:

- (i) The scope of the EAR (part 734 of the EAR);

- (ii) Each of the general prohibitions (part 736 of the EAR);

- (iii) The License Exceptions (part 740 of the EAR); and

- (iv) Other requirements such as clearing your export with the U.S. Customs Service, keeping records, and completing and documenting license applications.

(2) These steps describe the organization of the EAR, the relationship among the provisions of the EAR, and the appropriate order for you to consider the various provisions of the EAR.

(3) The general information in this part is intended to provide an overview of the steps to be taken for certain requirements in the EAR, though not all of them. Nothing in this part shall be construed as altering or affecting any other authority, regulation, investigation or other enforcement measure provided by or established under any other provision of federal law, including provisions of the EAR.

#### **(b) Facts about your transaction**

The following five types of facts determine your obligations under the EAR and will be of help to you in reviewing these steps:

(1) **What is it?** What an item is, for export control purposes, depends on its *classification*, which is its place on the Commerce Control List (see part 774 of the EAR).

(2) **Where is it going?** The *country of ultimate destination* for an export or reexport also determines licensing requirements (see parts 738 and 774 of the EAR concerning the Country Chart and the Commerce Control List).

(3) **Who will receive it?** The *ultimate end-user* of your item cannot be a bad end-user. See General Prohibition Four (Denial Orders) in §736.2(b)(4) and parts 744 and 764 of the EAR

for a reference to the list of persons you may not deal with.

**(4) What will they do with it?** The *ultimate end-use* of your item cannot be a bad end-use. See General Prohibition Five (End-Use End-User) in §736.2(b)(5) and part 744 of the EAR for general end-use and end-user restrictions.

**(5) What else do they do?** *Conduct* such as contracting, financing, and freight forwarding in support of a proliferation project (as described in §744.6 of the EAR) may prevent you from dealing with someone.

**(c) *Are your items and activities subject to the EAR?***

You should first determine whether your commodity, software, or technology is subject to the EAR (see part 734 of the EAR concerning scope), and Steps 1 through 6 help you do that. For exports from the United States, only Steps 1 and 2 are relevant. If you already know that your item or activity is subject to the EAR, you should go on to consider the ten general prohibitions in part 736 of the EAR. If your item or activity is not subject to the EAR, you have no obligations under the EAR and may skip the remaining steps.

**(d) *Does your item or activity require a license under one or more of the ten general prohibitions?***

(1) Brief summary of the ten general prohibitions. The general prohibitions are found in part 736 of the EAR and referred to in these steps. They consist, very briefly, of the following:

(i) General Prohibition One (Exports and Reexports): Export and reexport of controlled items to listed countries.

(ii) General Prohibition Two (Parts and Components Reexports): Reexport and export from abroad of foreign-made items incorporating

more than a de minimis amount of controlled U.S. content.

(iii) General Prohibition Three (Foreign-produced Direct Product Reexports): Reexport and export from abroad of the foreign-produced direct product of U.S. technology and software.

(iv) General Prohibition Four (Denial Orders): Engaging in actions prohibited by a denial order.

(v) General Prohibition Five (End-Uses End-Users): Export or reexport to prohibited end uses or end users.

(vi) General Prohibition Six (Embargo): Export or reexport to embargoed destinations.

(vii) General Prohibition Seven (U.S. Person Proliferation Activity): Support of proliferation activities.

(viii) General Prohibition Eight (In-Transit): In-transit shipments and items to be unladen from vessels and aircraft.

(ix) General Prohibition Nine (Orders, Terms and Conditions): Violation of any orders, terms, or conditions.

(x) General Prohibition Ten (Knowledge Violation to Occur): Proceeding with transactions with knowledge that a violation has occurred or is about to occur.

**(2) *Controls on items on the Commerce Control List (CCL).*** If your item or activity is subject to the EAR, you should determine whether any one or more of the ten general prohibitions require a license for your export, reexport, or activity. Steps 7 through 11 refer to classification of your item on the Commerce Control List (CCL) (part 774 of the EAR) and how to use the Country Chart (Supplement No. 1 to part 738 of the EAR) to determine whether a license is required based upon the classification of your item. These steps

refer to General Prohibitions One (Exports and Reexports), Two (Parts and Components Reexports), and Three (Foreign-Produced Direct Product Reexports) for all countries except: Cuba, Iran, North Korea, and Syria. For these countries, you may skip Steps 7 through 11 and go directly to Step 12.

**(3) Controls on activities.** Steps 12 through 18 refer to General Prohibitions Four through Ten. Those general prohibitions apply to all items subject to the EAR, not merely those items listed on the CCL in part 774 of the EAR. For example, they refer to the general prohibitions for persons denied export privileges, prohibited end-uses and end-users, countries subject to a comprehensive embargo (e.g., Cuba, Iran, North Korea and Syria), prohibited activities of U.S. persons in support of proliferation of weapons of mass destruction, prohibited unloading of shipments, compliance with orders, terms and conditions, and activities when a violation has occurred or is about to occur.

**(4) General prohibitions.** If none of the ten general prohibitions applies, you should skip the steps concerning License Exceptions and for exports from the United States, review Steps 27 through 29 concerning Shipper's Export Declarations to be filed with the U.S. Customs Service, Destination Control Statements for export control documents, and recordkeeping requirements.

***(e) Is a License Exception available to overcome the license requirement?***

If you decide by reviewing the CCL in combination with the Country Chart that a license is required for your destination, you should determine whether a License Exception will exempt you from that requirement. Steps 20 through 24 help you determine whether a License Exception is available. Note that generally License Exceptions are not available to overcome General Prohibitions Four through Ten. However, selected License Exceptions for

embargoed destinations are specified in part 746 of the EAR and License Exceptions for short supply controls are specified in part 754 of the EAR. If a License Exception is available and the export is from the United States, you should review Steps 26 through 28 concerning Shipper's Export Declarations to be filed with the U.S. Customs Service, Destination Control Statements for export control documents and recordkeeping requirements. If a License Exception is not available, go on to Steps 25 through 29.

***(f) How do you apply for a license?***

If you must file a license application, you should review the requirements of part 748 of the EAR as suggested by Step 26. Then you should review Steps 27 through 29 concerning Shipper's Export Declarations to be filed with the U.S. Customs Service, Destination Control Statements for export control documents, and record keeping requirements.

**§ 732.2 STEPS REGARDING SCOPE OF THE EAR**

Steps 1 through 6 are designed to aid you in determining the scope of the EAR. A flow chart describing these Steps is contained in Supplement No. 2 to part 732.

***(a) Step 1: Items subject to the exclusive jurisdiction of another Federal agency***

This step is relevant for both exports and reexports. Determine whether your item is subject to the exclusive jurisdiction of another Federal Agency as provided in §734.3 of the EAR.

**(1)** If your item is subject to the exclusive jurisdiction of another federal agency, comply with the regulations of that agency. You need not comply with the EAR and may skip the remaining steps.

(2) If your item is not subject to the exclusive jurisdiction of another federal agency, then proceed to Step 2 in paragraph (b) of this section.

**(b) Step 2: Publicly available technology and software**

This step is relevant for both exports and reexports. Determine if your technology or software is publicly available as defined and explained at part 734 of the EAR. Supplement No. 1 to part 734 of the EAR contains several practical examples describing publicly available technology and software that are outside the scope of the EAR. The examples are illustrative, not comprehensive. Note that encryption software classified under ECCN 5D002 on the Commerce Control List (refer to Supplement No.1 to Part 774 of the EAR) is subject to the EAR even if publicly available, except for publicly available encryption object code software classified under ECCN 5D002 when the corresponding source code meets the criteria specified in § 740.13(e) of the EAR. The following also remains subject to the EAR: “software” or “technology” for the production of a firearm, or firearm frame or receiver, controlled under ECCN 0A501, as referenced in § 734.7(c) of the EAR).

(1) If your technology or software is publicly available, and therefore outside the scope of the EAR, you may proceed with the export or reexport if you are not a U.S. person subject to General Prohibition Seven. If you are a U.S. person, go to Step 15 at §732.3(j) of this part. If you are a U.S. person and General Prohibition Seven concerning proliferation activity of U.S. persons does not apply, then you may proceed with the export or reexport of your publicly available technology or software. Note that all U.S. persons are subject to the provisions of General Prohibition Seven.

(2) If your technology or software is not publicly available and you are exporting from the

United States, skip to the Step 7 in §732.3(b) of this part concerning the general prohibitions.

(3) If you are exporting items from a foreign country, you should then proceed Step 3 in paragraph (c) of this section and the other steps concerning the scope of the EAR.

**(c) Step 3: Reexport of U.S.-origin items**

This step is appropriate only for reexporters. For an item in a foreign country, you should determine whether the item is of U.S.-origin. If it is of U.S.-origin, skip to Step 7 in §732.3(b) of this part. If it is not of U.S.-origin, then proceed to Step 4 in paragraph (d) of this section.

**(d) Step 4: Foreign-made items incorporating controlled U.S.-origin items**

This step is appropriate only for items that are made outside the United States and not currently located in the United States. Special requirements and restrictions apply to foreign-made items that incorporate U.S.-origin encryption items (see §734.4(a)(2), (b), and (g) of the EAR).

**(1) Determining whether your foreign made item is subject to the EAR.** Using the guidance provided in Supplement No. 2 to part 734 of the EAR, determine whether controlled U.S.-origin items are incorporated into the foreign-made item and are above the *de minimis* level set forth in §734.4 of the EAR

(2) If no U.S.-origin controlled items are incorporated or if the percentage of incorporated U.S.-origin controlled items are equal to or below the *de minimis* level described in § 734.4 of the EAR, then the foreign-made item is not subject to the EAR by reason of the *de minimis* rules, and you should go on to consider Step 6 regarding the foreign-produced **direct product rule.**

(3) If the foreign-made item incorporates more than the *de minimis* level of U.S.-origin items,

then that item is subject to the EAR and you should skip to Step 7 at § 732.3 of this part and consider the steps regarding all other general prohibitions, license exceptions, and other requirements to determine applicability of these provisions to the foreign-made item.

(e) [RESERVED]

**(f) Step 6: Direct product rule.**

Foreign items that are the direct product of U.S. technology, software, or plant or major component of a plant made from U.S. technology or software may be subject to the EAR if they meet the conditions of General Prohibition Three in § 736.2(b)(3) of the EAR. Direct products that are subject to the EAR may require a license to be exported from abroad or reexported to certain countries.

**(1)** Subject to the EAR. If your foreign item is captured by the **direct product rule** (General Prohibition Three), then the item is subject to the EAR and its export from abroad or reexport may require a license. You should next consider the steps regarding all other general prohibitions, license exceptions, and other requirements. If the item is not captured by General Prohibition Three, then you have completed the steps necessary to determine whether the item is subject to the EAR, and you may skip the remaining steps. As described in part 734 of the EAR, items outside the U.S. are subject to the EAR when they are:

**(i)** U.S.-origin commodities, software, or technology, unless controlled for export exclusively by another U.S. Federal agency or unless publicly available;

**(ii)** Foreign-origin commodities, software, or technology that are within the scope of General Prohibition Two (*De minimis* rules), or General Prohibition Three (**Direct Product rule**). However, such foreign-origin items are

also outside the scope of the EAR if they are controlled for export exclusively by another U.S. Federal Agency or, if technology or software, are publicly available as described in paragraph (b) of this section.

(2) [RESERVED]

**§ 732.3 STEPS REGARDING THE TEN GENERAL PROHIBITIONS**

**(a) Introduction**

If your item or activity is subject to the scope of the EAR, you should then consider each of the ten general prohibitions listed in part 736 of the EAR. General Prohibitions One (Exports and Reexports), Two (Parts and Components Reexports), and Three (Foreign-Produced Direct Product Reexports) (§736.2(b)(1), (2), and (3) of the EAR) are product controls that are shaped and limited by parameters specified on the CCL and Country Chart. General Prohibitions Four through Ten are prohibitions on certain activities that are not allowed without authorization from BIS, and these prohibitions apply to all items subject to the EAR unless otherwise specified (§736.2(b)(4) through (10) of the EAR).

**(b) Step 7: Classification**

**(1)** You should classify your items “subject to the EAR” in the relevant entry on the CCL, and you may do so on your own without BIS assistance. The CCL includes a Supplement No. 4 to part 774 – Commerce Control List Order of Review. This supplement establishes the steps (i.e., the order of review) that should be followed in classifying items that are “subject to the EAR.” The exporter, reexporter, or transferor is responsible for correctly classifying the items in a transaction, which may involve submitting a classification request to BIS. Failure to classify or have classified the item correctly does not relieve

the person of the obligation to obtain a license when one is required by the EAR.

(2) You have a right to request the applicable classification of your item from BIS, and BIS has a duty to provide that classification to you. For further information on how to obtain classification assistance from BIS, see part 748 of the EAR.

(3) For items subject to the EAR but not listed on the CCL, the proper classification is EAR99. This number is a “basket” for items not specified under any CCL entry and appears at the end of each Category on the CCL.

(4) Items subject to temporary CCL controls are classified under the ECCN 0Y521 series (i.e., 0A521, 0B521, 0C521, 0D521 and 0E521) pursuant to § 742.6(a)(8) of the EAR while a determination is being made as to whether classification under a revised or new ECCN or EAR99 designation is appropriate .

**(c) Step 8: Country of ultimate destination**

You should determine the country of ultimate destination. The country of destination determines the applicability of several general prohibitions, License Exceptions, and other requirements. Note that part 754 of the EAR concerning short supply controls is self-contained and is the only location in the EAR that contains both the prohibitions and exceptions applicable to short supply controls.

**(d) Step 9: Reason for control and the Country Chart**

(1) Reason for control and column identifier within the Export Control Classification Number (ECCN). Once you have determined that your item is controlled by a specific ECCN, you must use information contained in the “License Requirements” section of that ECCN in combination with the Country Chart to decide whether a license is required under General

Prohibitions One, Two, or Three to a particular destination. The CCL and the Country Chart are taken together to define these license requirements. The applicable ECCN will indicate the reason or reasons for control for items within that ECCN. For example, ECCN 6A007 is controlled for national security, missile technology, and anti-terrorism reasons.

(2) *Reason for control within the Country Chart.* With each of the applicable Country Chart column identifiers noted in the correct ECCN, turn to the Country Chart. Locate the correct Country Chart column identifier on the horizontal axis, and determine whether an “X” is marked in the cell next to the destination in question. Consult §738.4 of the EAR for comprehensive instructions on using the Country Chart and a detailed example.

(i) An “X” in the cell or cells for the relevant country and reason(s) for control column indicates that a license is required for General Prohibitions One (Exports and Reexports in the Form Received), Two (Parts and Components Reexports), and Three (Foreign-Produced Direct Product Reexports). (See §736.2(b)(1), (b)(2), and (b)(3) of the EAR).

(ii) If one or more cells have an “X” in the relevant column, a license is required unless you qualify for a License Exception described in part 740 of the EAR. If a cell does not contain an “X” for your destination in one or more relevant columns, a license is not required under the CCL and the Country Chart.

(iii) Additional controls may apply to your export. You must go on to steps 12 through 18 described in paragraphs (g) to (m) of this section to determine whether additional limits described in General Prohibition Two (Parts and Components Reexports) and General Prohibition Three (Foreign-Produced Direct Product Reexports ) apply to your proposed transaction. If you are exporting an item from the United States, you should skip Step 10 and Step 11.

Proceed directly to Step 12 in paragraph (g) of this section.

**(3) License requirements not on the Country Chart.** There are two instances where the Country Chart cannot be used to determine if a license is required. Items controlled for short supply reasons are not governed by the Country Chart. Part 754 of the EAR contains license requirements and License Exceptions for items subject to short supply controls. A limited number of ECCNs contained on the CCL do not identify a Country Chart column identifier. In these instances, the ECCN states whether a license is required and for which destinations. See §738.3(a) of the EAR for a list of the ECCNs for which you do not need to consult the Country Chart to determine licensing requirements.

**(4) Destinations subject to embargo and other special controls provisions.** The Country Chart does not apply to Cuba, Iran, North Korea, and Syria. For those countries you should review the provisions at part 746 of the EAR and may skip this step concerning the Country Chart. For Iraq and Russia, the Country Chart provides for certain license requirements, and part 746 of the EAR provides additional requirements.

**(5) Items subject to the EAR but not on the CCL.** Items subject to the EAR that are not on the CCL are properly classified EAR99. For such items, you may skip this step and proceed directly with Step 12 in paragraph (g) of this section.

**(e) Step 10: Foreign-made items incorporating U.S.-origin items and the *de minimis* rules**

**(1) *De minimis* rules.** If your foreign-made item abroad is a foreign-made commodity that incorporates controlled U.S.-origin commodities, a foreign-made commodity that is ‘bundled’ with controlled U.S.-origin software, foreign-made software that is commingled with controlled U.S.-origin software, or foreign-made technology that is

commingled with controlled U.S.-origin technology, then it is subject to the EAR if the U.S.-origin controlled content exceeds the *de minimis* levels described in Sec. 734.4 of the EAR.

**(2) Guidance for calculations.** For guidance on how to calculate the U.S.-controlled content, refer to Supplement No. 2 to part 734 of the EAR. Note, U.S.-origin technology controlled by ECCN 9E003.a.1 through a.11, and .h, and related controls, and encryption software controlled for “EI” reasons under ECCN 5D002 (not eligible for *de minimis* treatment pursuant to § 734.4(b) of the EAR) or encryption technology controlled for “EI” reasons under ECCN 5E002 (not eligible for *de minimis* treatment pursuant to § 734.4(a)(2) of the EAR) do not lose their U.S.-origin when redrawn, used, consulted, or otherwise commingled abroad in any respect with other software or technology of any other origin. Therefore, any subsequent or similar software or technology prepared or engineered abroad for the design, construction, operation, or maintenance of any plant or equipment, or part thereof, which is based on or uses any such U.S.-origin software or technology is subject to the EAR.

**(f) Step 11: Direct product rule - General Prohibition Three.**

Foreign-produced items located outside the U.S. that are the direct product of “technology” or “software” subject to the EAR or produced by a plant or major component of a plant located outside the United States that is a direct product of U.S.-origin “technology” or “software” subject to the EAR, whether made in the U.S. or a foreign country, may be subject to the EAR if they meet the conditions of General Prohibition Three in §736.2(b)(3). Direct products that are subject to the EAR may require a license to be exported from abroad, transferred (in-country), or reexported to specified countries or end users. If your foreign item meets the conditions of the foreign-produced direct product rule (General Prohibition Three), then your export from abroad,

transfer (in-country), or reexport is subject to the EAR. You should next consider the steps regarding all other general prohibitions, license exceptions, and other requirements. If your item does not meet the conditions of General Prohibition Three, then your export from abroad, transfer (in-country), or reexport is not subject to the EAR. You have completed the steps necessary to determine whether your transaction is subject to the EAR, and you may skip the remaining steps.

**(g) Step 12: Persons denied export privileges**

(1) Determine whether your transferee, ultimate end-user, any intermediate consignee, or any other party to a transaction is a person denied export privileges. (See part 764 of the EAR). It is a violation of the EAR to engage in any activity that violates the terms or conditions of a denial order. General Prohibition Four (Denial Orders) applies to all items subject to the EAR, *i.e.* both items on the CCL and within EAR99.

(2) There are no License Exceptions to General Prohibition Four (Denial Orders). The prohibition concerning persons denied export privileges may be overcome only by a specific authorization from BIS, something that is rarely granted.

**(h) Step 13: Prohibited end-uses and end-users**

(1) Review the end-uses and end-users prohibited under General Prohibition Five (End-Use End-User) (§736.2(b)(5) of the EAR) described in part 744 of the EAR. Part 744 of the EAR contains all the end-use and end-user license requirements, and those are in addition to the license requirements under General Prohibitions One (Exports and Reexports), Two (Parts and Components Reexports), and Three (Foreign-produced Direct Product Reexports). Unless otherwise indicated, the license requirements of General Prohibition Five (End-Use End-User) described in part 744 of the EAR

apply to all items subject to the EAR, *i.e.* both items on the CCL and within EAR99. Moreover, the requirements of General Prohibition Five (End-Use and End-User) are in addition to various end-use and end-user limitations placed on certain License Exceptions.

(2) Under License Exception TSU (§740.13 of the EAR), operation technology and software, sales technology, and software updates overcome General Prohibition Five (End-Use and End-User) (§736.2(b)(5) of the EAR) if all terms and conditions of these provisions are met by the exporter or reexporter.

**(i) Step 14: Embargoed countries and special destinations**

If your destination for any item is Cuba, Iran, Iraq, North Korea, or Syria, you must consider the requirements of parts 742 and 746 of the EAR. Unless otherwise indicated, General Prohibition Six (Embargo) applies to all items subject to the EAR, *i.e.* both items on the CCL and within EAR99. See §746.1(b) for destinations subject to limited sanctions under United Nations Security Council arms embargoes. See § 746.5 for Russian Industry Sector Sanctions. You may not make an export or reexport contrary to the provisions of part 746 of the EAR without a license unless:

(1) You are exporting or reexporting only publicly available technology or software or other items outside the scope of the EAR, or

(2) You qualify for a License Exception referenced in part 746 of the EAR concerning embargoed destinations. You may not use a License Exception described in part 740 of the EAR to overcome General Prohibition Six (Embargo) (§736.2(b)(6) of the EAR) unless it is specifically authorized in part 746 of the EAR. Note that part 754 of the EAR concerning short supply controls is self-contained and is the only location in the EAR for both the prohibitions and exceptions applicable to short supply controls.

***(j) Step 15: Proliferation activity of U.S. persons unrelated to exports and reexports***

(1) Review the scope of activity prohibited by General Prohibition Seven (U.S. Person Proliferation Activity) (§736.2(b)(7) of the EAR) as that activity is described in §744.6 of the EAR. Keep in mind that such activity is not limited to exports and reexports and is not limited to items subject to General Prohibition One (Exports and Reexports), Two (Parts and Components Reexports), and Three (Foreign-Produced Direct Product Reexports). Moreover, such activity extends to services and dealing in wholly foreign-origin items in support of the specified proliferation activity and is not limited to items listed on the CCL or included in EAR99.

(2) Review the definition of U.S. Person in part 744 of the EAR.

***(k) Step 16: In-transit***

Shippers and operators of vessels or aircraft should review General Prohibition Eight (In-Transit) to determine the countries in which you may not unload or ship certain items in-transit. General Prohibition Eight applies to all items subject to the EAR, i.e. both items on the CCL and within EAR99.

***(l) Step 17: Review orders, terms, and conditions***

Review the orders, terms, and conditions applicable to your transaction. General Prohibition Nine (Orders, Terms, and Conditions) prohibits the violation of any orders, terms, and conditions imposed under the EAR. Terms and conditions are frequently contained in licenses. In addition, the ten general prohibitions (part 736 of the EAR) and the License Exceptions (part 740 of the EAR) impose terms and conditions or limitations on your proposed transactions and use of License Exceptions. A given license or License

Exception may not be used unless each relevant term or condition is met.

***(m) Step 18: Review the “Know Your Customer” Guidance and General Prohibition Ten (Knowledge Violation to Occur)***

License requirements under the EAR are determined solely by the classification, end-use, end-user, ultimate destination, and conduct of U.S. persons. Supplement No. 1 to part 732 of the EAR is intended to provide helpful guidance regarding the process for the evaluation of information about customers, end-uses, and end-users. General Prohibition Ten (Knowledge Violation to Occur) prohibits anyone from proceeding with a transaction with knowledge that a violation of the EAR has occurred or is about to occur. It also prohibits related shipping, financing, and other services. General Prohibition Ten applies to all items subject to the EAR, i.e. both items on the CCL and within EAR99.

***(n) Step 19: Complete the review of the general prohibitions***

After completion of Steps described in this section and review of all ten general prohibitions in part 736 of the EAR, including cross-referenced regulations in the EAR, you will know which, if any, of the ten general prohibitions of the EAR apply to you and your contemplated transaction or activity.

(1) If none of the ten general prohibitions is applicable to your export from the United States, no license from BIS is required, you do not need to qualify for a License Exception under part 740 of the EAR. You should skip the Steps in §732.4 of this part regarding License Exceptions and proceed directly to the Steps in §732.5 of this part regarding recordkeeping, clearing the Bureau of Customs and Border Protection with the appropriate Shipper's Export Declaration or Automated Export System Record, and using the required Destination Control Statement.

(2) If none of the ten general prohibitions is applicable to your reexport or export from abroad, no license is required and you should skip all remaining Steps.

(3) If one or more of the ten general prohibitions are applicable, continue with the remaining steps.

## **§ 732.4 STEPS REGARDING LICENSE EXCEPTIONS**

### **(a) Introduction to Steps for License Exceptions**

If your export or reexport is subject to the EAR and is subject to General Prohibitions One (Exports and Reexports), Two (Parts and Components Reexports), or Three (Foreign-Produced Direct Product Reexports), consider the steps listed in paragraph (b) of this section. If your export or reexport is subject to General Prohibitions Four (Denial Orders), Seven (U.S. Person Proliferation Activity), Eight (In-Transit), Nine (Orders, Terms, and Conditions), or Ten (Knowledge Violation to Occur), there are no License Exceptions available for your export or reexport. If your export is subject to General Prohibition Five (End-Use End-User), consult part 744 of the EAR. If your export or reexport is subject to General Prohibition Six (Embargo), consult part 746 of the EAR for applicable License Exceptions.

### **(b) Steps for License Exceptions**

(1) **Step 20: Applicability of General Prohibitions.** Determine whether any one or more of the general prohibitions described in §736.2(b) of the EAR apply to your export or reexport. If no general prohibition applies to your export or reexport, then you may proceed with your export or reexport and need not review part 740 of the EAR regarding License Exceptions. You are reminded of your recordkeeping obligations related to the clearance

of the U.S. Customs Service provided in parts 762 and 758 of the EAR.

(2) **Step 21: Applicability of restrictions on all License Exceptions.** Determine whether any one or more of the restrictions in §740.2 of the EAR applies to your export or reexport. If any one or more of these restrictions apply, there are no License Exceptions available to you, and you must either obtain a license or refrain from the export or reexport.

(3) **Step 22: Terms and conditions of the License Exceptions.**

(i) If none of the restrictions in §740.2 of the EAR applies, then review each of the License Exceptions to determine whether any one of them authorizes your export or reexport. Eligibility for License Exceptions is based on the item, the country of ultimate destination, the end-use, and the end-user, along with any special conditions imposed within a specific License Exception.

(ii) You may meet the conditions for more than one License Exception. Moreover, although you may not qualify for some License Exceptions you may qualify for others. Review the broadest License Exceptions first, and use any License Exception available to you. You are not required to use the most restrictive applicable License Exception. If you fail to qualify for the License Exception that you first consider, you may consider any other License Exception until you have determined that no License Exception is available.

(iii) License Exceptions TMP, RPL, BAG, AVS, GOV, and TSU authorize exports notwithstanding the provisions of the CCL. List-based License Exceptions (LVS, GBS, CIV, TSR, and APP) are available only to the extent specified on the CCL. Some ECCNs contain License Exception STA exclusion paragraphs. Those paragraphs delineate items excluded from the License Exception STA provisions in § 740.20(c)(2) of the EAR. Part 740 of the EAR

provides authorization for reexports only to the extent each License Exception expressly authorizes reexports. License Exception APR authorizes reexports only.

(iv) If you are exporting under License Exceptions GBS, CIV, LVS, STA, APP, TSR, or GOV, you should review §743.1 of the EAR to determine the applicability of certain reporting requirements. If you are exporting under License Exceptions LVS, TMP, RPL, STA, or GOV and your item is classified in the “600 series,” you should review § 743.4 of the EAR to determine the applicability of certain reporting requirements for conventional arms exports.

**(4) Step 23: Scope of License Exceptions.** Some License Exceptions are limited by country or by type of item.

(i) Countries are arranged in country groups for ease of reference. For a listing of country groups, please refer to Supplement No. 1 to part 740 of the EAR. Unless otherwise indicated in a License Exception, License Exceptions do not apply to any exports or reexports to embargoed destinations. If your export or reexport is subject to General Prohibition Six (Embargo) for embargoed destinations, License Exceptions are only available to the extent specifically provided in part 746 of the EAR concerning embargoed destinations.

(ii) Special commodity controls apply to short supply items. No License Exceptions described in part 740 of the EAR may be used for items listed on the CCL as controlled for Short Supply reasons. License Exceptions for short supply items are found in part 754 of the EAR.

**(5) Step 24: Compliance with all terms and conditions.** If a License Exception is available, you may proceed with your export or reexport. However, you must meet all the terms and conditions required by the License Exception that you determined authorized your export or reexport. You must also consult part 758 and

762 of the EAR to determine your recordkeeping and documentation requirements.

**(6) Step 25: License requirements.** If no License Exception is available, then you must either obtain a license before proceeding with your export or reexport or you must refrain from the proposed export or reexport.

**(7) Step 26: License applications.**

(i) If you are going to file a license application with BIS, you should first review the requirements in part 748 of the EAR. Exporters, reexporters, and transferors should review the instructions concerning applications and required support documents prior to submitting an application for a license.

(ii) If you are going to file a license application with BIS for the export, reexport, or in-country transfer for aircraft or military vessels controlled under ECCNs 0A606.a, 8A609.a, 8A620.a, 8A620.b, certain “spacecraft” controlled under ECCN subparagraphs 9A515.a.1, a.2, a.3, a.4 or 9A515.g, , ECCN 9A610.a, or technology under ECCNs 9E515.b, .d, .e, or .f, §740.20(g) permits you to request in the application that subsequent exports of the type of aircraft, spacecraft, military vessels, or technology at issue be eligible for export under License Exception STA. The types of “items” controlled under ECCNs 0A606.a, 8A609.a, 8A620.a, 8A620.b, certain spacecraft controlled under ECCN subparagraphs 9A515.a.1, a.2, a.3, a.4 or 9A515.g, ECCN 9A610.a, and technology ECCNs 9E515.b, .d, .e, or .f, that have been determined to be eligible for License Exception STA pursuant to §740.20(g) are identified in the License Exceptions paragraphs of ECCNs 0A606, 8A609, 8A620, 9A610, 9A515, and 9E515. Supplement No. 2 to part 748, paragraph (w) (License Exception STA eligibility requests), contains the instructions for such applications.

*Note 1 to paragraph (b)(7)(ii): If you intend to use License Exception STA, return to paragraphs*

(a) and then (b) of this section to review the Steps regarding the use of license exceptions.

**§ 732.5 STEPS REGARDING ELECTRONIC EXPORT INFORMATION (EEI) REQUIREMENTS, DESTINATION CONTROL STATEMENTS, AND RECORDKEEPING.**

**(a) Step 27: Electronic Export Information (EEI) filing requirements**

Exporters or agents authorized to file EEI to the Automated Export System (AES), should review § 758.1 of the EAR to determine when the EAR requires EEI to be filed and what EEI data elements the EAR requires to be included. More detailed information about EEI filing procedures and requirements may be found in the Bureau of Census Foreign Trade Regulations (FTR) at 15 CFR Part 30. Reexporters and firms exporting from abroad may skip Steps 27 through 29 and proceed directly to § 732.6 of the EAR.

**(1) License code/license exception code (license code).** You must report the correct license code that corresponds with your license authority (license or license exception) or designation (No License Required (NLR)) for your export on the EEI filing, as appropriate. See § 758.1(g) of the EAR and 15 CFR 30.6(a)(23) and Part III of Appendix B to 15 CFR Part 30 of the FTR. Generally, conflicts of data elements with license exception criteria, e.g., ECCN or destination, will result in a fatal error in the AES system. By reporting a license code for a license exception on an EEI filing you are certifying that your transaction meets the criteria of that license exception. By reporting a license code of NLR you are certifying that no license is required for your export.

**(2) License number.** If you are exporting under the authority of a license, you must report the license number on the EEI filing. See 15 CFR 30.6(b)(5) of the FTR.

**(3) Item description.** You must report an item description identical to the item description on the license when a license is required, or report an item description sufficient in detail to permit review by the U.S. Government and verification of the Schedule B Number or the Harmonized Tariff Schedule of the United States (HTS) for license exception exports or exports for which No License is Required (NLR). See § 758.1(g) of the EAR; and 15 CFR 30.6(a)(13) of the FTR.

**(4) Entering the ECCN.** You must report the correct Export Control Classification Number (ECCN) or “EAR99” for items that are not classified under an ECCN on the EEI filing for all licensed and license exception exports, and “No License Required” (NLR) exports of items having a reason for control other than or in addition to anti-terrorism (AT). The only exception to this requirement would be the return of unwanted foreign origin items, meeting the provisions of License Exception TMP, under § 740.9(b)(3) of the EAR. See § 758.1(g) of the EAR and 15 CFR 30.6(b)(6) of the FTR.

**(b) Step 28: Destination Control Statement**

The Destination Control Statement (DCS) must be entered on the invoice and on the bill of lading, air waybill, or other export control document that accompanies the shipment from its point of origin in the United States to the ultimate consignee or end-user abroad. The person responsible for preparation of those documents is responsible for entry of the DCS. The DCS is required for all exports from the United States of items on the Commerce Control List and is not required for items classified as EAR99, unless the export may be made under License Exception BAG or GFT (see part 740 of the EAR). DCS requirements do not apply to reexports. See § 758.6 of the EAR.

*(c) Step 29: Recordkeeping*

Records of transactions subject to the EAR must be maintained for five years in accordance with the recordkeeping provisions of part 762 of the EAR.

**§ 732.6 STEPS FOR OTHER REQUIREMENTS**

Sections 732.1 through 732.4 of this part are useful in determining the license requirements that apply to you. Other portions of the EAR impose other obligations and requirements. Some of them are:

*(a)* Requirements relating to the use of a license in §758.4 of the EAR.

*(b)* Obligations of carriers, forwarders, exporters and others to take specific steps and prepare and deliver certain documents to assure that items subject to the EAR are delivered to the destination to which they are licensed or

authorized by a License Exception or some other provision of the regulations in §758.1 through §758.6 of the EAR.

*(c)* Duty of carriers to return or unload shipments at the direction of U.S. Government officials (see §758.8 of the EAR).

*(d)* [RESERVED]

*(e)* Recordkeeping requirements imposed in part 762 of the EAR.

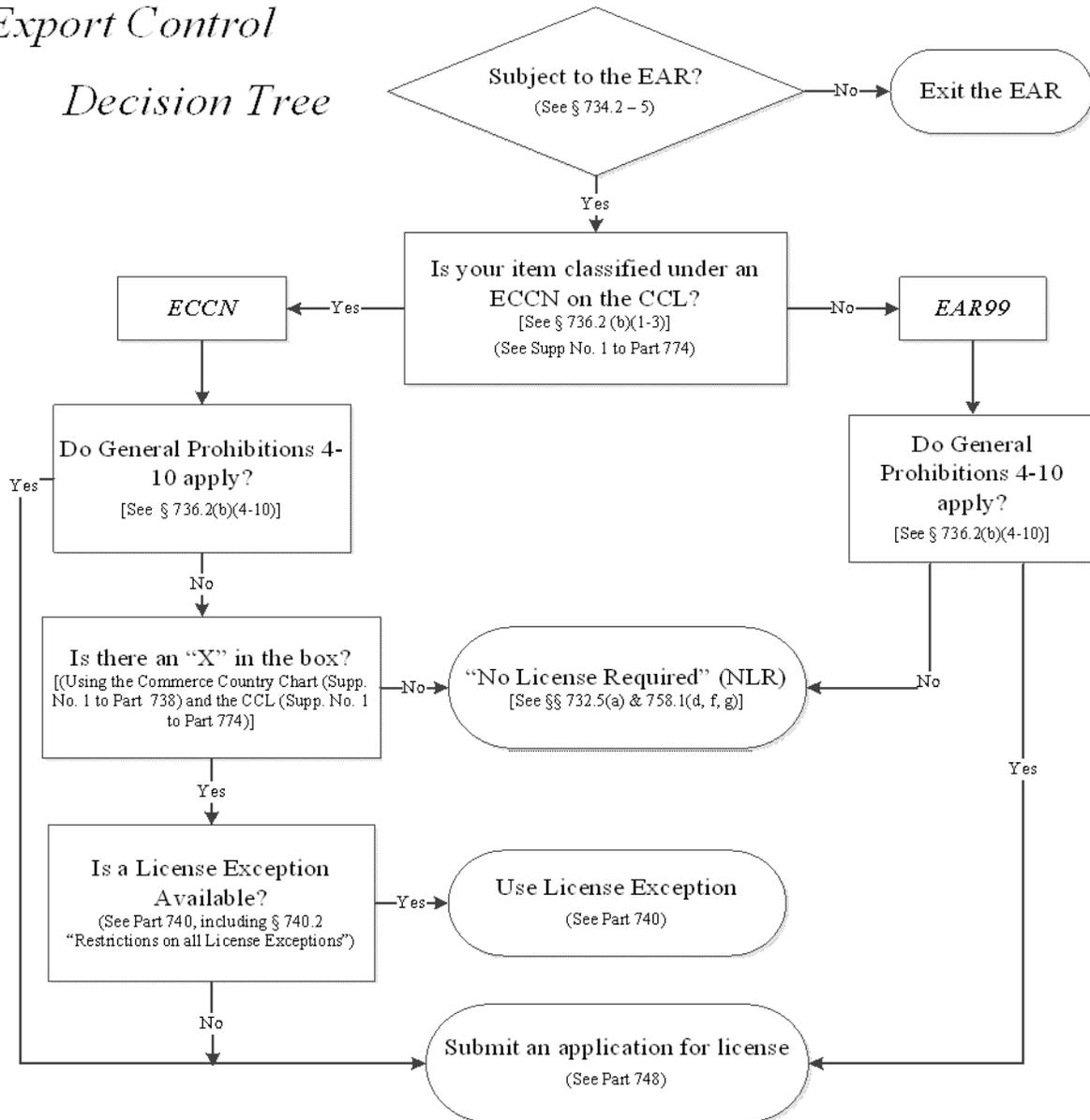
*(f)* Requirements of part 764 of the EAR to disclose facts that may come to your attention after you file a license application or make other statements to the government concerning a transaction or proposed transaction that is subject to the EAR.

*(g)* Certain obligations imposed by part 760 of the EAR on parties who receive requests to take actions related to foreign boycotts and prohibits certain actions relating to those boycotts.

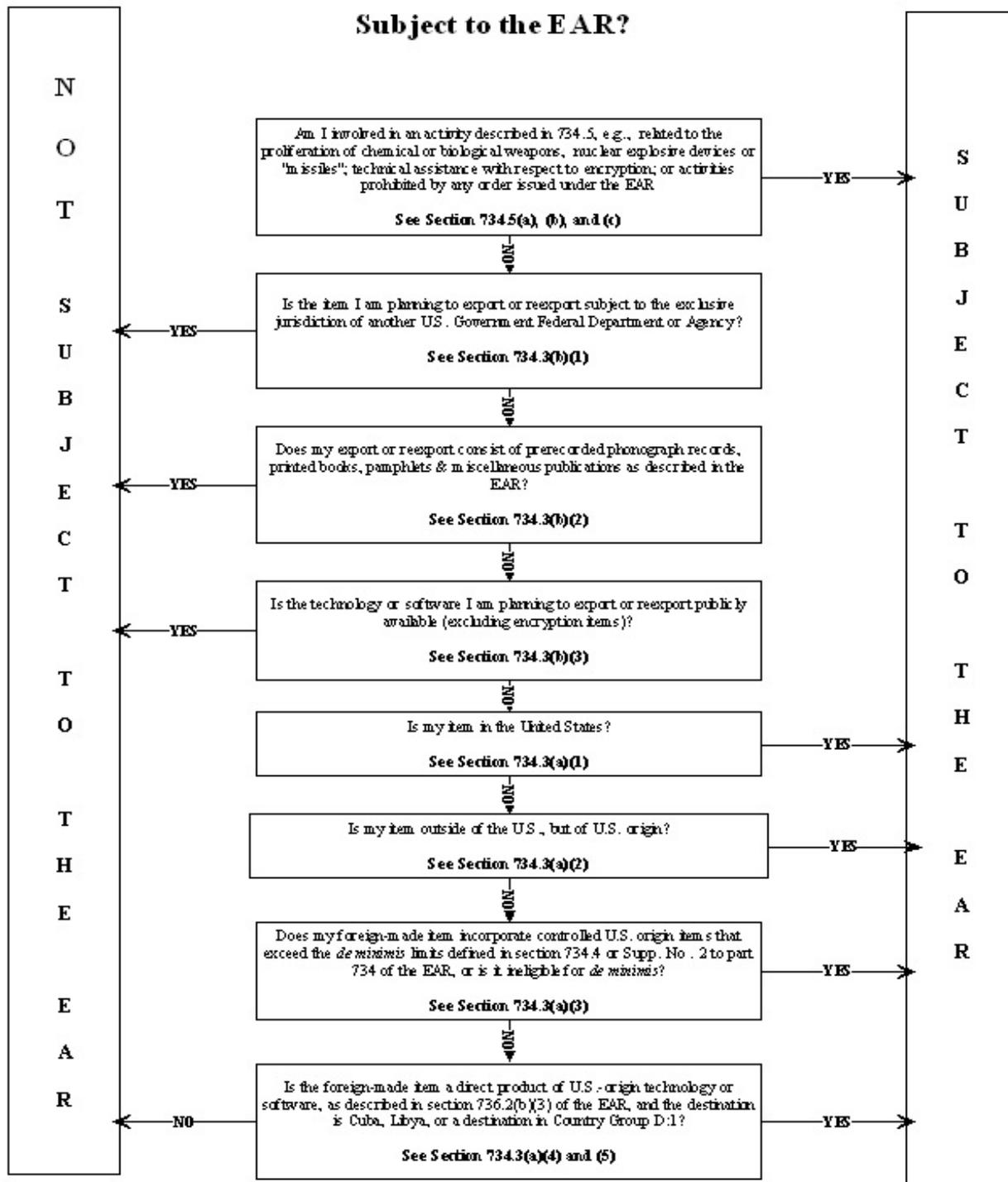
**SUPPLEMENT NO. 1 TO PART 732 – EXPORT CONTROL DECISION TREE**

SUPPLEMENT NO. 1 TO PART 732 – EXPORT CONTROL DECISION TREE

*Export Control  
Decision Tree*



**SUPPLEMENT NO. 2 TO PART 732 – SUBJECT TO THE EAR?**



**SUPPLEMENT NO. 3 TO PART 732 - BIS's "KNOW YOUR CUSTOMER" GUIDANCE AND RED FLAGS****"KNOW YOUR CUSTOMER" GUIDANCE**

Various requirements of the EAR are dependent upon a person's knowledge of the end-use, end-user, ultimate destination, or other facts relating to a transaction or activity. These provisions include the nonproliferation-related "catch-all" sections and the prohibition against proceeding with a transaction with knowledge that a violation of the EAR has occurred or is about to occur.

(a) BIS provides the following guidance on how individuals and firms should act under this knowledge standard. This guidance does not change or interpret the EAR.

(1) *Decide whether there are "red flags"*. Take into account any abnormal circumstances in a transaction that indicate that the export may be destined for an inappropriate end-use, end-user, or destination. Such circumstances are referred to as "red flags". Included among examples of red flags are orders for items that are inconsistent with the needs of the purchaser, a customer declining installation and testing when included in the sales price or when normally requested, or requests for equipment configurations that are incompatible with the stated destination (e.g., 120 volts in a country with 220 volts). Commerce has developed lists of such red flags that are not all-inclusive but are intended to illustrate the types of circumstances that should cause reasonable suspicion that a transaction will violate the EAR.

(2) *If there are "red flags", inquire*. If there are no "red flags" in the information that comes to your firm, you should be able to proceed with a transaction in reliance on information you have received. That is, absent "red flags" (or an express requirement in the EAR), there is no affirmative duty upon exporters to inquire, verify, or otherwise "go behind" the customer's

representations. However, when "red flags" are raised in information that comes to your firm, you have a duty to check out the suspicious circumstances and inquire about the end-use, end-user, or ultimate country of destination. The duty to check out "red flags" is not confined to the use of License Exceptions affected by the "know" or "reason to know" language in the EAR. Applicants for licenses are required by part 748 of the EAR to obtain documentary evidence concerning the transaction, and misrepresentation or concealment of material facts is prohibited, both in the licensing process and in all export control documents. You can rely upon representations from your customer and repeat them in the documents you file unless red flags oblige you to take verification steps.

(3) *Do not self-blind*. Do not cut off the flow of information that comes to your firm in the normal course of business. For example, do not instruct the sales force to tell potential customers to refrain from discussing the actual end-use, end-user, and ultimate country of destination for the product your firm is seeking to sell. Do not put on blinders that prevent the learning of relevant information. An affirmative policy of steps to avoid "bad" information would not insulate a company from liability, and it would usually be considered an aggravating factor in an enforcement proceeding.

(4) *Employees need to know how to handle "red flags"*. Knowledge possessed by an employee of a company can be imputed to a firm so as to make it liable for a violation. This makes it important for firms to establish clear policies and effective compliance procedures to ensure that such knowledge about transactions can be evaluated by responsible senior officials. Failure to do so could be regarded as a form of self-blinding.

**Steps for Using the EAR**

(5) *Reevaluate all the information after the inquiry.* The purpose of this inquiry and reevaluation is to determine whether the "red flags" can be explained or justified. If they can, you may proceed with the transaction. If the "red flags" cannot be explained or justified and you proceed, you run the risk of having had "knowledge" that would make your action a violation of the EAR.

(6) *Refrain from the transaction or advise BIS and wait.* If you continue to have reasons for concern after your inquiry, then you should either refrain from the transaction or submit all the relevant information to BIS in the form of an application for a license or in such other form as BIS may specify.

(b) Industry has an important role to play in preventing exports and reexports contrary to the national security and foreign policy interests of the United States. BIS will continue to work in partnership with industry to make this front line of defense effective, while minimizing the regulatory burden on exporters. If you have any question about whether you have encountered a "red flag", you may contact: Office of Export Enforcement; (800) 424-2980 or Office of Exporter Services; (202) 482-4532.

**RED FLAGS**

Possible indicators that an unlawful diversion might be planned by your customer include the following:

1. The customer or purchasing agent is reluctant to offer information about the end-use of a product.
2. The product's capabilities do not fit the buyer's line of business; for example, a small bakery places an order for several sophisticated lasers.

3. The product ordered is incompatible with the technical level of the country to which the product is being shipped. For example, semiconductor manufacturing equipment would be of little use in a country without an electronics industry.
4. The customer has little or no business background.
5. The customer is willing to pay cash for a very expensive item when the terms of the sale call for financing.
6. The customer is unfamiliar with the product's performance characteristics but still wants the product.
7. Routine installation, training or maintenance services are declined by the customer.
8. Delivery dates are vague, or deliveries are planned for out-of-the-way destinations.
9. A freight forwarding firm is listed as the product's final destination.
10. The shipping route is abnormal for the product and destination.
11. Packaging is inconsistent with the stated method of shipment or destination.
12. When questioned, the buyer is evasive or unclear about whether the purchased product is for domestic use, export or reexport.
13. You receive an order for "parts" or "components" for an end item in 9x515 or the "600 series." The requested "parts" or "components" may be eligible for License Exception STA, another authorization, or may not require a destination-based license requirement for the country in question. However, the requested "parts" or "components" would be sufficient to service

one hundred of the 9x515 or “600 series” end items, but you “know” the country does not have those types of end items or only has two of those end items.

- 14.** The customer indicates or the facts pertaining to the proposed export suggest that a 9x515 or “600 series” item may be reexported to a destination listed in Country Group D:5 (see Supplement No. 1 to part 740 of the EAR).

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### § 734.1 INTRODUCTION

(a) In this part, references to the Export Administration Regulations (EAR) are references to 15 CFR chapter VII, subchapter C. This part describes the scope of the Export Administration Regulations (EAR) and explains certain key terms and principles used in the EAR. This part provides the rules you need to use to determine whether items and activities are subject to the EAR. This part is the first step in determining your obligations under the EAR. If neither your item nor activity is subject to the EAR, then you do not have any obligations under the EAR and you do not need to review other parts of the EAR. If you already know that your item or activity is subject to the EAR, you do not need to review this part and you can go on to review other parts of the EAR to determine your obligations. This part also describes certain key terms and principles used in the EAR. Specifically, it includes the following terms: “subject to the EAR”, “items subject to the EAR”, “export”, and “reexport”. These and other terms are also included in part 772 of the EAR, Definitions of Terms, and you should consult part 772 of the EAR for the meaning of terms used in the

EAR. Finally, this part makes clear that compliance with the EAR does not relieve any obligations imposed under foreign laws.

(b) This part does not address any of the provisions set forth in part 760 of the EAR, Restrictive Trade Practices or Boycotts.

(c) This part does not define the scope of legal authority to regulate exports, including reexports, or activities found in the Export Administration Act and other statutes. What this part does do is set forth the extent to which such legal authority has been exercised through the EAR.

### § 734.2 SUBJECT TO THE EAR

#### (a) *Subject to the EAR - Definition*

(1) “Subject to the EAR” is a term used in the EAR to describe those items and activities over which BIS exercises regulatory jurisdiction under the EAR. Conversely, items and activities that are *not* subject to the EAR are outside the regulatory jurisdiction of the EAR and are not affected by these regulations. The items and activities subject to the EAR are described in §734.2 through §734.5 of this part. You should review the Commerce Control List (CCL) and any applicable parts of the EAR to determine whether an item or activity is subject to the EAR. However, if you need help in determining whether an item or activity is subject to the EAR, see §734.6 of this part. Publicly available technology and software not subject to the EAR are described in §734.7 through §734.11 and Supplement No. 1 to this part.

(2) Items and activities subject to the EAR may also be controlled under export-related programs administered by other agencies. Items and activities subject to the EAR are not necessarily exempted from the control

programs of other agencies. Although BIS and other agencies that maintain controls for national security and foreign policy reasons try to minimize overlapping jurisdiction, you should be aware that in some instances you may have to comply with more than one regulatory program.

(3) The term “subject to the EAR” should not be confused with licensing or other requirements imposed in other parts of the EAR. Just because an item or activity is subject to the EAR does not mean that a license or other requirement automatically applies. A license or other requirement applies only in those cases where other parts of the EAR impose a licensing or other requirement on such items or activities.

#### (b) *[Reserved]*

### § 734.3 ITEMS SUBJECT TO THE EAR

(a) Except for items excluded in paragraph (b) of this section, the following items are subject to the EAR:

(1) All items in the United States, including in a U.S. Foreign Trade Zone or moving intransit through the United States from one foreign country to another;

(2) All U.S. origin items wherever located;

(3) Foreign-made commodities that incorporate controlled U.S.-origin commodities, foreign-made commodities that are ‘bundled’ with controlled U.S.-origin software, foreign-made software that is commingled with controlled U.S.-origin software, and foreign-made technology that is commingled with controlled U.S.-origin technology:

(i) In any quantity, as described in § 734.4(a) of this part; or

(ii) In quantities exceeding the *de minimis* levels, as described in §§ 734.4(c) or 734.4(d) of

this part;

(4) Certain foreign-made direct products of U.S. origin technology or software, as described in §736.2(b)(3) of the EAR. The term “direct product” means the immediate product (including processes and services) produced directly by the use of technology or software; and

**NOTE to paragraph (a)(4):** *Certain foreign-manufactured items developed or produced from U.S.-origin encryption items exported pursuant to License Exception ENC are subject to the EAR. See § 740.17(a) of the EAR.*

(5) Certain commodities produced by any plant or major component of a plant located outside the United States that is a direct product of U.S.-origin technology or software, as described in §736.2(b)(3) of the EAR.

**(b) The following are not subject to the EAR:**

(1) Items that are exclusively controlled for export or reexport by the following departments and agencies of the U.S. Government which regulate exports or reexports for national security or foreign policy purposes:

(i) *Department of State.* The International Traffic in Arms Regulations (22 CFR part 121) administered by the Directorate of Defense Trade Controls relate to defense articles and defense services on the U.S. Munitions List (22 CFR part 121). Section 38 of the Arms Export Control Act (22 U.S.C. 2778). (Also see paragraph (b)(1)(vi) of this section).

**Note to paragraph (b)(1)(i):** *If a defense article or service is controlled by the U.S. Munitions List set forth in the International Traffic in Arms Regulations, its export and temporary import is regulated by the Department of State. The President has delegated the authority to control defense articles and services for purposes of permanent import to the Attorney General. The defense articles and services controlled by the Secretary of State and the Attorney General collectively comprise the U.S. Munitions List*

*under the Arms Export Control Act (AECA). As the Attorney General exercises independent delegated authority to designate defense articles and services for purposes of permanent import controls, the permanent import control list administered by the Department of Justice has been separately labeled the U.S. Munitions Import List (27 CFR Part 447) to distinguish it from the list set out in the International Traffic in Arms Regulations. In carrying out the functions delegated to the Attorney General pursuant to the AECA, the Attorney General shall be guided by the views of the Secretary of State on matters affecting world peace, and the external security and foreign policy of the United States.*

(ii) *Treasury Department, Office of Foreign Assets Control (OFAC).* Regulations administered by OFAC implement broad controls and embargo transactions with certain foreign countries. These regulations include controls on exports and reexports to certain countries (31 CFR chapter V). Trading with the Enemy Act (50 U.S.C. app. section 1 *et seq.*), and International Emergency Economic Powers Act (50 U.S.C. 1701, *et seq.*)

(iii) *U.S. Nuclear Regulatory Commission (NRC).* Regulations administered by NRC control the export and reexport of commodities related to nuclear reactor vessels (10 CFR part 110). Atomic Energy Act of 1954, as amended (42 U.S.C. part 2011 *et seq.*).

(iv) *Department of Energy (DOE).* Regulations administered by DOE control the export and reexport of technology related to the production of special nuclear materials (10 CFR part 810). Atomic Energy Act of 1954, as amended (42 U.S.C. section 2011 *et seq.*).

(v) *Patent and Trademark Office (PTO).* Regulations administered by PTO provide for the export to a foreign country of unclassified technology in the form of a patent application or an amendment, modification, or supplement thereto or division thereof (37 CFR part 5). BIS has delegated authority under the Export Administration Act to the PTO to approve exports and reexports of such technology which

is subject to the EAR. Exports and reexports of such technology not approved under PTO regulations must comply with the EAR.

(vi) *Department of Defense (DoD) and Department of State Foreign Military Sales (FMS) Program.* Items that are subject to the EAR that are sold, leased or loaned by the Department of Defense to a foreign country or international organization under the FMS Program of the Arms Export Control Act pursuant to a Letter of Offer and Acceptance (LOA) authorizing such transfers are not “subject to the EAR,” but rather, are subject to the authority of the Arms Export Control Act.

(2) Prerecorded phonograph records reproducing in whole or in part, the content of printed books, pamphlets, and miscellaneous publications, including newspapers and periodicals; printed books, pamphlets, and miscellaneous publications including bound newspapers and periodicals; children's picture and painting books; newspaper and periodicals, unbound, excluding waste; music books; sheet music; calendars and calendar blocks, paper; maps, hydrographical charts, atlases, gazetteers, globe covers, and globes (terrestrial and celestial); exposed and developed microfilm reproducing, in whole or in part, the content of any of the above; exposed and developed motion picture film and soundtrack; and advertising printed matter exclusively related thereto.

(3) Information and “software” that:

- (i) Are published, as described in § 734.7;
- (ii) Arise during, or result from, fundamental research, as described in § 734.8;
- (iii) Are released by instruction in a catalog course or associated teaching laboratory of an academic institution;
- (iv) Appear in patents or open (published) patent applications available from or at any patent office, unless covered by an invention secrecy order, or are otherwise patent information as described in § 734.10;

(v) Are non-proprietary system descriptions; or

(vi) Are telemetry data as defined in Note 2 to Category 9, Product Group E (see Supplement No. 1 to part 774 of the EAR).

*NOTE TO PARAGRAPHS (b)(2) AND (b)(3): A printed book or other printed material setting forth encryption source code is not itself subject to the EAR (see § 734.3(b)(2)). However, notwithstanding § 734.3(b)(2), encryption source code in electronic form or media (e.g., computer diskette or CD ROM) remains subject to the EAR (see § 734.17)). Publicly available encryption object code “software” classified under ECCN 5D002 is not subject to the EAR when the corresponding source code meets the criteria specified in § 742.15(b) of the EAR.*

*NOTE TO PARAGRAPH (b)(3): Except as set forth in part 760 of this title, information that is not within the scope of the definition of “technology” (see § 772.1 of the EAR) is not subject to the EAR.*

(c) “Items subject to the EAR” consist of the items listed on the Commerce Control List (CCL) in part 774 of the EAR and all other items which meet the definition of that term. For ease of reference and classification purposes, items subject to the EAR which are not listed on the CCL are designated as “EAR99.” Items subject to temporary CCL controls are classified under the ECCN 0Y521 series (i.e., 0A521, 0B521, 0C521, 0D521, and 0E521) pursuant to § 742.6(a)(8) of the EAR, while a determination is made as to whether classification under a revised or new ECCN, or an EAR99 designation, is appropriate.

(d) Commodity classification determinations and advisory opinions issued by BIS are not, and may not be relied upon as, determinations that the items in question are “subject to the EAR,” as described in §748.3 of the EAR.

(e) Items subject to the EAR may be exported, reexported, or transferred in country under licenses, agreements, or other approvals from the Department of State’s Directorate of Defense

Trade Controls pursuant to §§ 120.5(b) and 126.6(c) of the International Traffic in Arms Regulations (ITAR) (22 CFR 120.5(b) and 126.6(c)). Exports, reexports, or in-country transfers not in accordance with the terms and conditions of a license, agreement, or other approval under § 120.5(b) of the ITAR requires separate authorization from BIS. Exports, reexports, or in-country transfers of items subject to the EAR under a Foreign Military Sales case that exceed the scope of § 126.6(c) of the ITAR or the scope of actions made by the Department of State's Office of Regional Security and Arms Transfers require separate authorization from BIS.

### § 734.4 DE MINIMIS U.S. CONTENT

#### (a) Items for which there is no *de minimis* level

(1) There is no *de minimis* level for the export from a foreign country of a foreign-made computer with an Adjusted Peak Performance (APP) exceeding that listed in ECCN 4A003.b and containing U.S.-origin controlled semiconductors (other than memory circuits) classified under ECCN 3A001 to Computer Tier 3 destinations; or exceeding an APP listed in ECCN 4A994.b and containing U.S.-origin controlled semiconductors (other than memory circuits) classified under ECCN 3A001 or high speed interconnect devices (ECCN 4A994.j) to Cuba, Iran, North Korea, Sudan, and Syria.

(2) Foreign produced encryption technology that incorporates U.S. origin encryption technology controlled by ECCN 5E002 is subject to the EAR regardless of the amount of U.S. origin content

(3) [RESERVED]

(4) There is no *de minimis* level for U.S.-origin technology controlled by ECCN 9E003.a.1 through a.8, .h, .i, and .j. when redrawn, used, consulted, or otherwise commingled abroad.

(5) There is no *de minimis* level for foreign-made "military commodities" incorporating one or more of the commodities described in ECCN

0A919.a.1 when destined for a country listed in Country Group D:5 of Supplement No. 1 to part 740 of the EAR.

#### (6) 9x515 and "600 series"

(i) There is no *de minimis* level for foreign-made items that incorporate U.S.-origin 9x515 or "600 series" items enumerated or otherwise described in paragraphs .a through .x of a 9x515 or "600 series" ECCN when destined for a country listed in Country Group D:5 of Supplement No. 1 to part 740 of the EAR.

(ii) There is no *de minimis* level for foreign-made items that incorporate U.S.-origin 9x515 or "600 series" .y items when destined for a country listed in Country Group E:1 or E:2 of Supplement No. 1 to part 740 of the EAR or for the People's Republic of China (PRC).

(7) Under certain rules issued by the Office of Foreign Assets Control, certain exports from abroad by U.S.-owned or controlled entities may be prohibited notwithstanding the *de minimis* provisions of the EAR. In addition, the *de minimis* rules do not relieve U.S. persons of the obligation to refrain from supporting the proliferation of weapons of mass-destruction and missiles as provided in § 744.6 of the EAR.

#### (b) Special requirements for certain encryption items

Non-U.S.-made items that incorporate U.S.-origin items that are listed in this paragraph are subject to the EAR unless they meet the *de minimis* level and destination requirements of paragraph (c) or (d) of this section and the requirements of this paragraph.

(1) The U.S.-origin commodities or software, if controlled under ECCN 5A002, ECCN 5B002, equivalent or related software therefor classified under ECCN 5D002, and "cryptanalytic items" classified under ECCN 5A004 or 5D002, must have been:

(i) Publicly available encryption source code classified under ECCN 5D002 that has met the

**(c) 10% De Minimis Rule**

Except as provided in paragraphs (a) and (b)(1)(iii) of this section and subject to the provisions of paragraphs (b)(1)(i), (b)(1)(ii) and (b)(2) of this section, the following reexports are not subject to the EAR when made to any country in the world. See Supplement No. 2 of this part for guidance on calculating values.

(1) Reexports of a foreign-made commodity incorporating controlled U.S.-origin commodities or 'bundled' with U.S.-origin software valued at 10% or less of the total value of the foreign-made commodity;

**NOTES to paragraph (c)(1):**

(1) U.S.-origin software is not eligible for the de minimis exclusion and is subject to the EAR when exported or reexported separately from (i.e., not bundled or incorporated with) the foreign-made item.

(2) For the purposes of this section, 'bundled' means software that is reexported together with the item and is configured for the item, but is not necessarily physically integrated into the item.

(3) The de minimis exclusion under paragraph (c)(1) only applies to software that is listed on the Commerce Control List (CCL) and has a reason for control of anti-terrorism (AT) only or software that is designated as EAR99 (subject to the EAR, but not listed on the CCL). For all other software, an independent assessment of whether the software by itself is subject to the EAR must be performed.

(2) Reexports of foreign-made software incorporating controlled U.S.-origin software valued at 10% or less of the total value of the foreign-made software; or

(3) Reexports of foreign technology commingled with or drawn from controlled U.S.-origin technology valued at 10% or less of the total value of the foreign technology. Before you may rely upon the de minimis exclusion for foreign-made technology commingled with controlled U.S.-origin technology, you must file a one-time report. See Supplement No. 2 to part 734 for submission requirements.

**(d) 25% De Minimis Rule**

Except as provided in paragraph (a) of this section and subject to the provisions of paragraph (b) of this section, the following reexports are not subject to the EAR when made to countries other than those listed in Country Group E:1 or E:2 of supplement no. 1 to part 740 of the EAR. See supplement no. 2 to this part for guidance on calculating values.

(1) Reexports of a foreign-made commodity incorporating controlled U.S.-origin commodities or 'bundled' with U.S.-origin software valued at 25% or less of the total value of the foreign-made commodity;

**NOTES to paragraph (d)(1):**

(1) U.S.-origin software is not eligible for the de minimis exclusion and is subject to the EAR when exported or reexported separately from (i.e., not bundled or incorporated with) the foreign-made item.

(2) For the purposes of this section, 'bundled' means software that is reexported together with the item and is configured for the item, but is not necessarily physically integrated into the item.

(3) The de minimis exclusion under paragraph (d)(1) only applies to software that is listed on the Commerce Control List (CCL) and has a reason for control of anti-terrorism (AT) only or software that is classified as EAR99 (subject to the EAR, but not listed on the CCL). For all other software, an independent assessment of whether the software by itself is subject to the EAR must be performed.

(2) Reexports of foreign-made software incorporating controlled U.S.-origin software valued at 25% or less of the total value of the foreign-made software; or

(3) Reexports of foreign technology commingled with or drawn from controlled U.S.-origin technology valued at 25% or less of the total value of the foreign technology. Before you may rely upon the de minimis exclusion for foreign-made technology commingled with controlled U.S.-origin technology, you must file a one-time report. See Supplement No. 2 to part 734 for submission requirements.

Certain encryption items

This is a page insert made by EIL to aid understanding of de minimis rules.

(e) You are responsible for making the necessary calculations to determine whether the de minimis provisions apply to your situation. See Supplement No. 2 to part 734 for guidance regarding calculation of U.S. controlled content.

notification requirement of § 742.15(b), see § 734.3(b)(3) of the EAR. Such source code does not have to be counted as controlled U.S.-origin content in a *de minimis* calculation;

(ii) Authorized for License Exception ENC by BIS after classification pursuant to § 740.17(b)(3) of the EAR;

(iii) Authorized for License Exception ENC by BIS after classification pursuant to § 740.17(b)(2) of the EAR, and the non-U.S.-made product will not be sent to any destination in Country Groups E:1 and E:2 in Supplement No. 1 to part 740 of the EAR; or

(iv) Authorized for License Exception ENC pursuant to § 740.17(b)(1) of the EAR.

(2) U.S.-origin encryption items classified under ECCNs 5A992.c, 5D992.c, or 5E992.b.

**NOTE to paragraph (b):** See Supplement No. 2 to this part for *de minimis* calculation procedures and reporting requirements.

No de minimis level items

**(c) 10% De Minimis Rule**

Except as provided in paragraphs (a) and (b)(1)(iii) of this section and subject to the provisions of paragraphs (b)(1)(i), (b)(1)(ii) and (b)(2) of this section, the following reexports are not subject to the EAR when made to any country in the world. See Supplement No. 2 of this part for guidance on calculating values.

(1) Reexports of a foreign-made commodity incorporating controlled U.S.-origin commodities or ‘bundled’ with U.S.-origin software valued at 10% or less of the total value of the foreign-made commodity;

**NOTES to paragraph (c)(1):**

(1) U.S.-origin software is not eligible for the *de minimis* exclusion and is subject to the EAR when exported or reexported separately from (i.e., not bundled or incorporated with) the foreign-made item.

(2) For the purposes of this section, ‘bundled’ means software that is reexported together with the item and is configured for the item, but is not necessarily physically integrated into the item.

(3) The *de minimis* exclusion under paragraph (c)(1) only applies to software that is listed on the Commerce Control List (CCL) and has a reason for control of anti-terrorism (AT) only or software that is designated as EAR99 (subject to the EAR, but not listed on the CCL). For all other software, an independent assessment of whether the software by itself is subject to the EAR must be performed.

(2) Reexports of foreign-made software incorporating controlled U.S.-origin software valued at 10% or less of the total value of the foreign-made software; or

(3) Reexports of foreign technology commingled with or drawn from controlled U.S.-origin technology valued at 10% or less of the total value of the foreign technology. Before you may rely upon the *de minimis* exclusion for foreign-made technology commingled with controlled U.S.-origin technology, you must file a one-time report. See Supplement No. 2 to part 734 for submission requirements.

Certain encryption items

No de minimis level items

**(d) 25% De Minimis Rule**

Except as provided in paragraph (a) of this section and subject to the provisions of paragraph (b) of this section, the following reexports are not subject to the EAR when made to countries other than those listed in Country Group E:1 or E:2 of supplement no. 1 to part 740 of the EAR. See supplement no. 2 to this part for guidance on calculating values.

(1) Reexports of a foreign-made commodity incorporating controlled U.S.-origin commodities or ‘bundled’ with U.S.-origin software valued at 25% or less of the total value of the foreign-made commodity;

**NOTES to paragraph (d)(1):**

(1) U.S.-origin software is not eligible for the

*de minimis* exclusion and is subject to the EAR when exported or reexported separately from (i.e., not bundled or incorporated with) the foreign-made item.

(2) For the purposes of this section, ‘bundled’ means software that is reexported together with the item and is configured for the item, but is not necessarily physically integrated into the item.

(3) The *de minimis* exclusion under paragraph (d)(1) only applies to software that is listed on the Commerce Control List (CCL) and has a reason for control of anti-terrorism (AT) only or software that is classified as EAR99 (subject to the EAR, but not listed on the CCL). For all other software, an independent assessment of whether the software by itself is subject to the EAR must be performed.

(2) Reexports of foreign-made software incorporating controlled U.S.-origin software valued at 25% or less of the total value of the foreign-made software; or

(3) Reexports of foreign technology commingled with or drawn from controlled U.S.-origin technology valued at 25% or less of the total value of the foreign technology. Before you may rely upon the *de minimis* exclusion for foreign-made technology commingled with controlled U.S.-origin technology, you must file a one-time report. See Supplement No. 2 to part 734 for submission requirements.

(e) You are responsible for making the necessary calculations to determine whether the *de minimis* provisions apply to your situation. See Supplement No. 2 to part 734 for guidance regarding calculation of U.S. controlled content.

(f) See §770.3 of the EAR for principles that apply to commingled U.S.-origin technology and software.

**(g) Recordkeeping requirement**

The method by which you determined the percentage of U.S. content in foreign software or technology must be documented and retained in

your records in accordance with the recordkeeping requirements in part 762 of the EAR. Your records should indicate whether the values you used in your calculations are actual arms-length market prices or prices derived from comparable transactions or costs of production, overhead, and profit.

**§ 734.5 ACTIVITIES OF U.S. AND FOREIGN PERSONS SUBJECT TO THE EAR**

The following kinds of activities are subject to the EAR:

(a) Certain activities of U.S. persons related to the proliferation of nuclear explosive devices, chemical or biological weapons, missile technology as described in §744.6 of the EAR, and the proliferation of chemical weapons as described in part 745 of the EAR.

(b) Activities of U.S. or foreign persons prohibited by any order issued under the EAR, including a Denial Order issued pursuant to part 766 of the EAR.

**§ 734.6 ASSISTANCE AVAILABLE FROM BIS FOR DETERMINING LICENSING AND OTHER REQUIREMENTS**

(a) If you are not sure whether a commodity, software, technology, or activity “subject to the EAR” is subject to licensing or other requirements under the EAR, you may ask BIS for an advisory opinion or a commodity classification determination. In order to determine whether an item is “subject to the ITAR,” you should review the ITAR’s United States Munitions List (see 22 CFR §§ 120.3, 120.6 and 121.1). You may also submit a request to the Department of State, Directorate of Defense Trade Controls, for a formal jurisdictional determination regarding the commodity, software, technology, or activity at issue; or in ITAR terms, the defense article, technical data or defense service at issue (see 22

CFR 120.4).

(b) As the agency responsible for administering the EAR, BIS is the only agency that has the responsibility for determining whether an item or activity is subject to the EAR and, if so, what licensing or other requirements apply under the EAR. Such a determination only affects EAR requirements, and does not affect the applicability of any other regulatory programs.

(c) If you need help in determining BIS licensing or other requirements, you may ask BIS for help by following the procedures described in §748.3 of the EAR.

### § 734.7 PUBLISHED

(a) Except as set forth in paragraphs (b) and (c) of this section, unclassified “technology” or “software” is “published,” and is thus not “technology” or “software” subject to the EAR, when it has been made available to the public without restrictions upon its further dissemination such as through any of the following:

(1) Subscriptions available without restriction to any individual who desires to obtain or purchase the published information;

(2) Libraries or other public collections that are open and available to the public, and from which the public can obtain tangible or intangible documents;

(3) Unlimited distribution at a conference, meeting, seminar, trade show, or exhibition, generally accessible to the interested public;

(4) Public dissemination (*i.e.*, unlimited distribution) in any form (e.g., not necessarily in published form), including posting on the Internet on sites available to the public; or

(5) Submission of a written composition, manuscript, presentation, computer-readable dataset, formula, imagery, algorithms, or some other representation of knowledge with the

intention that such information will be made publicly available if accepted for publication or presentation:

(i) To domestic or foreign co-authors, editors, or reviewers of journals, magazines, newspapers or trade publications;

(ii) To researchers conducting fundamental research; or

(iii) To organizers of open conferences or other open gatherings.

(b) Published encryption software classified under ECCN 5D002 remains subject to the EAR unless it is publicly available encryption object code software classified under ECCN 5D002 and the corresponding source code meets the criteria specified in § 742.15(b) of the EAR.

(c) The following remains subject to the EAR: “software” or “technology” for the production of a firearm, or firearm frame or receiver, controlled under ECCN 0A501, that is made available by posting on the internet in an electronic format, such as AMF or G-code, and is ready for insertion into a computer numerically controlled machine tool, additive manufacturing equipment, or any other equipment that makes use of the “software” or “technology” to produce the firearm frame or receiver or complete firearm.

### § 734.8 “TECHNOLOGY” OR “SOFTWARE” THAT ARISES DURING, OR RESULTS FROM, FUNDAMENTAL RESEARCH.

#### (a) *Fundamental research*

“Technology” or “software” that arises during, or results from, fundamental research and is intended to be published is not subject to the EAR.

**NOTE 1 TO PARAGRAPH (a):** *This paragraph does not apply to “technology” or “software” subject to the EAR that is released to conduct fundamental research. (See*

§ 734.7(a)(5)(ii) for information released to researchers that is “published.”)

**NOTE 2 TO PARAGRAPH (a):** *There are instances in the conduct of research where a researcher, institution or company may decide to restrict or protect the release or publication of “technology” or “software” contained in research results. Once a decision is made to maintain such “technology” or “software” as restricted or proprietary, the “technology” or “software,” if within the scope of § 734.3(a), becomes subject to the EAR.*

**(b) Prepublication review**

“Technology” or “software” that arises during, or results, from fundamental research is intended to be published to the extent that the researchers are free to publish the “technology” or “software” contained in the research without restriction. “Technology” or “software” that arises during or results from fundamental research subject to prepublication review is still intended to be published when:

- (1) Prepublication review is conducted solely to ensure that publication would not compromise patent rights, so long as the review causes no more than a temporary delay in publication of the research results;
- (2) Prepublication review is conducted by a sponsor of research solely to insure that the publication would not inadvertently divulge proprietary information that the sponsor has furnished to the researchers; or
- (3) With respect to research conducted by scientists or engineers working for a Federal agency or a Federally Funded Research and Development Center (FFRDC), the review is conducted within any appropriate system devised by the agency or the FFRDC to control the release of information by such scientists and engineers.

**NOTE 1 TO PARAGRAPH (b):** *Although “technology” or “software” arising during or resulting from fundamental research is not considered intended to be published if*

*researchers accept restrictions on its publication, such “technology” or “software” will nonetheless qualify as “technology” or “software” arising during or resulting from fundamental research once all such restrictions have expired or have been removed.*

**NOTE 2 TO PARAGRAPH (b):** *Research that is voluntarily subjected to U.S. government prepublication review is considered “intended to be published” when the research is released consistent with the prepublication review and any resulting controls.*

**NOTE 3 TO PARAGRAPH (b):** *“Technology” or “software” resulting from U.S. government funded research that is subject to government-imposed access and dissemination or other specific national security controls qualifies as “technology” or “software” resulting from fundamental research, provided that all government-imposed national security controls have been satisfied and the researchers are free to publish the “technology” or “software” contained in the research without restriction. Examples of specific national security controls include requirements for prepublication review by the Government, with right to withhold permission for publication; restrictions on prepublication dissemination of information to non-U.S. citizens or other categories of persons; or restrictions on participation of non-U.S. citizens or other categories of persons in the research. A general reference to one or more export control laws or regulations or a general reminder that the Government retains the right to classify is not a specific national security control.*

**(c) Fundamental research definition**

Fundamental research means research in science, engineering, or mathematics, the results of which ordinarily are published and shared broadly within the research community, and for which the researchers have not accepted restrictions for proprietary or national security reasons.

**§ 734.9 [RESERVED]****§ 734.10 PATENTS**

“Technology” is not subject to the EAR if it is contained in any of the following:

(a) A patent or an open (published) patent application available from or at any patent office;

(b) A published patent or patent application prepared wholly from foreign-origin “technology” where the application is being sent to the foreign inventor to be executed and returned to the United States for subsequent filing in the U.S. Patent and Trademark Office;

(c) A patent application, or an amendment, modification, supplement or division of an application, and authorized for filing in a foreign country in accordance with the regulations of the Patent and Trademark Office, 37 CFR part 5; or

(d) A patent application when sent to a foreign country before or within six months after the filing of a United States patent application for the purpose of obtaining the signature of an inventor who was in the United States when the invention was made or who is a co-inventor with a person residing in the United States.

**§ 734.11 BIS ACTIVITIES CONDUCTED OUTSIDE THE UNITED STATES**

The Export Control Reform Act of 2018 (ECRA) (50 U.S.C. 4801-4852) authorizes the Secretary of Commerce, in carrying out its provisions, to undertake activities outside the United States, including, but not limited to, conducting investigations; requiring and obtaining information from persons; and conducting pre-license checks and post-shipment verifications. BIS officials will act with due care in the jurisdiction of a foreign nation and, to the extent possible, consistent with the applicable host nation government’s laws. For any action taken outside the United States, BIS officials will

consult and coordinate with the appropriate U.S. Government agencies and act in a manner consistent with the United States’ international commitments and international agreements to which the United States is a party.

**§ 734.12 EFFECT ON FOREIGN LAWS AND REGULATIONS**

Any person who complies with any of the license or other requirements of the EAR is not relieved of the responsibility of complying with applicable foreign laws and regulations. Conversely, any person who complies with the license or other requirements of a foreign law or regulation is not relieved of the responsibility of complying with U.S. laws and regulations, including the EAR.

**\*\*export defined \*\*definition of export**

**§ 734.13 EXPORT**

(a) Except as set forth in §§ 734.17 or 734.18, **Export means:**

(1) An actual shipment or transmission out of the United States, including the sending or taking of an item out of the United States, in any manner;

(2) Releasing or otherwise transferring “technology” or source code (but not object code) to a foreign person in the United States (a “deemed export”); **••Deemed export**

(3) Transferring by a person in the United States of registration, control, or ownership of:

(i) A spacecraft subject to the EAR that is not eligible for export under License Exception STA (*i.e.*, spacecraft that provide space-based logistics, assembly or servicing of any spacecraft) to a person in or a national of any other country; or

(ii) Any other spacecraft subject to the EAR to a person in or a national of a Country Group D:5 country.

(b) Any release in the United States of “technology” or source code to a foreign person is a deemed export to the foreign person’s most

recent country of citizenship or permanent residency.

(c) The export of an item that will transit through a country or countries to a destination identified in the EAR is deemed to be an export to that destination.

### § 734.14 REEXPORT \*\*Reexport \*\*Re-export

(a) Except as set forth in §§ 734.18 and 734.20, Reexport means:

(1) An actual shipment or transmission of an item subject to the EAR from one foreign country to another foreign country, including the sending or taking of an item to or from such countries in any manner;

(2) Releasing or otherwise transferring “technology” or source code subject to the EAR to a foreign person of a country other than the foreign country where the release or transfer takes place (a deemed reexport);

(3) Transferring by a person outside the United States of registration, control, or ownership of:

(i) A spacecraft subject to the EAR that is not eligible for reexport under License Exception STA (i.e., spacecraft that provide space-based logistics, assembly or servicing of any spacecraft) to a person in or a national of any other country; or

(ii) Any other spacecraft subject to the EAR to a person in or a national of a Country Group D:5 country.

(b) Any release outside of the United States of “technology” or source code subject to the EAR to a foreign person of another country is a deemed reexport to the foreign person's most recent country of citizenship or permanent residency, except as described in § 734.20.

(c) The reexport of an item subject to the EAR that will transit through a country or countries to a destination identified in the EAR is deemed to

be a reexport to that destination.

### § 734.15 RELEASE

(a) Except as set forth in § 734.18, “technology” and “software” are “released” through:

(1) Visual or other inspection by a foreign person of items that reveals “technology” or source code subject to the EAR to a foreign person; or

(2) Oral or written exchanges with a foreign person of “technology” or source code in the United States or abroad.

(b) Any act causing the “release” of “technology” or “software,” through use of “access information” or otherwise, to yourself or another person requires an authorization to the same extent an authorization would be required to export or reexport such “technology” or “software” to that person.

### § 734.16 TRANSFER (IN-COUNTRY)

Except as set forth in § 734.18(a)(3), a Transfer (in-country) is a change in end use or end user of an item within the same foreign country. Transfer (in-country) is synonymous with In-country transfer.

### § 734.17 EXPORT OF ENCRYPTION SOURCE CODE AND OBJECT CODE SOFTWARE

(a) For purposes of the EAR, the Export of encryption source code and object code “software” means:

(1) An actual shipment, transfer, or transmission out of the United States (see also paragraph (b) of this section); or

(2) A transfer of such “software” in the United States to an embassy or affiliate of a foreign country.

(b) The export of encryption source code and object code “software” controlled for “EI” reasons under ECCN 5D002 on the Commerce Control List (see Supplement No. 1 to part 774 of the EAR) includes:

(1) Downloading, or causing the downloading of, such “software” to locations (including electronic bulletin boards, Internet file transfer protocol, and World Wide Web sites) outside the U.S., or

(2) Making such “software” available for transfer outside the United States, over wire, cable, radio, electromagnetic, photo optical, photoelectric or other comparable communications facilities accessible to persons outside the United States, including transfers from electronic bulletin boards, Internet file transfer protocol and World Wide Web sites, unless the person making the “software” available takes precautions adequate to prevent unauthorized transfer of such code. See § 742.15(b) of the EAR for notification requirements for export or reexports of encryption source code “software” considered to be publicly available or published consistent with the provisions of § 734.3(b)(3). Publicly available encryption source code “software” and corresponding object code are not subject to the EAR, when the encryption source code “software” meets the notification requirements in § 742.15(b) of the EAR.

(c) Subject to the General Prohibitions described in part 736 of the EAR, such precautions for Internet transfers of products eligible for export under § 740.17(b)(2) of the EAR (encryption “software” products, certain encryption source code and general purpose encryption toolkits) shall include such measures as:

(1) The access control system, either through automated means or human intervention, checks the address of every system outside of the U.S. or Canada requesting or receiving a transfer and verifies such systems do not have a domain name or Internet address of a foreign government end-user (e.g., “.gov,” “.gouv,” “.mil” or similar addresses);

(2) The access control system provides every requesting or receiving party with notice that the transfer includes or would include cryptographic “software” subject to export controls under the Export Administration Regulations, and anyone receiving such a transfer cannot export the “software” without a license or other authorization; and

(3) Every party requesting or receiving a transfer of such “software” must acknowledge affirmatively that the “software” is not intended for use by a government end user, as defined in part 772 of the EAR, and he or she understands the cryptographic “software” is subject to export controls under the Export Administration Regulations and anyone receiving the transfer cannot export the “software” without a license or other authorization. BIS will consider acknowledgments in electronic form provided they are adequate to assure legal undertakings similar to written acknowledgments.

### § 734.18 ACTIVITIES THAT ARE NOT EXPORTS, REEXPORTS, OR TRANSFERS

(a) The following activities are not exports, reexports, or transfers:

(1) Launching a spacecraft, launch vehicle, payload, or other item into space.

(2) Transmitting or otherwise transferring “technology” or “software” to a person in the United States who is not a foreign person from another person in the United States.

(3) Transmitting or otherwise making a transfer (in-country) within the same foreign country of “technology” or “software” between or among only persons who are not “foreign persons,” so long as the transmission or transfer does not result in a release to a foreign person or to a person prohibited from receiving the “technology” or “software.”

(4) Shipping, moving, or transferring items

between or among the United States, the District of Columbia, the Commonwealth of Puerto Rico, or the Commonwealth of the Northern Mariana Islands or any territory, dependency, or possession of the United States as listed in Schedule C, Classification Codes and Descriptions for U.S. Export Statistics, issued by the Bureau of the Census.

(5) Sending, taking, or storing “technology” or “software” that is:

- (i) Unclassified;
- (ii) Secured using 'end-to-end encryption;'
- (iii) Secured using cryptographic modules (hardware or “software”) compliant with Federal Information Processing Standards Publication 140-2 (FIPS 140-2) or its successors, supplemented by “software” implementation, cryptographic key management and other procedures and controls that are in accordance with guidance provided in current U.S. National Institute for Standards and Technology publications, or other equally or more effective cryptographic means; and

(iv) Not intentionally stored in a country listed in Country Group D:5 (see Supplement No. 1 to part 740 of the EAR) or in the Russian Federation.

*Note 1 to paragraph (a)(5)(iv): Data in-transit via the Internet is not deemed to be stored.*

**(b) Definitions**

For purposes of this section, **End-to-end encryption** means (i) the provision of cryptographic protection of data such that the data is not in unencrypted form between an originator (or the originator's in-country security boundary) and an intended recipient (or the recipient's in-country security boundary), and (ii) the means of decryption are not provided to any third party. The originator and the recipient may be the same person.

(c) The ability to access “technology” or

“software” in encrypted form that satisfies the criteria set forth in paragraph (a)(5) of this section does not constitute the release or export of such “technology” or “software.”

**§ 734.19 TRANSFER OF ACCESS INFORMATION**

To the extent an authorization would be required to transfer “technology” or “software,” a comparable authorization is required to transfer access information if done with “knowledge” that such transfer would result in the release of such “technology” or “software” without a required authorization.

Carve-out for **\*\*activities that are \*\*not a Deemed Export**

**§ 734.20 ACTIVITIES THAT ARE NOT DEEMED REEXPORTS**

The following activities are not deemed reexports (see “deemed reexport” definition in § 734.14(b)):

**(a) Authorized Release of “technology” or source code**

Release of “technology” or source code by an entity outside the United States to a foreign person of a country other than the foreign country where the release takes place if:

(1) The entity is authorized to receive the “technology” or source code at issue, whether by a license, license exception, or situation where no license is required under the EAR for such “technology” or source code; and

(2) The entity has “knowledge” that the foreign national's most recent country of citizenship or permanent residency is that of a country to which export from the United States of the “technology” or source code at issue would be authorized by the EAR either under a license exception or in situations where no license under the EAR would be required.

**(b) Release to Country Group A:5**

*nationals*

Without limiting the scope of paragraph (a), release of “technology” or source code by an entity outside the United States to a foreign person of a country other than the foreign country where the release takes place if:

- (1) The entity is authorized to receive the “technology” or source code at issue, whether by a license, license exception, or through situations where no license is required under the EAR;
- (2) The foreign person is a bona fide ‘permanent and regular employee’ of the entity and is not a proscribed person (see § 772.1 for definition of proscribed person);
- (3) Such employee is a national exclusively of a country in Country Group A:5; and
- (4) The release of “technology” or source code takes place entirely within the physical territory of any such country, or within the United States.

**(c) Release to other than Country  
Group A:5 nationals**

Without limiting the scope of paragraph (a), release of “technology” or source code by an entity outside the United States to a foreign person of a country other than the foreign country where the release takes place if:

- (1) The entity is authorized to receive the “technology” or source code at issue, whether by a license, license exception, or situations where no license is required under the EAR;
- (2) The foreign person is a bona fide ‘permanent and regular employee’ of the entity and is not a proscribed person (see § 772.1 for definition of proscribed person);
- (3) The release takes place entirely within the physical territory of the country where the entity is located, conducts official business, or operates, or within the United States;
- (4) The entity has effective procedures to prevent

diversion to destinations, entities, end users, and end uses contrary to the EAR; and

(5) Any one of the following six (i.e., paragraphs (c)(5)(i), (ii), (iii), (iv), (v), or (vi) of this section) situations is applicable:

(i) The foreign person has a security clearance approved by the host nation government of the entity outside the United States;

(ii) The entity outside the United States:

(A) Has in place a process to screen the foreign person employee and to have the employee execute a non-disclosure agreement that provides assurances that the employee will not disclose, transfer, or reexport controlled “technology” contrary to the EAR;

(B) Screens the employee for substantive contacts with countries listed in Country Group D:5 (see Supplement No. 1 to part 740 of the EAR). Although nationality does not, in and of itself, prohibit access to “technology” or source code subject to the EAR, an employee who has substantive contacts with foreign persons from countries listed in Country Group D:5 shall be presumed to raise a risk of diversion, unless BIS determines otherwise;

(C) Maintains a technology security or clearance plan that includes procedures for screening employees for such substantive contacts;

(D) Maintains records of such screenings for the longer of five years or the duration of the individual's employment with the entity; and

(E) Will make such plans and records available to BIS or its agents for civil and criminal law enforcement purposes upon request;

(iii) The entity is a U.K. entity implementing § 126.18 of the ITAR (22 CFR 126.18) pursuant to the U.S.-U.K. Exchange of Notes regarding §126.18 of the ITAR for which the U.K. has provided appropriate implementation guidance;

(iv) The entity is a Canadian entity implementing §126.18 of the ITAR pursuant to the U.S.-Canadian Exchange of Letters regarding § 126.18 of the ITAR for which Canada has provided appropriate implementation guidance;

(v) The entity is an Australian entity implementing the exemption at paragraph 3.7b of the ITAR Agreements Guidelines; or

(vi) The entity is a Dutch entity implementing the exemption at paragraph 3.7c of the ITAR Agreements Guidelines.

**(d) Definitions**

**(1) Substantive contacts** include regular travel to countries in Country Group D:5; recent or continuing contact with agents, brokers, and nationals of such countries; continued demonstrated allegiance to such countries; maintenance of business relationships with persons from such countries; maintenance of a residence in such countries; receiving salary or other continuing monetary compensation from such countries; or acts otherwise indicating a risk of diversion.

**(2) Permanent and regular employee** is an individual who:

(i) Is permanently (i.e., for not less than a year) employed by an entity, or

(ii) Is a contract employee who:

(A) Is in a long-term contractual relationship with the company where the individual works at the entity's facilities or at locations assigned by the entity (such as a remote site or on travel);

(B) Works under the entity's direction and control such that the company must determine the individual's work schedule and duties;

(C) Works full time and exclusively for the entity; and

(D) Executes a nondisclosure certification for the company that he or she will not disclose

confidential information received as part of his or her work for the entity.

**NOTE TO PARAGRAPH (d)(2):** *If the contract employee has been seconded to the entity by a staffing agency, then the staffing agency must not have any role in the work the individual performs other than to provide the individual for that work. The staffing agency also must not have access to any controlled "technology" or source code other than that authorized by the applicable regulations or a license.*

**SUPPLEMENT NO. 1 TO PART 734 – [RESERVED]**

**\*\*using technical knowledge abroad = tech data export** [This principle is reiterated in Q:1\(i\) on page 1119 herein. Click to see.](#)

**Note:** The Q&A section that used to be here included a question about the use abroad of personal knowledge, in a way that sure looks like a requirement to license "services" as a tech data export. This same principle is reiterated

*Question F(1):* I am a professor at a U.S. university, with expertise in design and creation of submicron devices. I have been asked to be a consultant for a "third-world" company that wishes to manufacture such devices. Do I need a license to do so?

*Answer:* Quite possibly you do. Application abroad of personal knowledge or technical experience acquired in the United States constitutes an export of that knowledge and experience that is subject to the Export Administration Regulations. If any part of the knowledge or experience your export or reexport deals with technology that requires a license under the EAR, you will need to obtain a license or qualify for a License Exception.

**SUPPLEMENT NO. 2 TO PART 734 - GUIDELINES FOR DE MINIMIS RULES**

(a) Calculation of the value of controlled U.S. origin content in foreign-made items is to be performed for the purposes of § 734.4 of this part, to determine whether the percentage of U.S. origin content is *de minimis*. (Note that you do not need to make these calculations if the foreign made item does not require a license to the destination in question.) Use the following guidelines to perform such calculations:

(1) **U.S.-origin controlled content.** To identify U.S.-origin controlled content for purposes of the *de minimis* rules, you must determine the Export Control Classification Number (ECCN) of each U.S.-origin item incorporated into a foreign-made product. Then, you must identify which, if any, of those U.S.-origin items would require a license from BIS if they were to be exported or reexported (in the form in which you received them) to the foreign-made product's country of destination. For purposes of identifying U.S.-origin controlled content, you should consult the Commerce Country Chart in Supplement No. 1 to part 738 of the EAR and controls described in part 746 of the EAR. Part 744 of the EAR should not be used to identify controlled U.S. content for purposes of determining the applicability of the *de minimis* rules. In identifying U.S.-origin controlled content, do not take account of commodities, software, or **technology** that could be exported or reexported to the country of destination without a license (designated as "NLR") or under License Exception GBS (see part 740 of the EAR). Commodities subject only to short supply controls are not included in calculating U.S. content.

*Note to paragraph (a)(1): U.S.-origin controlled content is considered 'incorporated' for de minimis purposes if the U.S.-origin controlled item is: essential to the functioning of the foreign equipment; customarily included in sales of the foreign equipment; and reexported with the foreign produced item. U.S.-origin software may be 'bundled' with foreign produced commodities; see § 734.4 of this part. For purposes of determining de minimis levels, technology and source code used to design or produce foreign-made commodities or software are not considered to be incorporated into such foreign-made commodities or software.*

(2) **Value of U.S.-origin controlled content.** The

value of the U.S.-origin controlled content shall reflect the fair market price of such content in the market where the foreign product is being produced. In most cases, this value will be the same as the actual cost to the foreign manufacturer of the U.S.-origin commodity, **technology**, or software. When the foreign manufacturer and the U.S. supplier are affiliated and have special arrangements that result in below-market pricing, the value of the U.S.-origin controlled content should reflect fair market prices that would normally be charged to unaffiliated customers in the same foreign market. If fair market value cannot be determined based upon actual arms-length transaction data for the U.S.-origin controlled content in question, then you must determine another reliable valuation method to calculate or derive the fair market value. Such methods may include the use of comparable market prices or costs of production and distribution. The EAR do not require calculations based upon any one accounting system or U.S. accounting standards. However, the method you use must be consistent with your business practice.

(3) **Foreign-made product value.**

(i) **General.** The value of the foreign-made product shall reflect the fair market price of such product in the market where the foreign product is sold. In most cases, this value will be the same as the actual cost to a buyer of the foreign-made product. When the foreign manufacturer and the buyer of their product are affiliated and have special arrangements that result in below-market pricing, the value of the foreign-made product should reflect fair market prices that would normally be charged to unaffiliated customers in the same foreign market. If fair market value cannot be determined based upon actual arms-length transaction data for the foreign-made product in question, then you must determine another reliable valuation method to calculate or derive the fair market value. Such methods may include the use of comparable market prices or costs of production and distribution. The EAR do not require calculations based upon any one accounting system or U.S. accounting standards. However, the method you use must be consistent with your business practice.

(ii) **Foreign-Made Software.** In calculating the value of foreign-made software for purposes of the *de minimis* rules, you may make an estimate of future sales of that foreign software. The total value of foreign-made software will be the sum of: the value of actual sales of that software based on orders received at the time the foreign software incorporates U.S.-origin content and, if applicable; and an estimate of all future sales of that software.

*Note to paragraph (a)(3): Regardless of the accounting systems, standard, or conventions you use in the operation of your business, you may not depreciate reported fair market values or otherwise reduce fair market values through related accounting conventions. Values may be historic or projected. However, you may rely on projected values only to the extent that they remain consistent with your documentation.*

**(4) Calculating percentage value of U.S.-origin items.** To determine the percentage value of U.S.-origin controlled content incorporated in, commingled with, or ‘bundled’ with the foreign produced item, divide the total value of the U.S.-origin controlled content by the foreign-made item value, then multiply the resulting number times 100. If the percentage value of incorporated U.S.-origin items is equal to or less than the *de minimis* level described in § 734.4 of the EAR, then the foreign-made item is not subject to the EAR.

**(b) One-time report**

As stated in paragraphs (c) and (d) of § 734.4, a one-time report is required before reliance on the *de minimis* rules for technology. The purpose of the report is solely to permit the U.S. Government to evaluate whether U.S. content calculations were performed correctly.

**(1) Contents of report.** You must include in your report a description of the scope and nature of the foreign technology that is the subject of the report and a description of its fair market value, along with the rationale and basis for the valuation of such foreign technology. Your report must indicate the country of destination for the foreign technology reexports when the U.S.-origin controlled content exceeds 10%, so that BIS can evaluate whether the

U.S.-origin controlled content was correctly identified based on paragraph (a)(1) of this Supplement. The report does not require information regarding the end-use or end-users of the reexported foreign technology. You must include in your report the name, title, address, telephone number, E-mail address, and facsimile number of the person BIS may contact concerning your report.

**(2) Submission of report.** You must submit your report to BIS using one of the following Regulatory Policy Division, methods:

- (i) E-mail: [rpd2@bis.doc.gov](mailto:rpd2@bis.doc.gov);
- (ii) Fax: (202) 482-3355; or
- (iii) Mail or Hand Delivery/Courier:

U.S. Department of Commerce,  
Bureau of Industry and Security,  
Regulatory Policy Division,  
14th and Pennsylvania Avenue, N.W.,  
Room 2099B,  
Washington, D.C. 20230.

**(3) Report and wait.** If you have not been contacted by BIS concerning your report within thirty days after filing the report with BIS, you may rely upon the calculations described in the report unless and until BIS contacts you and instructs you otherwise. BIS may contact you with questions concerning your report or to indicate that BIS does not accept the assumptions or rationale for your calculations. If you receive such a contact or communication from BIS within thirty days after filing the report with BIS, you may not rely upon the calculations described in the report, and may not use the *de minimis* rules for technology that are described in § 734.4 of this part, until BIS has indicated that such calculations were performed correctly.

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### § 736.1 INTRODUCTION

In this part, references to the EAR are references to 15 CFR chapter VII, subchapter C. A person may undertake transactions subject to the EAR without a license or other authorization, unless the regulations affirmatively state such a requirement. As such, if an export, reexport, or activity is subject to the EAR, the general prohibitions contained in this part and the License Exceptions specified in part 740 of the EAR must be reviewed to determine if a license is necessary. In the case of all exports from the United States, you must document your export as described in part 762 of the EAR regarding recordkeeping and clear your export through the U.S. Customs Service as described in part 758 of the EAR regarding export clearance requirements. Also note that for short supply controls all prohibitions and License Exceptions are in part 754 of the EAR.

(a) In this part we tell you:

(1) The facts that make your proposed export, reexport, or conduct subject to these general prohibitions, and

(2) The ten general prohibitions.

(b) Your obligations under the ten general prohibitions and under the EAR depend in large part upon the five types of information described in §736.2(a) of this part and upon the general prohibitions described in §736.2(b) of this part.

The ten general prohibitions contain cross-references to other parts of the EAR that further define the breadth of the general prohibitions. For that reason, this part is not freestanding. In part 732, we provide certain steps you may follow in proper order to help you understand the general prohibitions and their relationship to other parts of the EAR.

(c) If you violate any of these ten general prohibitions, or engage in other conduct contrary to the Export Administration Act, the EAR, or any order, license, License Exception, or authorization issued thereunder, as described in part 764 of the EAR regarding enforcement, you will be subject to the sanctions described in that part.

### § 736.2 GENERAL PROHIBITIONS AND DETERMINATION OF APPLICABILITY

#### (a) Information or facts that determine the applicability of the general prohibitions

The following five types of facts determine your obligations under the ten general prohibitions and the EAR generally:

(1) **Classification of the item.** The classification of the item on the Commerce Control List (see part 774 of the EAR);

(2) **Destination.** The country of ultimate destination for an export or reexport (see parts 738 and 774 of the EAR concerning the Country Chart and the Commerce Control List);

(3) **End-user.** The ultimate end user (see General Prohibition Four (paragraph (b)(4) of this section) and Supplement No. 1 to part 764 of the EAR for references to persons with whom your transaction may not be permitted; see General Prohibition Five (Paragraph (b)(5) of this section) and part 744 for references to end-users for whom you may need an export or reexport license).

**(4) End-use.** The ultimate end-use (see General Prohibition Five (paragraph (b)(5) of this section) and part 744 of the EAR for general end-use restrictions); and

**(5) Conduct.** Conduct such as contracting, financing, and freight forwarding in support of a proliferation project as described in part 744 of the EAR.

**(b) General prohibitions**

The following ten general prohibitions describe certain exports, reexports, and other conduct, subject to the scope of the EAR, in which you may not engage unless you either have a license from the Bureau of Industry and Security (BIS) or qualify under part 740 of the EAR for a License Exception from each applicable general prohibition in this paragraph. The License Exceptions at part 740 of the EAR apply only to General Prohibitions One (Exports and Reexports in the Form Received), Two (Parts and Components Reexports), and Three (Foreign-Produced Direct Product Reexports); however, selected License Exceptions are specifically referenced and authorized in part 746 of the EAR concerning embargo destinations and in §744.2(c) of the EAR regarding nuclear end-uses.

**(1) General Prohibition One — Export and reexport of controlled items to listed countries (Exports and Reexports).** You may not, without a license or License Exception, export any item subject to the EAR to another country or reexport any item of U.S.-origin if each of the following is true:

(i) The item is controlled for a reason indicated in the applicable Export Control Classification Number (ECCN), and

(ii) Export to the country of destination requires a license for the control reason as indicated on the Country Chart at part 738 of the EAR. (The scope of this prohibition is determined by the correct classification of your

item and the ultimate destination as that combination is reflected on the Country Chart).<sup>1</sup> Note that each License Exception described at part 740 of the EAR supersedes General Prohibition One if all terms and conditions of a given License Exception are met by the exporter or reexporter.

**(2) General Prohibition Two - Reexport and export from abroad of foreign-made items incorporating more than a *de minimis* amount of controlled U.S. content (U.S. Content Reexports).**

(i) You may not, without a license or license exception, reexport or export from abroad foreign-made commodities that incorporate controlled U.S.-origin commodities, foreign-made commodities that are ‘bundled’ with controlled U.S.-origin software, foreign-made software that is commingled with controlled U.S.-origin software, or foreign-made **technology** that is commingled with controlled U.S.-origin **technology** if such items require a license according to any of the provisions in the EAR and incorporate or are commingled with more than a *de minimis* amount of controlled U.S. content, as defined in § 734.4 of the EAR concerning the scope of the EAR.

(A) It incorporates more than the *de minimis* amount of controlled U.S. content, as defined in §734.4 of the EAR concerning the scope of the EAR;

(B) It is controlled for a reason indicated in the applicable ECCN; and

(C) Its export to the country of destination requires a license for that control reason as indicated on the Country Chart. (The scope of this prohibition is determined by the correct classification of your foreign-made item and the

<sup>1</sup> See part 738 of the EAR for selected controls that are not specified on the Country Chart.

**\*\*direct product rule**

**General Prohibitions**

ultimate destination, as that combination is reflected on the Country Chart.)

(ii) Each License Exception described in part 740 of the EAR supersedes General Prohibition Two if all terms and conditions of a given License Exception are met by the exporter or reexporter.

**(3) General Prohibition Three—Foreign-produced direct product of specified “technology” and “software” (Foreign-Produced Direct Product Rule).**

(i) *Country scope of prohibition.* You may not, without a license or license exception, reexport any item subject to the scope of this General Prohibition Three to a destination in Country Group D:1, E:1 or E:2 (See Supplement No.1 to part 740 of the EAR). Additionally, you may not, without a license or license exception, reexport or export from abroad any ECCN 0A919 commodities subject to the scope of this General Prohibition Three to a destination in Country Group D:1, D:3, D:4, D:5, E:1 or E:2.

(ii) *Product scope of foreign-made items subject to prohibition.* This General Prohibition 3 applies if an item meets either the Conditions defining the **direct product of technology** or the Conditions defining the **direct product of a plant** in paragraph (b)(3)(ii)(A) of this section:

(A) *Conditions defining direct product of technology.* Foreign-made items are subject to this General Prohibition 3 if they meet both of the following conditions:

(1) They are the **direct product of technology** or software that requires a written assurance as a supporting document for a license, as defined in paragraph (o)(3)(i) of Supplement No. 2 to part 748 of the EAR, or as a precondition for the use of License Exception TSR at §740.6 of the EAR, and

(2) They are **subject to national security controls** as designated on the applicable ECCN of

the Commerce Control List at part 774 of the EAR.

(B) *Conditions defining direct product of a plant.* Foreign-made items are also subject to this General Prohibition 3 if they are the **direct product of a complete plant or any major component of a plant if both of the following conditions are met:**

(1) Such plant or component is the **direct product of technology** that requires a written assurance as a supporting document for a license or as a precondition for the use of License Exception TSR in §740.6 of the EAR, and

(2) Such foreign-made direct products of the plant or component are subject to **national security controls** as designated on the applicable ECCN of the Commerce Control List at part 774 of the EAR.

(iii) *Country scope of prohibition for 9x515 or “600 series” items.* You may not, except as provided in paragraphs (b)(3)(v) or (vi) of this section, reexport or export from abroad without a license any “600 series” item subject to the scope of this General Prohibition Three to a destination in Country Groups D:1, D:3, D:4, D:5, E:1 or E:2 (see Supplement No. 1 to part 740 of the EAR). You may not, except as provided in paragraphs (b)(3)(v) or (vi) of this section, reexport or export from abroad without a license any 9x515 item subject to the scope of this General Prohibition Three to a destination in Country Groups D:5, E:1 or E:2 (see Supplement No. 1 to part 740 of the EAR).

(iv) *Product scope of 9x515 and “600 series” items subject to this prohibition.* This General Prohibition Three applies if a 9x515 or “600 series” item meets either of the following conditions:

(A) *Conditions defining direct product of “technology” or “software” for 9x515 and “600 series” items.* Foreign-made 9x515 and “600 series” items are subject to this General

A 3-point test for the "Direct Product Rule". Note alternative 2 & 3 if under "plant".

This yellow section was new as of 6-27-2014.

Interesting that valid License Exceptions can trump this General Prohibition Three.

General Prohibitions

Prohibition Three if the foreign-made items meet both of the following conditions:

(1) They are the direct product of "technology" or "software" that is in the 9x515 or "600 series" as designated on the applicable ECCN of the Commerce Control List in Supplement No. 1 to part 774 of the EAR; and

(2) They are in the 9x515 or "600 series" as designated on the applicable ECCN of the Commerce Control List in part 774 of the EAR.

(B) *Conditions defining direct product of a plant for 9x515 and "600 series" items.* Foreign-made 9x515 and "600 series" items are also subject to this General Prohibition Three if they are the direct product of a complete plant or any major component of a plant if both of the following conditions are met:

(1) Such plant or major component is the direct product of 9x515 or "600 series" "technology" as designated on the applicable ECCN of the Commerce Control List in part 774 of the EAR, and

(2) Such foreign-made direct products of the plant or major component are in the 9x515 or "600 series" as designated on the applicable ECCN of the Commerce Control List in part 774 of the EAR.

(v) 9x515 and "600 series" foreign-produced direct products of U.S. "technology" or "software" subject to this General Prohibition Three do not require a license for reexport or export from abroad to the new destination unless the same item, if exported from the U.S. to the new destination would have been prohibited or made subject to a license requirement by part 742, 744, 746, or 764 of the EAR.

(vi) *Criteria for prohibition relating to parties on Entity List.* You may not reexport, export from abroad, or transfer (in-country) without a license or license exception any foreign-produced item controlled under footnote 1 of supplement no. 4 to

part 744 ("Entity List") when there is "knowledge" that:

(A) The foreign-produced item will be incorporated into, or will be used in the "production" or "development" of any "part," "component," or "equipment" produced, purchased, or ordered by any entity with a footnote 1 designation in the license requirement column of this supplement; or

(B) Any entity with a footnote 1 designation in the license requirement column of this supplement is a party to any transaction involving the foreign-produced item, e.g., as a "purchaser," "intermediate consignee," "ultimate consignee," or "end-user."

(vii) *License exceptions.* All license exceptions described in part 740 of the EAR are available for foreign-produced items that are subject to the EAR pursuant to paragraphs (b)(3)(i) through (v) of this section if all terms and conditions of the pertinent license exception terms and conditions are met and the restrictions in § 740.2 do not apply. For foreign-produced items that are subject to the EAR pursuant to paragraph (b)(3)(vi) of this section, license exceptions are available only as set forth in part 740 of the EAR pursuant to § 744.11(a), i.e., the license requirement column for the entity, if all terms and conditions of the pertinent license exception are met and the restrictions in § 740.2 do not apply.

**(4) General Prohibition Four (Denial Orders) — Engaging in actions prohibited by a denial order.**

(i) You may not take any action that is prohibited by a denial order issued under part 766 of the EAR, Administrative Enforcement Proceedings. These orders prohibit many actions in addition to direct exports by the person denied export privileges, including some transfers within a single country, either in the United States or abroad, by other persons. You are responsible for ensuring that any of your

transactions in which a person who is denied export privileges is involved do not violate the terms of the order. Orders denying export privileges are published in the *Federal Register* when they are issued and are the legally controlling documents in accordance with their terms. BIS also maintains compilations of persons denied export privileges on its Web site at <http://www.bis.doc.gov>. BIS may, on an exceptional basis, authorize activity otherwise prohibited by a denial order. See Sec. 764.3(a)(2) of the EAR.

(ii) There are no License Exceptions described in part 740 of the EAR that authorize conduct prohibited by this General Prohibition Four.

**(5) General Prohibition Five — Export or reexport to prohibited end-uses or end-users (End-Use End-User).** You may not, without a license, knowingly export or reexport any item subject to the EAR to an end-user or end-use that is prohibited by part 744 of the EAR.

**(6) General Prohibition Six — Export or reexport to embargoed destinations (Embargo).**

(i) You may not, without a license or License Exception authorized under part 746, export or reexport any item subject to the EAR to a country that is embargoed by the United States or otherwise made subject to controls as both are described at part 746 of the EAR.

(ii) License Exceptions to General Prohibition Six are described in part 746 of the EAR, on Embargoes and Other Special Controls. Unless a License Exception or other authorization is authorized in part 746 of the EAR, the License Exceptions described in part 740 of the EAR are not available to overcome this general prohibition.

**(7) General Prohibition Seven — Support of Proliferation Activities (U.S. Person Proliferation Activity).**

(i) *Support of Proliferation Activities (U.S. Person Proliferation Activity).*

(A) If you are a U.S. person as that term is defined in §744.6(c) of the EAR, you may not engage in any activities prohibited by §744.6(a) or (b) of the EAR, which prohibits the performance, without a license from BIS, of certain financing, contracting, service, support, transportation, freight forwarding, or employment that you know will assist in certain proliferation activities described further in part 744 of the EAR. There are no License Exceptions to this General Prohibition Seven in part 740 of the EAR unless specifically authorized in that part.

Go to §744.6(a)(b)

(B) If you are a U.S. person as that term is defined in §744.6(c) of the EAR, you may not export a Schedule 1 chemical listed in Supplement No. 1 to part 745 without first complying with the provisions of §§742.18 and 745.1 of the EAR.

Go to §742.18  
Go to §745.1

(C) If you are a U.S. person as that term is defined in §744.6(c) of the EAR, you may not export a Schedule 3 chemical listed in Supplement No. 1 to part 745 to a destination not listed in Supplement No. 2 to part 745 without complying with the End-Use Certificate requirements in §745.2 of the EAR that apply to Schedule 3 chemicals controlled for CW reasons in ECCN 1C350, ECCN 1C355, and ECCN 1C395.

Go to §744.6(c)

Go to §745.2

**(8) General Prohibition Eight — In transit shipments and items to be unladen from vessels or aircraft (Intransit).**

(i) *Unlading and shipping in transit.* You may not export or reexport an item through, or transit through a country listed in paragraph (b)(8)(ii) of this section, unless a license exception or license authorizes such an export or reexport directly to or transit through such a country of transit, or unless such an export or reexport is eligible to such a country of transit without a license.

(ii) *Country scope.* This General Prohibition Eight applies to Armenia, Azerbaijan, Belarus, Cambodia, Cuba, Georgia, Kazakhstan, Kyrgyzstan, Laos, Mongolia, North Korea, Russia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan, Vietnam.

**(9) General Prohibition Nine** — **Violation of any order, terms, and conditions (Orders, Terms, and Conditions).** You may not violate terms or conditions of a license or of a License Exception issued under or made a part of the EAR, and you may not violate any order issued under or made a part of the EAR. There are no License Exceptions to this General Prohibition Nine in part 740 of the EAR. Supplements Nos. 1 and 2 to this part provide for certain General Orders and Administrative Orders.

**(10) General Prohibition Ten** — **Proceeding with transactions with knowledge that a violation has occurred or is about to occur (Knowledge Violation to Occur).** You may not sell, transfer, export, reexport, finance, order, buy, remove, conceal, store, use, loan, dispose of, transport, forward, or otherwise service, in whole or in part, any item subject to the EAR and exported or to be exported with knowledge that a violation of the Export Administration Regulations, the Export Administration Act or any order, license, License Exception, or other authorization issued thereunder has occurred, is about to occur, or is intended to occur in connection with the item. Nor may you rely upon any license or License Exception after notice to you of the suspension or revocation of that license or exception. There are no License Exceptions to this General Prohibition Ten in part 740 of the EAR.

**SUPPLEMENT NO. 1 TO PART 736 - GENERAL ORDERS**

*(a) General Order No. 1*

General Order No. 1 of September 16, 1998; Establishing a 24-month validity period on reexport authorizations issued without a validity period and revoking those exceeding that period.

**(1) Reexport authorizations issued within 24-months of the General Order.** All reexport authorizations issued with no validity period within the 24-months preceding September 16, 1998 shall be deemed to have an expiration date which shall be the date 24-months from the date of issuance of the reexport authorization or November 16, 1998, whichever is longer.

**(2) Reexport authorizations issued before the 24-month period preceding the General Order.** For reexport authorizations issued with no validity period before the 24-month period preceding September 16, 1998:

(i) Effective September 16, 1998, all such outstanding reexport authorizations for terrorist-supporting countries (see parts 742 and 746 of the EAR) are revoked.

(ii) Effective November 16, 1998, all other such outstanding reexport authorizations are revoked.

**(3) Extensions.** If necessary, you may request extensions of such authorizations according to procedures set forth in §750.7(g) of the EAR.

**(4) Specific Notice from BIS.** If you have received, or should you receive, specific notice from BIS with regard to a reexport authorization covered by this General Order, informing you of a revocation, suspension, or revision (including validity period) of any such reexport authorization, then the terms of that specific notice will be controlling.

**(5) Definition of “authorization.”** The term “authorization” as used in this General Order encompasses the range of reexport authorizations granted by BIS, which includes licenses, individual letters, and other types of notifications.

*(b) General Order No. 2*

General Order No. 2; Section 5(b) of the Syria Accountability and Lebanese Sovereignty Restoration Act of 2003 (SAA) gives the President authority to waive the application of certain prohibitions set forth in the SAA if the President determines that it is in the national security interest of the United States to do so. The President made such a determination in Executive Order 13338, finding that it was “in the national security interest of the United States to waive application of subsection 5(a)(1) and 5(a)(2)(A) of the SAA so as to permit the exportation or reexportation of certain items as specified in the Department of Commerce’s General Order No. 2.”

The President’s reference to General Order No. 2 addresses applications to export and reexport the following items, which are considered on a case-by-case basis as opposed to the general policy of denial set forth in section 746.9 of the Regulations: items in support of activities, diplomatic or otherwise, of the United States Government (to the extent that regulation of such exportation or reexportation would not fall within the President's constitutional authority to conduct the nation's foreign affairs); medicine (on the CCL) and medical devices (both as defined in Part 772 of the EAR); parts and components intended to ensure the safety of civil aviation and the safe operation of commercial passenger aircraft; aircraft chartered by the Syrian Government for the transport of Syrian Government officials on official Syrian Government business; telecommunications equipment and associated computers, software and technology; items in support of United Nations operations in Syria;

## General Orders

and items necessary for the support of the Syrian people, including, but not limited to, items related to water supply and sanitation, agricultural production and food processing, power generation, oil and gas production, construction and engineering, transportation, and educational infrastructure. The total dollar value of each approved license for aircraft parts for flight safety normally will be limited to no more than \$2 million over the 24-month standard license term, except in the case of complete overhauls.

*NOTE to GENERAL ORDER NO. 2. The controls for exports and reexports to Syria are set forth in § 746.9 of the EAR.*

### (c) *General Order No. 3*

General Order No. 3 of July 22, 2015. Certain licenses issued by BIS prior to July 22, 2015 contain conditions that restrict the export, reexport, or transfer (in-country) to or within Country Group E:1 as specified in Supplement No. 1 to part 740 of the EAR. At the time those licenses were issued, Cuba was in Country Group E:1. Many of those restrictions were intended to apply to Cuba, not only as a State Sponsor of Terrorism but also as a country subject to unilateral embargo. However, BIS did not always list both Country Groups E:1 and E:2 in license conditions because, at the time, doing so would have been redundant. However, with the rescission of Cuba's designation as a State Sponsor of Terrorism and resultant removal from Country Group E:1, continuing those conditions with respect to Cuba is consistent with the embargo. Accordingly, all conditions that apply to Country Group E:1 on licenses issued prior to July 22, 2015 that are in effect on that date, are revised to apply to Country Groups E:1 and E:2 as specified in Supplement No. 1 to part 740 of the EAR. Licensees who seek authorization for transactions that are affected by this General Order No. 3 may submit license applications that refer to General Order No. 3 and explain the reason for the request in Block 24 of the

## Supplement No. 1 to Part 736-page 2

application. All license applications involving Cuba are reviewed pursuant to the licensing policy in § 746.2(b) of the EAR. The request should provide any available information in support of the argument that the transaction would be consistent with the licensing policy in § 746.2(b) of the EAR.

### (d) *General Order No. 4*

[RESERVED]

### (e) *General Order No. 5*

General Order No. 5 of April 16, 2013; Authorization for Items the President Determines No Longer Warrant Control under the United States Munitions List (USML).

**(1) Continued use of DDTC approvals from the Department of State's Directorate of Defense Trade Controls (DDTC) for items that become subject to the EAR.** Items the President has determined no longer warrant control under the USML will become subject to the EAR as published final rules that transfer the items to the CCL become effective. DDTC licenses, agreements, or other approvals that contain items transitioning from the USML to the CCL and that are issued prior to the effective date of the final rule transferring such items to the CCL may continue to be used in accordance with the Department of State's final rule, *Amendments to the International Traffic in Arms Regulations: Initial Implementation of Export Control Reform*, published on April 16, 2013 in the Federal Register.

### **(2) BIS authorization.**

(i) Where continued use of DDTC authorization is not or is no longer an available option, or a holder of an existing DDTC authorization returns or terminates that authorization, any required authorization to export, reexport, or transfer (in-country) a

transitioned item on or after the effective date of the applicable final rule must be obtained under the EAR. Following the publication date and prior to the effective date of a final rule moving an item from the USML to the CCL, applicants may submit license applications to BIS for authorization to export, reexport, or transfer (in-country) the transitioning item. BIS will process the license applications in accordance with § 750.4 of the EAR, hold the license application without action (HWA) if necessary, and issue a license, if approved, to the applicant no sooner than the effective date of the final rule transitioning the items to the CCL.

to the jurisdiction of the ITAR and the item was not listed in a then existing “018” series ECCN (for purposes of the “600 series” ECCNs, or the 0x5zz ECCNs) or in a then existing ECCN 9A004.b or related software or technology ECCN (for purposes of the 9x515 ECCNs), then the item is per se not within the scope of a “600 series” ECCN, a 0x5zz ECCN, or a 9x515 ECCN. If the item was not listed elsewhere on the CCL at the time of such determination (i.e., the item was designated EAR99), the item shall remain designated as EAR99 unless specifically enumerated by BIS or DDTC in an amendment to the CCL or to the USML, respectively.

(ii) Following the effective date of a final rule moving items from the USML to the CCL, exporters, reexporters, and transferors of such items may return DDTC licenses in accordance with § 123.22 of the ITAR or terminate Technical Assistance Agreements, Manufacturing License Agreements, or Warehouse and Distribution Agreements in accordance with § 124.6 of the ITAR and thereafter export, reexport, or transfer (in-country) such items under applicable provisions of the EAR, including any applicable license requirements. No transfer (in-country) may be made of an item exported under a DDTC authorization containing provisos or other limitations without a license issued by BIS unless (i) the transfer (in-country) is authorized by an EAR license exception and the terms and conditions of the License Exception have been satisfied, or (ii) no license would otherwise be required under the EAR to export or reexport the item to the new end user.

(4) **Voluntary Self-Disclosure.** Parties to transactions involving transitioning items are cautioned to monitor closely their compliance with the EAR and the ITAR. Should a possible or actual violation of the EAR, or of any license or authorization issued thereunder, be discovered, the person or persons involved are strongly encouraged to submit a Voluntary Self-Disclosure to the Office of Export Enforcement, in accordance with § 764.5 of the EAR. Permission from the Office of Exporter Services, in accordance with § 764.5(f) of the EAR, to engage in further activities in connection with that item may also be necessary. Should a possible or actual violation of the ITAR, or of any license or authorization issued thereunder, be discovered, the person or persons involved are strongly encouraged to submit a Voluntary Disclosure to DDTC, in accordance with § 127.12 of the ITAR. For possible or actual violations of both the EAR and ITAR, the person or persons involved are strongly encouraged to submit disclosures to both BIS and DDTC, indicating to each agency that they also have made a disclosure to the other agency.

\*\*VSD

Go to VSD section §764.5

(3) **Prior commodity jurisdiction determinations.** If the U.S. State Department has previously determined that an item is not subject

General Order #5 is relevant to the return of 600-series controlled goods for repair under \*\*123.4(a)(1) of the ITAR vs. \*\*RPL.

\*\*VD and VSD simultaneously

**SUPPLEMENT NO. 2 TO PART 736 - ADMINISTRATIVE ORDERS**

*Administrative Order One: Disclosure of License Issuance and Other Information.* Consistent with section 12(c) of the Export Administration Act of 1979, as amended, information obtained by the U.S. Department of Commerce for the purpose of consideration of or concerning license applications, as well as related information, will not be publicly disclosed without the approval of the Secretary of Commerce. Electronic Export Information (EEI) filings via the Automated Export System (AES) are also exempt from public disclosure, except with the approval of the Secretary of Commerce, in accordance with §301(g) of Title 13, United States Code.

*Administrative Order Two: Conduct of Business and Practice in Connection with Export Control Matters.*

**(a) Exclusion of persons guilty of unethical conduct or not possessing required integrity and ethical standards**

**(1) Who may be excluded.** Any person, whether acting on his own behalf or on behalf of another, who shall be found guilty of engaging in any unethical activity or who shall be demonstrated not to possess the required integrity and ethical standards, may be excluded from (denied) export privileges on his own behalf, or may be excluded from practice before BIS on behalf of another, in connection with any export control matter, or both, as provided in part 764 of the EAR.

**(2) Grounds for exclusion.** Among the grounds for exclusion are the following:

(i) Inducing or attempting to induce by gifts, promises, bribes, or otherwise, any officer or employee of BIS or any customs or post office official, to take any action with respect to the issuance of licenses or any other aspects of the

administration of the Export Administration Act, whether or not in violation of any regulation;

(ii) Offering or making gifts or promises thereof to any such officer or employee for any other reason;

(iii) Soliciting by advertisement or otherwise the handling of business before BIS on the representation, express or implied, that such person, through personal acquaintance or otherwise, possesses special influence over any officer or employee of BIS;

(iv) Charging, or proposing to charge, for any service performed in connection with the issuance of any license, any fee wholly contingent upon the granting of such license and the amount or value thereof. This provision will not be construed to prohibit the charge of any fee agreed to by the parties; provided that the out-of-pocket expenditures and the reasonable value of the services performed, whether or not the license is issued and regardless of the amount thereof, are fairly compensated; and

(v) Knowingly violating or participating in the violation of, or an attempt to violate, any regulation with respect to the export of commodities or technical data, including the making of or inducing another to make any false representations to facilitate any export in violation of the Export Administration Act or any order or regulation issued thereunder.

**(3) Definition.** As used in this Administrative Order, the terms “practice before BIS” and “appear before BIS” include:

(i) The submission on behalf of another of applications for export licenses or other documents required to be filed with BIS, or the execution of the same;

## Administrative Orders

(ii) Conferences or other communications on behalf of another with officers or employees of BIS for the purpose of soliciting or expediting approval by BIS of applications for export licenses or other documents, or with respect to quotas, allocations, requirements or other export control actions, pertaining to matters within the jurisdiction of BIS;

(iii) Participating on behalf of another in any proceeding pending before BIS;

(iv) Submission on behalf of another of a license or other export control document to U.S. Customs and Border Protection (CBP); and

(v) Reporting on behalf of another Electronic Export Information via the Automated Export System (AES) to CBP.

## Supplement No. 2 to Part 736-page 2

**(4) Proceedings.** All proceedings under this Administrative Order shall be conducted in the same manner as provided in part 766 of the EAR.

### *(b) Employees and former employees*

Persons who are or at any time have been employed on a full-time or part-time, compensated or uncompensated, basis by the U.S. Government are subject to the provisions of 18 U.S.C. 203, 205, and 207 (Pub. L. 87-849, 87th Congress) in connection with representing a private party or interest before the U.S. Department of Commerce in connection with any export control matter.

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**SUPPLEMENT NO. 1 TO PART 738 - COMMERCE COUNTRY CHART..... 1**

### § 738.1 INTRODUCTION

#### (a) Commerce Control List scope

(1) In this part, references to the EAR are references to 15 CFR chapter VII, subchapter C. The Bureau of Industry and Security (BIS) maintains the Commerce Control List (CCL) within the Export Administration Regulations (EAR), which includes items (i.e., commodities, software, and technology) subject to the export licensing authority of BIS. The CCL does not include those items exclusively controlled for export or reexport by another department or agency of the U.S. Government. In instances where agencies other than the Department of Commerce administer controls over related items, entries in the CCL contain a reference to these controls.

(2) The CCL is contained in Supplement No. 1 to part 774 of the EAR. Supplement No. 2 to part 774 of the EAR contains the General Technology and Software Notes relevant to entries contained in the CCL.

(3) *Items that warrant control for export or reexport but currently are not permanently classified on the CCL.* Items subject to temporary CCL controls are classified under the ECCN

0Y521 series (i.e., 0A521, 0B521, 0C521, 0D521, and 0E521) pursuant to § 742.6(a)(8) of the EAR while a determination is made as to whether classification under a revised or new ECCN, or an EAR99 designation, is appropriate.

#### (b) Commerce Country Chart scope

BIS also maintains the Commerce Country Chart. The Commerce Country Chart, located in Supplement No. 1 to part 738, contains licensing requirements based on destination and Reason for Control. In combination with the CCL, the Commerce Country Chart allows you to determine whether a license is required for items on the CCL to any country in the world.

### **§ 738.2 COMMERCE CONTROL LIST (CCL) STRUCTURE**

#### (a) Categories

The CCL is divided into 10 categories, numbered as follows:

- 0-Nuclear Materials, Facilities and Equipment and Miscellaneous
- 1-Materials, Chemicals, “Microorganisms,” and Toxins
- 2-Materials Processing
- 3-Electronics
- 4-Computers
- 5-Telecommunications and Information Security
- 6-Lasers and Sensors
- 7-Navigation and Avionics
- 8-Marine
- 9-Aerospace and Propulsion

#### (b) Groups

Within each category, items are arranged by group. Each category contains the same five groups. Each Group is identified by the letters A through E, as follows:

- A-Equipment, Assemblies and Components
- B-Test, Inspection and Production Equipment
- C-Materials
- D-Software
- E-Technology

9: Anti-terrorism, Crime Control, Regional Stability, Short Supply, UN Sanctions, etc.

**(c) Order of review**

The CCL includes a Supplement No. 4 to part 774 – Commerce Control List Order of Review. This supplement establishes the steps (i.e., the order of review) that should be followed in classifying items that are “subject to the EAR.”

**(d) Entries**

**(1) Composition of an entry.** Within each group, individual items are identified by an Export Control Classification Number (ECCN). Each number consists of a set of digits and a letter. The first digit identifies the general category within which the entry falls (e.g., 3A001). The letter immediately following this first digit identifies under which of the five groups the item is listed (e.g., 3A001). The second digit differentiates individual entries by identifying the type of controls associated with the items contained in the entry (e.g., 3A001). Listed below are the Reasons for Control associated with this second digit.

- 0: National Security reasons (including Dual Use and Wassenaar Arrangement Munitions List) and Items on the NSG Dual Use Annex and Trigger List
- 1: Missile Technology reasons
- 2: Nuclear Nonproliferation reasons
- 3: Chemical & Biological Weapons reasons
- 5: Items warranting national security or foreign policy controls at the determination of the Department of Commerce.
- 6: “600 series” controls items because they are items on the Wassenaar Arrangement Munitions List (WAML) or formerly on the U.S. Munitions List (USML).

(i) Since Reasons for Control are not mutually exclusive, numbers are assigned in order of precedence. As an example, if an item is controlled for both National Security and Missile Technology reasons, the entry's third alphanumeric character will be a “0”. If the item is controlled only for Missile Technology the third alphanumeric character will be “1”.

(ii) The numbers in either the second or third digit (e.g., 3A001) serve to differentiate between multilateral and unilateral entries. An entry with the number “9” as the second digit, identifies the entire entry as controlled for a unilateral concern (e.g., 2B991 for anti-terrorism reasons). If the number “9” appears as the third digit, the item is controlled for unilateral purposes based on a proliferation concern (e.g., 2A290 is controlled for unilateral purposes based on nuclear nonproliferation concerns).

(iii) The last digit within each entry (e.g., 3A001) is used for the sequential numbering of ECCNs to differentiate between entries on the CCL.

(iv) Last two characters in a “600 series” ECCN. The last two characters of each “600 series” ECCN generally track the Wassenaar Arrangement Munitions List (WAML) categories for the types of items at issue. The WAML ML21 (“software”) and ML22 (“technology”) are, however, included in D (“software”) and E (“technology”) CCL product groups to remain consistent with the structure of the CCL.

**(2) Reading an ECCN.** An ECCN is made up of four sections, the “Heading,” “License Requirements,” “License Exceptions,” and “List of Items Controlled” sections. A brief description of each section and its use follows:

(i) *Heading.* A description of the items controlled is provided next to each ECCN. In certain ECCNs, the description is a summary and will direct you to “see List of Items Controlled” for a complete list of items classified under those respective ECCNs. The “Items” paragraph in the List of Items Controlled section will describe all of the items that the ECCN controls for the portions of the heading that precede the “see List of Items Controlled” phrase. Portions of the heading that follow the phrase are complete descriptions of the items controlled by that portion of the heading. If “see List of Items Controlled” appears at the end of the heading, the “Items” paragraph in the List of Items Controlled section is the exclusive, complete list of the items the ECCN controls.

(ii) *License Requirements.* This section contains a separate line identifying all possible Reasons for Control in order of precedence, and two columns entitled “Control(s)” and “Country Chart”.

(A) The “Controls” header identifies all applicable Reasons for Control, in order of restrictiveness, and to what extent each applies (e.g., to the entire entry or only to certain subparagraphs). Those requiring licenses for a larger number of countries and/or items are listed first. As you read down the list, the number of countries and/or items requiring a license declines. Since Reasons for Control are not mutually exclusive, items controlled within a particular ECCN may be controlled for more than one reason. The following is a list of all possible Reasons for Control:

- AT Anti-Terrorism
- CB Chemical & Biological Weapons
- CC Crime Control
- CW Chemical Weapons Convention
- EI Encryption Items
- FC Firearms Convention
- MT Missile Technology
- NS National Security

- NP Nuclear Nonproliferation
- RS Regional Stability
- SS Short Supply
- UN United Nations Embargo
- SI Significant Items
- SL Surreptitious Listening

(B) The “Country Chart” header identifies, for each applicable Reason for Control, a column name and number (e.g., CB Column 1). These column identifiers are used to direct you from the CCL to the appropriate column identifying the countries requiring a license. Consult part 742 of the EAR for an in-depth discussion of the licensing requirements and policies applicable to each Country Chart column.

(iii) *License Exceptions.* This section provides a brief eligibility statement for each ECCN-driven License Exception that may be applicable to your transaction, and should be consulted only AFTER you have determined a license is required based on an analysis of the entry and the Country Chart. The brief eligibility statement in this section is provided to assist you in deciding which ECCN-driven License Exception related to your particular item and destination you should explore prior to submitting an application. The term “Yes” (followed in some instances by the scope of Yes) appears next to each available ECCN-driven License Exception. Some ECCNs have License Exception STA exclusion paragraphs. These paragraphs identify items for which the License Exception STA provisions in § 740.20(c)(2) of the EAR may not be used, but do not otherwise affect License Exception STA availability. The term “N/A” will be noted for License Exceptions that are not available within a particular entry. In some “600 series” ECCNs, the STA license exception paragraph or a note to the License Exceptions section contains additional information on the availability of License Exception STA for that ECCN. If one or more License Exceptions appear to apply to your transaction, you must consult part 740 of the EAR to review the conditions and restrictions

applicable to each available License Exception. The list of License Exceptions contained within each ECCN is not an all-exclusive list. Other License Exceptions, not based on particular ECCNs, may be available. Consult part 740 of the EAR to determine eligibility for non-ECCN-driven License Exceptions.

(iv) List of Items Controlled.

(A) *Related definitions.* This header identifies, where appropriate, definitions or parameters that apply to all items controlled by the entry. The information provided in this section is unique to the entry, and hence not listed in the definitions contained in part 772 of the EAR.

(B) *Related controls.* If another U.S. government agency or department has export licensing authority over items related to those controlled by an entry, a statement is included identifying the agency or department along with the applicable regulatory cite. An additional cross-reference may be included in instances where the scope of controls differs between a CCL entry and its corresponding entry on list maintained by the European Union. This information is provided to assist readers who use both lists.

(C) *Items.* This paragraph describes the relationship between the “items” paragraph and ECCN headings and will assist your understanding as you classify items on the CCL. When the heading contains the phrase “see List of Items Controlled,” the portion of the heading preceding that phrase is only a summary of the items controlled by the ECCN and the “items” paragraph contains an exclusive list of items described in the heading. Paragraphs (d)(2)(iv)(C)(1), (2) and (3) of this section provide examples of the three different uses of the phrase “(see List of Items Controlled)” in ECCN headings. Each heading on the CCL uses one of these three structures. Understanding the

relationship between the heading and the “items” paragraph is important when classifying items that are “subject to the EAR” on the CCL.

(1) “(See List of Items Controlled)” is at the end of the ECCN heading. An example of an ECCN where all of the heading text precedes the phrase “(see List of Items Controlled)” is ECCN 8A002 Marine systems, equipment, “parts” and “components,” as follows (see List of Items Controlled). ECCNs 1A001, 3A001, 6A001, 7A004 and 9A012 are other examples where all of the heading text precedes the phrase “(see List of Items Controlled).” In these types of headings, the items paragraphs must be reviewed to determine whether your item is contained within the heading and classified under that ECCN.

(2) “(See List of Items Controlled)” is in the middle of the ECCN heading. If the phrase “(see List of Items Controlled)” appears in the middle of the ECCN heading, then all portions of the heading that follow the phrase “(see List of Items Controlled)” will list items controlled in addition to the list in the “items” paragraph. An example of such a heading is ECCN 2B992 Non-“numerically controlled” machine tools for generating optical quality surfaces, (see List of Items Controlled) and “specially designed” “parts” and “components” therefor. Under the ECCN 2B992 example, the “items” paragraph must be reviewed to determine whether your item is contained within the first part of the heading (“non-‘numerically controlled’ machine tools for generating optical quality surfaces”) and classified under 2B992. The second part of the ECCN 2B992 heading (“and ‘specially designed’ ‘parts’ and ‘components’ therefor”) contains the exclusive list described in the heading. ECCNs 1A006, 3B992, 4A001, 6A006 and 7A001 are other examples where the phrase “(see List of Items Controlled)” appears in the middle of the ECCN heading.

(3) ECCNs that do not use the phrase “(see List of Items controlled).” When all items

classified in the ECCN are listed in the heading, a sentence is generally included in the “items” paragraph to direct you to the heading. An example of such a heading is ECCN 4E980 “Technology” for the “development,” “production” or “use” of commodities controlled by 4A980. ECCNs 0A982, 5D101, 8D001 and 9A002 are other examples where the heading is the exclusive description of the items classified under those respective ECCNs.

### **§ 738.3 COMMERCE COUNTRY CHART STRUCTURE**

#### **(a) Scope**

The Commerce Country Chart allows you to determine the Commerce Control List (CCL) export and reexport license requirements for most items listed on the CCL. Such license requirements are based on the Reasons for Control listed in the Export Control Classification Number (ECCN) that applies to the item. Some ECCNs, however, impose license requirements either without reference to a reason for control code that is listed on the Commerce Country Chart, or in addition to such a reference. Those ECCNs may state their license requirements in full in their “Reasons for Control” sections or they may refer the reader to another provision of the EAR for license requirement information. In addition, some ECCNs do not impose license requirements, but refer the reader to the regulations of another government agency that may impose license requirements on the items described in that ECCN.

**(1) ECCNs 0A983, 5A001.f.1, 5A980, 5D001 (for 5A001.f.1, or for 5E001.a (for 5A001.f.1 or for 5D001.a (for 5A001.f.1))), 5D980, 5E001.a (for 5A001.f.1, or for 5D001.a (for 5A001.f.1)) and 5E980. A license is required for all destinations for items controlled under these entries. For items controlled by 0A983, 5E001.a**

**(for 5A001.f.1, or for 5D001.a (for 5A001.f.1)) and 5E980, no license exceptions apply. For items controlled by 5A001.f.1, 5A980, 5D001 (for 5A001.f.1 or for 5E001.a (for 5A001.f.1, or for 5D001.a (for 5A001.f.1))) and 5D980, License Exception GOV may apply if your item is consigned to and for the official use of an agency of the U.S. Government (see § 740.2(a)(3)). If your item is controlled by 0A983, 5A001.f.1, 5A980, 5D001 (for 5A001.f.1 or for 5E001.a (for 5A001.f.1, or for 5D001.a (for 5A001.f.1))), 5D980, 5E001.a (for 5A001.f.1, or for 5D001.a (for 5A001.f.1)) or 5E980 you should proceed directly to Part 748 of the EAR for license application instructions and §§ 742.11 or 742.13 of the EAR for information on the licensing policy relevant to these types of applications.**

(2) [RESERVED]

#### **(b) Countries**

The first column of the Country Chart lists countries in alphabetical order. There are a number of destinations that are not listed in the Country Chart contained in Supplement No. 1 to part 738. If your destination is not listed on the Country Chart and such destination is a territory, possession, dependency or department of a country included on the Country Chart, the EAR accords your destination the same licensing treatment as the country of which it is a territory, possession, dependency or department. For example, if your destination is the Cayman Islands, a dependent territory of the United Kingdom, refer to the United Kingdom on the Country Chart for licensing requirements. In addition, if your destination is Liechtenstein, which serves as one territory with Switzerland for purposes of the EAR, refer to Switzerland on the Country Chart for licensing requirements.

#### **(c) Columns**

Stretching out to the right are horizontal headers identifying the various Reasons for Control. Under each Reason for Control header are diagonal column identifiers capping individual columns. Each column identifier consists of the two letter Reason for Control and a column number (e.g., CB Column 1). The column identifiers correspond to those listed in the “Country Chart” header within the “License Requirements” section of each ECCN.

**(d) Cells**

The symbol “X” is used to denote licensing requirements on the Country Chart. If an “X” appears in a particular cell, transactions subject to that particular Reason for Control/Destination combination require a license. There is a direct correlation between the number of “X”s applicable to your transaction and the number of licensing reviews your application will undergo.

**§ 738.4 DETERMINING WHETHER A LICENSE IS REQUIRED**

**(a) Using the CCL and the Country Chart**

**(1) Overview.** Once you have determined that your item is classified under a specific ECCN, you must use information contained in the “License Requirements” section of that ECCN in combination with the Country Chart to decide whether a license is required. Note that not all license requirements set forth under the “License Requirements” section of an ECCN refer you to the Commerce Country Chart, but in some cases this section will contain references to a specific section in the EAR for license requirements. In such cases, this section would not apply.

**(2) License decision making process.** The following decision making process must be followed in order to determine whether a license

is required to export or reexport a particular item to a specific destination:

(i) *Examine the appropriate ECCN in the CCL.* Is the item you intend to export or reexport controlled for a single Reason for Control?

(A) If *yes*, identify the single Reason for Control and the relevant Country Chart column identifier (e.g., CB Column 1).

(B) If *no*, identify the Country Chart column identifier for each applicable Reason for Control (e.g., NS Column 1, NP Column 1, etc.).

(ii) *Review the Country Chart.* With each of the applicable Country Chart Column identifiers noted, turn to the Country Chart (Supplement No. 1 to part 738). Locate the correct Country Chart column identifier on the diagonal headings, and determine whether an “X” is marked in the cell next to the country in question for each Country Chart column identified in the applicable ECCN. If your item is subject to more than one reason for control, repeat this step using each unique Country Chart column identifier.

(A) If *yes*, a license application must be submitted based on the particular reason for control and destination, unless a License Exception applies. If “Yes” is noted next to any of the listed License Exceptions, you should consult part 740 of the EAR to determine whether you can use any of the available ECCN-driven License Exceptions to effect your shipment, rather than applying for a license. Each affirmative license requirement must be overcome by a License Exception. If you are unable to qualify for a License Exception based on each license requirement noted on the Country Chart, you must apply for a license. Note that other License Exceptions, not related to the CCL, may also apply to your transaction (See part 740 of the EAR).

(B) If no, a license is not required based on the particular Reason for Control and destination. Provided that General Prohibitions Four through Ten do not apply to your proposed transaction and the License Requirement section does not refer you to any other part of the EAR to determine license requirements. For example, any applicable encryption classification requirements described in § 740.17(b) of the EAR must be met for certain mass market encryption items to affect your shipment using the symbol “NLR.” Proceed to parts 758 and 762 of the EAR for information on export clearance procedures and recordkeeping requirements. Note that although you may stop after determining a license is required based on the first Reason for Control, it is best to work through each applicable Reason for Control. A full analysis of every possible licensing requirement based on each applicable Reason for Control is required to determine the most advantageous License Exception available for your particular transaction and, if a license is required, ascertain the scope of review conducted by BIS on your license application.

**(b) Sample analysis using the CCL and Country Chart**

**(1) Scope.** The following sample entry and related analysis is provided to illustrate the type of thought process you must complete in order to determine whether a license is required to export or reexport a particular item to a specific destination using the CCL in combination with the Country Chart.

**(2) Sample CCL entry.**

2A000: Entry heading.

**License requirements**

*Reason for Control:* NS, NP, AT

<i>Control(s)</i>	<i>Country chart</i>
-------------------	----------------------

	<i>(See Supp. No. 1 to part 738).</i>
NS applies to entire entry	NS Column 2
NP applies to 2A000.b entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: \$5,000  
 GBS: Yes  
 CIV: N/A

**List of items controlled**

*Related Definition:* N/A  
*Related Controls:* N/A  
*Items:*

- a. Having x.
- b. Having z.

**(3) Sample analysis.** After consulting the CCL, I determine my item, valued at \$10,000, is classified under ECCN 2A000.a. I read that the entire entry is controlled for national security, and anti-terrorism reasons. Since my item is classified under paragraph .a, and not .b, I understand that though nuclear nonproliferation controls apply to a portion of the entry, they do not apply to my item. I note that the appropriate Country Chart column identifiers are NS Column 2 and AT Column 1. Turning to the Country Chart, I locate my specific destination, Chad, and see that an “X” appears in the NS Column 2 cell for Chad, but not in the AT Column 1 cell. I understand that a license is required, unless my transaction qualifies for a License Exception. From the License Exception LVS value listed in the entry, I know immediately that my proposed transaction exceeds the value limitation associated with LVS. Noting that License Exception GBS is “Yes” for this entry, I turn to part 740 of the EAR to review the provisions related to use of GBS.

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### § 740.1 INTRODUCTION

In this part, references to the EAR are references to 15 CFR chapter VII, subchapter C.

#### (a) Scope

A “License Exception” is an authorization contained in this part that allows you to export or reexport under stated conditions, items subject to the Export Administration Regulations (EAR) that would otherwise require a license under General Prohibition One, Two, Three, or Eight as indicated under one or more of the Export Control Classification Numbers (ECCNs) in the Commerce Control List (CCL) in Supplement No. 1 to part 774 of the EAR and items subject to

**\*\*All uses of license exceptions must be recorded and kept. records exceptions. Also, for ECCNs 2A983, 2A984 and associated D & E, plus 600-series, see "additional recordkeeping requirements" elsewhere in Part 740, here and here.**

## License Exceptions

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the EAR that would require a license based on the embargo policies described in part 746 of the EAR. If your export or reexport is subject to General Prohibition Six for embargoed destinations, refer to part 746 of the EAR to determine the availability of any License Exceptions. Special commodity controls apply to short supply items. License Exceptions for items listed on the CCL as controlled for Short Supply reasons are found in part 754 of the EAR. If your export or reexport is to subject to General Prohibition Five, consult part 744 of the EAR. If your export or reexport is subject to General Prohibitions Four, Seven, Nine, or Ten, then no License Exceptions apply. Any license exception authorizing reexports also authorizes in-country transfers, provided the terms and conditions for reexports under that license exception are met.

### (e) Destination Control Statement

You may be required to enter an appropriate Destination Control Statement on commercial documents in accordance with Destination Control Statement requirements of § 758.6 of the EAR.

### (f) Recordkeeping

**Records of transactions involving exports under any of the License Exceptions must be maintained in accordance with the recordkeeping requirements of part 762 of the EAR.**

## § 740.2 RESTRICTIONS ON ALL LICENSE EXCEPTIONS

### (b) Certification

By using any of the License Exceptions you are certifying that the terms, provisions, and conditions for the use of the License Exception described in the EAR have been met. Please refer to part 758 of the EAR for clearance of shipments and documenting the use of License Exceptions.

### (a) You may not use any License Exception if any one or more of the following apply:

(1) Your authorization to use a License Exception has been suspended or revoked, or your intended export does not qualify for a License Exception.

(2) The export or reexport is subject to one of the ten General Prohibitions, is not eligible for a License Exception, and has not been authorized by BIS.

(3) The item is primarily useful for surreptitious interception of wire, oral, or electronic communications, or related software, controlled under ECCNs 5A001.f.1, 5A980, 5D001 (for 5A001.f.1 or for 5E001.a (for 5A001.f.1, or for 5D001.a (for 5A001.f.1))), or 5D980, unless the item is consigned to and for the official use of an agency of the U.S. Government (see § 740.11(b)(2)(ii) of this part, Governments (GOV)). No license exceptions apply for 5E001.a (for 5A001.f.1, or for 5D001.a (for 5A001.f.1)) or for 5E980.

(4) The item being exported or reexported is subject to the license requirements described in §742.7 of the EAR and the export or reexport is not:

### (c) License Exception symbols

Each License Exception bears a three letter symbol that will be used for export clearance purposes (see paragraph (d) of this section).

### (d) Electronic Export Information (EEI) filing.

You must enter on any required EEI filing the correct License Code that corresponds to the appropriate license exception symbol (e.g., LVS, GBS, CIV) and the correct Export Control Classification Number (ECCN) (e.g., 4A003, 5A002) for all exports of items under a license exception. Items temporarily in the United States meeting the provisions of License Exception TMP, under § 740.9(b)(3), are excepted from this requirement. See § 758.1 of the EAR and 15 CFR Part 30 of the FTR for EEI requirements.

(i) Being made to Australia, India, Japan, New Zealand, or a NATO (North Atlantic Treaty Organization) member state (see NATO membership listing in §772.1 of the EAR);

(ii) Authorized by §740.11(b)(2)(ii) (official use by personnel and agencies of the U.S. government);

(iii) Authorized by §740.14(e) of the EAR (certain shotguns and shotgun shells for personal use); or

(iv) Authorized by § 740.20 of the EAR (License Exception STA).

(5)(i) The item is controlled for missile technology (MT) reasons, except that the items described in ECCNs 6A008, 7A001, 7A002, 7A004, 7A101, 7A102, 7A103, 7A104, 7A105, 7B001, 7D001, 7D002, 7D003, 7D101, 7D102, 7E003, 7E101 or 9A515, may be exported as part of a spacecraft, manned aircraft, land vehicle or marine vehicle or in quantities appropriate for replacement parts for such applications under § 740.9(a)(4) (License Exception TMP for kits consisting of replacement parts), § 740.10 (License Exception RPL), § 740.13 (License Exception TSU), or § 740.15(b) (License Exception AVS for equipment and spare parts for permanent use on a vessel, aircraft or spacecraft).

(ii) MT controlled commodities described in ECCN 2A001 or 2A101 may be exported or reexported under § 740.9(a)(4) (License Exception TMP) or §740.10 (License Exception RPL) as one-for-one replacement for equipment previously legally exported or reexported.

(6) The export or reexport is to a sanctioned destination (Cuba, Iran, North Korea, Syria, and Crimea region of Ukraine) or a license is required based on a limited sanction (Russia) unless a license exception or portion thereof is specifically listed in the license exceptions paragraph pertaining to a particular sanctioned country in part 746 of the EAR.

(7) With the exception of License Exception GOV (§ 740.11(b)(2)), license exceptions are not available for the following 6E001 or 6E002 technology:

(i) Technology required for the “development” or “production” of photon detector, microbolometer detector, pyroelectric, or multispectral detector, infrared focal plane arrays (IRFPAs), described in ECCN 6A002, having a peak response within the wavelength range exceeding 900 nm but not exceeding 30,000 nm, excluding lead sulfide or lead selenide IRFPAs having a peak response within the wavelength range exceeding 1,000 nm but not exceeding 5,000 nm and not exceeding 16 detector elements; or

(ii) Technology required for the “development” or “production” of third generation or greater (e.g., Electron Bombarded Active Pixel Sensor (EBAPS)) image intensifier tubes described in ECCN 6A002.

**(8) The item is controlled under ECCNs 2A983, 2A984, 2D983, 2D984, 2E983 or 2E984 and the License Exception is other than:**

(i) **RPL**, under the provisions of §740.10, including § 740.10(a)(3)(v), which prohibits exports and reexports of replacement parts to countries in Country Group E:1 (see Supplement 1 to part 740));

(ii) **GOV**, restricted to eligibility under the provisions of §740.11(b)(2)(ii); or

(iii) **TSU**, under the provisions of § 740.13(a) and (c).

**(9) [RESERVED]**

(10) The commodity being exported or reexported is subject to the license requirements of §742.11 of the EAR.

(11) The item is a “military commodity” subject to ECCN 0A919, except that such military commodities may be reexported in accordance

with § 740.11(b)(2)(ii) (official use by personnel and agencies of the U.S. Government).

(12) The item is described in a 9x515 or “600 series” ECCN and is destined to, shipped from, or was manufactured in a destination listed in Country Group D:5 or Hong Kong (see Supplement No.1 to part 740 of the EAR), except that:

(i) “9x515 or 600 series” items destined to, or in, Country Group D:5 are eligible for License Exception GOV (§ 740.11(b)(2) of the EAR); and

(ii) 1A613.c or .d items destined to, or in, Country Group D:5 are eligible for License Exception TMP (§ 740.9(a)(11) of the EAR) or License Exception BAG (§ 740.14(h)(2) of the EAR).

(13) “600 series” items that are controlled for missile technology (MT) reasons may not be exported, reexported, or transferred (in-country) under License Exception STA (§ 740.20 of the EAR). Items controlled under ECCNs 9D610.b, 9D619.b, 9E610.b, or 9E619.b or .c are not eligible for license exceptions except for License Exception GOV (§ 740.11(b)(2) of the EAR). Only the following license exceptions may be used to export “600 series” items to destinations other than those identified in Country Group D:5 or Hong Kong (see Supplement No.1 to part 740 of the EAR):

(i) License Exception LVS (§ 740.3 of the EAR);

(ii) License Exception TMP (§ 740.9 of the EAR);

(iii) License Exception RPL (§ 740.10 of the EAR);

(iv) License Exception TSU (§ 740.13(a), (b), (f) and (g) of the EAR);

(v) License Exception GOV (§ 740.11(b) or (c) of the EAR);

(vi) License Exception BAG (§ 740.14); and

(vii) License Exception STA under § 740.20(c)(1) of the EAR, provided all of the applicable terms and conditions, including those specific to the “600 series” are met.

(14) Items classified under ECCNs 0A521, 0B521, 0C521, 0D521 and 0E521 may only be authorized by License Exception GOV (§ 740.11(b)(2)(ii)) or an item-specific license exception identified in Supplement No. 5 to part 774 for a particular ECCN 0Y521 item.

*NOTE TO PARAGRAPH (a)(14): Item-specific license exception availability is specific to each ECCN 0Y521 entry in Supplement No. 5 to part 774 and may not be used for any other ECCN 0Y521 entries in the Supplement. The U.S. Government makes a determination at the time items are classified under ECCNs 0A521, 0B521, 0C521, 0D521 and 0E521 regarding whether any license exceptions will be available, in addition to License Exception GOV (§ 740.11(b)(2)(ii)).*

(15) If they are sold under a contract that includes \$14,000,000 or more of “600 Series Major Defense Equipment” (as defined in § 772.1), exports of “600 series” items to a country not listed in Country Group A:5 (see Supplement No. 1 to Part 740 of the EAR), are not eligible for any license exception except to U.S. Government end users under License Exception GOV (§ 740.11(b) of the EAR).

(16) If they are sold under a contract that includes \$25,000,000 or more of “600 Series Major Defense Equipment” (as defined in § 772.1), exports of “600 series” items to a country listed in Country Group A:5 (see Supplement No. 1 to Part 740 of the EAR), are not eligible for any license exception except to U.S. Government end users under License Exception GOV (§ 740.11(b) of the EAR).

(17) A party to the transaction, as described in § 748.5 of the EAR, is listed on the Unverified List

in Supplement No. 6 to Part 744, see § 744.15 of the EAR.

(18) 9x515 items that are controlled for missile technology (MT) reasons may not be exported, reexported, or transferred (in-country) under License Exception STA (§ 740.20 of the EAR).

(19) The exporter or reexporter to Hong Kong of any item subject to the EAR and controlled on the CCL for NS, MT, NP Column 1, or CB reasons has not received one of the following with respect to the item:

(i) A copy of an import license issued to the Hong Kong importer by the Government of the Hong Kong Special Administrative Region, pursuant to the Hong Kong Import and Export (Strategic Commodities) Regulations, that covers all items to be exported or reexported pursuant to that license exception for which a Hong Kong import license is required and that is valid on the date of the export or reexport that is subject to the EAR; or

(ii) A copy of a written statement issued by the Government of the Hong Kong Special Administrative Region that no import license is required to import into Hong Kong the item(s) to be exported or reexported. The statement may have been issued directly to the Hong Kong importer or it may be a written statement available to the general public. The statement may be used for more than one export or reexport to Hong Kong so long as it remains an accurate statement of Hong Kong law.

(20) The reexporter from Hong Kong of any item subject to the EAR controlled on the CCL for NS, MT, NP column 1, or CB reasons has not received one of the following with respect to the item:

(i) An export license issued by the Government of the Hong Kong Special Administrative Region, pursuant to the Hong Kong Import and Export (Strategic Commodities) Regulations, that covers all items to be reexported pursuant to that license exception for which a Hong Kong export license

is required and that is valid on the date of the reexport that is subject to the EAR; or

(ii) A copy of a written statement issued by the Government of the Hong Kong Special Administrative Region that no Hong Kong export license is required for the item(s) to be reexported. The statement may have been issued directly to the Hong Kong reexporter or it may be a written statement available to the general public. The statement may be used for more than one reexport from Hong Kong so long as it remains an accurate statement of Hong Kong law.

(21) The reexport or transfer (in-country) of firearms classified under ECCNs 0A501 or 0A502 if a part or component that is not “subject to the ITAR,” but would otherwise meet the criteria in USML Category I(h)(2) (*i.e.*, parts and components specially designed for conversion of a semiautomatic firearm to a fully automatic firearm) is incorporated into the firearm or is to be reexported or transferred (in-country) with the firearm with “knowledge” the part or component will be subsequently incorporated into the firearm. (*See* USML Category I(h)(2)). In such instances, no license exceptions are available except for License Exception GOV (§ 740.11(b)(2)(ii)).

(22) The export, reexport, or transfer (in-country) of any item classified under a 0x5zz ECCN when a party to the transaction is designated on the Department of the Treasury, Office of Foreign Assets Control (OFAC), Specially Designated Nationals and Blocked Persons (SDN) list under the designation [SDNT], pursuant to the Narcotics Trafficking Sanctions Regulations, 31 CFR part 536, or under the designation [SDNTK], pursuant to the Foreign Narcotics Kingpin Sanctions Regulations, 31 CFR part 598.

*Note to paragraph (a): Items subject to the exclusive export control jurisdiction of another agency of the U.S. Government may not be authorized by a license exception or any other authorization under the EAR. If your item is subject to the exclusive jurisdiction of another agency of the U.S. Government, you must*

## License Exceptions

*determine your export licensing requirements pursuant to the other agency's regulations. See § 734.3(b) and Supplement No. 3 to part 730 of the EAR for other U.S. Government departments and agencies with export control responsibilities.*

**(b)** All License Exceptions are subject to revision, suspension, or revocation, in whole or in part, without notice. It may be necessary for BIS to stop a shipment or an export transaction at any stage of its progress, e.g., in order to prevent an unauthorized export or reexport. If a shipment is already en route, it may be further necessary to order the return or unloading of the shipment at any port of call.

**(c)** BIS may by informing the exporter, suspend or revoke any License Exception in order to comply with U.S. Wassenaar obligations. In addition, BIS may inform an exporter, that before using any License Exception, a notice be submitted with BIS concerning the proposed export.

**(d)** See §746.3 for restrictions on certain transfers within Iraq of items exported or reexported to Iraq pursuant to a License Exception.

### **§ 740.3 SHIPMENTS OF LIMITED VALUE (\*\*LVS)**

#### **(a) Scope**

**License** Exception LVS authorizes the export and reexport in a single shipment of eligible commodities as identified by "LVS - \$(value limit)" on the CCL.

#### **(b) Eligible Destinations**

This License Exception is available for all destinations in Country Group B (see Supplement No. 1 to part 740), provided that the net value of the commodities included in the same order and controlled under the same ECCN entry on the

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CCL does not exceed the amount specified in the LVS paragraph for that entry.

### **(c) Definitions**

**(1) Order.** The term "order" as used in this §-740.3 means a communication from a person in a foreign country, or that person's representative, expressing an intent to import commodities from the exporter. Although all of the details of the order need not be finally determined at the time of export, terms relating to the kinds and quantities of the commodities to be exported, as well as the selling prices of these commodities, must be finalized before the goods can be exported under License Exception LVS.

**(2) Net value: for LVS shipments.** The actual selling price of the commodities that are included in the same order and are controlled under the same entry on the CCL, less shipping charges, or the current market price of the commodities to the same type of purchaser in the United States, whichever is the larger. In determining the actual selling price or the current market price of the commodity, the value of containers in which the commodity is being exported may be excluded. **The value for LVS purposes is that of the controlled commodity that is being exported, and may not be reduced by subtracting the value of any content that would not, if shipped separately, be subject to licensing.** Where the total value of the containers and their contents must be shown on Shipper's Export Declarations under one Schedule B Number, the exporter, in effecting a shipment under this License Exception, must indicate the "net value" of the contained commodity immediately below the description of the commodity.

**(3) Single shipment.** All commodities moving at the same time from one exporter to one consignee or intermediate consignee on the same exporting carrier even though these commodities will be forwarded to one or more ultimate consignees. Commodities being transported in this manner will be treated as a single shipment even if the commodities represent more than one order or are in separate containers.

**(d) Additional eligibility requirements and restrictions**

**(1) Eligible orders.** To be eligible for this License Exception, orders must meet the following criteria:

**(i) Orders must not exceed the applicable “LVS” dollar value limits.** An order is eligible for shipment under LVS when the “net value” of the commodities controlled under the same entry on the CCL does not exceed the amount specified in the “LVS” paragraph for that entry. An LVS shipment may include more than one eligible order.

**(ii) Orders may not be split to meet the applicable LVS dollar limits.** An order that exceeds the applicable LVS dollar value limit may not be misrepresented as two or more orders, or split among two or more shipments, to give the appearance of meeting the applicable LVS dollar value limit. However an order that meets all the LVS eligibility requirements, including the applicable LVS dollar value limit, may be split among two or more shipments.

**(iii) Orders must be legitimate.** Exporters and consignees may not, either collectively or individually, structure or adjust orders to meet the applicable LVS dollar value limits.

**(2) Restriction on annual value of LVS orders.** The total value of exports per calendar year to the same ultimate or intermediate consignee of commodities classified under a single ECCN may not exceed 12 times the LVS value limit for that ECCN; however, there is no restriction on the number of shipments provided that value is not exceeded. This annual value limit applies to shipments to the same ultimate consignee even though the shipments are made through more than one intermediate consignee. There is no restriction on the number of orders that may be included in a shipment, except that the annual value limit per ECCN must not be exceeded.

**(3) Orders where two or more LVS dollar value limits apply.** An order may include commodities that are controlled under more than one entry on the CCL. In this case, the net value of the entire order may exceed the LVS dollar value for any single entry on the CCL. However, the net value of the commodities controlled under each ECCN entry shall not exceed the LVS dollar value limit specified for that entry.

**Example to paragraph (3):** An order includes commodities valued at \$8,000. The order consists of commodities controlled under two ECCN entries, each having an LVS value limit of \$5000. Commodities in the order controlled under one ECCN are valued at \$3,500 while those controlled under the other ECCN are valued at \$4,500. Since the net value of the commodities controlled under *each* entry falls within the LVS dollar value limits applicable to that entry, the order may be shipped under this License Exception.

**(4) Prohibition against evasion of license requirements.** Any activity involving the use of this License Exception to evade license requirements is prohibited. Such devices include, but are not limited to, the splitting or structuring of orders to meet applicable LVS dollar value limits, as prohibited by paragraphs (d)(1)(ii) and (iii) of this section.

**(5) Exports and reexports of encryption components or spare parts.** For components or spare parts controlled for “EI” reasons under ECCN 5A002, exports and reexports under this License Exception must be destined to support a commodity previously authorized for export or reexport.

**(e) Reexports**

Commodities may be reexported under this License Exception, provided that they could be exported from the United States to the new country of destination under LVS.

**(f) Reporting requirements**

See §743.1 of the EAR for reporting requirements for exports of certain commodities under License Exception LVS.

**§ 740.4 SHIPMENTS TO COUNTRY  
GROUP B COUNTRIES (\*\*GBS)**

License Exception GBS authorizes exports and reexports to Country Group B (see Supplement No. 1 to part 740), except Sudan and Ukraine, of those commodities where the Commerce Country Chart (Supplement No. 1 to part 738 of the EAR) indicates a license requirement to the ultimate destination for national security reasons only and identified by “GBS—Yes” on the CCL. See § 743.1 of the EAR for reporting requirements for exports of certain commodities under License Exception GBS.

**§ 740.5 [RESERVED]**

**\*\*CIV used to be here at §740.5**

**§ 740.6 TECHNOLOGY AND  
SOFTWARE UNDER RESTRICTION  
(\*\*TSR)**

*(a) Scope*

License Exception TSR permits exports and reexports of technology and software where the Commerce Country Chart (Supplement No. 1 to part 738 of the EAR) indicates a license requirement to the ultimate destination for national security reasons only and identified by “TSR—Yes” in entries on the CCL, provided the software or technology is destined to Country Group B, except Sudan and Ukraine. (See Supplement No. 1 to part 740.) A written assurance is required from the consignee before exporting or reexporting under this License Exception.

**(1) Required assurance for export of technology.** You may not export or reexport

technology under this License Exception until you have received from the importer a written assurance that, without a BIS license or License Exception, the importer will not:

(i) Reexport or release the technology to a national of a country in Country Groups D:1, E:1, or E:2; or

(ii) Export to Country Groups D:1, E:1, or E:2 the direct product of the technology, if such foreign produced direct product is subject to national security controls as identified on the CCL (See General Prohibition Three, §736.2(b)(3) of the EAR); or

(iii) If the direct product of the technology is a complete plant or any major component of a plant, export to Country Groups D:1, E:1, or E:2 of the direct product of the plant or major component thereof, if such foreign produced direct product is subject to national security controls as identified on the CCL or is “subject to the ITAR” (see 22 CFR parts 120 through 130).

**(2) Required assurance for export of software.** You may not export or reexport software under this License Exception until you have received from the importer a written assurance that, without a BIS license or License Exception, the importer will neither:

(i) Reexport or release the software or the source code for the software to a national of a country in Country Groups D:1, E:1, or E:2; nor

(ii) Export to Country Groups D:1, E:1, or E:2 the direct product of the software, if such foreign produced direct product is subject to national security controls as identified on the CCL. (See General Prohibition Three, §736.2(b)(3) of the EAR).

**(3) Form of written assurance.** The required assurance may be made in the form of a letter or any other written communication from the importer, including communications via facsimile, or the assurance may be incorporated

into a licensing agreement that specifically includes the assurances. An assurance included in a licensing agreement is acceptable only if the agreement specifies that the assurance will be honored even after the expiration date of the licensing agreement. If such a written assurance is not received, License Exception TSR is not applicable and a license is required. The license application must include a statement explaining why assurances could not be obtained.

**(4) Other License Exceptions.** The requirements in this License Exception do not apply to the export of technology or software under other License Exceptions, or to the export of technology or software included in an application for the foreign filing of a patent, provided the filing is in accordance with the regulations of the U.S. Patent Office.

**(b) Reporting requirements**

See §743.1 of the EAR for reporting requirements for exports of certain items under License Exception TSR. Note that reports are not required for release of technology or source code subject to the EAR to foreign nationals in the U.S. under the provisions of License Exception TSR.

**§ 740.7 COMPUTERS (\*\*APP)**

**(a) Scope**

**(1) Commodities.** License Exception APP authorizes exports, reexports and transfers (in-country) of computers, including “electronic assemblies” and specially designed components therefor controlled by ECCN 4A003 exported or reexported separately or as part of a system for consumption in Computer Tier countries as provided by this section. When evaluating your computer to determine License Exception APP eligibility, use the APP parameter to the exclusion of other technical parameters in ECCN 4A003.

**(2) Technology and software.** License Exception APP authorizes exports of technology

and software controlled by ECCNs 4D001 and 4E001 specially designed or modified for the “development,” “production,” or “use” of computers, including “electronic assemblies” and specially designed components therefor classified in ECCN 4A003 to Computer Tier countries as provided by this section.

**(b) Restrictions**

**(1)** Related equipment controlled under ECCN 4A003.g may not be exported or reexported under this License Exception when exported or reexported separately from eligible computers authorized under this License Exception.

**(2) Access and release restrictions.**

**(i)** [RESERVED]

**(ii) Technology and source code.** Technology and source code eligible for License Exception APP may not be released to nationals of Cuba, Iran, North Korea, or Syria.

**(3)** Computers and software eligible for License Exception APP may not be reexported or transferred (in country) without prior authorization from BIS, *i.e.*, a license, a permissive reexport, another License Exception, or “No License Required”. This restriction must be conveyed to the consignee, via the Destination Control Statement, see §758.6 of the EAR. Additionally, the end-use and end-user restrictions in paragraph (b)(5) of this section must be conveyed to any consignee in Computer Tier 3.

**(4)** You may not use this License Exception to export or reexport items that you know will be used to enhance the APP beyond the eligibility limit allowed to your country of destination.

**(5)** License Exception APP does not authorize exports, reexports and transfers (in-country) for nuclear, chemical, biological, or missile end-users and end-uses subject to license requirements under §744.2, §744.3, §744.4, and §744.5 of the EAR. Such exports, reexports and

transfers (in-country) will continue to require a license and will be considered on a case-by-case basis. Reexports and transfers (in-country) to these end-users and end-uses in eligible countries are strictly prohibited without prior authorization.

(6) Foreign nationals in an expired visa status are not eligible to receive deemed exports of technology or source code under this License Exception. It is the responsibility of the exporter to ensure that, in the case of deemed exports, the foreign national maintains a valid U.S. visa, if required to hold a visa from the United States.

*(c) Computer Tier 1 destinations*

**(1) Eligible destinations.** The destinations that are eligible to receive exports and reexports under paragraph (c) of this section include: Albania, Antigua and Barbuda, Argentina, Aruba, Australia, Austria, Bahamas (The), Bangladesh, Barbados, Belgium, Belize, Benin, Bhutan, Bolivia, Botswana, Brazil, Brunei, Bulgaria, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Chile, Colombia, Congo (Democratic Republic of the), Congo (Republic of the), Costa Rica, Cote d'Ivoire, Croatia, Curaçao, Cyprus, Czech Republic, Denmark, Dominica, Dominican Republic, Ecuador, El Salvador, Equatorial Guinea, Eritrea, Estonia, Ethiopia, Fiji, Finland, France, Gabon, Gambia (The), Germany, Ghana, Greece, Grenada, Guatemala, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, Hungary, Iceland, Indonesia, Ireland, Italy, Jamaica, Japan, Kenya, Kiribati, Korea (Republic of), Latvia, Lesotho, Liberia, Lithuania, Luxembourg, Madagascar, Malawi, Malaysia, Maldives, Mali, Malta, Marshall Islands, Mauritius, Mexico, Micronesia (Federated States of), Monaco, Mozambique, Namibia, Nauru, Nepal, Netherlands, New Zealand, Nicaragua, Niger, Nigeria, Norway, Palau, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Poland, Portugal, Romania, Rwanda, St. Kitts & Nevis, St. Lucia, St. Vincent and the Grenadines, Sao Tome & Principe, Samoa, San Marino, Senegal, Seychelles, Sierra Leone, Singapore, Sint Maarten (the Dutch two-fifths of the island of

Saint Martin), Slovakia, Slovenia, Solomon Islands, Somalia, South Africa, Spain, Sri Lanka, Surinam, Swaziland, Sweden, Switzerland, Taiwan, Tanzania, Togo, Tonga, Thailand, Timor-Leste, Trinidad and Tobago, Turkey, Tuvalu, Uganda, United Kingdom, Uruguay, Vatican City, Venezuela, Western Sahara, Zambia, and Zimbabwe.

**(2) Eligible commodities.** All computers, including electronic assemblies and specially designed components therefor are eligible for export or reexport under License Exception APP to Tier 1 destinations, subject to the restrictions in paragraph (b) of this section.

**(3) Eligible technology and software.**

**(i)** Technology and software described in paragraph (a)(2) of this section for computers of unlimited APP are eligible for export, reexport, transfer (in-country) under License Exception APP to countries listed in Country Group A:5, see Supplement No. 1 to this part; and

**(ii)** “Development” and “production” technology and source code described in paragraph (a)(2) of this section for computers with a APP less than or equal to 40 Weighted TeraFLOPS (WT) are eligible for deemed exports under License Exception APP to foreign nationals of Tier 1 destinations, other than the destinations that are listed in paragraph (c)(3)(i) of this section, subject to the restrictions in paragraph (b) of this section.

**(iii)** “Use” technology and source code described in paragraph (a)(2) of this section for computers with a APP less than or equal to 200 WT are eligible for deemed exports under License Exception APP to foreign nationals of Tier 1 destinations, other than the destinations that are listed in paragraph (c)(3)(i) of this section, subject to the restrictions in paragraph (b) of this section.

§ 740.8 [RESERVED]

(d) Computer Tier 3 destinations

(1) Eligible destinations. Eligible destinations under paragraph (d) of this section are: Afghanistan, Algeria, Andorra, Angola, Armenia, Azerbaijan, Bahrain, Belarus, Bosnia & Herzegovina, Burma, Cambodia, China (People's Republic of), Comoros, Djibouti, Egypt, Georgia, India, Iraq, Israel, Jordan, Kazakhstan Kosovo, Kuwait, Kyrgyzstan, Laos, Lebanon, Libya, Macau, Macedonia (The Former Yugoslav Republic of), Mauritania, Moldova, Mongolia, Montenegro, Morocco, Oman, Pakistan, Qatar, Russia, Saudi Arabia, Serbia, Sudan, Tajikistan, Tunisia, Turkmenistan, Ukraine, United Arab Emirates, Uzbekistan, Vanuatu, Vietnam, and Yemen.

(2) Eligible commodities. None.

(3) Eligible technology and source code.

(i) "Development" and "production" technology and source code described in paragraph (a)(2) of this section for computers with an APP less than or equal to 16 Weighted TeraFLOPs (WT) are eligible for deemed exports under License Exception APP to foreign nationals of Tier 3 destinations as described in paragraph (d)(1) of this section, subject to the restrictions in paragraph (b) of this section.

(ii) "Use" technology and source code described in paragraph (a)(2) of this section for computers with an APP less than or equal to 32 WT are eligible for deemed exports under License Exception APP to foreign nationals of Tier 3 destinations as described in paragraph (d)(1) of this section, subject to the restrictions in paragraph (b) of this section.

(e) Reporting requirements

See §743.1 of the EAR for reporting requirements of certain items under License Exception APP.

§ 740.9 TEMPORARY IMPORTS, EXPORTS, REEXPORTS, AND TRANSFERS (IN-COUNTRY) (TMP)

Return to "U.S. Person" in § 772.

This License Exception authorizes various temporary exports and reexports; exports and reexports of items temporarily in the United States; and exports and reexports of beta test software.

(a) Temporary exports, reexports, and transfers (in-country)

License Exception TMP authorizes exports, reexports, and transfers (in-country) of items for temporary use abroad (including use in or above international waters) subject to the conditions specified in this paragraph (a). No item may be exported, reexported, or transferred (in-country) under this paragraph (a) if an order to acquire the item, such as a purchase order, has been received before shipment; with prior knowledge that the item will stay abroad beyond the terms of this License Exception; or when the item is for subsequent lease or rental abroad. The references to various countries and country groups in these TMP-specific provisions do not limit or amend the prohibitions in § 740.2 of the EAR on the use of license exceptions generally, such as for exports of 9x515 or "600 series" items to destinations in Country Group D:5. This paragraph (a) does not authorize any export of a commodity controlled under ECCNs 0A501.a or .b, or shotguns with a barrel length less than 18 inches controlled under ECCN 0A502 to, or any export of such an item that was imported into the United States from, a country in Country Group D:5 (Supplement No. 1 to this part), or from Russia, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Turkmenistan, Ukraine, or Uzbekistan. The only provisions of this paragraph (a) that are eligible for use to export such items are paragraph (a)(5) of this section ("Exhibition and demonstration") and paragraph (a)(6) of this section ("Inspection, test, calibration, and

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repair”). In addition, this paragraph (a) may not be used to export more than 75 firearms per shipment. In accordance with the requirements in § 758.1(b)(9) and (g)(4) of the EAR, the exporter or its agent must provide documentation that includes the serial number, make, model, and caliber of each firearm being exported by filing these data elements in an EEI filing in AES. In accordance with the exclusions in License Exception TMP under paragraph (b)(5) of this section, the entry clearance requirements in § 758.1(b)(9) do not permit the temporary import of: firearms controlled in ECCN 0A501.a or .b that are shipped from or manufactured in a Country Group D:5 country, or that are shipped from or manufactured in Russia, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Turkmenistan, Ukraine, or Uzbekistan (except for any firearm model designation (if assigned) controlled by 0A501 that is specified under Annex A in Supplement No. 4 to this part); or shotguns with a barrel length less than 18 inches controlled in ECCN 0A502 that are shipped from or manufactured in a Country Group D:5 country, or from Russia, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Turkmenistan, Ukraine, or Uzbekistan, because of the exclusions in License Exception TMP under paragraph (b)(5) of this section.

**(1) Tools of trade.** Exports, reexports, or transfers (in-country) of commodities and software as tools of trade for use by the exporter or employees of the exporter may be made only to destinations other than Country Group E:1. The tools of trade must remain under the “effective control” of the exporter or the exporter's employee. Eligible items are usual and reasonable kinds and quantities of tools of trade for use in a lawful enterprise or undertaking of the exporter. Tools of trade include, but are not limited to, commodities and software as is necessary to commission or service items, provided that the commodity or software is appropriate for this purpose and that all items to be commissioned or serviced are of foreign origin, or if subject to the EAR, have been lawfully exported, reexported, or transferred. Tools of trade may accompany the individual

(a)(1) applies to "commodities and software"

(a)(3) applies to "technology"

departing from the United States or may be shipped unaccompanied within one month before the individual’s departure from the United States, or at any time after departure. Software used as a tool of trade must be protected against unauthorized access. Examples of security precautions to help prevent unauthorized access include the following:

(i) Use of secure connections, such as Virtual Private Network connections, when accessing IT networks for activities that involve the transmission and use of the software authorized under this license exception;

(ii) Use of password systems on electronic devices that store the software authorized under this license exception; and

(iii) Use of personal firewalls on electronic devices that store the software authorized under this license exception.

**(2) [Reserved]** This (2) was formerly "Sudan"

**(3) “Technology,”** regardless of media or format, may be exported, reexported, or transferred (in-country) by or to a U.S. person, or a foreign person employee of a U.S. person traveling or on temporary assignment abroad, subject to the following restrictions:

**(i) Foreign persons may only export, reexport, transfer (in country) or receive such “technology” as they are authorized to receive through a license, license exception other than TMP or because no license is required.**

(ii) “Technology” exported, reexported, or transferred under this authorization may only be possessed or used by a U.S. person or authorized foreign person. Sufficient security precautions must be taken to prevent the unauthorized release of the “technology.” Such security precautions may include encryption of the “technology,” the use of secure network connections, such as Virtual Private Networks, the use of passwords or other access restrictions on the electronic device or media on which the “technology” is stored, and

This provision exactly mirrors the limitation of foreign-person employees using the equivalent license exemption found at ITAR § 125.4(b)(9)(i).

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the use of firewalls and other network security measures to prevent unauthorized access.

(iii) The individual is an employee of the U.S. Government or is directly employed by a U.S. person and not, e.g., by a foreign subsidiary.

(iv) "Technology" authorized under this exception may not be used for foreign production purposes or for technical assistance unless authorized through a license or license exception other than TMP.

**(4) Kits consisting of replacement parts or components.** Kits consisting of replacement parts or components may be exported, reexported, or transferred (in-country) to all destinations except Country Group E:1 (see Supplement No. 1 to part 740 of the EAR), provided that:

(i) The parts and components would qualify for shipment under paragraph (a)(4)(iii) of this section if exported as one-for-one replacements;

(ii) The kits remain under effective control of the exporter or an employee of the exporter; and

(iii) All parts and components in the kit are returned, except that one-for-one replacements may be made in accordance with the requirements of License Exception RPL and the defective parts and components returned (see Parts, Components, Accessories and Attachments in § 740.10(a) of this part).

**(5) Exhibition and demonstration.** This paragraph (a)(5) authorizes exports, reexports, and transfers (in-country) of commodities and software for exhibition or demonstration in all destinations except Country Group E:1 (see Supplement No. 1 to this part) provided that the exporter maintains ownership of the commodities and software while they are abroad and provided that the exporter, an employee of the exporter, or the exporter's designated sales representative retains "effective control" over the commodities

This (a)(6) can allow under TMP the export for \*\*repair to a foreign manufacturer. Often can be better than RPL.

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and software while they are abroad. **The commodities and software may not be used when abroad for more than the minimum extent required for effective demonstration. The commodities and software may not be exhibited or demonstrated at any one site for longer than 120 days after installation and debugging, unless authorized by BIS.** However, before or after an exhibition or demonstration, pending movement to another site, return to the United States or the foreign reexporter, or BIS approval for other disposition, the commodities and software may be placed in a bonded warehouse or a storage facility provided that the exporter retains "effective control" over their disposition. The export documentation for this type of transaction must show the exporter as ultimate consignee, in care of the person who will have control over the commodities and software abroad.

**(6) Inspection, test, calibration, and repair.** Commodities to be inspected, tested, calibrated, or repaired abroad may be exported, reexported, and transferred (in-country) under this paragraph (a)(6) to all destinations except Country Group E:1.

**(7) Containers.** Containers for which another license exception is not available and that are necessary for shipment of commodities may be exported, reexported, and transferred (in-country) under this paragraph (a)(7). However, this paragraph does not authorize the export of the container's contents, which, if not exempt from licensing, must be separately authorized for export under either a license exception or a license.

**(8) Assembly in Mexico.** Commodities may be exported to Mexico under Customs entries that require return to the United States after processing, assembly, or incorporation into end products by companies, factories, or facilities participating in Mexico's in-bond industrialization program (IMMEX) under this paragraph (a)(8), provided that all resulting end-products (or the commodities themselves) are returned to the United States as soon as practicable but no later than four years after the

• This is 740.9(a)(5): Item cannot be used for "intended purpose" during TMP, except to the extent needed to demo its capabilities. This prevents misusing TMP because you don't have time for a "real" license.  
• Also see 740.9(a)(14)(i) on "Part 740-page 15", below, which likewise disallows TMP if you already know the export really is permanent.

date of export or reexport.

**(9) News media.**

(i) Commodities necessary for news-gathering purposes (and software necessary to use such commodities) may be temporarily exported or reexported for accredited news media personnel (i.e., persons with credentials from a news-gathering or reporting firm) to Cuba, North Korea, or Syria (see Supplement No. 1 to part 740) if the commodities:

(A) Are retained under “effective control” of the exporting news-gathering firm in the country of destination;

(B) Remain in the physical possession of the news media personnel in the country of destination. The term physical possession for purposes of this paragraph (a)(9) means maintaining effective measures to prevent unauthorized access (e.g., securing equipment in locked facilities or hiring security guards to protect the equipment); and

(C) Are removed with the news media personnel at the end of the trip.

(ii) When exporting under this paragraph (a)(9) from the United States, the exporter must email a copy of the packing list or similar identification of the exported commodities, to [bis.compliance@bis.doc.gov](mailto:bis.compliance@bis.doc.gov) specifying the destination and estimated dates of departure and return. The Office of Export Enforcement (OEE) may check returns to assure that the provisions of this paragraph (a)(9) are being used properly.

(iii) Commodities or software necessary for news-gathering purposes that accompany news media personnel to all other destinations shall be exported, reexported, or transferred (in-country) under paragraph (a)(1), *tools of trade*, of this section if owned by the news gathering firm, or if they are personal property of the individual news media personnel. Note that paragraphs (a)(1), *tools of trade* and (a)(9), *news media*, of this

section do not preclude independent accredited contract personnel, who are under control of news-gathering firms while on assignment, from using these provisions, provided that the news gathering firm designates an employee of the contract firm to be responsible for the equipment.

**(10) Temporary exports to a U.S. person’s foreign subsidiary, affiliate, or facility abroad.**

Components, parts, tools, accessories, or test equipment exported by a U.S. person to a subsidiary, affiliate, or facility owned or controlled by the U.S. person, if the components, parts, tools, accessories, or test equipment are to be used to manufacture, assemble, test, produce, or modify items, provided that such components, parts, tools, accessories or test equipment are not transferred (in-country) or reexported from such subsidiary, affiliate, or facility, alone or incorporated into another item, without prior authorization by BIS.

**(11) Personal protective “equipment” classified under ECCN 1A613.c or .d and individual protection “equipment” classified under ECCN 1A607.f.**

(i) *Temporary exports, reexports, or in-country transfers to countries not identified in Country Group D:5.* U.S. persons may temporarily export or reexport one set of body armor classified under ECCN 1A613.d (which may include one helmet classified under ECCN 1A613.c) or one set of chemical or biological agent protective gear classified under ECCN 1A607.f (which may include one additional filter canister classified under ECCN 1A607.x) to countries not identified in Country Group D:5, provided that:

(A) The items are with the U.S. person’s baggage or effects, whether accompanied or unaccompanied (but not mailed); *and*

(B) The items are for that U.S. person’s exclusive use and not for transfer of ownership unless reexported or transferred (in-country) to another U.S. person.

(ii) *Temporary exports, reexports, or transfers (in-country) to countries identified in Country Group D:5.*

(A) *Iraq.* U.S. persons may temporarily export or reexport one set of body armor classified under ECCN 1A613.d (which may include one helmet classified under ECCN 1A613.c) or one set of chemical or biological agent protective gear classified under ECCN 1A607.f (which may include one additional filter canister classified under ECCN 1A607.x) to Iraq, for personal use, provided that the requirements in paragraph (a)(11)(i) of this section are met. In addition, the U.S. person must be affiliated with the U.S. Government and traveling on official business or traveling in support of a U.S. Government contract, or the U.S. person must be traveling to Iraq under a direct authorization by the Government of Iraq and engaging in activities for, on behalf of, or at the request of, the Government of Iraq. Documentation regarding direct authorization from the Government of Iraq shall include an English translation.

(B) *Other countries in Country Group D:5.* U.S. persons may temporarily export or reexport one set of body armor classified under ECCN 1A613.d (which may include one helmet classified under ECCN 1A613.c) or one set of chemical or biological agent protective gear classified under ECCN 1A607.f (which may include one additional filter canister classified under ECCN 1A607.x) to countries in Country Group D:5 (except Iraq), for personal use, provided that the requirements in paragraph (a)(11)(i) of this section are met, and the U.S. person is affiliated with the U.S. Government traveling on official business or is traveling in support of a U.S. Government contract.

(iii) Items exported, reexported, or transferred (in-country) under paragraph (a)(11) of this section, if not consumed or destroyed in the normal course of authorized temporary use **abroad, must be returned to the United States or other country from which the items were so transferred as soon as practicable but no later than**

four years after the date of export, reexport or transfer (in-country).

**(12) U.S. persons.** For purposes of this § 740.9, a U.S. person is defined as follows: an individual who is a citizen of the United States, an individual who is a lawful permanent resident as defined by 8 U.S.C. 1101(a)(2) or an individual who is a protected individual as defined by 8 U.S.C. 1324b(a)(3). U.S. person also means any juridical person organized under the laws of the United States, or any jurisdiction within the United States (e.g., corporation, business association, partnership, society, trust, or any other entity, organization or group that is authorized to do business in the United States).

**(13) Destinations.** Destination restrictions apply to temporary exports, reexports, or transfers (in-country) to and for use on any vessel, aircraft or territory under ownership, control, lease, or charter by any country specified in any authorizing paragraph of this section, or any national thereof.

**(14) Return or disposal of items.** With the exception of items described in paragraphs (a)(8) and (11) of this section, all items exported, reexported, or transferred (in-country) under this section must, if not consumed or destroyed in the normal course of authorized temporary use abroad, **be returned to the United States or other country from which the items were so transferred as soon as practicable but no later than one year** after the date of export, reexport, or transfer (in-country). Items not returned shall be disposed of or retained in one of the following ways:

**(i) Permanent export, reexport, or transfer (in-country).** An exporter or reexporter who wants to sell or otherwise dispose of the items abroad, except as permitted by this or other applicable provision of the EAR, must apply for a license in accordance with §§ 748.1, 748.4 and 748.6 of the EAR. (Part 748 of the EAR contains more information about license applications.) The application must be supported by any documents that would be required in support of an application for export license for

## License Exception TMP

### License Exceptions

To convert a TMP export to a permanent export, one can simply apply for an export or reexport license as normal. I'd probably have a letter of explanation confirming that, e.g., we didn't have a PO or know in advance, etc., etc. One can also use an existing license, if it "fits".

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shipment of the same items directly from the United States to the proposed destination.

**(ii) Use of a license.** An outstanding license may also be used to dispose of items covered by the provisions of this paragraph (a), provided that the outstanding license authorizes direct shipment of the same items to the same new ultimate consignee or end-user.

**(iii) Authorization to retain item abroad beyond one year.** An exporter, reexporter or transferor who wants to retain an item at the temporary location beyond one year must apply for a license in accordance with §§ 748.1, 748.4 and 748.6 of the EAR to BIS at least 90 days prior to the expiration of the one-year period. The application must include the name and address of the exporter, the date the items were exported, a brief product description, and the justification for the extension. If BIS approves the extension, the applicant will receive authorization for an extension not to exceed four years from the date of initial export, reexport, or transfer. Any request for retaining the items abroad for a period exceeding four years must be made in accordance with the requirements of paragraph (a)(14)(i) of this section.

#### **(b) Exports of items temporarily in the United States.**

**(1) Items moving in transit through the United States.** Subject to the following conditions, the provisions of this paragraph (b)(1) authorize export of items moving in transit through the United States under a Transportation and Exportation (T.&E.) customs entry or an Immediate Exportation (I.E.) customs entry made at a U.S. Customs and Border Protection Office. No provision of paragraph (b) of this section, other than paragraph (b)(3), (4), or (5), may be used to export firearms controlled by ECCN 0A501.a, .b, or shotguns with a barrel length less than 18 inches controlled in ECCN 0A502.

(i) Items controlled for national security (NS) reasons, nuclear proliferation (NP) reasons, or chemical and biological weapons (CB) reasons

may not be exported to Country Group D:1, D:2, or D:3 (see Supplement No. 1 to part 740), respectively, under this paragraph (b)(1).

(ii) Items may not be exported to Country Group E:1 under this section.

(iii) The following may *not* be exported from the United States under this paragraph (b)(1):

(A) Commodities shipped to the United States under an International Import Certificate, Form BIS-645P;

(B) Chemicals controlled under ECCN 1C350; or

(C) Horses for export by sea (refer to short supply controls in part 754 of the EAR).

(iv) The authorization to export in paragraph (b)(1) shall apply to all shipments from Canada moving in transit through the United States to any foreign destination, regardless of the nature of the commodities or software or their origin, notwithstanding any other provision of this paragraph (b)(1).

#### **(2) Items imported for marketing, or for display at U.S. exhibitions or trade fairs.**

Subject to the following conditions, the provisions of this paragraph (b)(2) authorize the export of items that were imported into the United States for marketing, or for display at an exhibition or trade fair *and* were either entered under bond or permitted temporary free import under bond providing for their export and are being exported in accordance with the terms of that bond.

(i) Items may be exported to the country from which imported into the United States. However, items originally imported from Cuba may not be exported unless the U.S. Government had licensed the import from that country.

(ii) Items may be exported to any destination other than the country from which imported except:

(A) Items imported into the United States under an International Import Certificate;

(B) Exports to Country Group E:1 (see Supplement No. 1 to part 740); or

(C) Exports to Country Group D:1, D:2, or D:3 (see Supplement No. 1 to part 740) of items controlled for national security (NS) reasons, nuclear nonproliferation (NP) reasons, or chemical and biological weapons (CB) reasons, respectively.

**(3) Return of foreign-origin items.** A foreign-origin item may be returned under this license exception to the country from which it was imported if its characteristics and capabilities have not been enhanced while in the United States, except that no foreign-origin items may be returned to Cuba.

**(4) Return of shipments refused entry.** Shipments of items refused entry by the U.S. Customs and Border Protection, the Food and Drug Administration, or other U.S. Government agency may be returned to the country of origin, except to:

(i) A destination in Cuba; or

(ii) A destination from which the shipment has been refused entry because of the Foreign Assets Control Regulations of the Treasury Department, unless such return is licensed or otherwise authorized by the Treasury Department, Office of Foreign Assets Control (31 CFR parts 500-599).

**(5) Exports of firearms and certain shotguns temporarily in the United States.** This paragraph (b)(5) authorizes the export of no more than 75 end item firearms per shipment controlled by ECCN 0A501.a or .b, or shotguns with a barrel length less than 18 inches controlled in ECCN 0A502 that are temporarily in the United States for a period not exceeding one year, provided that:

(i) The firearms were not shipped from or manufactured in a U.S. arms embargoed country, *i.e.*, destination listed in Country Group D:5 in Supplement No. 1 to this part;

(ii) The firearms were not shipped from or manufactured in Russia, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Turkmenistan, Ukraine, or Uzbekistan, except for any firearm model controlled by 0A501 that is specified under Annex A in Supplement No. 4 to this part; and

(iii) The firearms are not ultimately destined to a U.S. arms embargoed country, *i.e.*, destination listed in Country Group D:5 in Supplement No. 1 to this part, or to Russia;

(iv) When the firearms entered the U.S. as a temporary import, the temporary importer or its agent:

(A) Provided the following statement to U.S. Customs and Border Protection: “This shipment will be exported in accordance with and under the authority of License Exception TMP (15 CFR 740.9(b)(5))”;

(B) Provided to U.S. Customs and Border Protection an invoice or other appropriate import-related documentation (or electronic equivalents) that includes a complete list and description of the firearms being temporarily imported, including their model, make, caliber, serial numbers, quantity, and U.S. dollar value; and

(C) Provided (if temporarily imported for a trade show, exhibition, demonstration, or testing) to U.S. Customs and Border Protection the relevant invitation or registration documentation for the event and an accompanying letter that details the arrangements to maintain effective control of the firearms while they are in the United States; and

(v) In addition to the export clearance requirements of part 758 of the EAR, the exporter or its agent must provide the import documentation related to paragraph (b)(5)(iv)(B)

of this section to U.S. Customs and Border Protection at the time of export.

**NOTE 1 to paragraph (b)(5):** *In addition to complying with all applicable EAR requirements for the export of commodities described in paragraph (b)(5) of this section, exporters and temporary importers should contact U.S. Customs and Border Protection (CBP) at the port of temporary import or export, or at the CBP website, for the proper procedures for temporarily importing or exporting firearms controlled in ECCN 0A501.a or .b or shotguns with a barrel length less than 18 inches controlled in ECCN 0A502, including regarding how to provide any data or documentation required by BIS.*

**NOTE 2 to paragraph (b):** *A commodity withdrawn from a bonded warehouse in the United States under a ‘withdrawal for export’ customs entry is considered as ‘moving in transit’. It is not considered as ‘moving in transit’ if it is withdrawn from a bonded warehouse under any other type of customs entry or if its transit has been broken for a processing operation, regardless of the type of customs entry.*

**NOTE 3 to paragraph (b):** *Items shipped on board a vessel or aircraft and passing through the United States from one foreign country to another may be exported without a license provided that (a) while passing in transit through the United States, they have not been unladen from the vessel or aircraft on which they entered, and (b) they are not originally manifested to the United States.*

**NOTE 4 to paragraph (b):** *A shipment originating in Canada or Mexico that incidentally transits the United States en route to a delivery point in the same country does not require a license.*

**(c) Exports of beta test software**

**(1) Scope.** The provisions of this paragraph (c) authorize exports and reexports to eligible

countries of beta test software intended for distribution to the general public.

**(2) Eligible countries.** Encryption software controlled under ECCN 5D002 is not eligible for export or reexport to country in Country Group E:1 under the provisions of this paragraph (c). All other beta test software is eligible for export or reexport to all destinations, except Cuba, and Iran under the provisions of this paragraph (c).

**(3) Eligible software.** All software that is controlled by the Commerce Control List (Supplement No.1 to part 774 of the EAR), and under Commerce licensing jurisdiction, is eligible for export and reexport, subject to the restrictions of this paragraph (c). Encryption software controlled for “EI” reasons under ECCN 5D002 is eligible for export and reexport under this paragraph (c), provided that the exporter has submitted the information described in paragraph (c)(8) of this section by the time of export. Final encryption products produced by the testing consignee are subject to any applicable provisions in §742.15(b) of the EAR (for mass market encryption commodities and software with symmetric key length exceeding 64-bits) or §740.17 of the EAR (License Exception ENC), including review and reporting requirements.

**(4) Conditions for use.** Exports or reexports of beta test software programs under the provisions of this paragraph (c) must meet all of the following conditions:

**(i)** The software producer intends to market the software to the general public after completion of the beta testing, as described in the General Software Note (see Supplement No. 2 to part 774 of the EAR) or the Cryptography Note in Category 5, Part 2 (“Information Security”), of the Commerce Control List (see Supplement No.1 to part 774 of the EAR);

**(ii)** The software producer provides the software to the testing consignee free-of-charge or at a price that does not exceed the cost of reproduction and distribution; and

(iii) The software is designed for installation by the end-user without further substantial support from the supplier.

(5) **Importer Statement.** Prior to exporting or reexporting any eligible software under this paragraph (c), the exporter or reexporter must obtain the following statement from the testing consignee, which may be included in a contract, non-disclosure agreement, or other document that identifies the importer, the software to be exported, the country of destination, and the testing consignee.

“We certify that this beta test software will only be used for beta testing purposes, and will not be rented, leased, sold, sublicensed, assigned, or otherwise transferred. Further, we certify that we will not transfer or export any product, process, or service that is the direct product of the beta test software.”

(6) **Use limitations.** Only testing consignees that provide the importer statement required by paragraph (c)(5) of this section may execute any beta test software that was exported or reexported to them under the provisions of this paragraph (c).

(7) **Return or disposal of software.** All beta test software exported must be destroyed abroad or returned to the exporter within 30 days of the end of the beta test period as defined by the software producer or, if the software producer does not define a test period, within 30 days of completion of the consignee's role in the test. Among other methods, this requirement may be satisfied by a software module that will destroy the software and all its copies at or before the end of the beta test period.

(8) **Notification of beta test encryption software.**

For beta test encryption software eligible under this license exception you must, by the time of export or reexport, submit the information described in paragraphs (a) through (d) of Supplement No. 6 to part 742 of the EAR by e-

mail to BIS at [crypt@bis.doc.gov](mailto:crypt@bis.doc.gov) and to the ENC Encryption Request Coordinator at [enc@nsa.gov](mailto:enc@nsa.gov).

**§ 740.10 SERVICING AND REPLACEMENT OF PARTS AND EQUIPMENT (\*\*RPL)**

Return to "U.S. Person" in § 772.

License Exception RPL authorizes exports and reexports associated with one-for-one replacement of parts, components, accessories, and attachments. License Exception RPL also authorizes exports and reexports of certain items currently “subject to the EAR” to or for, or to replace, a defense article described in an export or reexport authorization issued under the authority of the Arms Export Control Act. It does not, however, authorize the export or reexport of defense articles subject to the ITAR, i.e., described on the United States Munitions List (22 CFR 121.1).

**(a) Parts, Components, Accessories, and Attachments.**

(1) **Scope.** The provisions of this paragraph (a) authorize the export and reexport of one-for-one replacement parts, components, accessories, and attachments for previously exported equipment or other end items.

**(2) One-for-one replacement of parts, components, accessories, or attachments.**

(i) The terms *replacement parts, components, accessories, or attachments* as used in this section mean parts, components, accessories, or attachments needed for the immediate repair of equipment or other end items, including replacement of defective or worn parts or components. (These terms include ‘subassemblies,’ but do not include test instruments or operating supplies. The term ‘*subassembly*’ means a number of parts or components assembled to perform a specific function or functions within a commodity. One example would be printed circuit boards with components mounted thereon. This definition

does not include major subsystems such as those composed of a number of ‘subassemblies.’) Items that improve or change the basic design characteristics, e.g., as to accuracy, capability, performance or productivity, of the equipment or other end item upon which they are installed, are not deemed to be replacement parts, components, accessories, or attachments. For kits consisting of replacement parts or components, consult § 740.9(a)(4) of this part.

(ii) Parts, components, accessories, and attachments may be exported only to replace, on a one-for-one basis, parts, components, accessories, or attachments, respectively, contained in commodities that were: lawfully exported from the United States; lawfully reexported; or made in a foreign country incorporating authorized parts, components, accessories, or attachments “subject to the EAR” (see § 734.2(a) of the EAR). (For exports or reexports to the installed base in Libya, see § 764.7 of the EAR.) The conditions of the original U.S. authorization must not have been violated. Accordingly, the export of replacement parts, components, accessories, and attachments may be made only by the party who originally exported or reexported the commodity to be repaired, or by a party that has confirmed the existence of appropriate authority for the original transaction.

(iii) The parts, components, accessories, or attachments to be replaced **must either be destroyed abroad or returned promptly to the person who supplied the replacements,** or to a foreign firm that is under the effective control of that person.

### **(3) Exclusions to License Exception RPL.**

(i) No replacement parts, components, accessories, or attachments may be exported to repair a commodity exported under a license or other authorization if that license or other authorization included a condition that any subsequent replacements may be exported only under a license.

(ii) No parts, components, accessories, or attachments may be exported to be held abroad as spares for future use. Replacements may be exported to replace spares that were authorized to accompany the export of equipment or other end items as those spares are used in the repair of the equipment or other end item. This allows maintenance of the stock of spares at a consistent level as the parts, components, accessories, or attachments are used.

(iii) No parts, components, accessories, or attachments may be exported to any destination, except the countries listed in Supplement No. 3 to part 744 of the EAR (Countries Not Subject to Certain Nuclear End Use Restrictions in § 744.2(a)), if the item is to be incorporated into or used in nuclear weapons, nuclear explosive devices, nuclear testing related to activities described in § 744.2(a) of the EAR, the chemical processing of irradiated special nuclear or source material, the production of heavy water, the separation of isotopes of source and special nuclear materials, or the fabrication of nuclear reactor fuel containing plutonium, as described in § 744.2(a) of the EAR.

(iv) No replacement parts, components, accessories, or attachments may be exported to countries in Country Group E:1 (see Supplement No. 1 to this part) (countries designated by the Secretary of State as supporting acts of international terrorism) if the commodity to be repaired is an “aircraft” (as defined in § 772.1 of the EAR) or is controlled for national security (NS) reasons.

(v) No replacement parts, components, accessories, or attachments may be exported to countries in Country Group E:1 (see Supplement No. 1 to this part) if the commodity to be repaired is explosives detection equipment classified under ECCN 2A983 or related software classified under ECCN 2D983.

(vi) No replacement parts, components, accessories, or attachments may be exported to countries in Country Group E:1 (see Supplement No. 1 to this part) if the commodity to be repaired

is concealed object detection equipment classified under ECCN 2A984 or related software classified under ECCN 2D984.

(vii) The conditions described in this paragraph (a)(3) relating to replacement of parts, components, accessories, or attachments do not apply to reexports to a foreign country of parts, components accessories, or attachments as replacements in foreign-origin products, if at the time the replacements are furnished, the foreign-origin product is eligible for export to such country under any of the license exceptions in this part or the exceptions in § 734.4 of the EAR (*De minimis* U.S. content).

(viii) “Parts,” “components,” “accessories,” and “attachments” classified in 9x515 or “600 series” ECCNs may not be exported or reexported to a destination listed in Country Group D:5 (see Supplement No. 1 to this part).

#### **(4) Reexports.**

(i) Parts, components, accessories, and attachments exported from the United States may be reexported to a new country of destination, provided that the conditions established in paragraphs (a)(2) and (3) of this section are met. A party reexporting one-for-one replacement parts, components, accessories, or attachments “subject to the EAR” shall ensure that the commodities being repaired were shipped to their present location in accordance with U.S. law and continue to be lawfully used, and that either before or promptly after reexport of the replacement parts, components, accessories, or attachments, **the replaced commodities and software are either destroyed or returned to the United States, or to the foreign firm in Country Group B** (see Supplement No. 1 to this part) that shipped the replacement parts.

**\*\*destroyed**

(ii) The conditions described in paragraph (a)(3) relating to replacement of “parts,” “components,” “accessories,” or “attachments” (excluding 9x515 and “600 series” ECCNs) do not apply to reexports to a foreign country of

“parts,” “components,” “accessories,” or “attachments” as replacements in foreign-origin products, if at the time the replacements are furnished, the foreign-origin product is eligible for export to such country under any of the License Exceptions in this part or the foreign-origin product is not subject to the EAR pursuant to § 734.4.

#### **(b) Servicing and replacement.**

(1) The provisions of this paragraph (b) authorize the export and reexport to any destination, except for 9x515 or “600 series” items to destinations identified in Country Group D:5 (see Supplement No. 1 to this part) or otherwise prohibited under the EAR, of commodities and software that were sent to the United States or to a foreign party for servicing and replacement of commodities and software “subject to the EAR” (see § 734.2(a) of the EAR) that are defective or that an end user or ultimate consignee has found unacceptable. The export of firearms controlled by ECCN 0A501.a or .b, or shotguns with a barrel length less than 18 inches controlled in ECCN 0A502 temporarily in the United States for servicing and replacement may be exported under paragraph (b)(2) or (3) of this section only if the additional requirements in paragraph (b)(4) of this section are also met.

#### **(2) Commodities and software sent to a United States or foreign party for servicing.**

(i) *Definition.* “Servicing” as used in this section means inspection, testing, calibration or repair, including overhaul and reconditioning. The servicing shall not have improved or changed the basic characteristics (e.g., the accuracy, capability, performance, or productivity) of the commodity or software as originally authorized for export or reexport.

(ii) *Return of serviced commodities and software.* When the serviced commodity or software is returned, it may include any replacement or rebuilt parts, components, accessories, or attachments necessary to its repair and may be accompanied by any spare parts,

components, tools, accessories, attachments or other items sent with it for servicing.

**(iii) *Commodities and software imported from Country Group D:1 except the People's Republic of China (PRC).*** Commodities and software legally exported or reexported to a consignee in Country Group D:1 (except the People's Republic of China (PRC)) (see Supplement No. 1 to this part) that are sent to the United States or a foreign party for servicing may be returned to the country from which it was sent, provided that both of the following conditions are met:

**(A)** The exporter making the shipment is the same person or firm to whom the original license was issued; and

**(B)** The end use and the end user of the serviced commodities or software and other particulars of the transaction, as set forth in the application and supporting documentation that formed the basis for issuance of the license have not changed.

**(iv) *Terrorist supporting countries.*** No repaired commodity or software may be exported or reexported to countries in Country Group E:1 (see Supplement No. 1 to this part).

**(3) Replacements for defective or unacceptable equipment “subject to the EAR.”**

**(i)** Subject to the following conditions, commodities or software may be exported or reexported to replace defective or otherwise unusable (e.g., erroneously supplied) items.

**(A)** The commodity or software is “subject to the EAR” (see § 734.2(a) of the EAR).

**(B)** The commodity or software to be replaced must have been previously exported or reexported in its present form under a license or authorization granted by BIS or an authorization, e.g., a license or exemption, issued under the authority of the Arms Export Control Act.

**(C)** No commodity or software may be exported or reexported to replace equipment that is worn out from normal use, nor may any commodity or software be exported to be held in stock abroad as spare equipment for future use.

**(D)** The replacement item may not improve the basic characteristic, e.g., as to accuracy, capability, performance, or productivity, of the equipment as originally authorized, e.g., under a license, license exception or an exemption, for export or reexport.

**(E)** No shipment may be made to countries in Country Group E:1 (see Supplement No. 1 to this part), or to any other destination to replace defective or otherwise unusable equipment owned or controlled by, or leased or chartered to, a national of any of those countries.

**(F)** Commodities or “software” “subject to the EAR” and classified in 9x515 or “600 Series” ECCNs may not be exported or reexported to a destination identified in Country Group D:5 (see Supplement No. 1 to this part).

**(ii) *Special conditions applicable to exports to Country Group B and Country Group D:1.***

In addition to the general conditions in paragraph (b)(3)(i) of this section, the following conditions apply to exports or reexports of replacements for defective or unacceptable commodities or software “subject to the EAR” (see § 734.2(a) of the EAR) to a destination in Country Group B or Country Group D:1 (see Supplement No. 1 to this part):

**(A)** By making such an export or reexport, the exporter represents that all the requirements of this paragraph (b) have been met and undertakes to destroy or return the replaced parts as provided in paragraph (b)(3)(ii)**(C)** of this section.

**(B)** The defective or otherwise unusable equipment must be replaced free of charge, except for transportation and labor charges. If exporting to the countries listed in Country Group

Special "RPL"-related \*\*recordkeeping requirements including for 600-series items. Note that these apply to hardware (Group A) and software (Group D) ECCNs, but not technology ECCNs (Group E). For Group E ECCNs like 2E983 see § 740.13(h) under "TSU".

D:1 (except the PRC), the exporter shall replace the commodity or software within the warranty period or within 12 months of its shipment to the ultimate consignee in the country of destination, whichever is shorter.

**(C)** The commodity or software to be replaced **must either be destroyed abroad or** returned to the United States, or to a foreign firm in Country Group B that is under the effective control of the exporter, or to the foreign firm that is providing the replacement part or equipment. The destruction or return must be effected before, or promptly after, the replacement item is exported from the United States.

**(D)** A party reexporting replacements for defective or unacceptable U.S.-origin equipment must ensure that the commodities or software being replaced were shipped to their present location in accordance with U.S. law and continue to be legally used. See § 764.7 of the EAR for exports or reexports to the installed base in Libya.

**(4)** This paragraph (b)(4) authorizes the export of firearms controlled by ECCN 0A501.a or .b, or shotguns with a barrel length less than 18 inches controlled in ECCN 0A502 that are temporarily in the United States for servicing or replacement for a period not exceeding one year or the time it takes to service or replace the commodity, whichever is shorter, provided that the requirements of paragraph (b)(2) or (3) of this section are met and:

**(i)** The firearms were not shipped from or manufactured in Russia, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Turkmenistan, Ukraine, or Uzbekistan, except for any firearm model controlled by 0A501 that is specified under Annex A in Supplement No. 4 to this part;

**(ii)** When the firearms entered the U.S. as a temporary import, the temporary importer or its agent:

**(A)** Provided the following statement to U.S. Customs and Border Protection: "This

shipment will be exported in accordance with and under the authority of License Exception RPL (15 CFR 740.10(b))";

**(B)** Provided to U.S. Customs and Border Protection an invoice or other appropriate import-related documentation (or electronic equivalents) that includes a complete list and description of the firearms being temporarily imported, including their model, make, caliber, serial numbers, quantity, and U.S. dollar value; and

**(C)** Provided (if temporarily imported for servicing or replacement) to U.S. Customs and Border Protection the name, address and contact information (telephone number and/or email) of the organization or individual in the U.S. that will be receiving the item for servicing or replacement; and

**(iii)** In addition to the export clearance requirements of part 758 of the EAR, the exporter or its agent must provide the import documentation related to paragraph (b)(4)(iii)(B) of this section to U.S. Customs and Border Protection at the time of export.

***Note 1 to paragraph (b)(4):** In addition to complying with all applicable EAR requirements for the export of commodities described in paragraph (b)(4) of this section, exporters and temporary importers should contact U.S. Customs and Border Protection (CBP) at the port of temporary import or export, or at the CBP website, for the proper procedures for temporarily importing or exporting firearms controlled in ECCN 0A501.a or .b or shotguns with a barrel length less than 18 inches controlled in ECCN 0A502, including regarding how to provide any data or documentation required by BIS.*

**(c) Special recordkeeping requirements: ECCNs 2A983, 2A984, 2D983 and 2D984, and "600 Series" ECCNs.**

**(1)** In addition to the other recordkeeping requirements set forth elsewhere in the EAR, exporters are required to maintain records, as

This term agencies of cooperating governments is defined at § 740.11(c) as "A-1 Country Group + Hong Kong, Singapore, & Taiwan."

specified in this section, for any items exported or reexported pursuant to License Exception RPL to repair, replace, or service previously lawfully exported or reexported items classified under ECCNs 2A983, 2A984, 2D983 and 2D984 or a "600 Series" ECCN. The following information must be maintained for each such export or reexport transaction:

- (i) A description of the item replaced, repaired or serviced;
- (ii) The type of repair or service;
- (iii) Certification of the destruction or return of item replaced;
- (iv) Location of the item replaced, repaired or serviced;
- (v) The name and address of those who received the items for replacement, repair, or service;
- (vi) Quantity of items shipped; and
- (vii) Country of ultimate destination.

(2) Records maintained pursuant to this section may be requested at any time by an appropriate BIS official as set forth in § 762.7 of the EAR. Records that must be included in the annual or semi-annual reports of exports and reexports of "600 Series" items under the authority of License Exception RPL are described in § 743.4 and § 762.2(b)(4), (b)(47) and (b)(48).

**§ 740.11 GOVERNMENTS, INTERNATIONAL ORGANIZATIONS, INTERNATIONAL INSPECTIONS UNDER THE CHEMICAL WEAPONS CONVENTION, AND THE INTERNATIONAL SPACE STATION (\*\*GOV)**

This License Exception authorizes exports and reexports for international nuclear safeguards; U.S. government agencies or personnel; agencies

of cooperating governments; international inspections under the Chemical Weapons Convention; and the International Space Station. Commodities listed in ECCN 0A501 are eligible only for transactions described in paragraphs (b)(2)(i) and (ii) of this section. Any item listed in a 0x5zz ECCN for export, reexport, or transfer (in-country) to an E:1 country is eligible only for transactions described in paragraphs (b)(2)(i) and (ii) solely for U.S. Government official use of this section.

**(a) International Safeguards.**

(1) **Scope.** The International Atomic Energy Agency (IAEA) is an international organization that establishes and administers safeguards, including Additional Protocols, designed to ensure that special nuclear materials and other related nuclear facilities, equipment, and material are not diverted from peaceful purposes to non-peaceful purposes. European Atomic Energy Community (Euratom) is an international organization of European countries with headquarters in Luxembourg. Euratom establishes and administers safeguards designed to ensure that special nuclear materials and other related nuclear facilities, equipment, and material are not diverted from peaceful purposes to non-peaceful purposes. This paragraph (a) authorizes exports and reexports of commodities or software to the IAEA and Euratom, and reexports by IAEA and Euratom for official international safeguard use, as follows:

- (i) Commodities or software consigned to the IAEA at its headquarters in Vienna, Austria or its field offices in Toronto, Ontario, Canada or in Tokyo, Japan for official international safeguards use.
- (ii) Commodities or software consigned to the Euratom Safeguards Directorate in Luxembourg, Luxembourg for official international safeguards use.
- (iii) Commodities or software consigned to IAEA or Euratom may be reexported to any country for IAEA or Euratom international

safeguards use provided that IAEA or Euratom maintains control of or otherwise safeguards the commodities or software and returns the commodities or software to the locations described in paragraphs (a)(1)(i) and (a)(1)(ii) of this section when they become obsolete, are no longer required, or are replaced.

(iv) Commodity or software shipments may be made by persons under direct contract with IAEA or Euratom, or by Department of Energy National Laboratories as directed by the Department of State or the Department of Energy.

(v) The monitoring functions of IAEA and Euratom are not subject to the restrictions on prohibited safeguarded nuclear activities described in § 744.2(a)(3) of the EAR.

(vi) When commodities or software originally consigned to IAEA or Euratom are no longer in IAEA or Euratom official safeguards use, such commodities may be disposed of by destruction or by reexport or transfer in accordance with the EAR.

## (2) Restrictions.

(i) Items on the Sensitive List (see Supplement No. 6 to part 774 of the EAR) may not be exported, reexported, or transferred (in-country) under this paragraph (a), *except* to the countries listed in Country Group A:5 (See Supplement No.1 to part 740 of the EAR).

(ii) Items on the Very Sensitive List (see Supplement No. 7 to part 774 of the EAR) may not be exported, reexported, or transferred (in-country) under this paragraph (a).

(iii) Encryption items controlled for EI reasons under ECCNs 5A002, 5A004, 5D002, or 5E002 may not be exported, reexported, or transferred (in-country) under this paragraph (a). See §740.17 of the EAR (License Exception ENC) for possible alternative license exception authorization.

(iv) Without prior authorization from the

Bureau of Industry and Security, nationals of countries in Country Group E:1(see Supplement No. 1 to this part) may not physically or computationally access computers that have been enhanced by “electronic assemblies,” which have been exported or reexported under License Exception GOV and have been used to enhance such computers by aggregation of processors so that the APP of the aggregation exceeds the APP parameter set forth in ECCN 4A003.b.

(v) “600 series” items may not be exported or reexported under this paragraph (a), *except* to the countries listed in Country Group A:5 (see Supplement No.1 to this part).

## **(b) United States Government.**

(1) **Scope.** The provisions of this paragraph (b) authorize exports, reexports, and transfers (in-country) to personnel and agencies of the U.S. Government and certain exports by the Department of Defense. “Agency of the U.S. Government” includes all civilian and military departments, branches, missions, government-owned corporations, and other agencies of the U.S. Government, but does not include such national agencies as the American Red Cross or international organizations in which the United States participates such as the Organization of American States. Therefore, shipments may not be made to these non-governmental national or international agencies, except as provided in paragraph (b)(2)(i) of this section for U.S. representatives to these organizations.

## (2) Eligibility.

(i) **Items for personal use by personnel and agencies of the U.S. Government.** This provision is available for items in quantities sufficient only for the personal use of members of the U.S. Armed Forces or civilian personnel of the U.S. Government (including U.S. representatives to public international organizations), and their immediate families and household employees. Items for personal use include household effects, food, beverages, and other daily necessities.

**(ii) Exports, reexports, and transfers (in-country) made by or consigned to a department or agency of the U.S. Government.** This paragraph authorizes exports, reexports, and transfers of items when made by or consigned to a department or agency of the U.S. Government solely for its official use or for carrying out any U.S. Government program with foreign governments or international organizations that is authorized by law and subject to control by the President by other means. This paragraph does not authorize a department or agency of the U.S. Government to make any export, reexport, or transfer that is otherwise prohibited by other administrative provisions or by statute. Contractor support personnel of a department or agency of the U.S. Government are eligible for this authorization when in the performance of their duties pursuant to the applicable contract or other official duties. ‘Contractor support personnel’ for the purpose of this provision means those persons who provide administrative, managerial, scientific or technical support under contract to a U.S. Government department or agency (*e.g.*, contractor employees of Federally Funded Research Facilities or Systems Engineering and Technical Assistance contractors). The term ‘contractor support personnel’ for purposes of this paragraph (b)(2)(ii) is limited to those individuals who are providing such support within a U.S. Government owned or operated facility or under the direct supervision of a U.S. government employee (*i.e.*, an individual directly employed by the U.S. Government). Private security contractors are not ‘contractor support personnel’ for purposes of this paragraph (b)(2)(ii) because although they may work within a U.S. Government owned or operated facility, such contractors do not provide administrative, managerial, scientific or technical support under contract to the U.S. Government. This authorization is not available when a department or agency of the U.S. Government acts as a transmittal agent on behalf of a non-U.S. Government person, either as a convenience or in satisfaction of security requirements.

**(iii) Exports, reexports, and transfers (in-**

**country) made for or on behalf of a department or agency of the U.S. Government.**

**(A)** This paragraph authorizes exports, reexports, and transfers (in-country) of items solely for use by a department or agency of the U.S. Government, when:

**(1)** The items are destined to a U.S. person; and

**(2)** The item is exported, reexported, or transferred (in-country) pursuant to a contract between the exporter and a department or agency of the U.S. Government;

**(B)** This paragraph authorizes exports, reexports, and transfers (in-country) of items to implement or support any U.S. Government cooperative program, project, agreement, or arrangement with a foreign government or international organization or agency that is authorized by law and subject to control by the President by other means, when:

**(1)** The agreement is in force and in effect, or the arrangement is in operation;

**(2)** The exporter, reexporter, or transferor obtains a written authorization from the Secretary or agency head of the U.S. Government department or agency responsible for the program, agreement, or arrangement, or his or her designee, authorizing the exporter, reexporter, or transferor to use this license exception. The written authorization must include the scope of items to be shipped under this license exception; the end users and consignees of the items; and any restrictions on the export, reexport, or transfer (in-country) (including any restrictions on the foreign release of technology);

**(3)** The exporter, reexporter, or transferor has a contract with a department or agency of the U.S. Government for the provision of the items in furtherance of the agreement, or arrangement; and

**(4)** The items being exported, reexported,

or transferred (in-country) are not controlled for Chemical Weapons Convention (CW) or proliferation of chemical and biological weapons (CB) reasons;

(C) This paragraph authorizes the ‘temporary’ export, reexport, or transfer (in-country) of an item in support of any foreign assistance or sales program authorized by law and subject to the control of the President by other means, when:

(1) The item is provided pursuant to a contract between the exporter, reexporter, or transferor and a department or agency of the U.S. Government; and

(2) The exporter, reexporter, or transferor obtains a written authorization from the Secretary or agency head of the U.S. Government department or agency responsible for the program, or his or her designee, authorizing the exporter, reexporter, or transferor to use this license exception. The written authorization must include the scope of items to be shipped under this license exception; the end users and consignees of the items; and any restrictions on the export, reexport, or transfer (in-country) (including any restrictions on the foreign release of technology);

*Note 1 to paragraph (b)(2)(iii)(C): ‘Temporary,’ for purposes of paragraph (b)(2)(iii)(C) of this section, means that four years from the date of an item’s initial export, reexport, or transfer (in-country), it must be returned to the exporter, reexporter, or transferor or its disposition otherwise authorized (e.g., pursuant to a license or another license exception) in accordance with the EAR.*

*Note 2 to paragraph (b)(2): Items controlled for NS, MT, CB, NP, FC, or AT reasons may not be exported, reexported, or transferred (in-country) to, or for the use of military, police, intelligence entities, or other sensitive end users (e.g., contractors or other governmental parties performing functions on behalf of military, police, or intelligence entities)*

*of a government in a Country Group E:1 or E:2 country.*

(D) This paragraph authorizes the export, reexport, or transfer of commodities or software at the direction of the U.S. Department of Defense for an end use in support of an Acquisition and Cross Servicing Agreement (ACSA), when:

(1) The ACSA is between the U.S. Government and a foreign government or an international organization and is in force and in effect;

(2) The exporter, reexporter, or transferor has a contract with the department or agency of the U.S. government in furtherance of the ACSA; and

(3) The exporter, reexporter, or transferor obtains a written authorization from the Secretary or agency head of the U.S. Government department or agency responsible for the ACSA, or his or her designee, authorizing the exporter, reexporter, or transferor to use this license exception. The written authorization must include the scope of items to be shipped under this license exception; the end-users and consignees of the items; and any restrictions on the export, reexport, or transfer (in-country);

(E) This paragraph authorizes the export, reexport, or transfer (in-country) of Government Furnished Equipment (GFE) made by a U.S. Government contractor, when:

(1) The GFE will not be provided to any foreign person;

(2) The export, reexport, or transfer (in-country) is pursuant to a contract with a department or agency of the U.S. Government; and

(3) Shipment documents must include the following statement: “Property of [insert U.S. Government department,

agency, or service]. Property may not enter the trade of the country to which it is shipped. Authorized under License Exception GOV. U.S. Government point of contact: [insert name and telephone number].”

**(F) Electronic Export Information.**

Electronic Export Information (EEI) must be filed in the Automated Export System (AES) for any export made pursuant to paragraph (b)(iii) of this section. The EEI must identify License Exception GOV as the authority for the export and indicate that the applicant has received the relevant documentation from the contracting U.S. Government department, agency, or service. The Internal Transaction Number assigned by AES must be properly annotated on shipping documents (bill of lading, airway bill, other transportation documents, or commercial invoice).

**(G)** The exporter, reexporter, or transferor must obtain an authorization, if required, before any item previously exported, reexported, or transferred (in-country) under this paragraph is resold, transferred, reexported, transshipped, or disposed of to an end user for any end use, or to any destination other than as authorized by this paragraph (e.g., property disposal of surplus items outside of the United States), unless:

**(1)** The transfer is pursuant to a grant, sale, lease, loan, or cooperative project under the Arms Export Control Act or the Foreign Assistance Act of 1961, as amended; or

**(2)** The item has been destroyed or rendered useless beyond the possibility of restoration.

**(iv) Items exported at the direction of the U.S. Department of Defense.** This paragraph authorizes items to be exported, reexported, or transferred (in-country) pursuant to an official written request or directive from the U.S. Department of Defense.

**(v)** This paragraph authorizes items sold,

leased, or loaned by the U.S. Department of Defense to a foreign country or international organization pursuant to the Arms Export Control Act or the Foreign Assistance Act of 1961 when the items are delivered to representatives of such a country or organization in the United States and exported, reexported, or transferred on a military aircraft or naval vessel of that government or organization or via the Defense Transportation Service.

**(vi)** This paragraph authorizes transfer of technology in furtherance of a contract between the exporter and an agency of the U.S. Government, if the contract provides for such technology and the technology is not “development” or “production” technology for “600 series” items.

**(c) Cooperating Governments and the North Atlantic Treaty Organization.**

**(1) Scope.** The provisions of this paragraph (c) authorize exports, reexports, and transfers (in-country) of the items listed in paragraph (c)(2) of this section to agencies of cooperating governments or agencies of the North Atlantic Treaty Organization (NATO). ‘Agency of a cooperating government’ includes all civilian and military departments, branches, missions, and other governmental agencies of a cooperating national government. ‘Cooperating governments’ are the national governments of countries listed in Country Group A:1 (see Supplement No. 1 to this part) and the national governments of Singapore and Taiwan.

**Note 3 to paragraph (c)(1):** *Civil intergovernmental organizations (such as the European Space Agency (ESA)) where the membership is limited to national governments that are ‘cooperating governments’ are also considered ‘cooperating governments’ for purposes of paragraph (c)(1) of this section. If the membership of the civil intergovernmental organization includes any national governments or other organizations that are not ‘cooperating governments,’ such civil intergovernmental organizations are not considered ‘cooperating*

governments' for purposes of paragraph (c)(1) of this section. For example, civil intergovernmental organizations such as the European Aviation Safety Agency (EASA), the United Nations, and the World Bank do not fall within paragraph (c)(1) of this section because their membership includes governments that are not 'cooperating governments.'

## (2) Eligibility.

(i) *Items for official use within national territory by agencies of cooperating governments.* This license exception is available for all items consigned to and for the official use of any 'agency of a cooperating government' within the territory of any cooperating government, **except items excluded by paragraph (c)(3) of this section.**

(ii) *Items for official use by agencies of cooperating governments for military purposes or NATO.* With the exception of items excluded by paragraph (c)(3) of this section, this license exception is available for all items consigned to and for the official use of:

(A) A **military end user** of or for the military end use of cooperating governments, or

(B) An **agency of NATO.**

(iii) *Diplomatic and consular missions of a cooperating government.* This license exception is available for all items consigned to and for the official use of a diplomatic or consular mission of a cooperating government located in any country in Country Group B (see Supplement No. 1 to this part), except items excluded by paragraph (c)(3) of this section.

(3) **Exclusions.** The following items may not be exported, reexported, or transferred (in-country) under this paragraph (c):

(i) Items on the Sensitive List (see Supplement No. 6 to part 774 of the EAR), *except* to or for the use by governments of countries

listed in Country Group A:5 (see Supplement No.1 to this part) or an agency of NATO;

(ii) Items on the Very Sensitive List (see Supplement No. 7 to part 774 of the EAR);

(iii) Encryption items controlled for EI reasons under ECCNs 5A002, 5A004, 5D002, or 5E002 (see §740.17 of the EAR for License Exception ENC);

(iv) Regional stability items controlled under ECCNs 6A002.a.1.c, 6E001 "technology" according to the General Technology Note for the "development" of equipment in 6A002.a.1.c, and 6E002 "technology" according to the General Technology Note for the "production" of equipment in 6A002.a.1.c.;

(v) "600 series" items, *except* to or for the use by governments of countries listed in Country Group A:5 (see Supplement No. 1 to this part) or an agency of NATO;

(vi) Items controlled for nuclear nonproliferation (NP) reasons; or

(vii) Items listed as not eligible for License Exception STA in § 740.20(b)(2)(ii) of the EAR.

## (d) **International inspections under the Chemical Weapons Convention (CWC or Convention).**

(1) The Organization for the Prohibition of Chemical Weapons (OPCW) is an international organization that establishes and administers an inspection and verification regime under the Convention designed to ensure that certain chemicals and related facilities are not diverted from peaceful purposes to non-peaceful purposes. This paragraph (d) authorizes exports and reexports to the OPCW and exports and reexports by the OPCW for official international inspection and verification use under the terms of the Convention as follows:

(i) Commodities and software consigned to the OPCW at its headquarters in The Hague for

official international OPCW use for the monitoring and inspection functions set forth in the Convention, and technology relating to the maintenance, repair, and operation of such commodities and software. The OPCW must maintain “effective control” of such commodities, software and technology.

(ii) Controlled technology relating to the training of the OPCW inspectorate.

(iii) Controlled technology relating to a CWC inspection site, including technology released as a result of:

(A) Visual inspection of U.S.-origin equipment or facilities by foreign nationals of the inspection team;

(B) Oral communication of controlled technology to foreign nationals of the inspection team in the U.S. or abroad; and

(C) The application to situations abroad of personal knowledge or technical experience acquired in the U.S.

(2) **Exclusions.** The following items may not be exported or reexported under the provisions of this paragraph (d):

(i) Inspection samples collected in the U.S. pursuant to the Convention;

(ii) Commodities and software that are no longer in OPCW official use. Such items must be transferred in accordance with the EAR.

(iii) “600 series” items, *except* to the countries listed in Country Group A:5 (see Supplement No.1 to this part).

(3) **Confidentiality.** The application of the provisions of this paragraph (d) is subject to the condition that the confidentiality of business information is strictly protected in accordance with applicable provisions of the EAR and other U.S. laws regarding the use and transfer of U.S. goods and services.

(4) **Restrictions.** Without prior authorization from the Bureau of Industry and Security, nationals of countries in Country Group E:1 (see Supplement No. 1 to this part) may not physically or computationally access computers that have been enhanced by “electronic assemblies,” which have been exported or reexported under License Exception GOV and have been used to enhance such computers by aggregation of processors so that the APP of the aggregation exceeds the APP parameter set forth in ECCN 4A003.b.

**(e) International Space Station (ISS).**

(1) **Scope.** The ISS is a research facility in a low-Earth orbit approximately 190 miles (350 km) above the surface of the Earth. The ISS is a joint project among the space agencies of the United States, Russia, Japan, Canada, Europe and Italy. This paragraph (e) authorizes exports and reexports required on short notice of certain commodities subject to the EAR that are classified under ECCN 9A004 to launch sites for supply missions to the ISS.

(2) **Eligible commodities.** Any commodity subject to the EAR that is classified under ECCN 9A004 and that is required for use on the ISS on short notice.

*NOTE 4 to paragraph (e)(2): This license exception is not available for the export or reexport of “parts,” “components,” “accessories,” and “attachments” to overseas manufacturers for the purpose of incorporation into other items destined for the ISS.*

*NOTE 5 to paragraph (e)(2): For purposes of this paragraph (e), ‘short notice’ means the exporter is required to have a commodity manifested and at the scheduled launch site for hatch-closure (final stowage) no more than forty-five (45) days from the time the exporter or reexporter received complete documentation. ‘Complete documentation’ means the exporter or reexporter received the technical description of the commodity and purpose for use of the commodity on the ISS. ‘Hatch-closure (final*

stowage)' means the final date specified by a launch provider by which items must be at a specified location in a launch country in order to be included on a mission to the ISS. The exporter or reexporter must receive the notification to supply the commodity for use on the ISS in writing. That notification must be kept in accordance with paragraph (e)(8) of this section and the Recordkeeping requirements in part 762 of the EAR.

**(3) Eligible destinations.** Eligible destinations are France, Japan, Kazakhstan, and Russia. To be eligible, a destination needs to have a launch for a supply mission to the ISS scheduled by a country participating in the ISS.

**(4) Requirement for commodities to be launched on an eligible space launch vehicle (SLV).** Only commodities that will be delivered to the ISS using United States, Russian, ESA (French), or Japanese space launch vehicles (SLVs) are eligible under this authorization. Commodities to be delivered to the ISS using SLVs from any other countries are excluded from this authorization.

**(5) Authorizations.**

**(i) Authorization to retain commodity at or near launch site for up to six months.** If there are unexpected delays in a launch schedule for reasons such as mechanical failures in a launch vehicle or weather, commodities exported or reexported under this paragraph (e) may be retained at or near the launch site for a period of six (6) months from the time of initial export or reexport before the commodities must be destroyed, returned to the exporter or reexporter, or be the subject of an individually validated license request submitted to BIS to authorize further disposition of the commodities.

**(ii) Authorization to retain commodity abroad at launch country beyond six months.** If, after the commodity is exported or reexported under this authorization, a delay occurs in the launch schedule that would exceed the 6-month deadline in paragraph (e)(5)(i) of this section, the

exporter or reexporter or the person in control of the commodities in the launch country may request a one-time 6-month extension by submitting written notification to BIS requesting a 6-month extension and noting the reason for the delay. If the requestor is not contacted by BIS within 30 days from the date of the postmark of the written notification and if the notification meets the requirements of this subparagraph, the request is deemed granted. The request must be sent to BIS at the address listed in part 748 of the EAR and should include the name and address of the exporter or reexporter, the name and address of the person who has control of the commodity, the date the commodities were exported or reexported, a brief product description, and the justification for the extension. To retain a commodity abroad beyond the 6-month extension period, the exporter, reexporter or person in control of the commodity must request authorization by submitting a license application in accordance with §§ 748.1, 748.4 and 748.6 of the EAR to BIS 90 days prior to the expiration of the 6-month extension period.

**(iii) Items not delivered to the ISS because of a failed launch.** If the commodities exported or reexported under this paragraph (e) of this section are not delivered to the ISS because a failed launch causes the destruction of the commodity prior to its being delivered, exporters and reexporters must make note of the destruction of the commodities in accordance with the recordkeeping requirements under paragraph (e)(8)(ii) of this section and part 762 of the EAR.

**(6) Reexports to an alternate launch country.** If a mechanical or weather related issue causes a change from the scheduled launch country to another foreign country after a commodity was exported or reexported, then that commodity may be subsequently reexported to the new scheduled launch country, provided all of the terms and conditions of paragraph (e) of this section are met, along with any other applicable EAR provisions. In such instances, the 6-month time limitation described in paragraph (e)(5)(i) of this section would start over again at the time of the subsequent reexport transaction. Note that if the

subsequent reexport may be made under the designation No License Required (NLR) or pursuant to an authorization under the EAR, a reexporter does not need to rely on the provisions contained in this paragraph (e).

**(7) Eligible recipients.** Only persons involved in the launch of commodities to the ISS may receive and have access to commodities exported or reexported pursuant to this paragraph (e), except that:

(i) No commodities may be exported, reexported, or transferred (in-country) under paragraph (e) to any national of an E:1 country (see Supplement No. 1 to this part), and

(ii) No person may receive commodities authorized under paragraph (e) of this section who is subject to an end-user or end-use control described in part 744 of the EAR, including the entity list in Supplement No. 4 to part 744.

**(8) Recordkeeping requirements.** Exporters and reexporters must maintain records regarding exports or reexports made using this paragraph (e) of this section as well as any other applicable recordkeeping requirements under part 762 of the EAR.

(i) Exporters and reexporters must retain a record of the initial written notification they received requesting these commodities be supplied on short notice for a supply mission to the ISS, including the date the exporter or reexporter received complete documentation (i.e., the day on which the 45-day clock begins).

(ii) Exporters and reexporters must maintain records of the date of any exports or reexports made using this paragraph (e) and the date on which the commodities were launched into space for delivery to the ISS. If the commodities are not delivered to the ISS because of a failed launch whereby the item is destroyed prior to being delivered to the ISS, this must be noted for

recordkeeping purposes.

(iii) The return or destruction of defective or worn out parts or components is not required. However, if defective or worn out parts or components originally exported or reexported pursuant to this paragraph (e) are returned from the ISS, then those parts and components may be either: returned to the original country of export or reexport; **destroyed;** or reexported or transferred (in-country) to a destination that has been designated by NASA for conducting a review and analysis of the defective or worn part or component. **Documentation for this activity must be kept for recordkeeping purposes.** No commodities that are subject to the EAR may be returned, under the provisions of this paragraph, to a country listed in Country Group E:1 (see Supplement No. 1 to this part) or to any person if that person is subject to an end-user or end-use control described in part 744 of the EAR. For purposes of paragraph (e) of this section, a ‘defective or worn out’ part or component is a part or component that no longer performs its intended function.

**§ 740.12 GIFT PARCELS AND HUMANITARIAN DONATIONS (\*\*GFT)**

Return to "U.S. Person" in § 772.

**(a) Gift Parcels**

**(1) Scope.** The provisions of paragraph (a) authorize exports and reexports of gift parcels by an individual (donor) addressed to an individual, or a religious, charitable or educational organization (donee) located in any destination for the use of the donee or the donee's immediate family (and not for resale). The gift parcel must be provided free of charge to the donee. However, payment by the donee of any handling charges or of any fees levied by the importing country (e.g., import duties, taxes, etc.) is not considered to be a cost to the donee for purposes of this definition of “gift parcel.”<sup>1</sup>

contents and marking. To secure this advantage, the sender should show the words “U.S.A. Gift Parcel” on

<sup>1</sup> Many foreign countries permit the entry, duty-free, of gift parcels that conform to regulations regarding

**(2) Commodity, value and other limitations.****(i) Item limitations.****(A) Prohibited items.**

(1) For Cuba no items listed on the Commerce Control List other than items listed in § 740.19(b) of the EAR may be included in a gift parcel.

(2) For all destinations, no items controlled for chemical and biological weapons (CB), missile technology (MT), national security (NS), nuclear proliferation (NP) or encryption items (EI) reasons on the Commerce Control List (Supplement no. 1 to part 774 of the EAR) may be included in a gift parcel.

(3) **Items prohibited for destinations in Country Group D:1 or E:2.** For destinations in Country Group D:1 or E:2, military wearing apparel may not be included in a gift parcel regardless of whether all distinctive U.S. military insignia, buttons, and other markings are removed.

(4) Gold bullion, gold taels, and gold bars are prohibited as are items intended for resale or reexport.

**(B) Eligible items.** For all destinations, eligible items are food (including vitamins); medicines, medical supplies and devices (including hospital supplies and equipment and equipment for the handicapped); receive-only radio equipment for reception of commercial/civil AM/FM and short wave publicly available frequency bands, and batteries for such equipment; clothing; personal hygiene items; seeds; veterinary medicines and supplies; fishing equipment and supplies; soap-making equipment; as well as all other items of a type

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the addressee side of the package and on any required customs declarations. Information regarding the foreign postal regulations is available at local post offices. Senders of gift parcels who wish information

normally sent as gifts between individuals (including items listed in § 740.19(b) of the EAR ) except for those items prohibited in paragraph (a)(2)(i)(A) of this section. Items in gift parcels must be in quantities normally given as gifts between individuals.

**Example to paragraph (a)(2)(i)(B) of this section.** *A watch or piece of jewelry is normally sent as a gift. However, multiple watches, either in one package or in subsequent shipments, would not qualify for such gift parcels because the quantity would exceed that normally given between individuals. Similarly, a sewing machine or bicycle within the value limit of this License Exception may be an appropriate gift. However, subsequent shipments of the same item to the same donee would not be a gift normally given between individuals.*

**(ii) Import requirements.** The commodities must be acceptable in type and quantity by the recipient country for import as gifts. Commodities exceeding the import limits may not be included in gift parcels.

**(iii) Frequency.**

**(A)** Except for gift parcels of food to Cuba, not more than one gift parcel may be sent from the same donor to the same donee in any one calendar month.

**(B)** There is no frequency limit on gift parcels of food to Cuba.

**(C)** Parties seeking authorization to exceed the frequency limit due to compelling humanitarian concerns (e.g., for certain gifts of medicine) should submit a license application in accordance with §§ 748.1, 748.4 and 748.6 of the EAR to BIS with complete justification.

regarding import duties of a foreign country should contact the nearest Commercial Office, Consulate or Embassy of the country concerned.

(iv) **Value.** The combined total domestic retail value of all commodities and software in a single gift parcel may not exceed \$800. This limit does not apply to food sent in a gift parcel to Cuba.

(v) **Ineligible recipients.**

(A) No gift parcel may be sent to any of the following officials of the Cuban government: Ministers and Vice-Ministers; members of the Council of State; members of the Council of Ministers; members and employees of the National Assembly of People's Power; members of any provincial assembly; local sector chiefs of the Committees for the Defense of the Revolution; Director Generals and sub-Director Generals and higher of all Cuban ministries and state agencies; employees of the Ministry of the Interior (MININT); employees of the Ministry of Defense (MINFAR); secretaries and first secretaries of the Confederation of Labor of Cuba (CTC) and its component unions; chief editors, editors and deputy editors of Cuban state-run media organizations and programs, including newspapers, television, and radio; or members and employees of the Supreme Court (Tribuno Supremo Nacional).

(B) No gift parcel may be sent to any member of the Politburo.

(C) No gift parcel may be sent to organizations administered or controlled by the Cuban Government or the Cuban Communist Party.

(3) **How to export gift parcels.**

(i) A gift parcel must be sent directly to the donee by the individual donor, or for such donor by a commercial or other gift-forwarding service or organization. Each gift parcel must show, on the outside wrapper, the name and address of the donor, as well as the name and address of the donee, regardless of whether sent by the donor or by a forwarding service.

(ii) Each parcel must have the notation "GIFT — Export License Not Required" written on the addressee side of the package and the symbol "GFT" written on any required customs declaration.

(b) **Humanitarian donations**

(1) **Scope.** The provisions of paragraph (b) authorize exports or reexports by groups or organizations of donations to meet basic human needs when those groups or organizations have experience in maintaining a verifiable system of distribution that ensures delivery to the intended beneficiaries.

(2) **Basic human needs.** Basic human needs are defined as those requirements essential to individual well-being: health, food, clothing, shelter, and education. These needs are considered to extend beyond those of an emergency nature and those that meet direct needs for mere subsistence.

(3) **Eligible donors.** Eligible donors are U.S. charitable organizations that have an established record of involvement in donative programs and experience in maintaining and verifying a system of distribution to ensure delivery of commodities and software to the intended beneficiaries. Eligible distribution arrangements may consist of any one or more of the following:

(i) A permanent staff maintained in the recipient country to monitor the receipt and distribution of the donations to the intended beneficiaries;

(ii) Periodic spot-checks in the recipient country by members of the exporter's staff; or

(iii) An agreement to utilize the services of a charitable organization that has a monitoring system in place.

(4) **Donations.** To qualify for export under the provisions of this paragraph (b), the items must be provided free of charge to the beneficiary. The payment by the beneficiary, however, of

normal handling charges or fees levied by the importing country (e.g., import duties, taxes, etc.) is not considered to be a cost to the beneficiary for purposes of this paragraph b.

**(5) Ineligible commodities and software.** The following commodities and software are not eligible:

(i) Commodities and software controlled for national security, chemical or biological weapons, and nuclear non-proliferation, missile technology or crime control reasons (see Supplement No. 1 to part 774 of the EAR);

(ii) Exports for large-scale projects of the kind associated with comprehensive economic growth, such as dams and hydroelectric plants; or

(iii) Exports to Cuba of medical items excluded by §746.2(b)(1) of the EAR.

**(6) Eligible items.** Eligible commodities and software are those listed in Supplement No. 2 to part 740.

**(7) Additional recordkeeping requirements.** In addition to the recordkeeping requirements in part 762 of the EAR, donors must keep records containing the following information:

(i) The donor organization's identity and past experience as an exporter of goods to meet basic human needs;

(ii) Past and current countries to which the donative programs have been and are being directed, with particular reference to donative programs in embargoed destinations;

(iii) Types of projects and commodities involved in the donative programs;

(iv) Specific class(es) of beneficiaries of particular donated goods intended to be exported under this License Exception; and

(v) Information concerning the source of funding for the donative programs and the

projected annual value of exports of humanitarian donations.

## **§ 740.13 TECHNOLOGY AND SOFTWARE UNRESTRICTED (\*\*TSU)**

Return to "U.S. Person" in § 772.

This license exception authorizes exports and reexports of operation technology and software; sales technology and software; software updates (bug fixes); "mass market" software subject to the General Software Note; and release of technology and source code in the United States by U.S. universities to their bona fide and full time regular employees. Note that encryption software subject to the EAR is not subject to the General Software Note (see paragraph (d)(2) of this section).

### **(a) Operation technology and software**

**(1) Scope.** The provisions of paragraph (a) permit exports and reexports of operation technology and software. "Operation technology" is the minimum technology necessary for the installation, operation, maintenance (checking), or repair of those commodities or software that are lawfully exported or reexported under a license, a License Exception, or NLR. The "minimum necessary" operation technology does not include technology for development or production and includes use technology only to the extent required to ensure safe and efficient use of the commodities or software. Individual entries in the software and technology subcategories of the CCL may further restrict the export or reexport of operation technology. This paragraph (a) authorizes training, provided the training is limited to the operation, maintenance and repair technology identified in this paragraph.

### **(2) Provisions and Destinations.**

(i) **Provisions.** Operation software may be exported or reexported provided that both of the following conditions are met:

(A) The operation software is the minimum necessary to operate equipment authorized for export or reexport; and

(B) The operation software is in object code.

(ii) **Destinations.** Operation software and technology may be exported or reexported to any destination to which the equipment for which it is required has been or is being legally exported or reexported.

**(b) Sales technology**

(1) **Scope.** The provisions of paragraph (b) authorize exports and reexports of sales technology. “Sales technology” is data supporting a prospective or actual quotation, bid, or offer to sell, lease, or otherwise supply any item.

(2) **Provisions and destinations.**

(i) **Provisions.** Sales technology may be exported or reexported provided that:

(A) The technology is a type customarily transmitted with a prospective or actual quotation, bid, or offer in accordance with established business practice; and

(B) Neither the export nor the reexport will disclose the detailed design, production, or manufacture technology, or the means of reconstruction, of either the quoted item or its product. The purpose of this limitation is to prevent disclosure of technology so detailed that the consignee could reduce the technology to production.

(ii) **Destinations.** Sales technology may be exported or reexported to any destination.

**NOTE:** *Neither this section nor its use means that the U.S. Government intends, or is*

<sup>2</sup> Pursuant to 15 CFR § 30.37(f) of the Foreign Trade Regulations (FTR), Electronic Export Information

*committed, to approve a license application for any commodity, plant, software, or technology that may be the subject of the transaction to which such quotation, bid, or offer relates. Exporters are advised to include in any quotations, bids, or offers, and in any contracts entered into pursuant to such quotations, bids, or offers, a provision relieving themselves of liability in the event that a license (when required) is not approved by the Bureau of Industry and Security.*

**(c) Software updates**

The provisions of paragraph (c) authorize exports and reexports of software updates that are intended for and are limited to correction of errors (“fixes” to “bugs”) in software lawfully exported or reexported (original software). Such software updates may be exported or reexported only to the same consignee to whom the original software was exported or reexported, and such software updates may not enhance the functional capacities of the original software. Such software updates may be exported or reexported to any destination to which the software for which they are required has been legally exported or reexported.

**(d) General Software Note:  
mass market software**

(1) **Scope.** The provisions of paragraph (d) authorize exports and reexports of mass market software subject to the General Software Note (see Supplement No. 2 to part 774 of the EAR; also referenced in this section).<sup>2</sup>

(2) **Exclusions.** The provisions of this paragraph (d) are not available for encryption software controlled for “EI” reasons under ECCN 5D002 or for encryption software with symmetric key length exceeding 64-bits that qualifies as mass market encryption software under the criteria in the Cryptography Note (Note 3) of Category 5, Part 2, of the Commerce Control List (Supplement No. 1 to part 774 of the EAR).

(EEI) via the Automated Export System (AES) is required for mass-market software.

(Once such mass market encryption software has been reviewed by BIS and released from “EI” and “NS” controls pursuant to § 742.15(b) of the EAR, it is controlled under ECCN 5D992.c and is thus outside the scope of License Exception TSU.) See § 742.15(b) of the EAR for exports and reexports of mass market encryption products controlled under ECCN 5D992.c.

**(3) Provisions and destinations.**

**(i) Destinations.** Mass market software is available to all destinations except destinations in Country Group E:1 (see Supplement No. 1 to this part).

**(ii) Provisions.** Mass market treatment is available for software that is generally available to the public by being:

**(A)** Sold from stock at retail selling points, without restriction, by means of:

- (1)** Over the counter transactions;
- (2)** Mail order transactions; or
- (3)** Telephone call transactions; *and*

**(B)** Designed for installation by the user without further substantial support by the supplier.

**(e)** *[Reserved]*

**(f) Release of technology and source code in the U.S. by U.S. universities to their bona fide and full time regular employees.**

**(1) Scope.** This paragraph authorizes the release in the United States of “technology” and source code that is subject to the EAR by U.S. universities to foreign nationals who are their bona fide and full time regular employees.

**(2) Eligible foreign nationals (i.e., bona fide and full time regular employees of U.S. universities).** This exception is only available if:

**(i)** The employee’s permanent residence throughout the period of employment is in the U.S.;

**(ii)** The employee is not a national of a destination listed in Country Group D:5 (see Supplement No. 1 to part 740 of the EAR); and

**(iii)** The university informs the individual in writing that the “technology” or source code may not be transferred to other foreign nationals without prior U.S. Government authorization. The obligation not to transfer technology extends beyond the tenure of employment at the university.

**(3) Regular employee.** A regular employee means:

**(i)** An individual permanently and directly employed by the university; or

**(ii)** An individual in a long-term contractual relationship with the university where the individual works at the university’s facilities; works under the university’s direction and control; works full time and exclusively for the university; executes nondisclosure certifications for the university; and where the staffing agency that has seconded the individual has no role in the work the individual performs (other than providing that individual for that work) and the staffing agency would not have access to any controlled technology (other than where specifically authorized by a license or where a license exception is available).

**(4) Exclusions.**

**(i)** No “technology” or source code may be released to a foreign national who is subject to a part 744 end-use or end-user control or where the release would otherwise be inconsistent with part 744; and

**(ii)** No “technology” controlled for “EI” (encryption) reasons or “technology” or source code controlled for “MT” (Missile Technology) reasons may be released under this paragraph (f).

**(g) Copies of technology previously authorized for export to same recipient.**

This paragraph authorizes the export, reexport, or transfer (in-country) of copies of technology previously authorized for export, reexport, or transfer (in-country) to the same recipient. This paragraph also authorizes the export, reexport, or transfer (in-country) of revised copies of such technology provided the following three conditions are met:

- (1) The item that the technology pertains to is the identical item;
- (2) The revisions to the technology are solely editorial and do not add to the content of technology previously exported, reexported, or transferred (in-country) or authorized for export, reexport, or transfer (in-country) to the same recipient; and
- (3) The exporter, reexporter, or transferor has no reason to believe the same recipient has used the technology in violation of the original authorization.

**(h) Special Recordkeeping Requirements: ECCNs 2D983, 2D984, 2E983 and 2E984**

In addition to any other recordkeeping requirements set forth elsewhere in the EAR, exporters are required to maintain records, as specified in this paragraph, when exporting operation software or technology controlled under ECCNs 2D983, 2D984, 2E983, and 2E984, respectively, under License Exception TSU. Records maintained pursuant to this section may be requested at any time by an appropriate BIS official as set forth in §762.7 of the EAR. The following information must be specially maintained for each export or reexport transaction, under License Exception TSU, of operation software and technology controlled by ECCNs 2D983, 2D984, 2E983, and 2E984:

- (1) A description of the software or technology exported or reexported, including the ECCN, as identified on the CCL;
- (2) A description of the equipment for which the software or technology is intended to be used, including the ECCN, as identified on the CCL;
- (3) The intended end-use of the software or technology;
- (4) The name and address of the end-user;
- (5) The quantity of software shipped; and
- (6) The location of the equipment for which the software or technology is intended to be used, including the country of destination.

**§ 740.14 BAGGAGE (\*\*BAG)**

**(a) Scope**

This License Exception authorizes individuals leaving the United States either temporarily (i.e., traveling) or longer-term (i.e., moving) and crew members of exporting or reexporting carriers to take to any destination, as personal baggage, the classes of commodities, software and technology described in this section.

**(b) Eligibility**

Individuals leaving the United States may export or reexport any of the following commodities or software for personal use of the individuals or members of their immediate families traveling with them to any destination or series of destinations. Individuals leaving the United States who are U.S. persons, as defined in paragraph (b)(4)(i), may export or reexport technology as a tool of trade under paragraph (b)(4) for their personal use or for the personal use of members of their immediate families who are traveling or moving with them, provided they

Return to "U.S. Person" in § 772.

are also U.S. persons, as defined in paragraph (b)(4)(i), to any destination or series of destinations. Technology exports and reexports authorized under paragraph (b)(4) of this section may be made as actual shipments, transmissions, or releases. Individuals leaving the United States temporarily (i.e., traveling) must bring back items exported and reexported under this License Exception unless they consume the items abroad or are otherwise authorized to dispose of them under the EAR. Crew members may export or reexport only commodities and software described in paragraphs (b)(1) and (b)(2) of this section to any destination.

**(1) Personal effects.** Usual and reasonable kinds and quantities for personal use of wearing apparel, articles of personal adornment, toilet articles, medicinal supplies, food, souvenirs, games, and similar personal effects, and their containers.

**(2) Household effects.** Usual and reasonable kinds and quantities for personal use of furniture, household effects, household furnishings, and their containers.

**(3) Vehicles.** Usual and reasonable kinds and quantities of vehicles, such as passenger cars, station wagons, trucks, trailers, motorcycles, bicycles, tricycles, perambulators, and their containers.

**(4) Tools of trade.** Usual and reasonable kinds and quantities of tools, instruments, or equipment and their containers and also technology for use in the trade, occupation, employment, vocation, or hobby of the traveler or members of the household who are traveling or moving. For special provisions regarding firearms and ammunition, see paragraph (e) of this section. For special provisions regarding encryption commodities and software subject to EI controls, see paragraph (f) of this section. For a special provision that specifies restrictions regarding the export or reexport of technology under this paragraph (b)(4), see paragraph (g) of this section. For special provisions regarding

personal protective equipment under ECCN 1A613.c or .d, see paragraph (h) of this section.

**(i)** For purposes of this paragraph (b), U.S. person is defined as follows: an individual who is a citizen of the United States, an individual who is a lawful permanent resident as defined by 8 U.S.C. 1101(a)(2) or an individual who is a protected individual as defined by 8 U.S.C. 1324b(a)(3).

**(ii)** [RESERVED]

**(c) *Limits on eligibility***

The export of any item is limited or prohibited, if the kind or quantity is in excess of the limits described in this section. In addition, the items must be:

**(1)** Owned by the individuals (or by members of their immediate families) or by crew members of exporting carriers on the dates they depart from the United States;

**(2)** Intended for and necessary and appropriate for the use of the individuals or members of their immediate families traveling with them, or by the crew members of exporting carriers;

**(3)** Not intended for sale or other disposal; and

**(4)** Not exported under a bill of lading as cargo if exported by crew members.

**(d) *Special provision: unaccompanied baggage***

Individuals departing the United States may ship unaccompanied baggage, which is baggage sent from the United States on a carrier other than that on which an individual departs. Crew members of exporting carriers may not ship unaccompanied baggage. Unaccompanied shipments under this License Exception shall be clearly marked “BAGGAGE.” Shipments of unaccompanied baggage may be made at the time of, or within a reasonable time before or after departure of the consignee or owner from the United States.

Personal baggage controlled for chemical and biological weapons (CB), missile technology (MT), national security (NS), encryption items (EI) or nuclear nonproliferation (NP) must be shipped within 3 months before or after the month in which the consignee or owner departs the United States. However, commodities controlled for CB, MT, NS, EI or NP may not be exported under this License Exception as unaccompanied baggage to Country Groups D:1, D:2, D:3, D:4, or E:1. (See Supplement No. 1 of this part).

**(e) Special provisions for firearms and ammunition.**

(1) A United States citizen or a permanent resident alien leaving the United States may export or reexport shotguns with a barrel length of 18 inches or over and shotgun shells under this License Exception, subject to the following limitations:

(i) Not more than three shotguns may be taken on any one trip.

(ii) The shotguns and shotgun shells must be with the person's baggage but they may not be mailed.

(iii) The shotguns and shotgun shells must be for the person's exclusive use for legitimate hunting or lawful sporting purposes, scientific purposes, or personal protection, and not for resale or other transfer of ownership or control. Accordingly, except as provided in (e)(2) of this section, shotguns may not be exported permanently under this License Exception. All shotguns and unused shotgun shells must be returned to the United States. Note that since certain countries may require an Import Certificate or a U.S. export license before allowing the import of a shotgun, you should determine the import requirements of your country of destination in advance.

(2) A nonresident alien leaving the United States may export or reexport under this License Exception only such shotguns and shotgun shells

as he or she brought into the United States under the provisions of the Department of Justice Regulations (27 CFR 478.115(d)).

(3) A United States citizen or a permanent resident alien leaving the United States may export under this License Exception firearms, "parts," "components," "accessories," or "attachments" controlled under ECCN 0A501 and ammunition controlled under ECCN 0A505.a, subject to the following limitations:

(i) Not more than three firearms and 1,000 rounds of ammunition may be taken on any one trip.

(ii) "Parts," "components," "accessories," and "attachments" exported pursuant to this paragraph (e)(3) must be of a kind and limited to quantities that are reasonable for the activities described in paragraph (e)(3)(iv) of this section or that are necessary for routine maintenance of the firearms being exported.

(iii) The commodities must be with the person's baggage.

(iv) The commodities must be for the person's exclusive use and not for resale or other transfer of ownership or control. Accordingly, except as provided in paragraph (e)(4) of this section, firearms, "parts," "components," "accessories," "attachments," and ammunition, may not be exported permanently under this License Exception. All firearms, "parts," "components," "accessories," or "attachments" controlled under ECCN 0A501 and all unused ammunition controlled under ECCN 0A505.a exported under this License Exception must be returned to the United States.

(v) Travelers leaving the United States temporarily are required to declare the firearms, "parts," "components," "accessories," "attachments," and ammunition being exported under this License Exception to a Customs and Border Protection (CBP) officer prior to departure from the United States and present such items to the CBP officer for inspection,

confirming that the authority for the export is License Exception BAG and that the exporter is compliant with its terms.

(4) A nonimmigrant alien leaving the United States may export or reexport under this License Exception only such firearms controlled under ECCN 0A501 and ammunition controlled under ECCN 0A505 as he or she brought into the United States under the relevant provisions of Department of Justice regulations at 27 CFR part 478.

**(f) Special provisions: encryption commodities and software subject to EI controls on the Commerce Control List**

(1) A U.S. citizen or permanent resident alien of the United States as defined by 8 U.S.C. 1101(a)(20) may use this license exception to export or reexport encryption commodities and software to any destination not in Country Group E:1 of Supplement No. 1 of this part.

(2) A person other than a U.S. citizen or permanent resident alien of the United States as defined by 8 U.S.C. 1101(a)(20) (except a national of a country listed in Country Group E:1 of Supplement No. 1 of this part who is not a U.S. citizen or permanent resident alien of the United States) may also use this license exception to export or reexport encryption commodities and software to any destination not in Country Group E:1 of Supplement No. 1 of this part.

**(g) Special provision: restrictions for Export or Reexport of Technology.**

This authorization for the export or reexport of technology under the tools of trade provisions of paragraph (b)(4) of this section may be used only if:

(1) The technology is to be used overseas solely by individuals or members of their immediate families traveling with them provided they are U.S. persons as defined in paragraph (b)(4)(i).

(2) The exporting or reexporting party and the recipient take adequate security precautions to protect against unauthorized access to the technology while the technology is being transmitted and used overseas. Examples of security precautions to help prevent unauthorized access include the following:

(i) Use of secure connections, such as Virtual Private Network connections when accessing IT networks for e-mail and other business activities that involve the transmission and use of the technology authorized under this license exception;

(ii) Use of password systems on electronic devices that will store the technology authorized under this license exception; and

(iii) Use of personal firewalls on electronic devices that will store the technology authorized under this license exception.

(3) The technology authorized under these provisions may not be used for foreign production purposes or for technical assistance unless authorized by BIS;

(4) Any encryption item controlled under ECCN 5E002 is not exported or reexported to any destination listed in Country Group E:1 of Supplement No. 1 of this part.

**(h) Special provisions: personal protective “equipment” classified under ECCN 1A613.c or .d and individual protection “equipment” classified under ECCN 1A607.f.**

**(1) Exports, reexports, or in-country transfers to countries not identified in Country Group D:5.**

U.S. persons may export, reexport, or transfer (in-country) one set of body armor classified under ECCN 1A613.d (which may include one helmet classified under ECCN 1A613.c) or one set of chemical or biological agent protective gear classified under ECCN 1A607.f (which may include one additional filter canister classified under ECCN 1A607.x) to countries not identified in Country Group D:5, provided that:

(i) The items are with the U.S. person's baggage or effects, whether accompanied or unaccompanied (but not mailed); and

(ii) The items are for that person's exclusive use and not for transfer of ownership unless reexported or transferred (in-country) to another U.S. person.

**(2) Exports, reexports, or in-country transfers to countries identified in Country Group D:5.**

(i) **Iraq.** U.S. persons may export, reexport, or transfer (in-country) one set of body armor classified under ECCN 1A613.d (which may include one helmet classified under ECCN 1A613.c) or one set of chemical or biological agent protective gear classified under ECCN 1A607.f (which may include one additional filter canister classified under ECCN 1A607.x) to Iraq, for personal use, provided that the requirements in paragraph (h)(1) of this section are met. In addition, the U.S. person must be affiliated with the U.S. Government and traveling on official business or traveling in support of a U.S. Government contract, or the U.S. person must be traveling to Iraq under a direct authorization by the Government of Iraq and engaging in activities for, on behalf of, or at the request of, the Government of Iraq. Documentation regarding direct authorization from the Government of Iraq shall include an English translation.

(ii) **Other countries in Country Group D:5.** U.S. persons may export, reexport, or transfer (in-country) one set of body armor classified under ECCN 1A613.d (which may include one helmet classified under ECCN 1A613.c) or one set of chemical or biological agent protective gear classified under ECCN 1A607.f (which may include one additional filter canister classified under ECCN 1A607.x) to countries in Country Group D:5 (except Iraq), for personal use, provided that the requirements in paragraph (h)(1) of this section are met, and the U.S. person is affiliated with the U.S. Government traveling on official business or is traveling in support of a U.S. Government contract.

*Note to paragraph (h): Body armor controlled under ECCN 1A005 is eligible for this License Exception under paragraph (b) of this section.*

**§ 740.15 AIRCRAFT, VESSELS AND SPACECRAFT (\*\*AVS)**

This License Exception authorizes departure from the United States of foreign registry civil aircraft on temporary sojourn in the United States and of U.S. civil aircraft for temporary sojourn abroad; the export of equipment and spare parts for permanent use on a vessel or aircraft; exports to vessels or planes of U.S. or Canadian registry and U.S. or Canadian Airlines' installations or agents; the export or reexport of cargo that will transit Cuba on an aircraft or vessel on temporary sojourn; and the export of spacecraft and components for fundamental research. Generally, no License Exception symbol is necessary for export clearance purposes; however, when necessary, the symbol "AVS" may be used.

**(a) Aircraft on temporary sojourn**

**(1) Foreign registered aircraft.** An operating civil aircraft of foreign registry that has been in the United States on a temporary sojourn may depart from the United States under its own power for any destination, provided that:

(i) No sale or transfer of operational control of the aircraft to a national of a destination in Country Group E:1 or E:2 (see supplement no. 1 to this part) has occurred while in the United States;

(ii) The aircraft is not departing for the purpose of sale or transfer of operational control to a national of a destination in Country Group E:1 or E:2 (see supplement no. 1 to this part); and

(iii) It does not carry from the United States any item for which an export license is required and has not been granted by the U.S. Government.

**(2) U.S. registered aircraft.**

(i) A civil aircraft of U.S. registry operating under an Air Carrier Operating Certificate, Commercial Operating Certificate, or Air Taxi Operating Certificate issued by the Federal Aviation Administration (FAA) or conducting flights under operating specifications approved by the FAA pursuant to 14 CFR part 129, or an air ambulance of U.S. registry operating under 14 CFR part 135, may depart from the United States under its own power for any destination, provided that:

(A) The aircraft does not depart for the purpose of sale, lease or other disposition of operational control of the aircraft, or its equipment, parts, accessories, or components to a foreign country or any national thereof;

(B) The aircraft's U.S. registration will not be changed while abroad;

(C) The aircraft is not to be used in any foreign military activity while abroad; and

(D) The aircraft does not carry from the United States any item for which a license is required and has not been granted by the U.S. Government.

(ii) Any other operating civil aircraft of U.S. registry may depart from the United States under its own power for any destination, except to or a destination in Country Group E:1 or E:2 (see supplement no. 1 to this part) (flights to these destinations require a license), provided that:

(A) The aircraft does not depart for the purpose of sale, lease or other disposition of operational control of the aircraft, or its equipment, parts, accessories, or components to a foreign country or any national thereof;

(B) The aircraft's U.S. registration will not be changed while abroad;

(C) The aircraft is not to be used in any foreign military activity while abroad;

(D) The aircraft does not carry from the United States any item for which an export license is required and has not been granted by the U.S. Government; and

(E) The aircraft will be operated while abroad by a U.S. licensed pilot, except that during domestic flights within a foreign country, the aircraft may be operated by a pilot currently licensed by that foreign country.

**(3) Criteria.** The following ten criteria each must be met if the flight is to qualify as a temporary sojourn. To be considered a temporary sojourn, the flight must not be for the purpose of sale or transfer of operational control. An export is for the transfer of operational control unless the exporter retains each of the following indicia of control:

(i) **Hiring of cockpit crew.** Right to hire and fire the cockpit crew.

(ii) **Dispatch of aircraft.** Right to dispatch the aircraft.

(iii) **Selection of routes.** Right to determine the aircraft's routes (except for contractual commitments entered into by the exporter for specifically designated routes).

(iv) **Place of maintenance.** Right to perform or obtain the principal maintenance on the aircraft, which principal maintenance is conducted outside a destination in Country Group E:1 or E:2 (see supplement no. 1 to this part), under the control of a party who is not a national of any of these countries. (The minimum necessary in-transit maintenance may be performed in any country).

(v) **Location of spares.** Spares are not located in a destination in Country Group E:1 or E:2 (see supplement no. 1 to this part).

(vi) **Place of registration.** The place of registration is not changed to a destination in Country Group E:1 or E:2 (see supplement no. 1 to this part).

(vii) **No transfer of technology.** No technology is transferred to a national of a destination in Country Group E:1 or E:2 (see supplement no. 1 to this part), except the minimum necessary for in-transit maintenance to perform flight line servicing required to depart safely.

(viii) **Color and logos.** The aircraft does not bear the livery, colors, or logos of a national of a destination in Country Group E:1 or E:2 (see supplement no. 1 to this part).

(ix) **Flight number.** The aircraft does not fly under a flight number issued to a national of a destination in Country Group E:1 or E:2 (see supplement no. 1 to this part) as such number appears in the Official Airline Guide.

(x) **Lease or charter.** The aircraft is not leased to or chartered by a national of a destination in Country Group E:1 or E:2 (see supplement no. 1 to this part).

(4) **Reexports.** Civil aircraft legally exported from the United States may be reexported under this section, provided the restrictions described in this paragraph (a) are met.

*Note to paragraph (a).* An aircraft exported or reexported to a country pursuant to this paragraph (a) may not remain in that country for more than seven consecutive days before it departs for a country to which it may be exported without a license or the United States.

**(b) Equipment and spare parts for permanent use on a vessel or aircraft, and ship and plane stores**

(1) **Vessel.** Equipment and spare parts for permanent use on a vessel, when necessary for the proper operation of such vessel, may be exported or reexported for use on board a vessel of any registry, except a vessel registered in Country Group D:1 (see Supplement No. 1 to part 740), Cuba, or owned or controlled by, or under charter or lease to any of these countries or their nationals. In addition, other equipment and services for necessary repair to fishing and fishery support vessels of Country Group D:1 may be exported for use on board such vessels when admitted into the United States under governing international fishery agreements.

(2) **Aircraft.** Equipment and spare parts for permanent use on an aircraft, when necessary for the proper operation of such aircraft, may be exported or reexported for use on board an aircraft of any registry, except an aircraft registered in, owned or controlled by, or under charter or lease to a country included in Country Group D:1, Cuba, or a national of any of these countries.

(3) **Ship and plane stores.** Usual and reasonable kinds and quantities of the following commodities may be exported for use or consumption on board an aircraft or vessel of any registry during the outgoing and immediate return flight or voyage.

(i) Deck, engine, and steward department stores, provisions, and supplies for both port and voyage requirements;

(ii) Medical and surgical supplies;

(iii) Food stores;

(iv) Slop chest articles;

(v) Saloon stores or supplies.

(4) **Cuba.** Only items designated as EAR99 or controlled on the Commerce Control List (CCL) (Supplement No. 1 to part 774 of the EAR) only for anti-terrorism reasons (*i.e.*, anti-terrorism must be the only reason for control that applies to

the item as set forth in the Export Control Classification Number (ECCN) that controls the item) are eligible for export or reexport to Cuba pursuant to this paragraph (b).

**(c) Shipments to U.S. or Canadian vessels, planes and airline installations or agents**

**(1) Exports to vessels or planes of U.S. or Canadian registry.** Export may be made of the commodities set forth in paragraph (c)(3) of this section, for use by or on a specific vessel or plane of U.S. or Canadian registry located at any seaport or airport outside the United States or Canada except a port in Cuba or Country Group D:1 (excluding the PRC), (see Supplement No. 1 to part 740) provided that such commodities are all of the following:<sup>3</sup>

(i) Ordered by the person in command or the owner or agent of the vessel or plane to which they are consigned;

(ii) Intended to be used or consumed on board such vessel or plane and necessary for its proper operation;

(iii) In usual and reasonable kinds and quantities during times of extreme need; and

(iv) Shipped as cargo for which Electronic Export Information (EEI) is filed to the Automated Export System (AES) in accordance with the requirements of the Foreign Trade Regulations (FTR) (15 CFR Part 30), except EEI is not required to be filed when any of the commodities, other than fuel, is exported by U.S. airlines to their own aircraft abroad for their own use, see 15 CFR 30.37(o) of the FTR.

**(2) Exports to U.S. or Canadian airline's installation or agent.** Exports of the commodities set forth in paragraph (c)(3) of this section, except fuel, may be made to a U.S. or

Canadian airline's<sup>4</sup> installation or agent in any foreign destination except Cuba or Country Group D:1 (excluding the PRC), (see Supplement No. 1 to part 740) provided such commodities are all of the following:

(i) Ordered by a U.S. or Canadian airline and consigned to its own installation or agent abroad;

(ii) Intended for maintenance, repair, or operation of aircraft registered in either the United States or Canada, and necessary for the aircraft's proper operation, except where such aircraft is located in, or owned, operated or controlled by, or leased or chartered to, Cuba or Country Group D:1 (excluding the PRC) (see Supplement No. 1 to part 740) or a national of such country;

(iii) In usual and reasonable kinds and quantities; and

(iv) Shipped as cargo for which Electronic Export Information (EEI) is filed to the Automated Export System (AES) in accordance with the requirements of the Foreign Trade Regulations (FTR) (15 CFR Part 30), except EEI is not required to be filed when any of these commodities is exported by U.S. airlines to their own installations and agents abroad for use in their aircraft operations, see 15 CFR 30.37(o) of the FTR.

**(3) Applicable commodities.** This paragraph (c) applies to the following commodities, subject to the provisions in paragraph (c)(1) and (c)(2) of this section:

(i) Deck, engine, and steward department stores, provisions, and supplies for both port and voyage requirements;

(ii) Medical and surgical supplies;

(iii) Food stores;

<sup>3</sup> Where a license is required, see §§ 748.1, 748.4 and 748.6 of the EAR.

<sup>4</sup> See Part 772 of the EAR for definitions of United States and Canadian airlines.

- (iv) Slop chest articles;
- (v) Saloon stores or supplies; and
- (vi) Equipment and spare parts.

**(d) *Vessels on temporary sojourn***

**(1) Foreign flagged vessels.** A foreign flagged vessel in the United States may depart from the United States under its own power for any destination, provided that:

(i) No sale or transfer of operational control of the vessel to a national of a destination in Country Group E:1 or E:2 (see supplement no. 1 to this part) has occurred while in the United States;

(ii) The vessel is not departing for the purpose of sale or transfer of operational control to a national of a destination in Country Group E:1 or E:2 (see supplement no. 1 to this part); and

(iii) The vessel does not carry from the United States any item for which a license is required and has not been granted by the U.S. Government.

**(2) U.S. flagged vessels.** A U.S. flagged vessel may depart from the United States under its own power for any destination, provided that:

(i) The vessel does not depart for the purpose of sale, lease, or transfer of operational control of the vessel, or its equipment, parts, accessories, or components, to a foreign country or any national thereof;

(ii) The vessel's U.S. flag will not be changed while abroad;

(iii) The vessel will not be used in any foreign military activity while abroad;

(iv) The vessel will not carry from the United States any item for which a license is required and has not been granted by the U.S. Government;

(v) Spares for the vessel are not located in a destination in Country Group E:1 or E:2 (see supplement no. 1 to this part);

(vi) Technology is not transferred to a national of a destination in Country Group E:1 or E:2 (see supplement no. 1 to this part), except the minimum necessary in-transit maintenance to perform servicing required to depart and enter a port safely; and

(vii) The vessel does not bear the livery, colors, or logos of a national of a destination in Country Group E:1 or E:2 (see supplement no. 1 to this part).

**(3) Criteria for temporary sojourn of vessels.** The following criteria must be met if a voyage is to be considered a temporary sojourn under this paragraph (d). To be considered a temporary sojourn, the voyage must not be for the purpose of sale or transfer of operational control. A transfer of operational control occurs unless the exporter or reexporter retains each of the following indicia of control:

(i) *Hiring of crew.* Right to hire and fire the crew.

(ii) *Dispatch of vessel.* Right to dispatch the vessel.

(iii) *Selection of routes.* Right to determine the vessel's routes (except for contractual commitments entered into by the exporter for specifically designated routes).

(iv) *Place of maintenance.* Right to perform or obtain the principal maintenance on the vessel, which principal maintenance is conducted outside a destination in Country Group E:1 or E:2 (see supplement no. 1 to this part), under the control of a party who is not a national of any of these countries. (The minimum necessary in-transit maintenance may be performed in any country).

(v) *Lease or charter.* The vessel is not leased to or chartered by a national of a destination in

Country Group E:1 or E:2 (see supplement no. 1 to this part).

**(4) Reexports.** Vessels subject to the EAR may be reexported under this section on temporary sojourn, provided that:

**(i)** The vessel does not depart for the purpose of sale, lease, or transfer of operational control of the vessel, or its equipment, parts, accessories, or components, to a foreign country or any national thereof;

**(ii)** The vessel's flag will not be changed while abroad;

**(iii)** The vessel will not be used in any foreign military activity while abroad;

**(iv)** The vessel will not carry any item for which a license is required and has not been granted by the U.S. Government;

**(v)** Spares for the vessel are not located in a destination in Country Group E:1 or E:2 (see supplement no. 1 to this part);

**(vi)** Technology is not transferred to a national of a destination in Country Group E:1 or E:2 (see supplement no. 1 to this part), except the minimum necessary in-transit maintenance to perform servicing required to depart and enter a port safely; and

**(vii)** The vessel does not bear the livery, colors, or logos of a national of a destination in Country Group E:1 or E:2 (see supplement no. 1 to this part).

**(5)** No vessels may be exported or reexported under this License Exception to a country in Country Group E:1.

**(6) Cuba, eligible vessels and purposes.** For Cuba, only cargo vessels for hire for use in the transportation of items are eligible for this paragraph (d).

*Note 1 to paragraph (d).* A vessel exported or reexported to a country pursuant to this paragraph (d) may not remain in that country for more than 14 consecutive days before it departs for a country to which it may be exported without a license or the United States.

**(e) Intransit cargo**

Cargo laden on board an aircraft or vessel may transit Cuba provided:

**(1)** The aircraft or vessel is exported or reexported on temporary sojourn to Cuba pursuant to paragraph (a) or (d) of this section or a license from BIS; and

**(2)** The cargo departs with the aircraft or vessel at the end of its temporary sojourn to Cuba, is not removed from the aircraft or vessel for use in Cuba and is not transferred to another aircraft or vessel while in Cuba.

**(f) Spacecraft for launch**

This paragraph (e) authorizes the export by accredited U.S. institutions of higher learning of commodities subject to the EAR fabricated only for fundamental research purposes when all of the following conditions are met:

**(1)** The export is to an accredited institution of higher learning, a governmental research center, or an established government funded private research center located in a country other than Country Group D:5 (see Supp. No. 1 to this part) and involves exclusively nationals of such countries;

**(2)** All the information about the commodity, including its design, and all of the resulting information obtained through fundamental research involving the commodity will be published and shared broadly within the scientific community, and is not restricted for proprietary reasons or specific U.S. government access and dissemination controls or other restrictions accepted by the institution or its researchers on

publication of scientific and technical information resulting from the project or activity (see §734.11 of the EAR); and

(3) If the commodity is for permanent export, the platform or system into which the commodity will be incorporated must be a scientific, research, or experimental satellite and must be exclusively concerned with fundamental research and may only be launched into space from countries and by nationals of countries not identified in Country Group D:5.

**§ 740.16 ADDITIONAL PERMISSIVE REEXPORTS (\*\*APR)**

This License Exception allows the following reexports:

**(a) Reexports from Country Group A:1**

Reexports may be made from countries in Country Group A:1 provided that:

(1) The reexport is made in accordance with the conditions of an export authorization from the government of the reexporting country;

(2) The commodities being reexported are not controlled for NP, CB, MT, SI, or CC reasons or described in ECCNs 0A919, 3A001.b.2 or b.3 (except those that are being reexported for use in civil telecommunications applications), 6A002, 6A003; or commodities classified under a 0x5zz ECCN; and

(3) The reexport is destined to *either*:

(i) A country in Country Group B that is not also included in Country Group D:2, D:3, or D:4; and the commodity being reexported is both controlled for national security reasons and not controlled for export to Country Group A:1; or

(ii) A country in Country Group D:1 (National Security) (see Supplement No. 1 to part 740), other than North Korea and the commodity being

reexported is controlled for national security reasons.

**(b) Reexports to and among specified countries.**

(1) Eligible commodities may be reexported to and among destinations in Country Group A:1 for use or consumption within a destination in Country Group A:1 (see Supplement No. 1 to part 740) , or for reexport from such country in accordance with other provisions of the EAR.

(2) Commodities not eligible for reexport under paragraph (b)(1) are:

(i) Commodities controlled for nuclear nonproliferation or missile technology reasons;

(ii) Commodities in 3A001.b.2 or b.3 (except those that are being reexported for use in civil telecommunications applications);

(iii) “Military commodities” described in ECCN 0A919;

(iv) Commodities described in ECCN 0A504 that incorporate an image intensifier tube;

(v) Commodities described in ECCN 6A002; or

(vi) Commodities classified under a 0x5zz ECCN.

(3) Cameras described in ECCNs 6A003 may be exported or reexported to and among countries in Country Group A:1 (see Supplement No. 1 to this part) if:

(i) Such cameras are fully packaged for use as consumer ready civil products; or

(ii) Such cameras with not more than 111,000 elements are to be embedded in civil products.

**(c) Reexports to a destination to which direct shipment from the United States is authorized under an unused outstanding license may be made under the terms of that license. Such**

reexports shall be recorded in the same manner as exports are recorded, regardless of whether the license is partially or wholly used for reexport purposes. (See part 762 of the EAR for recordkeeping requirements.)

**(d) Reexports of any item from Canada** that, at the time of reexport, may be exported directly from the United States to the new country of destination under any License Exception.

**(e) Reexports (return) to the United States of any item.** If the reexporting party requests written authorization because the government of the country from which the reexport will take place requires formal U.S. Government approval, such authorization will generally be given.

**(f) Reexports from a foreign destination** to Canada of any item if the item could be exported to Canada without a license.

**(g)** [RESERVED]

**(h) Shipments of foreign-made products that incorporate U.S.-origin components may be accompanied by U.S.-origin controlled spare parts, provided that they do not exceed 10 percent of the value of the foreign-made product, subject to the restrictions in §734.4 of the EAR.**

**(i)** [Reserved] This (i) was formerly Sudan items.

**(j) Reexports of items controlled by NP Column 1** (see Supplement No. 1 to part 774 of the EAR) to, among, and from countries described in Country Group A:4 (see Supplement No. 1 to part 740), except:

(1) Reexports from countries that are not identified in Country Group A:1 of items that are controlled for NS reasons to destinations in Country Group D:1; and

(2) Reexports to destinations in Country Group E:2 and Country Group D:2.

### **§ 740.17 ENCRYPTION COMMODITIES, SOFTWARE AND TECHNOLOGY (\*\*ENC)**

License Exception ENC authorizes export, reexport, and transfer (in-country) of systems, equipment, commodities, and components therefor that are classified under ECCNs 5A002, 5B002, equivalent or related software and technology therefor classified under 5D002 or 5E002, and “cryptanalytic items” classified under ECCNs 5A004, 5D002 or 5E002. This License Exception ENC does not authorize export or reexport to, transfer (in-country) in, or provision of any service in any country listed in Country Groups E:1 or E:2 in Supplement No. 1 to part 740 of the EAR, or release of source code or technology to any national of a country listed in Country Groups E:1 or E:2. Reexports and transfers (in-country) under License Exception ENC are subject to the criteria set forth in paragraph (c) of this section. Paragraphs (b) and (d) of this section set forth information about classifications required by this section. Items described in paragraphs (b)(1) and (b)(3)(i), (b)(3)(ii) or (b)(3)(iv) of this section that meet the criteria set forth in Note 3 to Category 5 - Part 2 of the Commerce Control List (the “mass market” note) are classified under ECCN 5A992.c or 5D992.c following self-classification or classification by BIS and are no longer subject to “EI” and “NS” controls. Paragraph (e) sets forth reporting required by this section. For items exported under paragraphs (b)(1), (b)(3)(i), (b)(3)(ii) or (b)(3)(iv) of this section and therefore excluded from paragraph (e) reporting requirements, exporters are reminded of the recordkeeping requirements in part 762 of the EAR and that they may be required to make such records available upon request. **All classification requests**, and reports submitted to BIS pursuant to this section for encryption items **will be reviewed by the ENC Encryption Request Coordinator, Ft. Meade, MD.**

**(a) No classification request or reporting required**

License Exception ENC authorizes the export, reexport, or transfer (in-country) to the end users and for the end uses set forth in paragraphs (a)(1), (a)(2), and (a)(3) of this section, without submission of a classification request, self-classification report or sales report to BIS.

**(1) Certain exports, reexports, transfers (in-country) to ‘private sector end users.’**

(i) *Internal “development” or “production” of new products.* License Exception ENC authorizes certain exports, reexports, and transfers (in-country) of items described in paragraph (a) of this section for the internal “development” or “production” of new products by ‘private sector end users,’ wherever located, that are headquartered in a country listed in Supplement No. 3 of this part.

(ii) *Certain exports, reexports, transfers (in-country) to related parties, not involving “development” or “production” of new products.* For internal end uses among ‘private sector end users’ other than the “development” or “production” of new products, License Exception ENC authorizes exports, reexports, and transfers (in-country) of non-U.S.-origin items, described in paragraph (a) of this section, to ‘private sector end users’ wherever located provided that:

(A) That item became subject to the EAR after it was produced;

(B) All parties to the transaction are subsidiaries of the same parent company headquartered in a country listed in Supplement No. 3 of this part; and

(C) The characteristics or capabilities of the existing item are not enhanced, unless otherwise authorized by license or license exception.

*Note to paragraph (a)(1): A ‘private sector end user’ is either: An individual who is not acting on behalf of any foreign government; or a commercial firm (including its subsidiary and parent firms, and other subsidiaries of the same parent) that is not wholly owned by, otherwise*

*controlled by or acting on behalf of, any foreign government.*

**(2) Exports, reexports, transfers (in-country) to “U.S. Subsidiaries.”** License Exception ENC authorizes export, reexport, and transfer (in-country) of items described in paragraph (a) of this section to any “U.S. subsidiary,” wherever located. License Exception ENC also authorizes export, reexport, transfer (in-country) of such items by a U.S. company and its subsidiaries to foreign nationals who are employees, individual contractors or interns of a U.S. company or its subsidiaries if the items are for internal company use, including the “development” or “production” of new products, without prior review by the U.S. Government.

*Note to paragraph (a)(1) and (a)(2): All items produced or developed with items exported, reexported, or transferred (in-country) under paragraphs (a)(1) or (a)(2) of this section are subject to the EAR. These items may require the submission of a classification request before sale, reexport or transfer to non-“U.S. subsidiaries,” unless otherwise authorized by license or license exception.*

**(3) Reexports and transfers (in-country) of non-U.S. products developed with or incorporating U.S.-origin encryption source code, components, or toolkits.** License Exception ENC authorizes the reexport and transfer (in-country) of non-U.S. products developed with or incorporating U.S.-origin encryption source code, components or toolkits that are subject to the EAR, provided that the U.S.-origin encryption items have previously been classified or reported and authorized by BIS and the cryptographic functionality has not been changed. Such products include non-U.S. developed products that are designed to operate with U.S. products through a cryptographic interface.

*Note to paragraph (a)(3): This exception from classification and reporting requirements does not apply to non-U.S.-origin products exported from the United States.*

**(b) Classification request or self-classification report**

For products described in paragraph (b)(1) of this section that are self-classified by the exporter, a self-classification report in accordance with paragraph (e)(3) of this section is required from specified exporters, reexporters and transferors; for products described in paragraph (b)(1) of this section that are classified by BIS via a CCATS, a self-classification report is not required. For products described in paragraphs (b)(2) and (b)(3) of this section, a thirty-day (30-day) classification request is required in accordance with paragraph (d) of this section. An exporter, reexporter, or transferor may rely on the producer's self-classification (for products described in (b)(1), only) or CCATS for an encryption item eligible for export or reexport under License Exception ENC under paragraph (b)(1), (b)(2), or (b)(3) of this section. Exporters are still required to comply with semi-annual sales reporting requirements under paragraph (e)(1) or (2) of this section, even if relying on a CCATS issued to a producer for specified encryption items described in paragraphs (b)(2) and (b)(3)(iii) of this section.

*Note to paragraph (b) introductory text: Mass market encryption software that would be considered publicly available under §734.3(b)(3) of the EAR, and is authorized for export under this paragraph (b), remains subject to the EAR until all applicable classification or self-classification requirements set forth in this section are fulfilled.*

**(1) Immediate authorization.** This paragraph (b)(1) authorizes the exports, reexports, and transfers (in-country) of the associated commodities self-classified under ECCNs 5A002.a or 5B002, and equivalent or related

software therefor classified under 5D002, except any such commodities, software, or components described in (b)(2) or (b)(3) of this section, subject to submission of a self-classification report in accordance with § 740.17(e)(3) of the EAR. Items described in this paragraph (b)(1) that meet the criteria set forth in Note 3 to Category 5 - Part 2 of the Commerce Control List (the "mass market" note) are classified as ECCN 5A992.c or 5D992.c following self-classification or classification by BIS and are removed from "EI" and "NS" controls.

**(2) Classification request required.** Thirty (30) days after the submission of a classification request with BIS in accordance with paragraph (d) of this section and subject to the reporting requirements in paragraph (e) of this section, this paragraph under License Exception ENC authorizes certain exports, reexports, and transfers (in-country) of the items specified in paragraph (b)(2) and submitted for classification.

*Note to introductory text of paragraph (b)(2): Immediately after the classification request is submitted to BIS in accordance with paragraph (d) of this section and subject to the reporting requirements in paragraph (e) of this section, this paragraph also authorizes exports, reexports, and transfers (in-country) of:*

1. All submitted encryption items described in this paragraph (b)(2), except "cryptanalytic items," **to any end user located or headquartered in a country listed in Supplement No. 3 to this part;**

2. Encryption source code as described in paragraph (b)(2)(i)(B) to non-"government end users" in any country;

3. "Cryptanalytic items" to non-"government end users," only, located or headquartered in a country listed in Supplement No. 3 to this part; and

4. Items described in paragraphs (b)(2)(iii) and (b)(2)(iv)(A) of this section, to specified destinations and end users.

**(i) Cryptographic commodities, software, and components.**

License Exception ENC authorizes exports, reexports, and transfers (in-country) of the items in paragraph (b)(2)(i)(A) of this section to “less sensitive government end users” and non- “government end users” located or headquartered in a country not listed in Supplement No. 3 to this part, and the items in paragraphs (B) – (H) to non “government end users” located or headquartered in a country not listed in Supplement No. 3.

**(A) ‘Network Infrastructure.’** ‘Network infrastructure’ commodities and software, and components therefor, meeting any of the following with key lengths exceeding 80-bits for symmetric algorithms:

**(1) WAN, MAN, VPN, backhaul and long-haul.** Aggregate encrypted WAN, MAN, VPN, backhaul or long-haul throughput (including communications through wireless network elements such as gateways, mobile switches, and controllers) equal to or greater than 250 Mbps;

(2) [Reserved]

(3) **Satellite infrastructure.** Transmission over satellite at data rates exceeding 10 Mbps;

**(4) Media gateways and other unified communications (UC) infrastructure, including Voice-over-Internet Protocol (VoIP) services.** Media (voice/video/data) encryption or encrypted signaling to more than 2,500 endpoints, including centralized key management therefor; *or*

**(5) Terrestrial wireless infrastructure.** Air interface coverage (e.g., through base stations, access points to mesh networks, and bridges) exceeding 1,000 meters, where any of the following applies:

(i) Maximum transmission data rates exceeding 10 Mbps (at operating ranges beyond 1,000 meters); *or*

(ii) Maximum number of concurrent full-duplex voice channels exceeding 30;

**Notes to paragraph (b)(2)(i)(A):**

**1.** *The License Exception ENC eligibility restrictions of paragraphs (b)(2)(i)(A)(3) (satellite infrastructure) and (b)(2)(i)(A)(5) (terrestrial wireless infrastructure) do not apply to satellite terminals or modems meeting all of the following:*

*a. The encryption of data over satellite is exclusively from the user terminal to the gateway earth station, and limited to the air interface; and*

*b. The items meet the requirements of the Cryptography Note (Note 3) in Category 5 - Part 2 of the Commerce Control List.*

**2.** *‘Network infrastructure’ (as applied to encryption items). A ‘network infrastructure’ commodity or software is any “end item,” commodity or “software” for providing one or more of the following types of communications:”*

*(a) Wide Area Network (WAN);*

*(b) Metropolitan Area Network (MAN);*

*(c) Virtual Private Network (VPN);*

*(d) Satellite;*

*(e) Digital packet telephony/media (voice, video, data) over Internet protocol;*

*(f) Cellular; or*

*(g) Trunked.*

**Note 1 to paragraph 2:** *‘Network infrastructure’ end items are typically operated by, or for, one or more of the following types of end users:*

*(1) Medium- or large- sized businesses or enterprises;*

**\*\*VOIP**

- (2) *Governments;*
- (3) *Telecommunications service providers; or*
- (4) *Internet service providers.*

**Note 2 to paragraph 2:** *Commodities, software, and components for the “cryptographic activation” of a ‘network infrastructure’ item are also considered ‘network infrastructure’ items.*

**(B) Certain “encryption source code.”** “Encryption source code” that is not publicly available as that term is used in § 742.15(b) of the EAR;

**(C) Customized items.** Encryption software, commodities and components therefor, where any of the following applies:

**(1) Customized for government end users or end uses.** The item has been designed, modified, adapted, or customized for “government end user(s);” *or*

**(2) Custom or changeable cryptography.** The cryptographic functionality of the item has been designed or modified to customer specification or can be easily changed by the user;

**(D) Quantum cryptography.** ECCN 5A002.c or 5D002 “quantum cryptography” commodities or software;

**(E)** [Reserved]

**(F) Network penetration tools.** Encryption commodities and software that provide penetration capabilities that are capable of attacking, denying, disrupting or otherwise impairing the use of cyber infrastructure or networks;

**(G) Public safety / first responder radio (private mobile radio (PMR)).** Public safety / first responder radio (e.g., implementing Terrestrial Trunked Radio (TETRA) and/or Association of Public-Safety Communications

Officials International (APCO) Project 25 (P25) standards);

**(H) Specified cryptographic ultra-wideband and “spread spectrum” items.** Encryption commodities and components therefor, classified under ECCNs 5A002.d or .e, and equivalent or related software therefor classified under ECCN 5D002.

**(ii) Cryptanalytic commodities and software.** “Cryptanalytic items” classified in ECCN 5A004 or 5D002 to non- “government end users” located or headquartered in countries not listed in Supplement No. 3 to this part.

**(iii) “Open cryptographic interface” items.** Items that provide an “open cryptographic interface,” to any end user located or headquartered in a country listed in Supplement No. 3 to this part.

**(iv) Specific encryption technology.** Specific encryption technology as follows:

**(A) Technology for “non-standard cryptography.”** Encryption technology classified under ECCN 5E002 for “non-standard cryptography,” to any end user located or headquartered in a country listed in Supplement No. 3 to this part;

**(B) Other technology.** Encryption technology classified under ECCN 5E002 except technology for “cryptanalytic items,” “non-standard cryptography” or any “open cryptographic interface,” to any non-“government end user” located in a country not listed in Country Group D:1, E:1, or E:2 of Supplement No. 1 to part 740 of the EAR.

**Note to paragraph (b)(2):** *Commodities, components, and software classified under ECCNs 5A002.b or 5D002.b, for the “cryptographic activation” of commodities or software specified by paragraph (b)(2) of this section are also controlled under paragraph (b)(2) of this section.*

**(3) Classification request required for specified commodities, software, and components.** Thirty (30) days after a classification request is submitted to BIS in accordance with paragraph (d) of this section and subject to the reporting requirements in paragraph (e) of this section, this paragraph authorizes exports, reexports, and transfers (in-country) of the items submitted for classification, as further described in this paragraph (b)(3), to any end user, provided the item does not perform the functions, or otherwise meet the specifications, of any item described in paragraph (b)(2) of this section. Items described in paragraphs (b)(3)(i), (b)(3)(ii) or (b)(3)(iv) of this section that meet the criteria set forth in Note 3 to Category 5 - Part 2 of the Commerce Control List (the “mass market” note) are classified under ECCN 5A992.c or 5D992.c following classification by BIS.

*Note to introductory text of paragraph (b)(3): Immediately after the classification request is submitted to BIS in accordance with paragraph (d) of this section and subject to the reporting requirements in paragraph (e) of this section, this paragraph also authorizes exports, reexports, transfers (in-country) of the items described in this paragraph (b)(3) to any end user located or headquartered in a country listed in Supplement No. 3 to this part.*

**(i) “Components,” toolsets, and toolkits.** Specified components classified under ECCN 5A002.a and equivalent or related software classified under ECCN 5D002 not described by paragraph (b)(2) of this section, as follows:

**(A)** Chips, chipsets, electronic assemblies and field programmable logic devices;

**(B)** Cryptographic libraries, modules, development kits and toolkits, including for operating systems and cryptographic service providers (CSPs).

**(ii) “Non-standard cryptography” (by items not otherwise described in paragraph (b)(2) of this section.)** Encryption commodities, software

and components not described by paragraph (b)(2) of this section, that provide or perform “non-standard cryptography” as defined in part 772 of the EAR.

**(iii) Advanced network vulnerability analysis and digital forensics.** Encryption commodities and software not described by paragraph (b)(2) of this section, that provide or perform vulnerability analysis, network forensics, or computer forensics functions characterized by any of the following:

**(A) Automated network vulnerability analysis and response.** Automated network analysis, visualization, or packet inspection for profiling network flow, network user or client behavior, or network structure/topology and adapting in real-time to the operating environment; *or*

**(B) Digital forensics, including network or computer forensics.** Investigation of data leakage, network breaches, and other malicious intrusion activities through triage of captured digital forensic data for law enforcement purposes or in a similarly rigorous evidentiary manner.

**(iv) “Cryptographic activation” commodities, components, and software.** Commodities, components, and software classified under ECCNs 5A002.b or 5D002.b where the product or cryptographic functionality is not otherwise described in paragraphs (b)(2) or (b)(3)(i) of this section.

**(c) Reexport and transfer (in-country)**

Distributors, resellers or other entities who are not original manufacturers of encryption commodities and software are permitted to use License Exception ENC only in instances where the reexport or transfer (in-country) meets the applicable terms and conditions of this section. Transfers of encryption items listed in paragraph (b)(2) of this section to “government end users,” or for government end uses, within the same

country are prohibited, unless otherwise authorized by license or license exception.

**(d) Classification request procedures**

**(1) Submission requirements and instructions.**

To submit a classification request to BIS, you must submit an application to BIS in accordance with the procedures described in §§ 748.1 and 748.3 of the EAR and the instructions in paragraph (r) of Supplement No. 2 to part 748 “Unique Application and Submission Requirements,” along with other required information as follows:

**(ii) Technical information submission requirements.** For all submissions of encryption classification requests for items described under paragraph (b)(2) or (b)(3) of this section, you must submit the applicable information described in paragraphs (a) through (d) of Supplement No. 6 to part 742 of the EAR (Technical Questionnaire for Encryption Items). For items eligible for self-classification that are submitted to BIS for classification you may be required to provide BIS this Supplement No. 6 to part 742 information on an as-needed basis, upon request by BIS.

**(iii) Changes in encryption functionality following a previous classification.** A new product encryption classification request (under paragraphs (b)(2) or (b)(3) of this section) is required if a change is made to the cryptographic functionality (e.g., algorithms) or other technical characteristics affecting License Exception ENC eligibility (e.g., encrypted throughput) of the originally classified product. However, a new product classification request is not required when a change involves: the subsequent bundling, patches, upgrades or releases of a product; name changes; or changes to a previously reviewed encryption product where the change is limited to updates of encryption software components where the product is otherwise unchanged.

**(2) Action by BIS.**

**(i) [Reserved]**

**(ii) For items requiring classification by BIS under paragraphs (b)(2) and (b)(3) of this section.**

**(A)** For classifications that require a thirty (30-day) waiting period, if BIS has not, within thirty days (30 days) from registration in SNAP-R of your complete classification request, informed you that your item is not authorized for License Exception ENC, you may export, reexport, or transfer (in-country) under the applicable provisions of License Exception ENC.

**(B)** Upon completion of its classification, BIS will issue a Commodity Classification Automated Tracking System (CCATS) to you.

**(C) Hold Without Action (HWA) for classification requests.** BIS may hold your classification request without action if necessary to obtain additional information or for any other reason necessary to ensure an accurate classification. Time on such “hold without action” status shall not be counted towards fulfilling the thirty-day (30-day) processing period specified in this paragraph.

**(iii)** BIS may require you to supply additional relevant technical information about your encryption item(s) or information that pertains to their eligibility for License Exception ENC at any time, before or after the expiration of the thirty-day (30-day) processing period specified in this paragraph and in paragraphs (b)(2) and (b)(3) of this section. If you do not supply such information within 14 days after receiving a request for it from BIS, BIS may return your classification request(s) without action or otherwise suspend or revoke your eligibility to use License Exception ENC for that item(s). At your request, BIS may grant you up to an additional 14 days to provide the requested information. Any request for such an additional number of days must be made prior to the date by which the information was otherwise due to be provided to BIS, and may be approved if BIS concludes that additional time is necessary.

**(e) Reporting requirements**

**(1) Semiannual reporting requirement.** Semiannual reporting is required for exports to all destinations other than Canada, and for reexports from Canada for items described under paragraphs (b)(2) and (b)(3)(iii) of this section. Certain encryption items and transactions are excluded from this reporting requirement, see paragraph (e)(1)(iii) of this section. For information about what must be included in the report and submission requirements, see paragraphs (e)(1)(i) and (e)(1)(ii) of this section respectively.

**(i) Information required.** Exporters must include for each item, the Commodity Classification Automated Tracking System (CCATS) number and the name of the item(s) exported (or reexported from Canada), and the following information in their reports:

**(A) Distributors or resellers.** For items exported (or reexported from Canada) to a distributor or other reseller, including subsidiaries of U.S. firms, the name and address of the distributor or reseller, the item and the quantity exported or reexported and, if collected by the exporter as part of the distribution process, the end user's name and address;

**(B) Direct Sales.** For items exported (or reexported from Canada) through direct sale, the name and address of the recipient, the item, and the quantity exported; or

**(C) Foreign manufacturers and products that use encryption items.** For exports (i.e., from the United States) or direct transfers (e.g., by a "U.S. subsidiary" located outside the United States) of encryption components, source code, general purpose toolkits, equipment controlled under ECCN 5B002, technology, or items that provide an "open cryptographic interface," to a foreign developer or manufacturer headquartered in a country not listed in Supplement No. 3 to this part when intended for use in foreign products developed for commercial sale, the

names and addresses of the manufacturers using these encryption items and, if known, when the product is made available for commercial sale, a non-proprietary technical description of the foreign products for which these encryption items are being used (e.g., brochures, other documentation, descriptions or other identifiers of the final foreign product; the algorithm and key lengths used; general programming interfaces to the product, if known; any standards or protocols that the foreign product adheres to; and source code, if available).

**(ii) Submission requirements.** For exports occurring between January 1 and June 30, a report is due no later than August 1 of that year. For exports occurring between July 1 and December 31, a report is due no later than February 1 the following year. These reports must be provided in electronic form. Recommended file formats for electronic submission include spreadsheets, tabular text or structured text. Exporters may request other reporting arrangements with BIS to better reflect their business models. Reports may be sent electronically to BIS at [crypt@bis.doc.gov](mailto:crypt@bis.doc.gov) and to the ENC Encryption Request Coordinator at [enc@nsa.gov](mailto:enc@nsa.gov), or disks and CDs containing the reports may be sent to the following addresses:

**(A)** Department of Commerce, Bureau of Industry and Security, Office of National Security and Technology Transfer Controls, 14th Street and Pennsylvania Ave., NW, Room 2705, Washington, DC 20230, Attn: Encryption Reports, and

**(B)** Attn: ENC Encryption Request Coordinator, 9800 Savage Road, Suite 6940, Ft. Meade, MD 20755-6000.

**(iii) Exclusions from reporting requirement.** Reporting is not required for the following items and transactions:

**(A)** [RESERVED]

**(B)** Encryption commodities or software with a symmetric key length not exceeding 64 bits;

(C) Encryption items exported (or reexported from Canada) via free and anonymous download;

(D) Encryption items from or to a U.S. bank, financial institution or its subsidiaries, affiliates, customers or contractors for banking or financial operations;

(E) [Reserved]

(F) Foreign products developed by bundling or compiling of source code.

**(2) Key length increases.** Reporting is required for commodities and software that, after having been classified and authorized for License Exception ENC in accordance with paragraphs (b)(2) or (b)(3) of this section, are modified only to upgrade the key length used for confidentiality or key exchange algorithms. Such items may be exported, reexported or transferred (in-country) under the previously authorized provision of License Exception ENC without a classification resubmission.

**(i) Information required.**

(A) A certification that no change to the encryption functionality has been made other than to upgrade the key length for confidentiality or key exchange algorithms.

(B) The original Commodity Classification Automated Tracking System (CCATS) authorization number issued by BIS and the date of issuance.

(C) The new key length.

**(ii) Submission requirements.**

(A) The report must be received by BIS and the ENC Encryption Request Coordinator before the export, reexport or transfer (in-country) of the upgraded product; and

(B) The report must be e-mailed to [crypt@bis.doc.gov](mailto:crypt@bis.doc.gov) and [enc@nsa.gov](mailto:enc@nsa.gov).

**(3) Self-classification reporting for certain encryption commodities, software and components.** This paragraph (e)(3) sets forth requirements for self-classification reporting to BIS and the ENC Encryption Request Coordinator (Ft. Meade, MD) of encryption commodities, software and components exported or reexported. This reporting requirement applies to commodities and software that meet the criteria of Note 3 to Category 5 - Part 2 of the Commerce Control List (“mass market” note) and are classified under ECCN 5A992.c or 5D992.c following self-classification, as well as to commodities and software that remain classified in ECCNs 5A002, 5B002 or 5D002 following self-classification.

**(i) When to report.** Your self-classification report for applicable encryption commodities, software and components exported or reexported during a calendar year (January 1 through December 31) must be received by BIS and the ENC Encryption Request Coordinator no later than February 1 the following year.

**(ii) How to report.** Encryption self-classification reports must be sent to BIS and the ENC Encryption Request Coordinator via e-mail or regular mail. In your submission, specify the timeframe that your report spans and identify points of contact to whom questions or other inquiries pertaining to the report should be directed. Follow these instructions for your submissions:

**(A) Submissions via e-mail.** Submit your encryption self-classification report electronically to BIS at [crypt-supp8@bis.doc.gov](mailto:crypt-supp8@bis.doc.gov) and to the ENC Encryption Request Coordinator at [enc@nsa.gov](mailto:enc@nsa.gov), as an attachment to an e-mail. Identify your e-mail with subject “self-classification report.”

**(B) Submissions on disks and CDs.** The self-classification report may be sent to the following addresses, in lieu of e-mail:

(1) Department of Commerce, Bureau of Industry and Security, Office of National Security and Technology Transfer Controls, 14th Street and Pennsylvania Ave., NW, Room 2099B, Washington, DC 20230, Attn: Encryption Reports, and

(2) Attn: ENC Encryption Request Coordinator, 9800 Savage Road, Suite 6940, Ft. Meade, MD 20755-6000.

(iii) **Information to report.** Your encryption self-classification report must include the information described in paragraph (a) of Supplement No. 8 to part 742 for each applicable encryption commodity, software and component made eligible for export or reexport under § 740.17(b)(1) of the EAR. Each product must be included in a report only one time. However, if no new products are made eligible for export or reexport during a calendar year, you must send an e-mail to the addresses listed in paragraph (e)(3)(ii)(A) of this section stating that nothing has changed since the previous report.

(iv) **File format requirements.** The information described in paragraph (a) of Supplement No. 8 to part 742 must be provided to BIS and the ENC Encryption Request Coordinator in tabular or spreadsheet form, as an electronic file in comma separated values format (.csv) adhering to the specifications set forth in paragraph (b) of Supplement No. 8 to part 742.

## **§ 740.18 AGRICULTURAL COMMODITIES (\*\*AGR)**

### **(a) Eligibility requirements**

License Exception AGR permits the export of agricultural commodities to Cuba, as well as the reexport of U.S. origin agricultural commodities to Cuba, provided your transaction meets *all* of the following criteria:

(1) The commodity meets the definition of “agricultural commodities” in part 772 of the EAR;

(2) The commodity is EAR99. You must have an official commodity classification of EAR99 from BIS for fertilizers, western red cedar and live horses before you submit a notification under this license exception. See §748.3 of the EAR for information on how to submit a commodity classification request;

(3) The export or reexport is made pursuant to a written contract, except for donations and commercial samples which are not subject to this contract requirement;

(4) The export or reexport is made within 12 months of the signing of the contract or within 12 months of notification that no objections were raised (if no contract is required). In the case of multiple partial shipments, all such shipments must be made within the 12 months of the signing of the contract or within 12 months of notification that no objections were raised (if no contract is required); and

(5) You notify BIS prior to exporting or reexporting according to the procedures set forth in paragraph (c) of this section. If you intend to engage in multiple shipments during the one-year period after the signing of the contract, you need only notify BIS prior to the first shipment.

### **(b) Restrictions**

(1) No export or reexport to any individual or entity designated as a Specially Designated Terrorist or Foreign Terrorist Organization may be made under License Exception AGR (see part 744 of the EAR).

(2) No export or reexport to or for use in biological, chemical, nuclear warfare or missile proliferation activities may be made under License Exception AGR (see part 744 of the EAR).

(3) No U.S.-owned or controlled foreign firm may export from abroad to Cuba a foreign produced agricultural commodity containing more than 25% U.S.-origin content. Such U.S.-

owned or controlled foreign firms require a specific license from BIS as well as the Department of the Treasury's Office of Foreign Assets Control (OFAC). Transactions not subject to the EAR (under 25% U.S.-origin content) require a license from OFAC.

**(c) Prior notification**

**(1) General requirement.** You must notify BIS prior to any export or reexport (or prior to the first of multiple shipments) under License Exception AGR.

**(2) Procedures.** You must provide prior notification of exports and reexports under License Exception AGR by submitting a completed application in accordance with § 748.1 of the EAR. The following blocks must be completed, as appropriate: Blocks 1, 2, 3, 4, 5 (by marking box 5 "Other"), 14, 16, 17, 18, 19, 21, 22 (a), (e), (f), (g), (h), (i), (j), 23, and 25 according to the instructions described in Supplement No. 1 to part 748 of the EAR. If your commodity is fertilizer, western red cedar or live horses, you must confirm that BIS has previously classified your commodity as EAR99 by placing the Commodity Classification Automatic Tracking System (CCATS) number in block 22(d). BIS will not initiate the registration of an AGR notification unless the application is complete.

**(3) Action by BIS.** Within two business days of the registration of the AGR notification, BIS will refer the notification for interagency review, or if necessary return the notification without action (e.g., if the information provided is incomplete). Registration is defined as the point at which the notification is entered into BIS's electronic system.

**(4) Review by other departments or agencies.** The Departments of Defense, State, and other agencies, as appropriate, may review the AGR notification. BIS must receive department or agency objections within nine business days of the referral. Unlike the provisions described in §750.4(b) of the EAR, there are no provisions for stopping the processing time of the AGR

notification. If, within 11 business days after the date of registration, any reviewing agency provides a written objection that the recipient may promote international terrorism or the transaction raises nonproliferation concerns, you may not use License Exception AGR. In such cases, BIS will notify you that a license is required for the export or reexport. BIS will then process the AGR notification as a license application in accordance with the provisions described in §750.4 of the EAR, and the licensing policies set forth in the EAR. At this time, BIS may request additional information. When BIS confirms that no agency has raised an objection within eleven business days (as described in paragraph (c)(5) of this section), you may proceed with the transaction provided that you satisfy all other requirements of License Exception AGR, including the requirement to have a written contract prior to any shipment (unless a donation or commercial sample). (Note that the fact that you have been advised that no agency has objected to the transaction does not exempt you from other licensing requirements under the EAR, such as those based on knowledge of a prohibited end-use or end-user as referenced in general prohibition five (part 736 of the EAR) and set forth in part 744 of the EAR.)

**(5) Status of pending AGR notification requests.** You must contact BIS's System for Tracking Export License Applications (STELA) (<https://snapr.bis.doc.gov/stela>) for status of your pending AGR notification or verify the status in BIS's Simplified Network Applications Processing Redesign (SNAP-R) System. STELA will provide the date of registration of the AGR notification. If no department or agency objection is raised within 11 business days, STELA will, on the twelfth business day following the date of registration, provide you with confirmation of that fact. You may not proceed with your shipment unless you confirm with either STELA or SNAP-R that no objection has been raised. If an objection is raised, STELA and SNAP-R will indicate that a license is required. The AGR notification will then be processed as a license application. In addition,

BIS may provide notice of an objection by telephone, fax, courier service, or other means.

*(d) Donations*

(1) Donations of agricultural commodities are eligible for export and reexport to Cuba under License Exception AGR, provided the transaction meets the requirements and procedures of this license exception (except the written contract requirement).

(2) Donations of food items to non-governmental organizations (NGOs) and individuals in Cuba may also be eligible for License Exception GFT. See §740.12 for eligibility requirements of gift parcels and humanitarian donations under License Exception GFT.

**§ 740.19 CONSUMER  
COMMUNICATIONS DEVICES  
(\*CCD)**

*(a) Authorizations*

This section authorizes the export or reexport of commodities and software to Cuba subject to the requirements stated herein. This section does not authorize U.S.-owned or -controlled entities in third countries to engage in reexports of foreign produced commodities to Cuba for which no license would be issued by the Department of the Treasury pursuant to 31 CFR 515.559.

*(b) Eligible commodities and software*

Commodities and software in paragraphs (b)(1) through (17) of this section are eligible for export or reexport under this section to Cuba. Commodities in paragraph (b)(18) of this section are eligible for export or reexport under this section to Sudan only.

(1) Consumer computers designated EAR99 or classified under Export Control Classification Numbers (ECCN) 5A992.c or 4A994.b;

(2) Consumer disk drives and solid state storage equipment classified under ECCN 5A992 or designated EAR99;

(3) Input/output control units (other than industrial controllers designed for chemical processing) designated EAR99;

(4) Graphics accelerators and graphics coprocessors designated EAR99;

(5) Monitors classified under ECCN 5A992.c or designated EAR99;

(6) Printers classified under ECCN 5A992.c or designated EAR99;

(7) Modems classified under ECCNs 5A991.b.2, 5A991.b.4., or 5A992.c or designated EAR99;

(8) Network access controllers and communications channel controllers classified under ECCN 5A991.b.4 or designated EAR99;

(9) Keyboards, mice and similar devices designated EAR99;

(10) Mobile phones, including cellular and satellite telephones, personal digital assistants, and subscriber information module (SIM) cards and similar devices classified under ECCNs 5A992.c or 5A991 or designated EAR99;

(11) Memory devices classified under ECCN 5A992.c or designated EAR99;

(12) Consumer “information security” equipment, “software” (except “encryption source code”) and peripherals classified under ECCNs 5A992.c or 5D992.c or designated EAR99;

(13) Digital cameras and memory cards classified under ECCN 5A992 or designated EAR99;

(14) Television and radio receivers classified under ECCN 5A992 or designated EAR99;

(15) Recording devices classified under ECCN 5A992 or designated EAR99;

(16) Batteries, chargers, carrying cases and accessories for the equipment described in this paragraph that are designated EAR99;

(17) Consumer “software” (except “encryption source code”) classified under ECCNs 4D994, 5D991 or 5D992.c or designated EAR99 to be used for equipment described in paragraphs (b)(1) through (b)(16) of this section; and

*Note to paragraph (b): In this paragraph, the term “consumer” refers to items that are:*

1. Generally available to the public by being sold, without restriction, from stock at retail selling points by means of any of the following:

a. Over-the-counter transactions;

b. Mail order transactions;

c. Electronic transactions; or

d. Telephone call transactions; and

2. Designed for installation by the user without further substantial support by the supplier.

(c) *Eligible and ineligible end users*

(1) **Organizations.**

(i) This license exception may be used to export or reexport eligible commodities and software to and for the use of independent non-governmental organizations in Cuba.

(ii) The Cuban Government or the Cuban Communist Party and organizations they administer or control are not eligible end-users.

(iii) [Reserved]

(2) **Individuals.**

This License Exception may be used to export eligible commodities and software to and for the use of individuals other than the following:

(i) *Ineligible Cuban Government Officials.* Ministers and Vice-Ministers; members of the

Council of State; members of the Council of Ministers; members and employees of the National Assembly of People’s Power; members of any provincial assembly; local sector chiefs of the Committees for the Defense of the Revolution; Director Generals and sub-Director Generals and higher of all Cuban ministries and state agencies; employees of the Ministry of the Interior (MININT); employees of the Ministry of Defense (MINFAR); secretaries and first secretaries of the Confederation of Labor of Cuba (CTC) and its component unions; chief editors, editors and deputy editors of Cuban state-run media organizations and programs, including newspapers, television, and radio; or members and employees of the Supreme Court (Tribuno Supremo Nacional).

(ii) *Ineligible Cuban Communist Party Officials.* Members of the Politburo.

**§ 740.20 LICENSE EXCEPTION  
STRATEGIC TRADE  
AUTHORIZATION (\*\*STA)**

**(a) Introduction**

This section authorizes exports, reexports, and transfers (in-country), including releases within a single country of software source code and technology to foreign nationals, in lieu of a license that would otherwise be required pursuant to part 742 of the EAR.

*Note 1 to paragraph (a): License Exception STA authorizes transfers (in-country) but is only needed to authorize a transfer (in-country) when an EAR authorization is required. If a transfer (in-country) is not being made under STA, the requirements specified in this section do not apply (see Note 1 to paragraphs (b)(2) and (b)(3) of this section for requirements specific to staying within the scope of the original License Exception STA authorization and the concept of ‘completing the chain’ for purposes of “600 series” items originally authorized under License Exception STA).*

**(b) Requirements and limitations****(1) Requirements for using License Exception STA.**

**(i)** All of the reasons for control that impose a part 742 license requirement on the *export, reexport or in country transfer* must be addressed in at least one authorizing paragraph of this section.

**(ii)** The party using License Exception STA must comply with all of the requirements in paragraph (d) of this section.

**(2) Limitations on use of License Exception STA.** The prohibitions and limits of this paragraph (b)(2) apply notwithstanding the authorizations in paragraph (c) of this section.

**(i)** License Exception STA may not be used in lieu of any license requirement imposed by “Part 744—Control Policy: End User and End Use Based” or by “Part 746—Embargoes and other Special Controls” of the EAR.

**(ii)** License Exception STA may not be used for:

**(A)** Any item controlled in ECCNs 0A501.a, .b, .c, .d, or .e; 0A981; 0A982; 0A983; 0A503; 0E504; 0E982; or

**(B)** Shotguns with barrel length less than 18 inches controlled in 0A502.

**(iii)** License Exception STA may not be used for any item that is controlled for reason of encryption items (EI), short supply (SS), surreptitious listening (SL), missile technology (MT) or chemical weapons (CW).

**(iv)** License Exception STA may not be used for any item identified on the CCL as being subject to the exclusive export control jurisdiction of another agency, such as the Department of State, the Department of Energy, or the Nuclear Regulatory Commission.

**(v)** License Exception STA may not be used for any item controlled by ECCN 1C351.a, .b, .c, .d.11, .d.12 or .e, ECCNs 1C353, 1C354, 1E001 (i.e., for technology, as specified in ECCN 1E001, for items controlled by ECCN 1C351.a, .b, .c, .d.11, .d.12 or .e or ECCNs 1C353 or 1C354) or ECCN 1E351.

**(vi)** Toxins controlled by ECCN 1C351.d.1 through 1C351.d.10 and 1C351.d.13 through 1C351.d.19 are authorized under License Exception STA to destinations indicated in Country Group A:5 (See Supplement No.1 to this part), subject to the following limits. For purposes of this paragraph, all such toxins that are sent from one exporter, reexporter or transferor to a single end-user, on the same day, constitute one shipment.

**(A)** The maximum amount of any one toxin in any one shipment may not exceed 100 milligrams.

**(B)** No exporter, reexporter or transferor may send more than six shipments of any one toxin to any one end user in a single calendar year.

**(vii)** Commerce Control List Category 7 limitation on use of License Exception STA. License Exception STA may not be used for 7E004 “technology,” except for “technology” controlled under 7E004.a.7.

**(viii)** Commerce Control List Category 9 limitations on use of License Exception STA.

**(A)** License Exception STA may not be used for 9D001 or 9D002 “software” that is specially designed or modified for the “development” or “production” of:

**(I)** Components of engines controlled by ECCN 9A001 if such components incorporate any of the “technologies” controlled by 9E003.a.1, 9E003.a.2, 9E003.a.3, 9E003.a.4, 9E003.a.5, 9E003.c, 9E003.i (other than technology for fan or power turbines), 9E003.h; or

(2) Equipment controlled by 9B001.

(B) License Exception STA may not be used for 9D001 “software” that is specially designed or modified for the “development” of “technology” controlled by 9E003.a.1, 9E003.a.2, 9E003.a.3, 9E003.a.4, 9E003.a.5, 9E003.c, 9E003.i (other than technology for fan or power turbines) or 9E003.h.

(C) License Exception STA may not be used for 9D004.f or 9D004.g “software”.

(D) License Exception STA may not be used for 9E001 “technology” according to the General Technology Note for the “development” of 9A001.b engines or components of engines controlled by 9A001.b if such components incorporate:

(I) Any of the “technologies” controlled by 9E003.a.1, 9E003.a.2, 9E003.a.3, 9E003.a.4, 9E003.a.5, 9E003.c, 9E003.i (other than technology for fan or power turbines) or 9E003.h;

(2) Any of the 9D001 or 9D002 software in paragraphs (b)(2)(viii)(A) or (B) of this section.

(E) License Exception STA may not be used for 9E002 “technology” according to the General Technology Note for the “production” of components of engines controlled by 9A001.b if such components incorporate any of the “technologies” controlled by 9E003.a.1, 9E003.a.2, 9E003.a.3, 9E003.a.4, 9E003.a.5, 9E003.c, 9E003.i (other than technology for fan or power turbines) 9E003.h.

(F) License Exception STA may not be used for “technology” in 9E003.a.1, 9E003.a.2, 9E003.a.3, 9E003.a.4, 9E003.a.5, 9E003.c, 9E003.i (other than technology for fan or power turbines) 9E003.h.

(ix) [RESERVED]

(x) License Exception STA may not be used for items controlled by ECCNs 6A002; 6D002 (software “specially designed” for the “use” of commodities controlled under 6A002.b); 6D003.c; 6D991 (software “specially designed” for the “development,” “production,” or “use” of commodities controlled under 6A002 or 6A003); 6E001 (“technology” for the “development” of commodities controlled under ECCNs 6A002 or 6A003); or 6E002 “technology” (for the “production” of commodities controlled under ECCNs 6A002 or 6A003).

(xi) License Exception STA may not be used for any commodity controlled by ECCN 3A001.b.2 or b.3 (except those that are being exported or reexported for use in civil telecommunications applications), or any “technology” controlled by 3E001 for the “production” or “development” of commodities controlled by 3A001.b.2 or b.3.

600-series items must also comply with (c)(1) authorizing paragraph

**(3) Limitations on the Use of STA that are Specific to “600 series” Items.**

(i) License Exception STA may not be used for any “600 series” items identified in the relevant ECCN as not being eligible for STA.

(ii) License Exception STA may be used to export, reexport, and transfer (in-country) “600 series” items to persons, whether non-governmental or governmental, if they are in and, for natural persons, nationals of a country listed in Country Group A:5 (See Supplement No.1 to part 740 of the EAR) or the United States and if:

(A) The *ultimate* end user for such items is the armed forces, police, paramilitary, law enforcement, customs, correctional, fire, or a search and rescue agency of a government of one of the countries listed in Country Group A:5, or the United States Government;

(B) For the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing of an item in one of the countries listed in Country Group A:5 or the

United States that will be for one, or more, of the following purposes:

(1) Ultimately to be used by any such government agencies in one of the countries listed in Country Group A:5 or the United States Government; or

(2) Sent to a person in the United States and not for subsequent export under § 740.9(b)(1) (License Exception TMP for items moving in transit through the United States); or

(C) The United States Government has otherwise authorized the ultimate end use, the license or other authorization is in effect, and the consignee verifies in writing that such authorization exists and has provided the license or other approval identifier to the exporter, reexporter or transferor (as applicable).

(iii) License Exception STA may not be used to export, reexport, or transfer (in-country) end items described in ECCN 0A606.a, ECCN 8A609.a, ECCN 8A620.a or .b, or ECCN 9A610.a until after BIS has approved their export under STA under the procedures set out in § 740.20(g).

(iv) License Exception STA may not be used to export, reexport, or transfer (in-country) “600 series” items if they are “600 Series Major Defense Equipment” and the value of such items in the contract requiring their export exceeds \$25,000,000.

**Note 1 to paragraphs (b)(2) and (b)(3):** Any export, reexport, or transfer (in-country) originally authorized under License Exception STA must stay within the scope of the original authorization. For example, for “600 series” items authorized under License Exception STA, such items must be provided to an eligible ultimate end user, such as a Country Group A:5 military, to stay in compliance with the original authorization. This requirement for the “600 series” is referred to as ‘completing the chain,’ meaning regardless of how many times the “600 series” item is transferred (in-country) or

whether the “600 series” item is incorporated into higher level assemblies or other items, the “600 series” item must ultimately be provided to an eligible ultimate end user, or be otherwise authorized under the EAR. This applies

regardless of whether the “600 series” item has been incorporated into a foreign-made item that may no longer be “subject to the EAR.”

Because the other items eligible for authorization under License Exception STA (9x515 and other non-600 series ECCNs) do not include the “600 series” requirements specific to ultimate end user, this ‘completing the chain’ concept does not apply to 9x515 and other non-600 series ECCNs authorized under License Exception STA. However, the original export, reexport, or transfer (in-country) made under License Exception STA for 9x515 and other non-600 series ECCNs still must comply with the original authorization – meaning the terms and conditions of License Exception STA.

Except that its incorporation thereby renders the no-longer-subject-to-the-EAR item once again subject to the EAR.

### (c) Authorizing paragraphs

(1) **Multiple reasons for control.** Exports, reexports, and transfers (in-country) in which the only applicable reason(s) for control is (are) national security (NS); chemical or biological weapons (CB); nuclear nonproliferation (NP); regional stability (RS); crime control (CC), and/or significant items (SI) are authorized for destinations in or nationals of Country Group A:5 (See Supplement No.1 to part 740 of the EAR).

**Note to paragraph (c)(1).** License Exception STA under § 740.20(c)(1) may be used to authorize the export, reexport, or transfer (in-country) of “600 series” items only if the purchaser, intermediate consignee, ultimate consignee, and end user have previously been approved on a license or other approval, i.e., Directorate of Defense Trade Controls (DDTC) Manufacturing License Agreement (MLA), Technical Assistance Agreement (TAA), Warehouse Distribution Agreement (WDA), or General Correspondence approval (GC) issued by BIS or DDTC at the U.S. Department of State.

§740.20(c)(2) Cannot "be used for any item in 9A610" if to an A:6 country. See 9A610. But this is also true for all 600-series ECCNs.

(c)(2) is limited to Country Group A:6

**(2) Controls of lesser sensitivity.** Exports, reexports and transfers (in-country) in which the only applicable reason for control is national security (NS) and the item being exported, reexported or transferred (in-country) is not designated in the STA paragraph in the License Exception section of the ECCN that lists the item are authorized for destinations in or nationals of Country Group A:6 (See Supplement No.1 to this part).

**(d) Conditions**

**(1) Requirement to furnish Export Control Classification Number.**

**(i)** The exporter must furnish to the consignee the ECCN of each item to be exported pursuant to this section. Once furnished to a particular consignee, the ECCN that applies to any item need not be refurnished to that consignee at the time the same exporter makes an additional export of the same item, if the information remains accurate at the time of the additional export.

**(ii)** A reexporter or transferor must furnish to subsequent consignees the ECCN, provided by the exporter or a prior reexporter or transferor, of each item to be reexported or transferred (in-country) pursuant to this section. Once furnished to a particular consignee, the ECCN that applies to any item need not be refurnished to that consignee at the time the same reexporter or transferor makes an additional reexport or transfer (in-country) of the same item, if the information remains accurate at the time of the additional reexport or transfer (in-country).

**(iii)** For purposes of determining reexport or transfer eligibility under this section, the consignee may rely on the ECCN provided to it by the party required to furnish the ECCN under paragraph (d)(1)(i) or (ii) of this section unless the consignee knows that the ECCN is incorrect or has changed. The word “knows” has the same meaning as the term “knowledge” in § 772.1 of

the EAR.

**(2) Prior Consignee Statement.** The requirements in this paragraph (d)(2) apply to each party using License Exception STA to export, reexport, or transfer (in-country), including reexporters and transferors of items previously received under License Exception STA. The exporter, reexporter, or transferor must obtain the following statement in writing from its consignee(s) prior to exporting, reexporting, or transferring (in-country) the item and must retain the statement in accordance with part 762 of the EAR. One statement may be used for multiple exports, reexports, or transfers (in-country) of the same items between the same parties so long as the party names, the description(s) of the item(s) and the ECCNs are correct. The exporter, reexporter, or transferor must maintain a log or other record (such as documents created in the ordinary course of business) that identifies each shipment made pursuant to this section and the specific consignee statement that is associated with each shipment. For purposes of this paragraph (d)(2), a log or other record is not required for intangible (*i.e.*, electronic or in an otherwise intangible form) exports, reexports, or transfers (in-country) made under License Exception STA, but an exporter, reexporter, or transferor is required, prior to making any export, reexport, or transfer (in-country), to ensure that a prior consignee statement has been obtained pursuant to the requirements of this paragraph (d)(2). (*See* Note 1 to paragraph (d)(3) of this section for additional guidance on intangible exports, reexports, and transfers (in-country), including best practices). Paragraphs (d)(2)(i) through (vi) of this section are required for all transactions. In addition, paragraph (d)(2)(vii) is required for all transactions in “600 series” items and paragraph (viii) of this section is required for transactions in “600 series” items if the consignee is not the government of a country listed in Country Group A:5 (See supplement no. 1 to part 740 of the EAR). Paragraph (d)(2)(viii) is also required for transactions including 9x515 items.

**[INSERT NAME(S) OF CONSIGNEE(S)]:**

**(i)** Is aware that [INSERT GENERAL DESCRIPTION AND APPLICABLE ECCN(S) OF ITEMS TO BE SHIPPED (*e.g.*, aircraft parts and components classified under ECCN 9A610)] will be shipped pursuant to License Exception Strategic Trade Authorization (STA) in § 740.20 of the United States Export Administration Regulations (15 CFR 740.20);

**(ii)** Has been informed of the ECCN(s) noted above by [INSERT NAME OF EXPORTER, REEXPORTER OR TRANSFEROR];

**(iii)** Understands that items shipped pursuant to License Exception STA may not subsequently be reexported pursuant to paragraphs (a) or (b) of License Exception APR (15 CFR 740.16(a) or (b));

**(iv)** Agrees to obtain a prior consignee statement when using License Exception STA for any reexport or transfer (in-country) of items previously received under License Exception STA;

**(v)** Agrees not to export, reexport, or transfer these items to any destination, use or user prohibited by the United States' Export Administration Regulations;

**(vi)** Agrees to provide copies of this document and all other export, reexport, or transfer records (*i.e.*, the documents described in 15 CFR part 762) relevant to the items referenced in this statement to the U.S. Government as set forth in 15 CFR 762.7;

**(vii)** Understands that License Exception STA may be used to export, reexport, and transfer (in-country) "600 series" items to persons, whether non-governmental or governmental, only if they are in and, for natural persons, nationals of a country listed in Country Group A:5 (See supplement no. 1 to part 740 of the EAR) or the United States and the ultimate end user for such items is the armed forces, police, paramilitary, law enforcement, customs, correctional, fire, or a

search and rescue agency of a government of one of the countries listed in Country Group A:5 or the United States Government;

**(B)** For the "development," "production," operation, installation, maintenance, repair, overhaul, or refurbishing of an item in one of the countries listed in Country Group A:5 or the United States that will be for one, or more, of the following purposes:

**(1)** Ultimately to be used by any such government agencies in one of the countries listed in Country Group A:5 or the United States Government; or

**(2)** Sent to a person in the United States and not for subsequent export under § 740.9(b)(1) (License Exception TMP for items moving in transit through the United States); or

**(C)** The United States Government has otherwise authorized the ultimate end use, the license or other authorization is in effect, and the consignee verifies in writing that such authorization exists and has provided the license or other approval identifier to the exporter, reexporter or transferor (as applicable).

**(viii)** Agrees to permit a U.S. Government end-use check with respect to the items.

**[INSERT NAME(S) AND TITLE(S) OF PERSON(S) SIGNING THIS DOCUMENT, AND DATE(S) DOCUMENT IS SIGNED].**

**Note 1 to paragraph (d)(2):** When multiple consignees who form a network engaged in a production process (or other type of collaborative activity, such as joint development) will be receiving items under License Exception STA, a single prior consignee statement for multiple consignees may be used for any item eligible for export, reexport, or transfer (in-country) under License Exception STA, provided all of the applicable requirements of License Exception STA are met, including those specified in paragraph (d)(2).

**Note 2 to paragraph (d)(2):** *Country Group A:5 and A:6 government consignees are not required to sign or provide a prior consignee statement.*

**(3) Notification to consignee of STA shipment.**

With each shipment under License Exception STA, the exporter (or reexporter or transferor as applicable), must notify the consignee in writing that the shipment is made pursuant to License Exception STA. The notice must either specify which items are subject to License Exception STA or state that the entire shipment is made pursuant to License Exception STA. The notice must clearly identify the shipment to which it applies. The written notice may be conveyed by paper documents or by electronic methods such as facsimile or email.

*Note 1 to paragraph (d)(3): While the exporter, reexporter, and transferor must furnish the applicable ECCN and obtain a consignee statement prior to export, reexport or transfer (in-country) made under License Exception STA in accordance with the requirements of paragraphs (d)(1) and (d)(2) of this section, intangible (i.e., electronic or in an otherwise intangible form) exports, reexports, and transfers (in-country) made under License Exception STA are not subject to the notification requirements of paragraph (d)(3) of this section. However, any export, reexport, or transfer (in-country) made under STA must stay within the scope of the original authorization.*

**(4) Requirements for releases of software source code or technology within a single country.**

Instead of the requirement of paragraphs (d)(1) through (d)(3) of this section, the party releasing software source code or technology to a national of a country listed in Country Group A:5 or A:6 (See Supplement No.1 to this part) must notify the recipient of the software source code or technology of the restrictions upon further release of the software source code or technology. The notification must either expressly inform the recipient that the EAR impose limits on further disclosure or must be in the form of an agreement in which the

recipient agrees to limits on further disclosure. Any such agreement must impose limits that are equivalent to or more restrictive than all limits on further disclosure that are imposed by the EAR. The notification must be in writing and a copy of it must be retained by the party making the release and the recipient of the release. The notification may be in a separate document or included in a document such as a contract or a nondisclosure agreement. If the document has an expiration date, it must provide that the restrictions on disclosure do not expire.

**(e) Limitation on subsequent exports, reexports or in country transfers.**

If a commodity has been exported, reexported or transferred in-country pursuant to this section, it may not be subsequently exported, reexported or transferred in-country pursuant to paragraphs (a) or (b) of License Exception APR (§ 740.16(a) or (b) of the EAR). Paragraphs (a) and (b) of License Exception APR do not authorize exports of software or technology.

**(f) Applicability of Wassenaar Arrangement reporting requirements.**

See § 743.1 of the EAR for special reporting requirements that apply to some exports made pursuant to this section.

**(g) License Exception STA eligibility requests for 9x515 and “600 series” items.**

**(1) Applicability.** Any person may request License Exception STA eligibility for end items described in ECCN 0A606.a, ECCN 8A609.a, ECCNs 8A620.a or .b, “spacecraft” in ECCNs 9A515.a.1, .a.2, .a.3, .a.4, or .g, 9A610.a, or technology ECCNs 9E515.b, .d, .e, or .f.

**(2) Required information and manner of requests.** Requests for License Exception STA eligibility must be made via the BIS Simplified Network Application Process –Redesign (SNAP-R) system unless BIS authorizes submission via the paper BIS-748-P Multipurpose Application

form. For situations in which BIS 748-P submissions may be authorized, see § 748.1(d)(1). For required information specific to License Exception STA eligibility requests, see Supplement No 1 to part 748, Blocks 5 and 6 and Supplement No. 2 to part 748, paragraph (w). In SNAP-R the work type for these applications is “Export.”

**(3) Timeline for USG review.** The Departments of Commerce, Defense and State will review License Exception STA eligibility requests in accordance with the timelines set forth in Executive Order 12981 and § 750.4. If the License Exception STA request is approved, the process outlined in paragraph (g)(5)(i) of this section is followed.

**(4) Review criteria.** The Departments of Commerce, Defense and State will determine whether the “end item” is eligible for this license exception based on an assessment of whether it provides a critical military or intelligence advantage to the United States or is otherwise available in countries that are not regime partners or close allies. If the “end item” does not provide a critical military or intelligence advantage to the United States or is otherwise available in countries that are not regime partners or close allies, the Departments will determine that License Exception STA is available unless an overarching foreign policy rationale for restricting STA availability can be articulated. Consensus among the Departments is required in order for an “end item” to be eligible for License Exception STA. Such determinations are made by the departments’ representatives to the Advisory Committee on Export Policy (ACEP), or their designees.

**(5) Disposition of License Exception STA eligibility requests.**

**(i) Approvals.** If the request for STA eligibility is approved, the applicant will receive notification from BIS authorizing the use of the additional License Exception STA for the specific end items requested. This will be in the form of a notice generated by SNAP-R to the

applicant. Applicants who receive an approval notification may share it with companies affiliated with them, such as a branch or distributor, and may also take steps to make it public (e.g., on their website) if the applicants so wish. In addition, BIS will add a description of the approved end item in the relevant ECCN and in an online table posted on the BIS website, which removes the restriction on the use of License Exception STA for the end item identified in the approved request. BIS will publish, as needed, a final rule adding this license exception eligibility to the EAR for that ECCN entry or end item.

**(ii) Denials.** If the STA eligibility request is not approved, the applicant will receive written notification from BIS. This will be in the form of a notice generated by SNAP-R to the applicant. Applicants may re-submit STA eligibility requests at any time.

**§ 740.21 SUPPORT FOR THE CUBAN PEOPLE (\*\*SCP)**

**(a) Introduction**

This License Exception authorizes certain exports and reexports to Cuba that are intended to support the Cuban people by improving their living conditions and supporting independent economic activity; strengthening civil society in Cuba; and improving the free flow of information to, from, and among the Cuban people.

**(b) Improving living conditions and supporting independent economic activity**

This paragraph authorizes the export or reexport to Cuba of items designated as EAR99, or controlled on the Commerce Control List (CCL) (Supplement No. 1 to Part 774 of the EAR) only for anti-terrorism reasons (*i.e.*, anti-terrorism must be the only reason for control that applies to the item as set forth in the Export Control Classification Number (ECCN) that controls the item). If any other reason for control applies to the item, it is not authorized for export or reexport

by this paragraph. The item must be within one or more of the following categories:

(1) Items for use by the Cuban private sector for private sector economic activities, except for items that would be used to:

(i) Primarily generate revenue for the state; or

(ii) Contribute to the operation of the state, including through the construction or renovation of state-owned buildings.

(2) Items sold directly to individuals in Cuba for their personal use or their immediate family's personal use, other than officials identified in paragraphs (d)(4)(ii) or (iii) of this section.;

**(c) *Strengthening civil society***

This paragraph authorizes the export or reexport to Cuba of certain items for use in specified activities that can strengthen civil society. The items authorized pursuant this paragraph are limited to those designated as EAR99 or controlled only for anti-terrorism reasons on the CCL (*i.e.*, anti-terrorism must be the only reason for control that applies to the item as set forth in the ECCN that controls the item). If any other reason for control applies to the item, it is not authorized for export or reexport by this paragraph. The export or reexport must be within one or more of the following categories:

(1) The export or reexport to Cuba of *donated* items for use in scientific, archaeological, cultural, ecological, educational, historic preservation, or sporting activities. The items may not be donated to organizations administered or controlled by the Cuban government or communist party, and must support eligible activities independent of the Cuban government and communist party. The activities may not relate to the “development,” “production,” “use,” operation, installation, maintenance, repair, overhaul or refurbishing of any item enumerated

or otherwise described on the United States Munitions List (22 CFR part 121) or of any item enumerated or otherwise described on the Commerce Control List (supplement no. 1 to part 774 of the EAR) unless the only reason for control that applies to that item, as set forth in the ECCN that controls that item, is anti-terrorism.

(2) The *temporary* export or reexport to Cuba of items by travelers to Cuba for the travelers' use in scientific, archeological, cultural, ecological, educational, historic preservation, or sporting activities, or professional meetings or research. The following requirements apply:

(i) The research must be directly related to traveler's profession, professional background or area of expertise, including area of graduate-level full-time study.

(ii) The activities or research may not relate to the “development,” “production,” “use,” operation, installation, maintenance, repair, overhaul or refurbishing of any item enumerated or otherwise described on the United States Munitions List (22 CFR Part 121) or of any item enumerated or otherwise described on the Commerce Control List (Supplement No. 1 to Part 774 of the EAR) unless the only reason for control that applies to that item as set forth in the ECCN that controls that item is anti-terrorism.

(iii) The items must remain under the traveler's “effective control” while in Cuba.

(iv) Items authorized for temporary export by this paragraph must be returned to the United States within two years of the date of export from the United States unless:

(A) The items are consumed in Cuba; or

(B) The exporter applies for and receives a license from BIS, prior to the expiration of the two year period, authorizing the items to remain in Cuba for longer than two years.

(v) Paragraph (c)(2) does not authorize exports if, at the time of the export, the exporter

has “knowledge” that the item exported will remain in Cuba for more than two years.

(3) The export or reexport to Cuba of items to human rights organizations, individuals or non-governmental organizations that promote independent activity intended to strengthen civil society.

**(d) Improving communications**

This paragraph authorizes the export or reexport to Cuba of certain items intended to improve the free flow of information to, from, and among the Cuban people. The items authorized pursuant to this paragraph are limited to those designated as EAR99 or controlled only for anti-terrorism reasons on the CCL (*i.e.*, anti-terrorism must be the only reason for control that applies to the item as set forth in the ECCN that controls the item). If any other reason for control applies to the item, it is not authorized for export or reexport by this paragraph. The export or reexport must be within one or more of the following categories:

(1) The export or reexport to Cuba of items for the creation and upgrade of telecommunications *infrastructure* to improve the free flow of information to, from, and among the Cuban people, including infrastructure that enables access to the Internet and use of Internet services. For infrastructure items that would be used to connect specific end users, those items may be used to connect individual Cubans or the Cuban private sector only (*e.g.*, not Cuban government ministries or state-owned enterprises).

(2) The export or reexport to Cuba of items for use by news media personnel engaged in the gathering and dissemination of news to the general public and who are:

(i) Regularly employed as journalists by a news reporting organization;

(ii) Regularly employed as supporting broadcast or technical personnel;

(iii) Freelance journalists with a record of previous journalistic experience working on a freelance journalistic project; or

(iv) Broadcast or technical personnel with a record of previous broadcast or technical experience who are supporting a freelance journalist working on a freelance journalistic project.

(3) The export or reexport to Cuba of items for use by U.S. news bureaus engaged in the gathering and dissemination of news to the general public.

(4) The export or reexport to Cuba of commodities or software that will be used by individuals or private sector entities to develop software that will improve the free flow of information or that will support the private sector activities described in paragraph (b) of this section. The following are ineligible end-users:

(i) The Cuban Government or the Cuban Communist Party and organizations they administer or control;

(ii) Ministers and Vice-Ministers; members of the Council of State; members of the Council of Ministers; members and employees of the National Assembly of People’s Power; members of any provincial assembly; local sector chiefs of the Committees for the Defense of the Revolution; Director Generals and sub-Director Generals and higher of all Cuban ministries and state agencies; employees of the Ministry of the Interior (MININT); employees of the Ministry of Defense (MINFAR); secretaries and first secretaries of the Confederation of Labor of Cuba (CTC) and its component unions; chief editors, editors and deputy editors of Cuban state-run media organizations and programs, including newspapers, television, and radio; or members and employees of the Supreme Court (Tribuno Supremo Nacional); and

(iii) Members of the Politburo.

**(e) Facilitating engagement, communications, and commerce**

This paragraph (e) authorizes the export or reexport to Cuba of certain items intended to facilitate engagement between the U.S. and Cuban people; the free flow of information to, from, and among the Cuban people; and independent economic activity in Cuba. The export or reexport must be within one or more of the following categories:

(1) The export or reexport to Cuba of items for use by persons authorized by the Department of the Treasury, Office of Foreign Assets Control (OFAC) to establish and maintain a physical or business presence in Cuba pursuant to 31 CFR 515.573 or pursuant to a specific license issued by OFAC. The items authorized pursuant to this paragraph (e)(1) are limited to those designated as EAR99 (*i.e.*, items subject to the EAR but not specified in any ECCN) or controlled on the CCL only for anti-terrorism reasons.

(2) [Reserved]

*Note to paragraph (e).* Any resulting payments associated with establishing or maintaining a physical or business presence in Cuba, such as lease payments, are permitted only to the extent authorized by 31 CFR 515.573 or a specific license issued by OFAC.

**(f) Temporary exports and reexports to Cuba**

This paragraph (f) authorizes the export or reexport to Cuba, for periods not exceeding one year, of certain items designated as EAR99 or controlled only for anti-terrorism reasons on the CCL (*i.e.*, anti-terrorism must be the only reason for control that applies to the item as set forth in the ECCN that controls the item). If any other reason for control applies to the item, it is not authorized for export or reexport by this paragraph. This paragraph does not authorize any transaction if the exporter or reexporter has “knowledge” that the item is intended to remain in Cuba for more than one year; if an order to acquire the item, such as a purchase order, has

been received before shipment; or when the item is for subsequent lease or rental. The export or reexport must be within one or more of the following categories.

**(1) Tools of trade – commodities and software.**

Commodities or software to be used by the exporter or reexporter or its employees for the installation, servicing or repair of items that are subject to the EAR and that have been exported or reexported to Cuba under a license or license exception, or foreign-origin items that are not subject to the EAR that are owned and used exclusively by private sector entities in Cuba, may be exported or reexported under this paragraph (f). The commodities or software must remain under the “effective control” of the exporter or reexporter or its employees. Examples of security precautions to help prevent unauthorized access include the following:

(i) Use of secure connections, such as Virtual Private Network connections, when accessing IT networks for activities that involve the transmission and use of the software authorized under this license exception;

(ii) Use of password systems on electronic devices that store the software authorized under this license exception; and

(iii) Use of personal firewalls on electronic devices that store the software authorized under this license exception.

**(2) Tools of trade – technology.** Technology to be used by a ‘U.S. person’ exporter or reexporter or its employees who are traveling to or on temporary assignment in Cuba for the installation, servicing or repair of items that are subject to the EAR and that have been exported or reexported to Cuba under a license or license exception, or foreign-origin items that are not subject to the EAR that are owned and used exclusively by private sector entities in Cuba, may be exported or reexported under this paragraph (f). For purposes of this paragraph (f)(2), a ‘U.S. person’ is: an individual who is a citizen of the United States, an individual who is

“lawfully admitted for permanent residence” in the United States as defined by 8 U.S.C. 1101(a)(20) or an individual who is a protected individual as defined by 8 U.S.C. 1324b(a)(3). ‘U.S. person’ also means any juridical person organized under the laws of the United States, or any jurisdiction within the United States (*e.g.*, corporation, business association, partnership, society, trust, or any other entity, organization or group that is authorized to do business in the United States). If the employee who will use the technology is not a ‘U.S. person,’ the release of that technology to that employee must either not require a license or be authorized by a license or a license exception other than this section before it may be exported or reexported to that employee under this paragraph. The exporter or reexporter and the recipient of the technology must take security precautions to protect against unauthorized release of the technology while the technology is being shipped or transmitted and used overseas. Examples of security precautions to help prevent unauthorized access include the following:

(i) Use of secure connections, such as Virtual Private Network connections, when accessing IT networks for e-mail and other business activities that involve the transmission and use of the technology authorized under this license exception;

(ii) Use of password systems on electronic devices that will store the technology authorized under this license exception; and

(iii) Use of personal firewalls on electronic devices that will store the technology authorized under this license exception.

**(3) Kits of replacement “parts” or “components.”** Kits consisting of replacement “parts” or “components” for items that have been exported or reexported to Cuba under a license or license exception, or foreign-origin items that are not subject to the EAR that are owned and used exclusively by private sector entities in Cuba, may be exported or reexported under this paragraph (f)(3) provided:

(i) The kits remain under “effective control” of the exporter or reexporter or its employees; and

(ii) All parts and components in the kit are returned, except that one-for-one replacements may be made in accordance with the requirements of License Exception Servicing and Replacement of Parts and Equipment (RPL) and the defective parts and components returned (see Parts, Components, Accessories and Attachments in § 740.10(a)).

**(4) Exhibition and demonstration.** Commodities or software for exhibition or demonstration at trade shows, or to any entity that would be eligible to receive the commodities or software under paragraphs (a) through (e) of this section, may be exported or reexported under this paragraph (f). The commodities or software must remain under the “effective control” of the exporter or reexporter or its private sector agent, may not be exhibited or demonstrated at any one location for more than 30 days and may not be used for more than the minimum extent required for effective exhibition or demonstration.

**(5) Containers.** Containers that would require a license for export or reexport to Cuba but that are necessary for shipment of commodities being exported to Cuba under a license or license exception may be exported or reexported to Cuba. However, this paragraph (f) does not authorize the export of the container’s contents, which, if not exempt from licensing, must be separately authorized for export or reexport under either a license or a license exception.

**Green highlighting = D:1 Countries (cf. L.E. CIV, for example)**

Commerce Control List Overview and the Country Chart

**Supplement No. 1 to Part 738 page 1**

**Commerce Country Chart**

**Reason for Control**

Countries	Chemical & Biological Weapons			Nuclear Nonproliferation		National Security		Missile Tech	Regional Stability		Firearms Convention	Crime Control			Anti-Terrorism	
	CB 1	CB 2	CB 3	NP 1	NP 2	NS 1	NS 2	MT 1	RS 1	RS 2	FC 1	CC 1	CC 2	CC 3	AT 1	AT 2
	Afghanistan	X	X	X	X		X	X	X	X	X		X		X	
Albania <sup>2,3</sup>	X	X		X		X	X	X	X	X						
Algeria	X	X		X		X	X	X	X	X		X		X		
Andorra	X	X		X		X	X	X	X	X		X		X		
Angola	X	X		X		X	X	X	X	X		X		X		
Antigua & Barbuda	X	X		X		X	X	X	X	X	X	X		X		
Argentina	X					X		X	X		X	X		X		
<b>Armenia</b>	X	X	X	X		X	X	X	X	X		X	X			
Aruba	X	X		X		X	X	X	X	X		X		X		
Australia <sup>3</sup>	X					X		X	X							
Austria <sup>3,4</sup>	X					X		X	X			X		X		
<b>Azerbaijan</b>	X	X	X	X		X	X	X	X	X		X	X			

### Commerce Country Chart

#### Reason for Control

Countries	Chemical & Biological Weapons			Nuclear Nonproliferation		National Security		Missile Tech	Regional Stability		Firearms Convention	Crime Control			Anti-Terrorism	
	CB 1	CB 2	CB 3	NP 1	NP 2	NS 1	NS 2	MT 1	RS 1	RS 2	FC 1	CC 1	CC 2	CC 3	AT 1	AT 2
	Bahamas, The	X	X		X		X	X	X	X	X	X	X		X	
Bahrain	X	X	X	X		X	X	X	X	X		X		X		
Bangladesh	X	X		X		X	X	X	X	X		X		X		
Barbados	X	X		X		X	X	X	X	X	X	X		X		
<b>Belarus</b>	X	X	X			X	X	X	X	X		X	X			
Belgium <sup>3</sup>	X					X		X	X							
Belize	X	X		X		X	X	X	X	X	X	X		X		
Benin	X	X		X		X	X	X	X	X		X		X		
Bhutan	X	X		X		X	X	X	X	X		X		X		
Bolivia	X	X		X		X	X	X	X	X	X	X		X		
Bosnia & Herzegovina	X	X		X		X	X	X	X	X		X		X		
Botswana	X	X		X		X	X	X	X	X		X		X		
Brazil	X	X				X	X	X	X	X	X	X		X		

### Commerce Country Chart

#### Reason for Control

Countries	Chemical & Biological Weapons			Nuclear Nonproliferation		National Security		Missile Tech	Regional Stability		Firearms Convention	Crime Control			Anti-Terrorism	
	CB 1	CB 2	CB 3	NP 1	NP 2	NS 1	NS 2	MT 1	RS 1	RS 2	FC 1	CC 1	CC 2	CC 3	AT 1	AT 2
	Brunei	X	X		X		X	X	X	X	X		X		X	
Bulgaria <sup>3</sup>	X					X		X	X							
Burkina Faso	X	X		X		X	X	X	X	X		X		X		
Burma	X	X	X	X		X	X	X	X	X		X		X		
Burundi	X	X		X		X	X	X	X	X		X		X		
Cambodia	X	X		X		X	X	X	X	X		X	X			
Cameroon	X	X		X		X	X	X	X	X		X		X		
Canada	X										X					
Cape Verde	X	X		X		X	X	X	X	X		X		X		
Central African Republic	X	X		X		X	X	X	X	X		X		X		
Chad	X	X		X		X	X	X	X	X		X		X		
Chile	X	X		X		X	X	X	X	X	X	X		X		
China	X	X	X	X		X	X	X	X	X		X		X		

### Commerce Country Chart

#### Reason for Control

Countries	Chemical & Biological Weapons			Nuclear Nonproliferation		National Security		Missile Tech	Regional Stability		Firearms Convention	Crime Control			Anti-Terrorism	
	CB 1	CB 2	CB 3	NP 1	NP 2	NS 1	NS 2	MT 1	RS 1	RS 2	FC 1	CC 1	CC 2	CC 3	AT 1	AT 2
	Colombia	X	X		X		X	X	X	X	X	X	X		X	
Comoros	X	X		X		X	X	X	X	X		X		X		
Congo (Democratic Republic of the) <sup>1</sup>	X	X		X		X	X	X	X	X		X		X		
Congo (Republic of the)	X	X		X		X	X	X	X	X		X		X		
Costa Rica	X	X		X		X	X	X	X	X	X	X		X		
Cote d'Ivoire	X	X		X		X	X	X	X	X		X		X		
Croatia <sup>3</sup>	X					X		X	X							
Cuba	See part 746 of the EAR to determine whether a license is required in order to export or reexport to this destination.															
Curaçao	X	X		X		X	X	X	X	X		X		X		
Cyprus <sup>2,3,4</sup>	X					X	X	X	X	X		X		X		
Czech Republic <sup>3</sup>	X					X		X	X							
Denmark <sup>3</sup>	X					X		X	X							
Djibouti	X	X		X		X	X	X	X	X		X		X		

### Commerce Country Chart

#### Reason for Control

Countries	Chemical & Biological Weapons			Nuclear Nonproliferation		National Security		Missile Tech	Regional Stability		Firearms Convention	Crime Control			Anti-Terrorism	
	CB 1	CB 2	CB 3	NP 1	NP 2	NS 1	NS 2	MT 1	RS 1	RS 2	FC 1	CC 1	CC 2	CC 3	AT 1	AT 2
	Dominica	X	X		X		X	X	X	X	X	X	X		X	
Dominican Republic	X	X		X		X	X	X	X	X	X	X		X		
Ecuador	X	X		X		X	X	X	X	X	X	X		X		
Egypt	X	X	X	X		X	X	X	X	X		X		X		
El Salvador	X	X		X		X	X	X	X	X	X	X		X		
Equatorial Guinea	X	X		X		X	X	X	X	X		X		X		
Eritrea <sup>1</sup>	X	X		X		X	X	X	X	X		X		X		
Estonia <sup>3</sup>	X					X		X	X							
Ethiopia	X	X		X		X	X	X	X	X		X		X		
Fiji	X	X		X		X	X	X	X	X		X	X	X		
Finland <sup>3,4</sup>	X					X		X	X			X		X		
France <sup>3</sup>	X					X		X	X							
Gabon	X	X		X		X	X	X	X	X		X		X		

### Commerce Country Chart

#### Reason for Control

Countries	Chemical & Biological Weapons			Nuclear Nonproliferation		National Security		Missile Tech	Regional Stability		Firearms Convention	Crime Control			Anti-Terrorism	
	CB 1	CB 2	CB 3	NP 1	NP 2	NS 1	NS 2	MT 1	RS 1	RS 2	FC 1	CC 1	CC 2	CC 3	AT 1	AT 2
	Gambia, The	X	X		X		X	X	X	X	X		X		X	
Georgia	X	X	X	X		X	X	X	X	X		X	X			
Germany <sup>3</sup>	X					X		X	X							
Ghana	X	X		X		X	X	X	X	X		X		X		
Greece <sup>3</sup>	X					X		X	X							
Grenada	X	X		X		X	X	X	X	X	X	X		X		
Guatemala	X	X		X		X	X	X	X	X	X	X		X		
Guinea	X	X		X		X	X	X	X	X		X		X		
Guinea-Bissau	X	X		X		X	X	X	X	X		X		X		
Guyana	X	X		X		X	X	X	X	X	X	X		X		
Haiti	X	X		X		X	X	X	X	X	X	X		X		
Honduras	X	X		X		X	X	X	X	X	X	X		X		
Hungary <sup>3</sup>	X					X		X	X							

### Commerce Country Chart

#### Reason for Control

Countries	Chemical & Biological Weapons			Nuclear Nonproliferation		National Security		Missile Tech	Regional Stability		Firearms Convention	Crime Control			Anti-Terrorism	
	CB 1	CB 2	CB 3	NP 1	NP 2	NS 1	NS 2	MT 1	RS 1	RS 2	FC 1	CC 1	CC 2	CC 3	AT 1	AT 2
	Iceland <sup>3</sup>	X					X		X	X						
India <sup>7</sup>	X			X		X		X	X							
Indonesia	X	X		X		X	X	X	X	X		X		X		
Iran <sup>1</sup>	See part 746 of the EAR to determine whether a license is required in order to export or reexport to this destination.															
Iraq <sup>7</sup>	X	X	X	X	X	X	X	X	X	X		X	X			
Ireland <sup>3,4</sup>	X					X		X	X			X		X		
Israel	X	X	X	X	X	X	X	X	X	X		X		X		
Italy <sup>3</sup>	X					X		X	X							
Jamaica	X	X		X		X	X	X	X	X	X	X		X		
Japan <sup>3</sup>	X					X		X	X							
Jordan	X	X	X	X		X	X	X	X	X		X		X		
Kazakhstan	X	X	X			X	X	X	X	X		X	X			
Kenya	X	X		X		X	X	X	X	X		X		X		

### Commerce Country Chart

#### Reason for Control

Countries	Chemical & Biological Weapons			Nuclear Nonproliferation		National Security		Missile Tech	Regional Stability		Firearms Convention	Crime Control			Anti-Terrorism	
	CB 1	CB 2	CB 3	NP 1	NP 2	NS 1	NS 2	MT 1	RS 1	RS 2	FC 1	CC 1	CC 2	CC 3	AT 1	AT 2
	Kiribati	X	X		X		X	X	X	X	X		X		X	
<b>Korea, North<sup>1</sup></b>	See Sections 742.19 and 746.4 of the EAR to determine whether a license is required in order to export or reexport to this destination.															
Korea, South <sup>3,4</sup>	X					X		X	X			X		X		
Kosovo	X	X		X		X	X	X	X	X		X	X	X		
Kuwait	X	X	X	X		X	X	X	X	X		X		X		
<b>Kyrgyzstan</b>	X	X	X	X		X	X	X	X	X		X	X			
<b>Laos</b>	X	X		X		X	X	X	X	X		X	X			
Latvia <sup>3</sup>	X					X		X	X							
Lebanon <sup>1</sup>	X	X	X	X		X	X	X	X	X		X		X		
Lesotho	X	X		X		X	X	X	X	X		X		X		
Liberia	X	X		X		X	X	X	X	X		X		X		
<b>Libya<sup>1</sup></b>	X	X	X	X	X	X	X	X	X	X		X		X		
Liechtenstein <sup>5</sup>	X					X		X	X			X		X		

### Commerce Country Chart

#### Reason for Control

Countries	Chemical & Biological Weapons			Nuclear Nonproliferation		National Security		Missile Tech	Regional Stability		Firearms Convention	Crime Control			Anti-Terrorism	
	CB 1	CB 2	CB 3	NP 1	NP 2	NS 1	NS 2	MT 1	RS 1	RS 2	FC 1	CC 1	CC 2	CC 3	AT 1	AT 2
	Lithuania <sup>3</sup>	X					X		X	X						
Luxembourg <sup>3</sup>	X					X		X	X							
Macau	X	X	X	X		X	X	X	X	X		X		X		
Macedonia (The Former Yugoslav Republic of)	X	X		X		X	X	X	X	X		X		X		
Madagascar	X	X		X		X	X	X	X	X		X		X		
Malawi	X	X		X		X	X	X	X	X		X		X		
Malaysia	X	X		X		X	X	X	X	X		X		X		
Maldives	X	X		X		X	X	X	X	X		X		X		
Mali	X	X		X		X	X	X	X	X		X		X		
Malta <sup>2,3,4</sup>	X					X	X	X	X	X		X		X		
Marshall Islands	X	X		X		X	X	X	X	X		X		X		
Mauritania	X	X		X		X	X	X	X	X		X		X		
Mauritius	X	X		X		X	X	X	X	X		X		X		

### Commerce Country Chart

#### Reason for Control

Countries	Chemical & Biological Weapons			Nuclear Nonproliferation		National Security		Missile Tech	Regional Stability		Firearms Convention	Crime Control			Anti-Terrorism	
	CB 1	CB 2	CB 3	NP 1	NP 2	NS 1	NS 2	MT 1	RS 1	RS 2	FC 1	CC 1	CC 2	CC 3	AT 1	AT 2
	Mexico	X					X		X	X		X	X		X	
Micronesia (Federated States of)	X	X		X		X	X	X	X	X		X		X		
Moldova	X	X	X	X		X	X	X	X	X		X	X			
Monaco	X	X		X		X	X	X	X	X		X		X		
Mongolia	X	X	X	X		X	X	X	X	X		X	X			
Montenegro	X	X		X		X	X	X	X	X		X	X	X		
Morocco	X	X		X		X	X	X	X	X		X		X		
Mozambique	X	X		X		X	X	X	X	X		X		X		
Namibia	X	X		X		X	X	X	X	X		X		X		
Nauru	X	X		X		X	X	X	X	X		X		X		
Nepal	X	X		X		X	X	X	X	X		X		X		
Netherlands <sup>3</sup>	X					X		X	X							

### Commerce Country Chart

#### Reason for Control

Countries	Chemical & Biological Weapons			Nuclear Nonproliferation		National Security		Missile Tech	Regional Stability		Firearms Convention	Crime Control			Anti-Terrorism	
	CB 1	CB 2	CB 3	NP 1	NP 2	NS 1	NS 2	MT 1	RS 1	RS 2	FC 1	CC 1	CC 2	CC 3	AT 1	AT 2
	New Zealand <sup>3</sup>	X					X		X	X						
Nicaragua	X	X		X		X	X	X	X	X	X	X		X		
Niger	X	X		X		X	X	X	X	X		X		X		
Nigeria	X	X		X		X	X	X	X	X		X		X		
Norway <sup>3</sup>	X					X		X	X							
Oman	X	X	X	X		X	X	X	X	X		X		X		
Pakistan	X	X	X	X	X	X	X	X	X	X		X		X		
Palau	X	X		X		X	X	X	X	X		X		X		
Panama	X	X		X		X	X	X	X	X	X	X		X		
Papua New Guinea	X	X		X		X	X	X	X	X		X		X		
Paraguay	X	X		X		X	X	X	X	X	X	X		X		
Peru	X	X		X		X	X	X	X	X	X	X		X		
Philippines	X	X		X		X	X	X	X	X		X		X		

### Commerce Country Chart

#### Reason for Control

Countries	Chemical & Biological Weapons			Nuclear Nonproliferation		National Security		Missile Tech	Regional Stability		Firearms Convention	Crime Control			Anti-Terrorism	
	CB 1	CB 2	CB 3	NP 1	NP 2	NS 1	NS 2	MT 1	RS 1	RS 2	FC 1	CC 1	CC 2	CC 3	AT 1	AT 2
	Poland <sup>3</sup>	X					X		X	X						
Portugal <sup>3</sup>	X					X		X	X							
Qatar	X	X	X	X		X	X	X	X	X		X		X		
Romania <sup>3</sup>	X					X		X	X							
Russia <sup>6</sup>	X	X	X	X		X	X	X	X	X		X	X			
Rwanda	X	X		X		X	X	X	X	X		X	X	X		
St. Kitts & Nevis	X	X		X		X	X	X	X	X	X	X		X		
St. Lucia	X	X		X		X	X	X	X	X	X	X		X		
Saint Vincent and the Grenadines	X	X		X		X	X	X	X	X	X	X		X		
Samoa	X	X		X		X	X	X	X	X		X		X		
San Marino	X	X		X		X	X	X	X	X		X		X		
Sao Tome & Principe	X	X		X		X	X	X	X	X		X		X		
Saudi Arabia	X	X	X	X		X	X	X	X	X		X		X		

### Commerce Country Chart

#### Reason for Control

Countries	Chemical & Biological Weapons			Nuclear Nonproliferation		National Security		Missile Tech	Regional Stability		Firearms Convention	Crime Control			Anti-Terrorism	
	CB 1	CB 2	CB 3	NP 1	NP 2	NS 1	NS 2	MT 1	RS 1	RS 2	FC 1	CC 1	CC 2	CC 3	AT 1	AT 2
	Senegal	X	X		X		X	X	X	X	X		X		X	
Serbia	X	X				X	X	X	X	X		X	X	X		
Seychelles	X	X		X		X	X	X	X	X		X		X		
Sierra Leone	X	X		X		X	X	X	X	X		X		X		
Singapore	X	X		X		X	X	X	X	X		X		X		
Sint Maarten (the Dutch two-fifths of the island of Saint Martin)	X	X		X		X	X	X	X	X		X		X		
Slovakia <sup>3</sup>	X					X		X	X							
Slovenia <sup>3</sup>	X					X		X	X							
Solomon Islands	X	X		X		X	X	X	X	X		X		X		
Somalia <sup>1</sup>	X	X		X		X	X	X	X	X		X		X		
South Africa <sup>2,3,4</sup>	X	X				X		X	X			X		X		
South Sudan, Republic of	X	X		X		X	X	X	X	X		X		X		

### Commerce Country Chart

#### Reason for Control

Countries	Chemical & Biological Weapons			Nuclear Nonproliferation		National Security		Missile Tech	Regional Stability		Firearms Convention	Crime Control			Anti-Terrorism	
	CB 1	CB 2	CB 3	NP 1	NP 2	NS 1	NS 2	MT 1	RS 1	RS 2	FC 1	CC 1	CC 2	CC 3	AT 1	AT 2
	Spain <sup>3</sup>	X					X		X	X						
Sri Lanka	X	X		X		X	X	X	X	X		X		X		
Sudan <sup>1</sup>	X	X		X		X	X	X	X	X		X		X	X	X
Suriname	X	X		X		X	X	X	X	X	X	X		X		
Swaziland	X	X		X		X	X	X	X	X		X		X		
Sweden <sup>3,4</sup>	X					X		X	X			X		X		
Switzerland <sup>3,4</sup>	X					X		X	X			X		X		
Syria	See § 746.9 of the EAR to determine whether a license is required in order to export or reexport to this destination.															
Taiwan	X	X	X	X		X	X	X	X	X		X		X		
Tajikistan	X	X	X	X		X	X	X	X	X		X	X			
Tanzania	X	X		X		X	X	X	X	X		X		X		
Thailand	X	X		X		X	X	X	X	X		X		X		
Timor-Leste	X	X		X		X	X	X	X	X		X		X		

### Commerce Country Chart

#### Reason for Control

Countries	Chemical & Biological Weapons			Nuclear Nonproliferation		National Security		Missile Tech	Regional Stability		Firearms Convention	Crime Control			Anti-Terrorism	
	CB 1	CB 2	CB 3	NP 1	NP 2	NS 1	NS 2	MT 1	RS 1	RS 2	FC 1	CC 1	CC 2	CC 3	AT 1	AT 2
	Togo	X	X		X		X	X	X	X	X		X		X	
Tonga	X	X		X		X	X	X	X	X		X		X		
Trinidad & Tobago	X	X		X		X	X	X	X	X	X	X		X		
Tunisia	X	X		X		X	X	X	X	X		X		X		
Turkey <sup>3</sup>	X					X		X	X							
<b>Turkmenistan</b>	X	X	X	X		X	X	X	X	X		X	X			
Tuvalu	X	X		X		X	X	X	X	X		X		X		
Uganda	X	X		X		X	X	X	X	X		X		X		
<b>Ukraine<sup>8</sup></b>	X					X	X	X	X	X		X	X			
United Arab Emirates	X	X	X	X		X	X	X	X	X		X		X		
United Kingdom <sup>3</sup>	X					X		X	X							
Uruguay	X	X		X		X	X	X	X	X	X	X		X		
<b>Uzbekistan</b>	X	X	X	X		X	X	X	X	X		X	X			

### Commerce Country Chart

#### Reason for Control

Countries	Chemical & Biological Weapons			Nuclear Nonproliferation		National Security		Missile Tech	Regional Stability		Firearms Convention	Crime Control			Anti-Terrorism	
	CB 1	CB 2	CB 3	NP 1	NP 2	NS 1	NS 2	MT 1	RS 1	RS 2	FC 1	CC 1	CC 2	CC 3	AT 1	AT 2
	Vanuatu	X	X		X		X	X	X	X	X		X		X	
Vatican City	X	X		X		X	X	X	X	X		X		X		
Venezuela	X	X	X	X	X	X	X	X	X	X	X	X		X		
<b>Vietnam</b>	X	X	X	X		X	X	X	X	X		X	X			
Western Sahara	X	X		X		X	X	X	X	X		X		X		
Yemen	X	X	X	X		X	X	X	X	X		X		X		
Zambia	X	X		X		X	X	X	X	X		X		X		
Zimbabwe	X	X		X		X	X	X	X	X		X		X		

<sup>1</sup>See § 746.1(b) for United Nations Security Council Sanctions under the EAR. See § 746.3 for United Nations Security Council-related license requirements for exports and reexports to Iraq or transfer within Iraq under the EAR, as well as regional stability licensing requirements not included in the Country Chart.

<sup>2</sup>See § 742.4(a) for special provisions that apply to exports and reexports to these countries of certain thermal imaging cameras.

<sup>3</sup>See § 742.6(a)(3) for special provisions that apply to “military commodities” that are subject to ECCN 0A919.

<sup>4</sup> See § 742.6(a)(2) and (4)(ii) regarding special provisions for exports and reexports of certain thermal imaging cameras to these countries.

<sup>5</sup> Refer to Switzerland for licensing requirements for Liechtenstein under the EAR.

<sup>6</sup> See § 746.5 for additional license requirements under the Russian Industry Sector Sanctions for ECCNs 0A998, 1C992, 3A229, 3A231, 3A232, 6A991, 8A992, and 8D999.

<sup>7</sup> See § 758.1(b)(9) for an AES filing requirement for exports of CC column 1 or 3, or RS column 2 items to India. Also note that a license is still required for items controlled under ECCNs 6A003.b.4.b and 9A515.e for RS column 2 reasons when destined to India.

<sup>8</sup> See § 746.6 for additional license requirements for export and reexports to the Crimea region of Ukraine and transfers (in-country) within the Crimea region of Ukraine for all items subject to the EAR, other than food and medicine designated as EAR99 and certain EAR99 or ECCN 5D992.c software for Internet-based communications. The Crimea region of Ukraine includes the land territory in that region as well as any maritime area over which sovereignty, sovereign rights, or jurisdiction is claimed based on purported annexation of that land territory.

**\*\*740-S1 \*\*Country Groups**

**\*\*STA countries - These A:5 countries are the 36 countries authorized under STA.**

**These eight A:6 countries are "(c)(2)" STA-eligible for certain ECCNs controlled only for NS. No 600-series ECCNs allowed.**

License Exceptions

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**Country \*\*Group A**

Country	[A:1] Wassenaar Participating States <sup>1</sup>	[A:2] Missile Technology Control Regime	[A:3] Australia Group	[A:4] Nuclear Suppliers Group <sup>2</sup>	[A:5]	[A:6]
Albania						X
Argentina	X	X	X	X	X	
Australia	X	X	X	X	X	
Austria	X	X	X	X	X	
Belarus				X		
Belgium	X	X	X	X	X	
Brazil		X		X		
Bulgaria	X	X	X	X	X	
Canada	X	X	X	X	X	
Croatia	X		X	X	X	
Cyprus			X	X		X
Czech Republic	X	X	X	X	X	
Denmark	X	X	X	X	X	
Estonia	X		X	X	X	
Finland	X	X	X	X	X	
France	X	X	X	X	X	
Germany	X	X	X	X	X	
Greece	X	X	X	X	X	
Hungary	X	X	X	X	X	
Iceland	X	X	X	X	X	
India	X	X	X		X	
Ireland	X	X	X	X	X	
Israel						X
Italy	X	X	X	X	X	
Japan	X	X	X	X	X	
Kazakhstan				X		
Korea, South	X	X	X	X	X	
Latvia	X		X	X	X	
Lithuania	X		X	X	X	

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License Exceptions

Supplement No. 1 to Part 740-page 2

Country	[A:1] Wassenaar Participating States <sup>1</sup>	[A:2] Missile Technology Control Regime	[A:3] Australia Group	[A:4] Nuclear Suppliers Group <sup>2</sup>	[A:5]	[A:6]
Luxembourg	X	X	X	X	X	X
Malta			X	X		X
Mexico	X		X	X		X
Netherlands	X	X	X	X	X	
New Zealand	X	X	X	X	X	
Norway	X	X	X	X	X	
Poland	X	X	X	X	X	
Portugal	X	X	X	X	X	
Romania	X		X	X	X	
Russia <sup>1,2,3</sup>						
Serbia				X		
Singapore						X
Slovakia	X		X	X	X	
Slovenia	X		X	X	X	
South Africa	X	X		X		X
Spain	X	X	X	X	X	
Sweden	X	X	X	X	X	
Switzerland	X	X	X	X	X	
Taiwan						X
Turkey	X	X	X	X	X	
Ukraine <sup>4</sup>		X	X	X		
United Kingdom	X	X	X	X	X	
United States	X	X	X	X		

<sup>1</sup> Country Group A:1 is a list of the Wassenaar Arrangement Participating States, except for Malta, Russia and Ukraine.

<sup>2</sup> Country Group A:2 is a list of Missile Technology Control Regime countries, except for Russia.

<sup>3</sup> Country Group A:4 is a list of the Nuclear Suppliers Group countries, except for the People's Republic of China (PRC) and Russia.

<sup>4</sup>For purposes of this supplement, as well as any other EAR provision that references the Country Groups, the designations for Ukraine also apply to the Crimea region of Ukraine. See § 746.6(c) for an exhaustive listing of license exceptions that are available for the Crimea region of Ukraine. No other EAR license exceptions are available for the Crimea region of Ukraine. The Crimea region of Ukraine includes the land territory in that region as well as any maritime area over which sovereignty, sovereign rights, or jurisdiction is claimed based on purported annexation of that land territory.

**Country \*\*Group B**  
Countries

<b>Afghanistan</b>	El Salvador	Marshall Islands	Slovakia
Albania	Equatorial Guinea	Mauritania	Slovenia
Algeria	<b>Eritrea</b>	Mauritius	Solomon Islands
Andorra	Estonia	Mexico	<b>Somalia</b>
Angola	Ethiopia	Micronesia, Federated States of	South Africa
Antigua and Barbuda	<b>Fiji</b>	Monaco	South Sudan, (Republic of)
Argentina	Finland	Montenegro	Spain
Aruba	France	Morocco	<b>Sri Lanka</b>
Australia	Gabon	Mozambique	Sudan
Austria	Gambia, The	Namibia	Surinam
The Bahamas	Germany	Nauru	Swaziland
Bahrain	Ghana	Nepal	Sweden
Bangladesh	Greece	Netherlands	Switzerland
Barbados	Grenada	New Zealand	Taiwan
Belgium	Guatemala	Nicaragua	Tanzania
Belize	Guinea	Niger	Thailand
Benin	Guinea-Bissau	Nigeria	Timor-Leste
Bhutan	Guyana	Norway	Togo
Bolivia	<b>Haiti</b>	Oman	Tonga
Bosnia & Herzegovina	Honduras	Pakistan	Trinidad & Tobago
Botswana	Hungary	Palau	Tunisia
Brazil	Iceland	Panama	Turkey
Brunei	India	Papua New Guinea	Tuvalu
Bulgaria	Indonesia	Paraguay	Uganda
Burkina Faso	Ireland	Peru	Ukraine
Burundi	Israel	Philippines	United Arab Emirates
Cameroon	Italy	Poland	United Kingdom
Canada	Jamaica	Portugal	United States
Cape Verde	Japan	Qatar	Uruguay
<b>Central African Republic</b>	Jordan	Romania	Vanuatu
Chad	Kenya	Rwanda	Vatican City
Chile	Kiribati	Saint Kitts & Nevis	Western Sahara
Colombia	Korea, South	Saint Lucia	Zambia
Comoros	Kosovo	Saint Vincent and the Grenadines	<b>Zimbabwe</b>
<b>Congo (Democratic Republic of the)</b>	Kuwait	Samoa	
Congo (Republic of the)	Latvia	San Marino	
Costa Rica	<b>Lebanon</b>	Sao Tome & Principe	
<b>Cote d'Ivoire</b>	Lesotho	Saudi Arabia	
Croatia	<b>Liberia</b>	Senegal	
Curaçao	Lithuania	Serbia	
<b>Cyprus</b>	Luxembourg	Seychelles	
Czech Republic	Macedonia, The Former Yugoslav Republic of	Sierra Leone	
Denmark	Madagascar	Singapore	
Djibouti	Malawi	Sint Maarten (the Dutch two-fifths of the island of Saint Martin)	
Dominica	Malaysia		
Dominican Republic	Maldives		
Ecuador	Mali		
Egypt	Malta		

**Note 1:** As of 5-24-2019, Venezuela was dropped from Group B list of countries.

**Note 2:** As of 12-28-2020, Hong Kong was dropped from Group B list of countries, and the Ukraine was added.

**Country \*\*Group C**

[RESERVED]

**Country \*\*Group D**

Country	[D: 1] National Security	[D: 2] Nuclear	[D: 3] Chemical & Biological	[D: 4] Missile Technology	[D:5] U.S. Arms Embargoed Countries <sup>1</sup>
Afghanistan			X		X
Armenia	X		X		
Azerbaijan	X		X		
Bahrain			X	X	
Belarus	X		X		X
Burma	X		X		X
Cambodia	X				
Central African Republic					X
China (PRC)	X		X	X	X
Congo, Democratic Republic of					X
Cuba		X	X		X
Cyprus					X
Egypt			X	X	
Eritrea					X
Georgia	X		X		
Haiti					X
Iran		X	X	X	X
Iraq	X	X	X	X	X
Israel		X	X	X	
Jordan			X	X	
Kazakhstan	X		X		
Korea, North	X	X	X	X	X
Kuwait			X	X	
Kyrgyzstan	X		X		
Laos	X				
Lebanon			X	X	X
Libya	X	X	X	X	X
Macau	X		X	X	

Country	[D: 1] National Security	[D: 2] Nuclear	[D: 3] Chemical & Biological	[D: 4] Missile Technology	[D:5] U.S. Arms Embargoed Countries <sup>1</sup>
Moldova	X		X		
Mongolia	X		X		
Oman			X	X	
Pakistan		X	X	X	
Qatar			X	X	
Russia	X	X	X	X	
Saudi Arabia			X	X	
Somalia					X
South Sudan, Republic of					X
Sudan					X
Syria			X	X	X
Taiwan			X		
Tajikistan	X		X		
Turkmenistan	X		X		
United Arab Emirates			X	X	
Uzbekistan	X		X		
Venezuela	X	X	X	X	X
Vietnam	X		X		
Yemen	X		X	X	
Zimbabwe					X

<sup>1</sup> Note to Country Group D:5: Countries subject to U.S. arms embargoes are identified by the State Department through notices published in the *Federal Register*. The list of arms embargoed destinations in this table is drawn from 22 CFR §126.1 and State Department *Federal Register* notices related to arms embargoes (compiled at [http://www.pmdtc.state.gov/embargoed\\_countries/index.html](http://www.pmdtc.state.gov/embargoed_countries/index.html)) and will be amended when the State Department publishes subsequent notices. If there are any discrepancies between the list of countries in this table and the countries identified by the State Department as subject to a U.S. arms embargo (in the *Federal Register*), the State Department's list of countries subject to U.S. arms embargoes shall be controlling.

**Country \*\*Group E<sup>1</sup>**

	<b>[E:1]</b>	<b>[E:2]</b>
Country	Terrorist Supporting Countries <sup>2</sup>	Unilateral Embargo

Cuba		X
Iran	X	
Korea, North	X	
Syria	X	

<sup>1</sup>In addition to the controls maintained by the Bureau of Industry and Security pursuant to the EAR, note that the Department of the Treasury administers:

- (a) A *comprehensive embargo* against Cuba and Iran; and
- (b) An *embargo against certain persons*, e.g., Specially Designated Terrorists (SDT), Foreign Terrorist Organizations (FTO), Specially Designated Global Terrorists (SDGT), and Specially Designated Narcotics Traffickers (SDNT). Please see part 744 of the EAR for controls maintained by the Bureau of Industry and Security on these and other persons.

<sup>2</sup>The President made inapplicable with respect to Iraq provisions of law that apply to countries that have supported terrorism.

**SUPPLEMENT NO. 2 TO PART 740 - ITEMS THAT MAY BE DONATED TO MEET  
BASIC HUMAN NEEDS UNDER THE HUMANITARIAN LICENSE EXCEPTION**

***(a) Health***

Equipment for the Handicapped  
Hospital Supplies and Equipment  
Laboratory Supplies and Equipment  
Medical Supplies and Devices  
Medicine-Processing Equipment  
Medicines  
Vitamins  
Water Resources Equipment  
Food  
Agricultural Materials and Machinery Suited to  
Small-Scale Farming Operations  
Agricultural Research and Testing Equipment  
Fertilizers  
Fishing Equipment and Supplies Suited to  
Small-Scale Fishing Operations

***(b) Food***

Insecticides  
Pesticides  
Seeds  
Small-Scale Irrigation Equipment  
Veterinary Medicines and Supplies

***(c) Clothes and Household Goods***

Bedding  
Clothes  
Cooking Utensils  
Fabric  
Personal Hygiene Items  
Soap-Making Equipment  
Weaving and Sewing Equipment

***(d) Shelter***

Building Materials  
Hand Tools

***(e) Education***

Books  
Individual School Supplies  
School Furniture  
Special Education Supplies and Equipment for  
the Handicapped

***(f) Basic Support Equipment and Supplies  
Necessary to Operate and Administer the  
Donative Program***

Audio-Visual Aids for Training  
Generators  
Office Supplies and Equipment

**SUPPLEMENT NO. 3 TO PART 740 - LICENSE EXCEPTION ENC FAVORABLE  
TREATMENT COUNTRIES**

Australia	Germany	New Zealand
Austria	Greece	Norway
Belgium	Hungary	Poland
Bulgaria	Iceland	Portugal
Canada	Ireland	Romania
Croatia	Italy	Slovakia
Cyprus	Japan	Slovenia
Czech Republic	Latvia	Spain
Denmark	Lithuania	Sweden
Estonia	Luxembourg	Switzerland
Finland	Malta	Turkey
France	Netherlands	United Kingdom

**SUPPLEMENT NO. 4 TO PART 740 – ANNEX A FIREARM MODELS**

**(a) Pistols/revolvers.**

- (1) German Model P08 Pistol = SMCR.
- (2) IZH 34M, .22 Target pistol.
- (3) IZH 35M, .22 caliber Target pistol.
- (4) Mauser Model 1896 pistol = SMCR.
- (5) MC-57-1 pistol.
- (6) MC-1-5 pistol.
- (7) Polish Vis Model 35 pistol = SMCR.
- (8) Soviet Nagant revolver = SMCR.
- (9) TOZ 35, .22 caliber Target pistol.
- (10) MTs 440.
- (11) MTs 57-1.
- (12) MTs 59-1.
- (13) MTs 1-5.
- (14) TOZ-35M (starter pistol).
- (15) Biathlon-7K.

**(b) Rifles.**

- (1) BARS-4 Bolt Action carbine.
- (2) Biathlon target rifle, .22.
- (3) British Enfield rifle = SMCR.
- (4) CM2, .22 target rifle (also known as SM2, .22).
- (5) German model 98K =SMCR.
- (6) German model G41 = SMCR.
- (7) German model G43=SMCR.
- (8) IZH-94.
- (9) LOS-7, bolt action.
- (10) MC-7-07.
- (11) MC-18-3.
- (12) MC-19-07.
- (13) MC-105-01.
- (14) MC-112-02.
- (15) MC-113-02.
- (16) MC-115-1.
- (17) MC-125/127.
- (18) MC-126.
- (19) MC-128.
- (20) Saiga.
- (21) Soviet Model 38 carbine=SMCR.
- (22) Soviet Model 44 carbine-SMCR.
- (23) Soviet Model 91/30 rifle=SMCR.
- (24) TOZ 18, .22 bolt action.
- (25) TOZ 55.

- (26) TOZ 78.
- (27) Ural Target, .22lr.
- (28) VEPR rifle.
- (29) Winchester Model 1895, Russian Model rifle=SMCR.
- (30) Sever – double barrel.
- (31) IZH18MH single barrel break action.
- (32) MP-251 over/under rifle.
- (33) MP-221 double barrel rifle.
- (34) MP-141K.
- (35) MP-161K.
- (36) MTs 116-1.
- (37) MTs 116M.
- (38) MTs 112-02.
- (39) MTs 115-1.
- (40) MTs 113-02.
- (41) MTs 105-01.
- (42) MTs 105-05.
- (43) MTs 7-17 combination gun.
- (44) MTs 7-12-07 rifle/shotgun.
- (45) MTs 7-07.
- (46) MTs 109-12-07 rifle.
- (47) MTs 109-07 rifle.
- (48) MTs 106-07 combination.
- (49) MTs 19-97.
- (50) MTs 19-09.
- (51) MTs 18-3M.
- (52) MTs 125.
- (53) MTs 126.
- (54) MTs 127.
- (55) Berkut-2.
- (56) Berkut-2M1.
- (57) Berkut-3.
- (58) Berkut-2-1.
- (59) Berkut-2M2.
- (60) Berkut-3-1.
- (61) Ots-25.
- (62) MTs 20-07.
- (63) LOS-7-1.
- (64) LOS -7-2.
- (65) LOS-9-1.
- (66) Sobol (Sable).
- (67) Rekord.
- (68) Bars-4-1.
- (69) Saiga.
- (70) Saiga-M.
- (71) Saiga 308.
- (72) Saiga-308-1.
- (73) Saiga 308-2.
- (74) Saiga-9.
- (75) Korshun.
- (76) Ural-5-1.
- (77) Ural 6-1.
- (78) Ural-6-2.
- (79) SM-2.
- (80) Biatlon-7-3.

- (81) Biatlon-7-4.
- (82) Rekord-1.
- (83) Rekord-2.
- (84) Rekord-CISM.
- (85) Rekord-1-308.
- (86) Rekord-2-308.
- (87) Rekord-1-308-CISM.
- (88) VEPR.
- (89) VEPR Super.
- (90) VEPR Pioneer.
- (91) VEPR Safari.
- (92) TOZ 109.
- (93) KO 44-1.
- (94) TOZ 78-01.
- (95) KO 44.
- (96) TOZ 99.
- (97) TOZ 99-01.
- (98) TOZ 55-01 Zubr.
- (99) TOZ 55-2 Zubr.
- (100) TOZ 120 Zubr.
- (101) MTs 111.
- (102) MTs 109.
- (103) TOZ 122.
- (104) TOZ 125.
- (105) TOZ 28.
- (106) TOZ 300.

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### § 742.1 INTRODUCTION

In this part, references to the Export Administration Regulations (EAR) are References to 15 CFR Chapter VII, Subchapter C.

#### (a) Scope

This part describes all the reasons for control reflected in the Country Chart in Supplement No.

1 to part 738 of the EAR. In addition, it includes licensing requirements and licensing policies for the following items that are not reflected on the Country Chart: specially designed implements of torture, high performance computers, and communications intercepting devices. In addition to describing the reasons for control and licensing requirements and policies, this part describes any applicable contract sanctity provisions that may apply to specific controls and includes a description of any multilateral regime under which specific controls are maintained.

**(b) Reasons for control listed on the CCL not covered by this part**

This part describes the license requirements and the licensing policies for all the “Reasons for Control” that are listed on the Commerce Control List (CCL) *except* “Short Supply” and “U.N. Sanctions”, which do not appear on the Country Chart.

**(1) Short Supply.** ECCNs containing items subject to short supply controls (“SS”) refer the exporter to part 754 of the EAR. These ECCNs are: 0A980 (Horses for export by sea); 1C980 (certain inorganic chemicals); 1C982 (certain other petroleum products); 1C983 (certain natural gas liquids and other natural gas derivatives); 1C984 (certain manufactured gas and synthetic natural gas (except when commingled with natural gas and thus subject to export authorization from the Department of Energy); and 1C988 (Unprocessed western red cedar (*Thuja plicata*) logs and timber, and rough, dressed and worked lumber containing wane).

**(2) U.N. Sanctions.** The United Nations imposes sanctions, short of complete embargoes, against certain countries which may result in controls that supplement those otherwise maintained under the EAR for that particular country. This part does *not* address license requirements and licensing policies for controls implementing U.N. sanctions. CCL entries

containing items subject to U.N. sanctions will refer the exporter to part 746 of the EAR, Embargoes and Other Special Controls, for any supplemental controls that may apply to exports and reexports involving these countries.

**(c) Exports and reexports involving Cuba and Iran**

This part does *not* cover license requirements and licensing policies that apply to exports and reexports to embargoed destinations (Cuba and Iran). These comprehensive embargoes cover a broader range of items than those reflected in the CCL. If you are exporting or reexporting to any of these destinations, you should first review part 746 of the EAR, Embargoes and Other Special Controls.

**(d) Anti-terrorism Controls on Iran, North Korea, and Syria**

Commerce maintains anti-terrorism controls on Iran, North Korea, and Syria under section 6(a) of the Export Administration Act. Items controlled under section 6(a) to Iran, Syria, and North Korea are described in §§ 742.8, 742.9, 742.10, and 742.19, respectively, and in Supplement No. 2 to part 742. Commerce also maintains controls under section 6(j) of the EAA to Iran, North Korea, and Syria. Items controlled to these countries under EAA section 6(j) are also described in Supplement 2 to part 742. The Secretaries of Commerce and State are required to notify appropriate Committees of the Congress 30 days before issuing a license for an item controlled under section 6(j) to North Korea, Iran, or Syria. If you are exporting or reexporting to Iran, North Korea, or Syria, you should review part 746 of the EAR, Embargoes and Other Special Controls.

**(e) End-user and end-use based controls**

This part does not cover prohibitions and licensing requirements for exports of items not included on the CCL that are subject to end-use and end-user controls: certain nuclear end-uses; certain missile end-uses; certain chemical and biological weapons end-uses; certain naval nuclear propulsion end-uses; certain activities of U.S. persons; and certain exports to and for the use of certain foreign vessels or aircraft. Licensing requirements and policies for these exports are contained in part 744 of the EAR.

**(f) Overlapping license policies**

Many items on the CCL are subject to more than one type of control (e.g., national security (NS), missile technology (MT), nuclear nonproliferation (NP), regional stability (RS)). In addition, applications for all items on the CCL, other than those controlled for short supply reasons, may be reviewed for missile technology (see §742.5(b)(3) of this part), nuclear nonproliferation (see §742.3(b)(2) of this part), or chemical and biological weapons (see §742.2(b)(3) of this part), if the end-use or end-user may be involved in certain proliferation activities. Finally, many multilaterally controlled items are reviewed for anti-terrorism reasons if they are destined for a terrorism-supporting country (see paragraph (d) of this section). Your application for a license will be reviewed under all applicable licensing policies. A license will be issued only if an application can be approved under *all applicable* licensing policies.

**§ 742.2 PROLIFERATION OF  
CHEMICAL AND BIOLOGICAL  
WEAPONS**

**(a) License requirements**

The following controls are maintained in support of the U.S. foreign policy of opposing the proliferation and illegal use of chemical and biological weapons. (See also §742.18 of this part for license requirements pursuant to the Chemical Weapons Convention).

(1) If CB Column 1 of the Country Chart (Supplement No. 1 to part 738 of the EAR) is indicated in the appropriate ECCN, a license is required to all destinations, including Canada, for the following:

(i) Human pathogens, zoonoses, toxins, animal pathogens, genetically modified microorganisms and plant pathogens identified in ECCNs 1C351, 1C353, and 1C354; and

(ii) Technology (ECCNs 1E001 and 1E351) for the production and/or disposal of microbiological commodities described in paragraph (a)(1)(i) of this section.

(2) If CB Column 2 of the Country Chart (Supplement No. 1 to part 738 of the EAR) is indicated in the appropriate ECCN, a license is required to all destinations except countries in Country Group A:3 (see Supplement No. 1 to part 740 of the EAR) (Australia Group members) for the following:

(i) Chemicals identified in ECCN 1C350 (precursor and intermediate chemicals used in the production of chemical warfare agents).

(A) This license requirement includes chemical mixtures identified in ECCN 1C350.b, .c, or .d, except as specified in License Requirements Note 2 to that ECCN.

(B) This licensing requirement does not include chemical compounds created with any chemicals identified in ECCN 1C350, unless those compounds are also identified in ECCN 1C350.

\*\*CB

(C) This licensing requirement does not apply to any of the following medical, analytical, diagnostic, and food testing kits that consist of pre-packaged materials of defined composition that are specifically developed, packaged, and marketed for diagnostic, analytical, or public health purposes:

(1) Test kits containing no more than 300 grams of any chemical controlled by ECCN **1C350.b** or **.c** (CB-controlled chemicals also identified as Schedule 2 or 3 chemicals under the CWC) that are destined for export or reexport to CWC States Parties (destinations listed in Supplement No. 2 to part 745 of the EAR). Such test kits are controlled by ECCN **1C395** for CB and CW reasons, to States not Party to the CWC (destinations not listed in Supplement No. 2 to part 745 of the EAR), and for AT reasons.

(2) Test kits that contain no more than 300 grams of any chemical controlled by ECCN **1C350.d** (CB-controlled chemicals not also identified as Schedule 1, 2, or 3 chemicals under the CWC). Such test kits are controlled by ECCN **1C995** for AT reasons.

(ii) Software (ECCN **1D390**) for process control that is specifically configured to control or initiate production of the chemical precursors controlled by ECCN **1C350**.

(iii) Technology (ECCN **1E001**) for the development or production of chemical detection systems and dedicated detectors therefore, controlled by ECCN **1A004.c**, that also have the technical characteristics described in ECCN **2B351.a**.

(iv) Technology (ECCNs **1E001** and **1E350**) involving the following for facilities designed or intended to produce chemicals described in **1C350**:

(A) Overall plant design;

(B) Design, specification, or procurement of equipment;

(C) Supervision of construction, installation, or operation of complete plant or components thereof;

(D) Training of personnel; or

(E) Consultation on specific problems involving such facilities.

(v) Technology (ECCNs **1E001** and **1E351**) for the production and/or disposal of chemical precursors described in ECCN **1C350**;

(vi) Equipment and materials identified in ECCN **2B350** or **2B351** on the CCL, chemical detection systems controlled by **1A004.c** for detecting chemical warfare agents and having the characteristics of toxic gas monitoring systems described in **2B351.a**, and valves controlled by ECCN **2A226** having the characteristics of those described in **2B350.g**, which can be used in the production of chemical weapons precursors or chemical warfare agents.

(vii) Equipment and materials identified in ECCN **2B352**, which can be used in the production of biological agents.

(viii) Dedicated software identified in ECCN **2D351** for the “use” of toxic gas monitoring systems and their dedicated detecting components controlled by ECCN **2B351**.

(ix) Technology identified in ECCN **2E001** for the “development” of software controlled by ECCN **2D351**.

(x) Technology identified in ECCN **2E001**, **2E002**, or **2E301** for:

(A) The development, production, or use of items controlled by ECCN **2B350**, **2B351**, or **2B352**; or

(B) The development or production of valves controlled by ECCN 2A226 having the characteristics of those described in ECCN 2B350.g.

(xi) Technology identified in ECCN 2E201 or 2E290 for the use of valves controlled by ECCN 2A226 having the characteristics of those described in 2B350.g.

(3) If CB Column 3 of the Country Chart (Supplement No. 1 to part 738 of the EAR) is indicated in the appropriate ECCN, a license is required to Country Group D:3 (see Supplement No. 1 to part 740 of the EAR) for medical products identified in ECCN 1C991.c.

(4) A license is required, to States not Party to the CWC (destinations *not* listed in Supplement No. 2 to part 745 of the EAR), for mixtures controlled by ECCN 1C395.a and test kits controlled by ECCN 1C395.b.

**(b) Licensing policy**

(1) License applications for the items described in paragraph (a) of this section will be considered on a case-by-case basis to determine whether the export or reexport would make a material contribution to the design, development, production, stockpiling or use of chemical or biological weapons. When an export or reexport is deemed to make such a material contribution, the license will be denied. When an export or reexport is intended to be used in a chemical weapons or biological weapons program, or for chemical or biological weapons terrorism purposes, it is deemed to make a material contribution. The factors listed in paragraph (b)(2) of this section are among those that will be considered to determine what action should be taken on license applications for these items.

(2) The following factors are among those that will be considered to determine what action

should be taken on license applications for the items described in paragraph (a) of this section:

(i) The specific nature of the end-use, including the appropriateness of the stated end-use;

(ii) The significance of the export and reexport in terms of its potential contribution to the design, development, production, stockpiling, or use of chemical or biological weapons;

(iii) The nonproliferation credentials of the importing country, including the importing country's chemical and biological capabilities and objectives;

(iv) The extent and effectiveness of the export control system in the importing country and in any intermediary country through which the items being exported or reexported will transit or be transshipped en route to the importing country;

(v) The risk that the items will be diverted for use in a chemical weapons or biological weapons program, or for chemical weapons or biological weapons terrorism purposes;

(vi) The reliability of the parties to the transaction, including whether:

(A) An export or reexport license application involving any such parties has previously been denied;

(B) Any such parties have been engaged in clandestine or illegal procurement activities;

(C) The end-user is capable of securely handling and storing the items to be exported or reexported;

(vii) Relevant information about proliferation and terrorism activities, including activities

involving the design, development, production, stockpiling, or use of chemical or biological weapons by any parties to the transaction;

(viii) The types of assurances or guarantees against the design, development, production, stockpiling, or use of chemical or biological weapons that are given in a particular case, including any relevant assurances provided by the importing country or the end-user;

(ix) The applicability of other multilateral export control or nonproliferation agreements (e.g., the Chemical Weapons Convention and the Biological and Toxin Weapons Convention) to the transaction; and

(x) The existence of a pre-existing contract.

(3) BIS will review license applications in accordance with the licensing policy described in paragraph (b)(1) of this section for items not described in paragraph (a) of this section that:

(i) Require a license for reasons other than short supply; *and*

(ii) Could be destined for the design, development, production, stockpiling, or use of chemical or biological weapons, or for a facility engaged in such activities.

(4) License applications for items described in paragraph (a) of this section, when destined for the People's Republic of China will be reviewed in accordance with the licensing policies in both paragraph (b) of this section and § 742.4(b)(7). When such items are destined to Russia, license applications will be reviewed under a presumption of denial.

**(c) Contract sanctity**

Contract sanctity dates are set forth in Supplement No. 1 to part 742. Applicants who wish that a pre-existing contract be considered in

reviewing their license applications must submit documentation sufficient to establish the existence of such a contract.

**(d) Australia Group**

The Australia Group, a multilateral body that works to halt the spread of chemical and biological weapons, has developed common control lists of items specifically related to chemical and biological weapons. Australia Group members are listed in Country Group A:3 (see Supplement No. 1 to part 740 of the EAR). Controls on items listed in paragraph (a) of this section are consistent with lists agreed to in the Australia Group.

**(e) License application requirements and instructions**

Unique application and submission requirements for chemicals, medicinals, and pharmaceuticals are described in paragraph (a) of Supplement No. 2 to part 748 of the EAR.

**§ 742.3 NUCLEAR  
NONPROLIFERATION**

\*\*NP

**(a) License requirements**

Section 309(c) of the Nuclear Non-Proliferation Act of 1978 requires BIS to identify items subject to the EAR that could be of significance for nuclear explosive purposes if used for activities other than those authorized at the time of export or reexport. ECCNs on the CCL that include the symbols “NP” or “NP 2” in the “Country Chart” column of the “License Requirements” section identify items that could be of significance for nuclear explosive purposes and are therefore subject to licensing requirements under this part and under section 309(c) of the Nuclear Non-Proliferation Act of 1978. These items are referred to as “The Nuclear Referral List” and are subject to the following licensing requirements:

(1) If NP Column 1 of the Country Chart (Supplement No. 1 to part 738 of the EAR) is indicated in the appropriate ECCN, a license is required to all destinations, except those Nuclear Suppliers Group (NSG) member countries that are listed under Country Group A:4 in Supplement No. 1 to part 740 of the EAR.

(2) If NP Column 2 of the Country Chart (Supplement No. 1 to part 738 of the EAR) is indicated in the applicable ECCN, a license is required to Country Group D:2 (see Supplement No. 1 to part 740 of the EAR).

(3) Other nuclear-related license requirements are described in §§744.2 and 744.5 of the EAR.

**(b) Licensing policy**

(1) To implement the controls in paragraph (a) of this section, the following factors are among those used to determine what action should be taken on individual applications:

(i) Whether the items to be transferred are appropriate for the stated end-use and whether that stated end-use is appropriate for the end-user;

(ii) The significance for nuclear purposes of the particular item;

(iii) Whether the items to be exported or reexported are to be used in research on, or for the development, design, manufacture, construction, operation, or maintenance of, any reprocessing or enrichment facility;

(iv) The types of assurances or guarantees given against use for nuclear explosive purposes or proliferation in the particular case;

(v) Whether any party to the transaction has been engaged in clandestine or illegal procurement activities;

(vi) Whether an application for a license to export or reexport to the end-user has previously been denied, or whether the end-user has previously diverted items received under a general license, a License Exception, or a validated license to unauthorized activities;

(vii) Whether the export or reexport would present an unacceptable risk of diversion to a nuclear explosive activity or unsafeguarded nuclear fuel-cycle activity described in §744.2(a) of the EAR;

(viii) The nonproliferation credentials of the importing country, based on consideration of the following factors:

(A) Whether the importing country is a party to the Nuclear Non-Proliferation Treaty (NPT) or to the Treaty for the Prohibition of Nuclear Weapons in Latin America (Treaty of Tlatelolco) or to a similar international legally-binding nuclear nonproliferation agreement;

(B) Whether the importing country has all of its nuclear activities, facilities, or installations that are operational, being designed, or under construction under International Atomic Energy Agency (IAEA) safeguards or equivalent full scope safeguards;

(C) Whether there is an agreement for cooperation in the civil uses of atomic energy between the U.S. and the importing country;

(D) Whether the actions, statements, and policies of the government of the importing country are in support of nuclear nonproliferation and whether that government is in compliance with its international obligations in the field of non-proliferation;

(E) The degree to which the government of the importing country cooperates in non-proliferation policy generally (e.g.,

willingness to consult on international nonproliferation issues); and

(F) Information on the importing country’s nuclear intentions and activities; and

(ix) Whether the recipient state has sufficient national export controls (as described in paragraph 3 of United Nations Security Council Resolution 1540 (2004)) to prevent an unacceptable risk of retransfer or diversion to a nuclear explosive activity or unsafeguarded nuclear fuel-cycle activity described in § 744.2(a) of the EAR.

(2) In addition, BIS will review license applications in accordance with the licensing policy described in paragraph (b) of this section for items *not* on the Nuclear Referral List that:

(i) Require a license on the CCL for reasons other than “short supply;” and

(ii) Are intended for a nuclear related end-use or end-user.

(3) For the People’s Republic of China, the general licensing policy for applications for those items that would make a direct and significant contribution to nuclear weapons and their delivery systems is extended review or denial.

(4) License applications for items described in paragraph (a) of this section, when destined for the People’s Republic of China will be reviewed in accordance with the licensing policies in both paragraph (b) of this section and § 742.4(b)(7). When such items are destined to Russia, license applications will be reviewed under a presumption of denial. However, exports and reexports of items to Russia in support of U.S.-Russia civil space cooperation activities or commercial space launches will be reviewed on a case-by-case basis.

**(c) Contract sanctity**

Contract sanctity provisions are not available for license applications reviewed under this section.

**(d) Nuclear Suppliers Group**

Most items on the Nuclear Referral List that require a license under NP Column No. 1 on the Country Chart (see Supplement No. 1 to part 738 of the EAR) are contained in the Annex to the “Guidelines for Transfers of Nuclear-Related Dual-Use Equipment, Material, and Related Technology” (the Annex), as published by the International Atomic Energy Agency in INFCIRC/254/Revision 1/Part 2. The adherents to INFCIRC/254/Revision 1/Part 2, which includes the Nuclear Suppliers Guidelines, have agreed to establish export licensing procedures for the transfer of items identified in the Annex. Items that are listed as requiring a license under NP Column No. 2 on the Country Chart (see Supplement No. 1 to part 738 of the EAR) are not included in the Annex and are controlled only by the United States.

**§ 742.4 NATIONAL SECURITY**

**\*\*NS**

**(a) License requirements**

It is the policy of the United States to restrict the export and reexport of items that would make a **significant contribution to the military potential of any other country or combination of countries** that would prove detrimental to the national security of the United States. Accordingly, a license is required for exports and reexports to all destinations, except Canada, for all items in ECCNs on the CCL that include **NS Column 1** in the Country Chart column of the “License Requirements” section. A license is required to all destinations except those in Country Group A:1 (see Supplement No. 1 to part 740), for all items in ECCNs on the CCL that include **NS**

**column 2** in the Commerce Country Chart column of the “License Requirements” section except those cameras in ECCN 6A003.b.4.b that have a focal plane array with 111,000 or fewer elements and a frame rate of 60 Hz or less. A license is required to all destinations except those in Country Group A:1 (see Supplement No. 1 to part 740) for those cameras in ECCN 6A003.b.4.b that have a focal plane array with 111,000 or fewer elements and a frame rate of 60 Hz or less and for cameras being exported or reexported pursuant to an authorization described in §742.6(a)(2)(iii) or (v) of the EAR. The purpose of the controls is to ensure that these items do not make a contribution to the military potential of countries in Country Group D:1 (see Supplement No. 1 to part 740 of the EAR) that would prove detrimental to the national security of the United States. License Exception GBS is available for the export and reexport of certain national security controlled items to Country Group B (see §740.4 and Supplement No. 1 to part 740 of the EAR).

744-S1

744-S2

**(b) Licensing policy**

\*\*China 600-series ECCNs and 9x515 are \*\*embargoed.

**(1)(i)** The policy for national security controlled items exported or reexported to any country except a country in Country Group D:1 (see Supplement No. 1 to part 740 of the EAR) is to approve applications unless there is a significant risk that the items will be diverted to a country in Country Group D:1.

**(ii)** When destined to a country listed in Country Group D:5 in Supplement No. 1 to Part 740 of the EAR, however, items classified under 9x515 or “600 series” ECCNs will be reviewed consistent with United States arms embargo policies in § 126.1 of the ITAR.

**(iii)** When destined to the People’s Republic of China or a country listed in Country Group E:1 in Supplement No. 1 to Part 740 of the EAR, items classified under any 9x515 ECCN will be subject to a policy of denial.

**(2)** Except for those countries described in paragraphs (b)(5) through (b)(7) of this section, the general policy for exports and reexports of items to Country Group D:1 (see Supplement No. 1 to part 740 of the EAR) is to approve applications when BIS determines, on a case-by-case basis, that the items are for civilian use or would otherwise not make a significant contribution to the military potential of the country of destination that would prove detrimental to the national security of the United States.

**(3)** To permit such policy judgments to be made, each application is reviewed in the light of prevailing policies with full consideration of all aspects of the proposed transaction. The review generally includes:

**(i)** An analysis of the kinds and quantities of items to be shipped;

**(ii)** Their military or civilian uses;

**(iii)** The unrestricted availability abroad of the same or comparable items;

**(iv)** The country of destination;

**(v)** The ultimate end-users in the country of destination; and

**(vi)** The intended end-use.

**(4)** Although each proposed transaction is considered individually, items described in Advisory Notes on the Commerce Control List are more likely to be approved than others.

**(5)** In recognition of efforts made to adopt safeguard measures for exports and reexports, Kazakhstan and Mongolia are accorded enhanced favorable consideration licensing treatment.

**(6)** The general policy for Cambodia and Laos is to approve license applications when BIS determines, on a case-by-case basis, that the

**\*\*China Rule expanded with Venezuela & Russia.  
Note: Cross-correlate with §744 S-1 and S-2.**

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items are for an authorized use in Cambodia or Laos and are not likely to be diverted to another country or use contrary to the national security or foreign policy controls of the United States.

**(7)(i)** For Burma, the **People's Republic of China (China)**, the **Russian Federation**, and **Venezuela**, all applications will be reviewed to determine the risk of diversion to a military end user or military end use. There is a general policy of approval for license applications to export, reexport, or transfer items determined to be for civil end users for civil end uses. There is a presumption of denial for license applications to export, reexport, or transfer items that would make a material contribution to the "development," "production," maintenance, repair, or operation of weapons systems, subsystems, and assemblies, such as, but not limited to, those described in supplement no. 7 to part 742 of the EAR, of Burma, China, the Russian Federation, or Venezuela.

**(ii)** The following factors are among those that will be considered in reviewing license applications described in paragraph (b)(7)(i) of this section:

**(A)** The appropriateness of the export, reexport, or transfer for the stated end use;

**(B)** The significance of the item for the weapon systems capabilities of the importing country;

**(C)** Whether any party is a 'military end user' as defined in § 744.21(g) of the EAR;

**(D)** The reliability of the parties to the transaction, including whether:

**(1)** An export or reexport license application has previously been denied;

**(2)** Any parties are or have been engaged in unlawful procurement or diversion activities;

**(3)** The parties are capable of securely handling and storing the items; and

**(4)** End-use checks have been and may be conducted by BIS or another U.S. government agency on parties to the transaction;

**(E)** The involvement of any party to the transaction in military activities, including activities involving the "development," "production," maintenance, repair, or operation of weapons systems, subsystems, and assemblies;

**(F)** Government strategies and policies that support the diversion of exports from their stated civil end use and redirection towards military end use.

**(G)** The scope and effectiveness of the export control system in the importing country; and

**(iii)** The review will also include an assessment of the impact of a proposed export of an item on the United States defense industrial base and the denial of an application for a license that would have a significant negative impact, as defined in § 1756(d)(3) of the Export Control Reform Act of 2018 (50 U.S.C. 4815(d)(3)), on such defense industrial base.

**(8)** For India, there is a general policy of approval for license applications to export, reexport, or transfer items, including "600 series" items, for civil or military end uses in India, for ultimate end use by the Government of India, for reexport to countries in Country Group A:5, or for return to the United States, so long as such items are not for use in nuclear, "missile," or chemical or biological weapons activities.

**(c) Contract sanctity**

Contract sanctity provisions are not available for license applications reviewed under this section.

**(d)** [RESERVED]

**\*\*MT**

## **§ 742.5 MISSILE TECHNOLOGY**

### **(a) License requirements**

(1) In support of U.S. foreign policy to limit the proliferation of missiles, a license is required to export and reexport items related to the design, development, production, or use of missiles. These items are identified in ECCNs on the CCL as MT Column No. 1 in the Country Chart column of the “License Requirements” section. Licenses for these items are required to all destinations, except Canada, as indicated by MT Column 1 of the Country Chart (see Supplement No. 1 to part 738 of the EAR).

(2) The term “missiles” is defined as rocket systems (including ballistic missiles, space launch vehicles, and sounding rockets) and unmanned aerial vehicle systems (including cruise missiles, target drones, and reconnaissance drones) capable of delivering at least 500 kilograms (kg) payload to a range of at least 300 kilometers (km). See §746.3 of the EAR for definition of a “ballistic missile” to be exported or reexported to Iraq.

### **(b) Licensing policy**

(1) Applications to export and reexport items identified in ECCNs on the CCL as MT Column No. 1 in the Country Chart column of the “License Requirements” section will be considered on a case-by-case basis to determine whether the export or reexport would make a material contribution to the proliferation of missiles. Applications for exports and reexports of such items contained in Category 7A or described by ECCN 9A101 on the CCL will be

considered favorably if such exports or reexports are destined to a manned aircraft, satellite, land vehicle, or marine vessel, in quantities appropriate for replacement “parts” and “components” for such applications. When an export or reexport is deemed to make a material contribution to the proliferation of missiles, the license will be denied.

*Note 1 to paragraph (b)(1): Applications to export and reexport an Unmanned Aerial Vehicle (UAV) that has a range and payload capability equal to or greater than 300 km/500 kg but a maximum true airspeed of less than 800 km/hr, and items controlled for Missile Technology reasons for the design, development, production, or use of UAV systems that meet these parameters, will not be subject to a policy of denial but will instead be reviewed on a case-by-case basis to determine whether the export or reexport will be used in support of WMD activities or military activities contrary to U.S. national security, or whether there is a risk of diversion to support such activities.*

(2) The following factors are among those that will be considered in reviewing individual applications.

(i) The specific nature of the end-use;

(ii) The significance of the export and reexport in terms of its contribution to the design, development, production, or use of missiles;

(iii) The capabilities and objectives of the missile and space programs of the recipient country;

(iv) The nonproliferation credentials of the importing country;

(v) The types of assurances or guarantees against design, development, production, or use of missiles that are given in a particular case; and

(vi) The existence of a pre-existing contract.

(3)(i) Consistent with the MTCR Annex *General Minimum Software Note*, MTCR Annex *General Technology Note* and § 750.7(c)(1)(x) of the EAR, the approval of any item controlled for MT reasons on a BIS license also authorizes the export, reexport, or transfer (in-country) to the same ultimate consignee(s) and end user(s) specified on the license of the minimum “software,” excluding source code, controlled for MT reasons that is required for the installation, operation, maintenance or repair of the item and the “technology” required for the installation, operation, maintenance, or repair of the item in order to ensure the item’s safe operation as originally intended. The approval of any item controlled for MT reasons on a BIS license also authorizes the later export, reexport, or transfer (in-country) of “software” controlled for MT reasons intended to correct defects (bug fixes) in a previously legally exported item under a BIS license to the same ultimate consignee(s) and end user(s) specified on the license, provided that the capability and/or performance of the item are not otherwise enhanced. This MT licensing policy is implemented concurrent with § 750.7(c)(1)(x) because it applies to all MT licenses, except when a condition is placed on the license which excludes the use of § 750.7(c)(1)(x), as described in paragraph (b)(3)(ii) of this section.

(ii) Applicants are not required to identify or provide any support documentation for such minimum “software” or “technology” on a license application for MT controlled items because such minimum “software” or “technology” is authorized within the scope of the license, consistent with § 750.7(c)(1)(x). Applicants will be informed when such minimum “software” and/or “technology” in § 750.7(c)(1)(x) is excluded from the license by a BIS condition on the license, which will state the following: “This license does not authorize the export, reexport or transfer (in-country) of the minimum “software” and/or “technology”

specified in paragraph (c)(1)(x) of § 750.7 (See paragraph (b)(3) of § 742.5).”

**Note to paragraph (b)(3):** License Exception TSU under § 740.13 of the EAR is available for the ECCNs controlled for MT reasons specified in paragraph (a)(5) in § 740.2, provided the software or technology is for an end use specified in that paragraph and meets the requirements of License Exception TSU. (See §§ 740.2(a)(5) and 740.13). The licensing policy in paragraph (b)(3) is only available for licensed exports (or reexports, or transfers (in-country)).

(4) **Controls on other items.** BIS will review license applications, in accordance with the licensing policy described in paragraph (b)(1) of this section, for items *not* described in paragraph (a) of this section that:

(i) Require a validated license for reasons other than short supply; and

(ii) Could be destined for the design, development, production, or use of missiles, or for a facility engaged in such activities.

(5) License applications for items described in paragraph (a) of this section, when destined for the People’s Republic of China, will be reviewed in accordance with the licensing policies in both paragraph (b) of this section and §742.4(b)(7). When such items are destined to Russia, license applications will be reviewed under a presumption of denial. However, exports and reexports of items to Russia in support of U.S.-Russia civil space cooperation activities or commercial space launches will be reviewed on a case-by-case basis.

**(c) Contract sanctity**

The following contract sanctity dates have been established:

(1) License applications for batch mixers

specified in ECCN 1B117 involving contracts that were entered into prior to January 19, 1990, will be considered on a case-by-case basis.

(2) License applications subject to ECCN 1B115.b or .c that involve a contract entered into prior to March 7, 1991, will be considered on a case-by-case basis.

(3) Applicants who wish that a pre-existing contract be considered in reviewing their license applications must submit documentation sufficient to establish the existence of a contract.

**(d) *Missile Technology Control Regime***

Missile Technology Control Regime (MTCR) members are listed in Country Group A:2 (see Supplement No. 1 to part 740 of the EAR). Controls on items identified in paragraph (a) of this section are consistent with the list agreed to in the MTCR and included in the MTCR Annex.

**\*\*RS**

**§ 742.6 REGIONAL STABILITY**

**(a) *License requirements***

The following controls are maintained in support of U.S. foreign policy to maintain regional stability:

(1) **RS Column 1 license requirements in general.** A license is required for exports and reexports to all destinations, except Canada, for all items in ECCNs on the CCL that include RS Column 1 in the Country Chart column of the “License Requirements” section. Transactions described in paragraphs (a)(2),(3), or (9) of this section are subject to the RS Column 1 license requirements set forth in those paragraphs rather than the license requirements set forth in this paragraph (a)(1).

(2) **Special RS Column 1 license requirements applicable to certain thermal**

**imaging cameras.**

(i) As indicated in the CCL and in RS Column 1 of the Commerce Country Chart, cameras described in 6A003 b.4.b require a license to all destinations other than Canada if such cameras have a frame rate greater than 60 Hz.

(ii) Except as noted in paragraph (a)(2)(iii) of this section, as indicated in the CCL and in RS Column 1 of the Commerce Country Chart, cameras described in 6A003 b.4.b require a license to all destinations other than Canada if such cameras incorporate a focal plane array with more than 111,000 elements and a frame rate of 60 Hz or less, or cameras described in 6A003 b.4.b that are being exported or reexported to be embedded in a civil product.

(iii) BIS may issue licenses for cameras subject to the license requirement of paragraph (a)(2)(ii) of this section that are fully-packaged for use as consumer-ready civil products that, in addition to the specific transactions authorized by such license, authorize exports and reexports of such cameras without a license to any civil end-user to whom such exports or reexport are not otherwise prohibited by U.S. law in a destination in Country Group A:1 (see Supplement No. 1 to part 740) . The license requirements of this paragraph (a)(2) shall not apply to exports or reexports so authorized. In this paragraph, the term “civil end-user” means any entity that is not a national armed service (army, navy, marine, air force, or coast guard), national guard, national police, government intelligence organization or government reconnaissance organization, or any person or entity whose actions or functions are intended to support “military end-uses” as defined in § 744.17(d).

(iv) Except as noted in paragraph (a)(2)(v) of this section, as indicated in the CCL and in RS Column 1 of the Commerce Country Chart, cameras described in 6A003 b.4.b require a

license to all destinations other than Canada if such cameras incorporate a focal plane array with 111,000 elements or less and a frame rate of 60 Hz or less and are being exported or reexported to be embedded in a civil product.

(v) BIS may also issue licenses for the cameras described in paragraph (a)(2)(iv) that, in addition to the specific transactions authorized by such license, authorize exports and reexports to authorized companies described in the license for the purpose of embedding such cameras into a completed product that will be distributed only in countries in Country Group A:1 (see Supplement No. 1 to part 740). The license requirements of this paragraph (a)(2) shall not apply to exports or reexports so authorized. In this paragraph, the term “authorized companies” means companies that have been previously licensed for export, are not the subject of relevant negative intelligence or open source information, have not been the subject of a Department of Commerce or Department of State enforcement action within the past two years, have demonstrable production capacity, and do not pose an unacceptable risk of diversion.

**(3) Special RS Column 1 license requirement applicable to military commodities.** A license is required for reexports to all destinations except Canada for items classified under ECCN 0A919 except when such items are being reexported as part of a military deployment by a unit of the government of a country in Country Group A:1 (see Supplement No. 1 to part 740) or the United States.

**(4) RS Column 2 license requirements.**

(i) *License Requirements Applicable to Most RS Column 2 Items.* As indicated in the CCL and in RS Column 2 of the Commerce Country Chart (see Supplement No. 1 to part 738 of the EAR), a license is required to any destination except those in Country Group A:1 (see Supplement No. 1 to part 740 of the EAR)

and India for all items in ECCNs on the CCL that include RS Column 2 in the Country Chart column of the “License Requirements” section. A license continues to be required for items controlled under ECCNs 6A003.b.4.b and 9A515.e for RS Column 2 reasons when destined to India.

(ii) *Special RS Column 2 license requirements applicable only to certain cameras.* As indicated by the CCL, and RS column 2 and footnote number 4 to the Commerce Country Chart, a license is required to any destination except a country in Country Group A:1 (see Supplement No. 1 to part 740) for fully-packaged thermal imaging cameras for use as consumer-ready civil products controlled by 6A003.b.4.b when incorporating “focal plane arrays” that have not more than 111,000 elements and a frame rate of 60Hz or less and that are not being exported or reexported to be embedded in a civil product.

**(5) RS requirements that apply to Iraq.** As indicated on the CCL, a license is required for the export or reexport to Iraq or transfer within Iraq of the following items controlled for RS reasons on the CCL: 0B999, 0D999, 1B999, 1C992, 1C995, 1C997, 1C999 and 6A992. The Commerce Country Chart is not designed to determine RS licensing requirements for these ECCNs.

**(6) [Reserved]**

**(7) RS requirement that applies to the People’s Republic of China (China), Russia, or Venezuela.** A license is required to export or reexport to China, Russia, or Venezuela any item described in a .y paragraph of a 9x515 or “600 series” ECCN, except for exports or reexports to Russia for use in, with, or for the International Space Station (ISS), including launch to the ISS. (See § 740.11(e)(1) of the EAR for a definition of the ISS.)

**(8) RS Column 1 license requirements and related policies for ECCN 0Y521 items.**

(i) *Scope.* This paragraph (a)(8) supplements the information in the 0Y521 ECCNs and in Supplement No. 5 to part 774 (Items Classified Under ECCNs 0A521, 0B521, 0C521, 0D521 and 0E521). This paragraph alerts exporters, reexporters and transferors to the procedures that apply to items classified under the 0Y521 ECCNs.

(ii) *0Y521 Items.* Items subject to the EAR that are not listed elsewhere in the CCL, but which the Department of Commerce, with the concurrence of the Departments of Defense and State, has determined should be controlled for export because the items provide at least a significant military or intelligence advantage to the United States or for foreign policy reasons are classified under ECCNs 0A521, 0B521, 0C521, 0D521 and 0E521. These items are typically emerging technologies (including emerging commodities, software and technology) that are not yet included in the CCL, so such items are listed on the CCL in 0Y521 ECCNs while the U.S. Government determines whether classification under a revised or new ECCN, or an EAR 99 designation, is appropriate. The list of items classified under a 0Y521 ECCN is limited to those listed in Supplement No. 5 to part 774.

(iii) *Requirement to be classified under another ECCN within one calendar year of classification under ECCN 0Y521.* Items classified under an ECCN 0Y521 entry must be re-classified under another ECCN within one calendar year from the date they are listed in Supplement No. 5 to part 774 of the EAR. If such re-classification does not occur within that period, classification under an ECCN 0Y521 entry expires, and such items are designated as EAR99 items unless either the CCL is amended to impose a control on such items under another ECCN or the ECCN 0Y521 classification is extended. BIS may extend an item's ECCN

0Y521 classification for two one-year periods, provided that the U.S. Government has submitted a proposal to the relevant multilateral regime(s) to obtain multilateral controls over the item. Further extension beyond three years may occur only if the Under Secretary for Industry and Security makes a determination that such extension is in the national security or foreign policy interests of the United States. Any extension or re-extension of control of an ECCN 0Y521 item, including the determination by the Under Secretary, shall be published in the *Federal Register*.

**(9) Special RS Column 1 license requirement applicable to certain spacecraft and related items.** A license is required for all destinations, including Canada, for spacecraft and related items classified under ECCN 9A515.a.1, .a.2., .a.3., .a.4., .g, and ECCN 9E515.f.

**(b) Licensing policy****(1) Licensing policy for RS Column 1 items.**

(i) Applications for exports and reexports of ECCN 0A501, 0A504, 0A505, 0B501, 0B505, 0D501, 0D505, 0E501, 0E504, and 0E505 items; 9x515 items and “600 series” items will be reviewed on a case-by-case basis to determine whether the transaction is contrary to the national security or foreign policy interests of the United States, including the foreign policy interest of promoting the observance of human rights throughout the world. Other applications for exports and reexports described in paragraph (a)(1), (2), (6), or (8) of this section will be reviewed on a case-by-case basis to determine whether the export or reexport could contribute directly or indirectly to any country's military capabilities in a manner that would alter or destabilize a region's military balance contrary to the foreign policy interests of the United States. Applications for reexports of items described in paragraph (a)(3) of this section will be reviewed applying the policies for similar commodities that are subject to the ITAR. Applications for export

or reexport of items classified under any 9x515 or “600 series” ECCN requiring a license in accordance with paragraph (a)(1) or (9) of this section will also be reviewed consistent with United States arms embargo policies in § 126.1 of the ITAR (22 CFR 126.1) if destined to a country set forth in Country Group D:5 in Supplement No. 1 to part 740 of the EAR. Applications for export or reexport of “parts,” “components,” “accessories,” “attachments,” “software,” or “technology” “specially designed” or otherwise required for the F-14 aircraft will generally be denied. When destined to China or a country listed in Country Group E:1 in Supplement No. 1 to part 740 of the EAR, items classified under ECCN 0A501, 0A505, 0B501, 0B505, 0D501, 0D505, 0E501, 0E504, and 0E505 or any 9x515 ECCN will be subject to a policy of denial. In addition, applications for exports and reexports of ECCN 0A501, 0A505, 0B501, 0B505, 0D501, 0D505, 0E501, 0E504, and 0E505 items when there is reason to believe the transaction involves criminal organizations, rebel groups, street gangs, or other similar groups or individuals, that may be disruptive to regional stability, including within individual countries, will be subject to a policy of denial.

(ii) Applications for exports and reexports to a country listed in Country Group D:5 (in supplement no. 1 to part 740 of the EAR) of technology controlled under 6E001 for the development of focal plane arrays, read-out integrated circuits (ROICs) or image intensifier tubes described in 6A002 or technology controlled under 6E002 for the production of focal plane arrays, read-out integrated circuits (ROICs) or image intensifier tubes described in 6A002 will be reviewed with a presumption of denial.

## (2) Licensing policy for RS Column 2 items.

(i) Except as described in paragraph (b)(2)(ii), applications to export and reexport commodities described in paragraph (a)(4) of this

section will generally be considered favorably on a case-by-case basis unless there is evidence that the export or reexport would contribute significantly to the destabilization of the region to which the equipment is destined.

(ii) Applications to export and reexport items controlled under ECCNs 2A984, 2D984 and 2E984 will be reviewed under a presumption of approval when exported or reexported to Austria, Cyprus, Finland, Ireland, Israel, Malta, Mexico, Singapore or Sweden, provided the items to be exported or reexported are being made to a government end-user or to a person designated by the government end-user pursuant to contract. License applications to export to a designated person must include a statement from the government end-user that the person is so designated. See Supplement No. 2 to part 748, paragraph (k)(2).

(3) For terrorist-designated countries, the applicable licensing policies are found in parts 742 and 746 of the EAR

(4) See §746.3(b) of the EAR for the applicable licensing policies for items controlled for RS reasons to Iraq.

## (5) Spacecraft for launch.

(i) Applications to export or reexport a “spacecraft” controlled under ECCN 9A515.a for launch in or by a country that is not a member of the North Atlantic Treaty Organization (NATO) or a major non-NATO ally of the United States (as defined in 22 CFR 120.31 and 120.32), will require a technology transfer control plan approved by the Department of Defense, an encryption technology control plan approved by the National Security Agency, and Department of Defense monitoring of all launch activities.

(ii) Applications to export or reexport a “spacecraft” controlled under ECCN 9A515.a for

launch in or by a country that is a member of the North Atlantic Treaty Organization (NATO) or a major non-NATO ally of the United States (as defined in 22 CFR 120.31 and 120.32), may require a technology transfer control plan approved by the Department of Defense, an encryption technology control plan approved by the National Security Agency, or Department of Defense monitoring of launch activities.

**(6) Remote sensing spacecraft.** Applications to export or reexport a “spacecraft” described in ECCN 9A515.a.1,.a.2, a.3, or .a.4, sensitive remote sensing components described in 9A515.g, or “technology” described in ECCN 9E515.f may require a government-to-government agreement at the discretion of the U.S. Government.

**(7)** For India, there is a general policy of approval for license applications to export, reexport, or transfer items, including “600 series” items, for civil or military end uses in India, for ultimate end use by the Government of India, for reexport to countries in Country Group A:5, or for return to the United States, so long as such items are not for use in nuclear, “missile,” or chemical or biological weapons activities.

**(8) China, Russia, or Venezuela.** Applications to export or reexport items described in paragraph (a)(7) of this section to China, Russia, or Venezuela will be reviewed on a case-by-case basis to determine whether the transaction is contrary to the national security or foreign policy interests of the United States, including the foreign policy interest of promoting the observance of human rights throughout the world. Such applications will also be reviewed consistent with United States arms embargo policies in § 126.1 of the ITAR (22 CFR 126.1) if destined to a country set forth in Country Group D:5 in Supplement No. 1 to part 740 of the EAR. When destined to China, items classified under any 9x515.y ECCN will be subject to a policy of

denial consistent with paragraph (b)(1) of this section.

**(c) Contract sanctity**

**(1) Contract sanctity date: March 21, 2003.** This contract sanctity date applies only to items controlled under ECCNs 2A983, 2D983 and 2E983 destined for countries not listed in Country Group E (Supplement 1 to part 740). See parts 742 and 746 for the contract sanctity requirements applicable to exports and reexports to countries listed in Country Group E.

**(2) Contract sanctity date: March 19, 2010.** This contract sanctity date applies only to items controlled under ECCNs 2A984, 2D984 and 2E984 destined for countries not listed in Country Group E (Supplement 1 to part 740). See parts 742 and 746 for the contract sanctity requirements applicable to exports and reexports to countries listed in Country Group E.

**(d) U.S. controls**

Although the United States seeks cooperation from like-minded countries in maintaining regional stability controls, at this time these controls are maintained only by the United States.

**§ 742.7 CRIME CONTROL AND DETECTION**

**(a) License requirements**

In support of U.S. foreign policy to promote the observance of human rights throughout the world, a license is required to export and reexport crime control and detection equipment, related technology and software as follows:

**(1)** Crime control and detection instruments and equipment and related “technology” and “software” identified in the appropriate ECCNs on the CCL under CC Column 1 in the Country

\*\*CC

Chart column of the “License Requirements” section. A license is required to countries listed in CC Column 1 (Supplement No. 1 to part 738 of the EAR). Items affected by this requirement are identified on the CCL under the following ECCNs: 0A502, 0A504, 0A505.b, 0A977, 0A978, 0A979, 0D977, 0E502, 0E505 (“technology” for “development” or for “production” of buckshot shotgun shells controlled under ECCN 0A505.b), 0E977, 1A984, 1A985, 3A980, 3A981, 3D980, 3E980, 4A003 (for fingerprint computers only), 4A980, 4D001 (for fingerprint computers only), 4D980, 4E001 (for fingerprint computers only), 4E980, 6A002 (for police-model infrared viewers only), 6E001 (for police-model infrared viewers only), 6E002 (for police-model infrared viewers only), and 9A980.

(2) Shotguns with a barrel length greater than or equal to 24 inches, identified in ECCN 0A502 on the CCL under CC Column 2 in the Country Chart column of the “License Requirements” section regardless of end user to countries listed in CC Column 2 (Supplement No. 1 to part 738 of the EAR).

(3) Shotguns with barrel length greater than or equal to 24 inches, identified in ECCN 0A502 on the CCL under CC Column 3 in the Country Chart column of the “License Requirements” section only if for sale or resale to police or law enforcement entities in countries listed in CC Column 3 (Supplement No. 1 to part 738 of the EAR).

(4) Certain crime control items require a license to all destinations, except Canada. These items are identified under ECCNs 0A982, 0A503, and 0E982. Controls for these items appear in each ECCN; a column specific to these controls does not appear in the Country Chart (Supplement No. 1 to part 738 of the EAR).

(5) Items designed for the execution of human beings as identified in ECCN 0A981 require a

license to all destinations including Canada.

(6) See §742.11 of the EAR for further information on items controlled under ECCN 0A983, which require a license to all destinations, including Canada.

**(b) Licensing policy**

(1) Applications for items controlled under this section will generally be considered favorably on a case-by-case basis, unless there is civil disorder in the country or region or unless there is a risk that the items will be used to violate or abuse human rights. The judicious use of export controls is intended to deter human rights violations and abuses, distance the United States from such violations and abuses, and avoid contributing to civil disorder in a country or region.

(2) BIS will review license applications in accordance with the licensing policy in paragraph (b)(1) of this section for items that are not controlled under this section but that require a license pursuant to another section for any reason other than short supply and could be used by the recipient Government or other end user specifically to violate or abuse human rights.

**(c) Contract sanctity**

Contract sanctity date: August 22, 2000. Contract sanctity applies only to items controlled under ECCNs 0A982, 0A503, and 0E982 destined for countries not listed in CC Column 1 of the Country Chart (Supplement No. 1 to part 738 of the EAR).

**(d) U.S. controls**

In maintaining its controls on crime control and detection items, the United States considers international norms regarding human rights and the practices of other countries that control exports to promote the observance of human rights. However, these controls are not based on

the decisions of any multinational export control regime and may differ from controls imposed by other countries.

**\*\*AT-IRAN**

**§ 742.8 ANTI-TERRORISM: IRAN**

**(a) License requirements**

(1) A license is required for anti-terrorism purposes to export or reexport to Iran any item for which AT column 1 or AT column 2 is indicated in the Country Chart column of the applicable ECCN or any item described in ECCNs 1C350, 1C355, 1C395, 2A994, 2D994 and 2E994. See paragraph (a)(5) of this section for controls maintained by the Department of the Treasury. See §746.7 of the EAR for additional EAR license requirements that apply to Iran.

(2) [RESERVED]

(3) The Secretary of State has designated Iran as a country whose Government has repeatedly provided support for acts of international terrorism.

(4) In support of U.S. foreign policy applicable to terrorism-supporting countries, the EAR imposes anti-terrorism license requirements on exports and reexports to Iran pursuant to sections 6(j) and 6(a) of the Export Administration Act.

(i) **Section 6(j) anti-terrorism controls.** Section 6(j) requirements apply to all exports and reexports destined to the police, military or other sensitive end-users of items listed on the Commerce Control List (Supp. No. 1 to part 774 of the EAR) for which any listed reason for control in the applicable ECCN is NS (national security), CB (chemical or biological weapons proliferation), MT (missile proliferation), NP (nuclear weapons proliferation) or an Export Control Classification Number ending in "18" (military related items). BIS may not issue a license for a transaction subject to section 6(j)

controls until 30 days after the notification described in Section 6(j)(2) of the Export Administration Act is delivered to the committees of Congress specified in that section. License applications for all other items controlled under section 6(a) are also reviewed to determine whether section 6(j) applies.

(ii) **Section 6(a) anti-terrorism controls.** Section 6(a) requirements apply to all exports and reexports regardless of the end user of items described in paragraph (a)(1) of this section.

(5) Exports and certain reexports to Iran are subject to a comprehensive embargo administered by the Department of the Treasury's Office of Foreign Assets Control (OFAC). If you wish to export or reexport to Iran, the Government of Iran or any entity owned or controlled by that Government, you should review part 746 of the EAR and consult with OFAC. Please note that authorization from OFAC constitutes authorization under the EAR and no separate license or authorization from BIS is required.

**(b) Licensing policy**

(1) The Iran-Iraq Arms Non-Proliferation Act of October 23, 1992, requires BIS to deny licenses for items controlled to Iran for national security (section 5 of the 1979 EAA) or foreign policy reasons (section 6 of the 1979 EAA), absent contract sanctity or a Presidential waiver. License applications for which contract sanctity is established may be considered under policies in effect prior to the enactment of that Act. Otherwise, licenses for such items to Iran are subject to a general policy of denial.

(2) License applications for items controlled under section 6(a) of the EAA will also be reviewed to determine whether requirements of section 6(j) apply. Whenever the Secretary of State determines that an export or reexport could make a significant contribution to the military

potential of Iran, including its military logistics capability, or could enhance Iran's ability to support acts of international terrorism, the Secretaries of State and Commerce will notify the Congress 30 days prior to the issuance of a license.

**(c) Contract sanctity**

Section 6(f) of the Export Administration Act requires that a report be delivered to Congress before foreign policy based export controls are imposed, expanded or extended. Consistent with section 6(p) of the Export Administration Act, certain exports or reexports in fulfillment of contracts entered into before such delivery of the report applicable to a particular license requirement or licensing policy may be subject to the license requirements and licensing policy that were in force before the report was delivered. License applicants who wish to have their application considered under such pre-existing requirements or policy must include evidence of the pre-existing contract with their license applications.

**(d) U.S. controls**

Although the United States seeks cooperation from like-minded countries in maintaining anti-terrorism controls, at this time these controls are maintained only by the United States.

**§ 742.9 ANTI-TERRORISM: SYRIA**

**\*\*AT-SYRIA**

**(a) License requirements**

(1) If AT Column 1 of the Country Chart (Supplement No. 1 to part 738 of the EAR) is indicated in the appropriate ECCN, a license is required for export and reexport to Syria for anti-terrorism purposes.

(2) The Secretary of State has designated Syria

as a country whose government has repeatedly provided support for acts of international terrorism.

(3) In support of U.S. foreign policy against terrorism, BIS maintains two types of anti-terrorism controls on the export and reexport to Syria of items described in Supplement No. 2 to part 742.

(i) Items described in paragraphs (c)(1) through (c)(5) of Supplement No. 2 to part 742, if destined to military, police, intelligence or other end-users in Syria, are controlled under section 6(j) of the Export Administration Act, as amended (EAA).

(ii) Items listed in paragraphs (c)(1) through (c)(5) of Supplement No. 2 to part 742 destined to other end-users in Syria, as well as items to all end-users listed in (c)(6) through (c)(8), (c)(10) through (c)(14), (c)(16) through (c)(19), and (c)(22) through (c)(44) of Supplement No. 2 to part 742, are controlled to Syria under section 6(a) of the EAA.

**(b) Licensing policy**

(1) Applications for export and reexport to all end-users in Syria of the following items will generally be denied:

(i) *Items that are controlled for chemical and biological weapons proliferation reasons to any destination.* These are items that contain CB Column 1, CB Column 2, or CB Column 3 in the Country Chart column of the "License Requirements" section of an ECCN on the CCL.

(ii) *Military-related items controlled for national security reasons to any destination.* These are items that contain NS Column 1 in the Country Chart column of the "License Requirements" section in an ECCN on the CCL and are controlled by equipment or material entries ending in the number "18."

**(iii) *Items that are controlled for missile proliferation reasons to any destination.*** These are items that have an MT Column 1 in the Country Chart column of the “License Requirements” section of an ECCN on the CCL.

**(iv)** All aircraft (powered and unpowered), helicopters, engines, and related spare parts and components, except that parts and components intended to ensure the safety of civil aviation and the safe operation of commercial passenger aircraft will be reviewed on a case-by-case basis, with a presumption of approval. These are items controlled to any destination for national security and missile technology reasons and items controlled to Syria for anti-terrorism purposes. Such items contain an NS Column 1, NS Column 2, MT Column 1, or AT Column 1 in the Country Chart column of the “License Requirements” section of an ECCN on the CCL. Note that, consistent with the general rule that applies to computing U.S. parts and components content incorporated into foreign made products, all aircraft-related items that require a license to Syria will be included as controlled U.S. content, except for ECCNs 6A998, 7A994, and 9A991.d, for purposes of such licensing requirements.

**(v) *Cryptographic, cryptoanalytic, and crypto-logic items controlled to any destination for national security reasons.*** Such items contain an AT Column 1 and an NS Column 1 or NS Column 2 in the Country Chart column of the “License Requirements” section of an ECCN on the CCL.

**(vi)** Explosives detection equipment controlled under ECCN 2A983.

**(vii)** “Software” (ECCN 2D983) specially designed or modified for the “development”, “production” or “use” of explosives detection equipment controlled by 2A983.

**(viii)** “Technology” (ECCN 2E983)

specially designed or modified for the “development”, “production” or “use” of explosives detection equipment controlled by 2A983.

**(ix)** Commercial charges and devices controlled under ECCN 1C992.

**(x)** Ammonium nitrate, including certain fertilizers containing ammonium nitrate, controlled under ECCN 1C997.

**(xi)** Technology for the production of Chemical Weapons Convention (CWC) Schedule 2 and 3 chemicals controlled under ECCN 1E355.

**(xii)** Concealed object detection equipment controlled under ECCN 2A984.

**(xiii)** “Software” (ECCN 2D984) “required” for the “development”, “production” or “use” of concealed object detection equipment controlled by 2A984.

**(xiv)** “Technology” (ECCN 2E984) “required” for the “development”, “production” or “use” of concealed object detection equipment controlled by 2A984, or the “development” of “software” controlled by 2D984.

**(2)** Applications for export and reexport to Syria of all other items described in paragraph (a) of this section, and not described by paragraph (b)(1) of this section, will generally be denied if the export or reexport is destined to a military end-user or for military end-use. Applications for non-military end-users or for non-military end-uses will be considered on a case-by-case basis.

**(3)** Notwithstanding the provisions of paragraphs (b)(1) and (b)(2), of this section, applications for Syria will be considered on a case-by-case basis if:

**(i)** The transaction involves the reexport to

Syria of items where Syria was not the intended ultimate destination at the time of original export from the United States, provided that the exports from the U.S. occurred prior to the applicable contract sanctity date (or, where the contract sanctity date is December 16, 1986, prior to June 18, 1987).

(ii) The U.S. content of foreign-produced commodities is 20% or less by value; or

(iii) The commodities are medical items.

*Note to paragraph (b) of this section: Applicants who wish any of the factors described in paragraph (b) of this section to be considered in reviewing their license applications must submit adequate documentation demonstrating the value of the U.S. content, the specifications and medical use of the equipment, or the date of export from the United States.*

(4) License applications for items reviewed under 6(a) controls will also be reviewed to determine the applicability of 6(j) controls to the transaction. When it is determined that an export or reexport could make a significant contribution to the military potential of Syria, including its military logistics capability, or could enhance Syria's ability to support acts of international terrorism, the Secretaries of State and Commerce will notify the Congress 30 days prior to issuance of a license.

**(c) Contract sanctity**

Contract sanctity dates and related licensing policies for Syria are set forth in Supplement No. 2 to part 742. Applicants who wish a pre-existing contract to be considered must submit sufficient documentation to establish the existence of a contract.

**(d) U.S. controls**

Although the United States seeks cooperation from like-minded countries in maintaining anti-terrorism controls, at this time these controls are maintained only by the United States.

(e) Section 746.9 (Syria) of the EAR sets forth the export and reexport controls for Syria. Section 746.9 supersedes the provisions of paragraphs (a) through (d) of this section.

**§ 742.10 [RESERVED]**

**formerly  
\*\*AT-SUDAN**

**§ 742.11 SPECIALLY DESIGNED IMPLEMENTS OF TORTURE, INCLUDING THUMBSCREWS, THUMBCUFFS, FINGERCUFFS, SPIKED BATONS, AND PARTS AND ACCESSORIES, N.E.S.**

**\*\*Torture  
\*\*Thumbscrews  
\*\*Fingercuffs**

**(a) License requirements**

In support of U.S. foreign policy to promote the observance of human rights throughout the world, a license is required to export any commodity controlled by ECCN 0A983 to all destinations including Canada.

**(b) Licensing policy**

Applications for such licenses will generally be denied to all destinations.

**(c) Contract sanctity**

The contract sanctity date is November 9, 1995. Contract sanctity will be a factor in considering only applications for export to the NATO countries, Japan, Australia, and New Zealand.

**(d) U.S. Controls**

In maintaining its controls on specially designed instruments of torture the United States considers

international norms regarding human rights and the practices of other countries that control exports to promote the observance of human rights. However, these controls are not based on the decisions of any multinational export control regime and may differ from controls imposed by other countries.

**§ 742.12 [RESERVED]**

**\*\*SL**

**§ 742.13 COMMUNICATIONS  
INTERCEPTING DEVICES;  
SOFTWARE AND TECHNOLOGY  
FOR COMMUNICATIONS  
INTERCEPTING DEVICES**

**(a) License requirement**

(1) In support of U.S. foreign policy to prohibit the export of items that may be used for the surreptitious interception of wire, oral, or electronic communications, a license is required for all destinations, including Canada, for ECCNs having an “SL” under the “Reason for Control” paragraph. These items include any electronic, mechanical, or other device primarily useful for the surreptitious interception of wire, oral, or electronic communications (ECCNs 5A001.f.1 and 5A980); and for related “software” primarily useful for the surreptitious interception of wire, oral, or electronic communications (ECCN 5D001.c and 5D980.a); and “software” primarily useful for the “development”, “production”, or “use” of devices controlled under ECCNs 5A001.f.1 and 5A980 (ECCNs 5D001.a and 5D980.b); and for “technology” primarily useful for the “development”, “production”, or “use” of items controlled by ECCNs 5A001.f.1, 5D001.a (for 5A001.f.1), 5A980 and 5D980 (ECCNs 5E001.a and 5E980); and for “software” primarily useful to support such ECCN 5E001.a “development”, “production”, or “use” “technology” for 5A001.f.1 equipment and

certain 5D001.a “software” (ECCN 5D001.b). These licensing requirements do not supersede the requirements contained in the Omnibus Crime Control and Safe Streets Act of 1968, as amended (18 U.S.C. 2512). This license requirement is not reflected on the Commerce Country Chart (Supplement No. 1 to Part 738 of the EAR).

(2) “Communications intercepting devices” are electronic, mechanical, or other devices that can be used for interception of wire, oral, or electronic communications if their design renders them primarily useful for surreptitious listening even though they may also have innocent uses. A device is not restricted merely because it is small or may be adapted to wiretapping or eavesdropping. Some examples of devices to which these restrictions apply are: the martini olive transmitter; the infinity transmitter; the spike mike; and the disguised microphone appearing as a wristwatch, cufflink, or cigarette pack; etc. The restrictions do not apply to devices such as the parabolic microphone or other directional microphones ordinarily used by broadcasters at sports events, since these devices are not primarily useful for surreptitious listening.

**(b) Licensing policy**

(1) License applications, except for those applications for which a license is required for both SL and AT reasons, will generally be approved for exports or reexports requiring a license for SL reasons when the exporter or reexporter is:

(i) A provider of wire or electronic communication services or an officer, agent, or employee of, or person under contract with such a provider, in the normal course of the business of providing that wire or electronic communication service; *or*

(ii) An officer, agent, or employee of, or a person under contract with, the United States, one

of the 50 States, or a political subdivision thereof, when engaged in the normal course of government activities.

*Note to paragraph (b)(1): For SL reasons, license applications will generally be denied to countries that are subject to controls for AT reasons.*

*Note to paragraph (b)(1)(i): The normal course of the business of providing a wire or electronic communications service includes any activity which is a necessary incident to the rendition of the service or to the protection of the rights and property of the provider of that service.*

(2) Other license applications will generally be denied for exports or reexports requiring a license for SL reasons.

**(c) Contract sanctity**

Contract sanctity provisions are not available for license applications involving exports and reexports of communications interception devices.

**(d) U.S. controls**

Controls on items classified under ECCNs 5A980, 5D980, and 5E980 are maintained by the United States government for foreign policy purposes.

**§ 742.14 SIGNIFICANT ITEMS: HOT SECTION TECHNOLOGY FOR THE DEVELOPMENT, PRODUCTION OR OVERHAUL OF COMMERCIAL AIRCRAFT ENGINES, COMPONENTS, AND SYSTEMS**

**(a) License requirement**

Licenses are required for all destinations, except

Canada, for ECCNs having an “SI” under the “Reason for Control” paragraph. These items include hot section technology for the development, production or overhaul of commercial aircraft engines controlled under ECCN 9E003.a.1 through a.8, .h, .i and .j, and related controls.

**(b) Licensing policy**

Pursuant to section 6 of the Export Administration Act of 1979, as amended, foreign policy controls apply to technology required for the development, production or overhaul of commercial aircraft engines controlled by ECCN 9E003a.1 through a.8, .h, .i, and .j, and related controls. These controls supplement the national security controls that apply to these items. Applications for export and reexport to all destinations will be reviewed on a case-by-case basis to determine whether the export or reexport is consistent with U.S. national security and foreign policy interests. The following factors are among those that will be considered to determine what action will be taken on license applications:

- (1) The country of destination;
- (2) The ultimate end-user(s);
- (3) The technology involved;
- (4) The specific nature of the end-use(s); and
- (5) The types of assurance against unauthorized use or diversion that are given in a particular case.

**(c) Contract sanctity**

Contract sanctity provisions are not available for license applications reviewed under this §742.14.

**(d) [RESERVED]**

Note: "Most encryption items may be exported under the provisions of License Exception ENC set forth in §740.17 of the EAR."

\*\*EI

## § 742.15 ENCRYPTION ITEMS

Encryption items can be used to maintain the secrecy of information, and thereby may be used by persons abroad to harm U.S. national security, foreign policy and law enforcement interests. The United States has a critical interest in ensuring that important and sensitive information of the public and private sector is protected. Consistent with our international obligations as a member of the Wassenaar Arrangement, the United States has a responsibility to maintain control over the export and reexport of encryption items. As the President indicated in Executive Order 13026 and in his Memorandum of November 15, 1996, exports and reexports of encryption software, like exports and reexports of encryption hardware, are controlled because of this functional capacity to encrypt information, and not because of any informational or theoretical value that such software may reflect, contain, or represent, or that its export or reexport may convey to others abroad. For this reason, export controls on encryption software are distinguished from controls on other software regulated under the EAR.

### (a) Licensing requirements and policy

**(1) Licensing requirements.** A license is required to export or reexport encryption items ("EI") classified under ECCN 5A002, 5A004, 5D002.a, .c.1 or .d (for equipment and "software" in ECCNs 5A002 or 5A004, 5D002.c.1); or 5E002 for "technology" for the "development," "production," or "use" of commodities or "software" controlled for EI reasons in ECCNs 5A002, 5A004 or 5D002, and "technology" classified under 5E002.b to all destinations, except Canada. Refer to part 740 of the EAR, for license exceptions that apply to certain encryption items, and to § 772.1 of the EAR for definitions of encryption items and terms. Most encryption items may be exported under the provisions of License Exception ENC set forth in

**§740.17 of the EAR.** Following classification or self-classification, items that meet the criteria of Note 3 to Category 5 - Part 2 of the Commerce Control List (the "mass market" note), are classified ECCN 5A992.c or 5D992.c and are no longer subject to this Section (see § 740.17 of the EAR). Before submitting a license application, please review License Exception ENC to determine whether this license exception is available for your item or transaction. For exports, reexports, or transfers (in-country) of encryption items that are not eligible for a license exception, you must submit an application to obtain authorization under a license or an Encryption Licensing Arrangement.

**(2) Licensing policy.** Applications will be reviewed on a case-by-case basis by BIS, in conjunction with other agencies, to determine whether the export, reexport, or transfer (in-country) is consistent with U.S. national security and foreign policy interests. Encryption Licensing Arrangements (ELAs) may be authorized for exports, reexports, or transfers (in-country) of unlimited quantities of encryption commodities and software described in § 740.17 (b)(2)(i)(A) that have been classified by BIS to "more sensitive government end users," in all destinations, except countries listed in Country Groups E:1 or E:2 of Supplement No. 1 to part 740. ELAs for "more sensitive government end users" may be authorized for encryption commodities and software described in § 740.17(b)(2)(ii) through (iv) under certain circumstances. ELAs are valid for four years and may require pre-shipment notification. Applicants seeking authorization for Encryption Licensing Arrangements must specify the sales territory on their license applications.

### (b) Publicly available encryption source code

**(1) Scope and eligibility.** Subject to the notification requirements of paragraph (b)(2) of this section, publicly available (see § 734.3(b)(3)

of the EAR) encryption source code classified under ECCN 5D002 is not subject to the EAR. Such source code is publicly available even if it is subject to an express agreement for the payment of a licensing fee or royalty for commercial production or sale of any product developed using the source code.

**(2) Notification requirement.** You must notify BIS and the ENC Encryption Request Coordinator via e-mail of the Internet location (e.g., URL or Internet address) of the publicly available encryption source code classified under ECCN 5D002 or provide each of them a copy of the publicly available encryption source code. If you update or modify the source code, you must also provide additional copies to each of them each time the cryptographic functionality of the source code is updated or modified. In addition, if you posted the source code on the Internet, you must notify BIS and the ENC Encryption Request Coordinator each time the Internet location is changed, but you are not required to notify them of updates or modifications made to the encryption source code at the previously notified location. In all instances, submit the notification or copy to [crypt@bis.doc.gov](mailto:crypt@bis.doc.gov) and to [enc@nsa.gov](mailto:enc@nsa.gov).

**§ 742.16 [RESERVED]**

**\*\*FC**

**§ 742.17 EXPORTS OF FIREARMS TO OAS MEMBER COUNTRIES**

**(a) License requirements**

BIS maintains a licensing system for the export of firearms and related items to all OAS member countries. This action is based on the

<sup>1</sup> Status of Convention as of April 13, 1999 had not

Organization of American States (OAS) Model Regulations for the Control of the International Movement of Firearms, their Parts and Components and Munitions (OAS Model Regulations) which were developed to assist OAS member countries to implement the Inter-American Convention Against the Illicit Manufacturing of and Trafficking in Firearms, Ammunition, Explosives, and Other Related Materials (Firearms Convention)<sup>1</sup>. Items subject to these controls are identified by “FC Column 1” in the “License Requirements” section of their Export Control Classification Number (ECCN) on the Commerce Control List (CCL). If “FC Column 1” of the Commerce Country Chart (Supplement No. 1 to part 738 of the EAR) is indicated for a particular country, a license is required for export to that destination. Licenses will generally be issued on a Firearms Convention (FC) Import Certificate or equivalent official document, satisfactory to BIS, issued by the government of the importing OAS member country.

**(b) Licensing policy**

Applications supported by an FC Import Certificate or equivalent official document issued by the government of the importing country for such items will generally be approved, except there is a policy of denial for applications to export items linked to such activities as drug trafficking, terrorism, and transnational organized crime.

**(c) Contract sanctity**

Contract sanctity provisions are not available for license applications under this §742.17.

**(d) OAS Model Regulations**

The OAS Model Regulations on which entered into force.

regulations are based are designed by OAS member countries to combat illicit manufacturing of and trafficking in firearms, ammunition, explosives, and other related materials in North and South America because of their links to such activities as drug trafficking, terrorism, and transnational organized crime.

**(e) OAS member countries to which firearms controls under this section apply**

The OAS member countries include: Antigua and Barbuda, Argentina, the Bahamas, Barbados, Belize, Bolivia, Brazil, Canada, Chile, Colombia, Costa Rica, Dominica, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, St. Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago, the United States, Uruguay, and Venezuela.

**(f) Items/Commodities**

Items requiring a license under this section are ECCNs 0A501 (except 0A501.y), 0A502, 0A504 (except 0A504.f), and 0A505 (except 0A505.d). (See Supplement No. 1 to part 774 of the EAR).

**(g) Validity period for licenses**

Although licenses generally will be valid for a period of four years, your ability to ship items that require an FC Import Certificate or equivalent official document under this section may be affected by the validity of the FC Import Certificate or equivalent official document (see § 748.12(d)(4) of the EAR).

**§ 742.18 CHEMICAL WEAPONS CONVENTION (CWC OR CONVENTION)**

States that are parties to the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction, also known as the Chemical Weapons Convention (CWC or Convention), undertake never to develop, produce, acquire, stockpile, transfer, or use chemical weapons. As a State Party to the Convention, the United States is subjecting certain toxic chemicals and their precursors listed in Schedules within the Convention to trade restrictions. Trade restrictions include: a prohibition on the export of Schedule 1 chemicals to States not Party to the CWC; a prohibition on the reexport of Schedule 1 chemicals to all destinations (both States Parties to the CWC and States not Party to the CWC); license requirements for the export of Schedule 1 chemicals to all States Parties; a prohibition on the export of Schedule 2 chemicals to States not Party to the CWC; and an End-Use Certificate requirement for exports of Schedule 3 chemicals to States not Party to the CWC. Exports of CWC chemicals that do not require a license for CW reasons (e.g., exports and reexports of Schedule 2 and Schedule 3 chemicals to States Parties to the CWC) may require a license for other reasons set forth in the EAR. (See, in particular, the license requirements in §742.2 of the EAR that apply to exports and reexports of precursor chemicals controlled by ECCN 1C350, for CB reasons. Also note the end-use and end-user restrictions in part 744 of the EAR and the restrictions that apply to embargoed countries in part 746 of the EAR.)

**(a) License requirements**

**(1) Schedule 1 chemicals and mixtures controlled under ECCN 1C351.** A license is required for CW reasons to export or reexport Schedule 1 chemicals controlled under ECCN 1C351.d.11 or d.12 to all destinations including Canada. CW applies to 1C351.d.11 for ricin in the form of Ricinus Communis Agglutinin<sub>II</sub> (RCA<sub>II</sub>), which is also known as ricin D or Ricinus Communis Lectin<sub>III</sub> (RCL<sub>III</sub>), and Ricinus

Communis Lectin<sub>IV</sub> (RCL<sub>IV</sub>), which is also known as ricin E. CW applies to 1C351.d.12 for saxitoxin identified by C.A.S. #35523-89-8. (Note that the advance notification procedures and annual reporting requirements described in §745.1 of the EAR also apply to exports of Schedule 1 chemicals.)

**(2) Schedule 2 and Schedule 3 chemicals and mixtures controlled under ECCN 1C350, ECCN 1C355, or ECCN 1C395.**

**(i) States Parties to the CWC.** Neither a license nor an End-Use Certificate is required for CW reasons to export or reexport Schedule 2 or 3 chemicals and mixtures controlled under ECCN 1C350, ECCN 1C355, or ECCN 1C395 to States Parties to the CWC (destinations listed in Supplement No. 2 to part 745 of the EAR).

**(ii) States not Party to the CWC.**

**(A) Schedule 2 chemicals.** A license is required for CW reasons to export or reexport Schedule 2 chemicals and mixtures controlled under ECCN 1C350.b, ECCN 1C355.a, or ECCN 1C395 to States not Party to the CWC (destinations *not* listed in Supplement No. 2 to part 745 of the EAR).

**(B) Schedule 3 chemicals.**

**(1) Exports.** A license is required for CW reasons to export Schedule 3 chemicals and mixtures controlled under ECCN 1C350.c, ECCN 1C355.b, or ECCN 1C395.b to States not Party to the CWC (destinations *not* listed in Supplement No. 2 to Part 745 of the EAR), *unless* the exporter obtains from the consignee an End-Use Certificate (issued by the government of the importing country) prior to exporting the Schedule 3 chemicals and submits it to BIS in accordance with the procedures described in §745.2 of the EAR. Note, however, that obtaining an End-Use Certificate does not relieve the exporter from the responsibility of complying

with other license requirements set forth elsewhere in the EAR.

**(2) Reexports.**

**(i) Reexports from States Parties to the CWC.** Neither a license nor an End-Use Certificate is required for CW reasons to reexport Schedule 3 chemicals and mixtures controlled under ECCN 1C350.c, ECCN 1C355.b, or ECCN 1C395.b from States Parties to the CWC (destinations listed in Supplement No. 2 to part 745 of the EAR) to States not Party to the CWC. However, a license may be required for other reasons set forth elsewhere in the EAR. In addition, reexports of Schedule 3 chemicals may be subject to an End-Use Certificate requirement by governments of other countries when the chemicals are destined for States not Party to the CWC.

**(ii) Reexports from States not Party to the CWC.** A license is required for CW reasons to reexport Schedule 3 chemicals and mixtures controlled under ECCN 1C350.c, ECCN 1C355.b, or ECCN 1C395.b from a State not Party to the CWC (a destination *not* listed in Supplement No. 2 to part 745 of the EAR) to any other State not Party to the CWC.

**(C) Technology controlled under ECCN 1E355.** A license is required for CW reasons to export or reexport technology controlled under ECCN 1E355 to all States not Party to the CWC (destinations *not* listed in Supplement No. 2 to part 745 of the EAR), except for Israel and Taiwan.

**(b) Licensing policy**

**(1) Schedule 1 chemicals and mixtures.**

**(i) Exports to States Parties to the CWC.** Applications to export Schedule 1 chemicals controlled under ECCN 1C351.d.11 or .d.12 to States Parties to the CWC (destinations listed in

Supplement No. 2 to part 745 of the EAR) generally will be denied, *unless* all of the following conditions are met:

(A) The chemicals are destined only for purposes not prohibited under the CWC (i.e., research, medical, pharmaceutical, or protective purposes);

(B) The types and quantities of chemicals are strictly limited to those that can be justified for those purposes;

(C) The Schedule 1 chemicals were not previously imported into the United States (this does not apply to Schedule 1 chemicals imported into the United States prior to April 29, 1997, or imported into the United States directly from the same State Party to which they now are to be returned, i.e., exported); *and*

(D) The aggregate amount of Schedule 1 chemicals in the country of destination at any given time is equal to or less than one metric ton *and* receipt of the proposed export will *not* cause the country of destination to acquire or to have acquired one metric ton or more of Schedule 1 chemicals in any calendar year.

(ii) *Exports to States not Party to the CWC.* Applications to export Schedule 1 chemicals controlled under ECCN 1C351.d.11 or .d.12 to States not Party to the CWC (destinations *not* listed in Supplement No. 2 to part 745 of the EAR) generally will be denied, consistent with U.S. obligations under the CWC to prohibit exports of these chemicals to States not Party to the CWC.

(iii) *Reexports.* Applications to reexport Schedule 1 chemicals controlled under ECCN 1C351.d.11 or .d.12 generally will be denied to all destinations (including both States Parties to the CWC and States not Party to the CWC).

**(2) Schedule 2 chemicals and mixtures.**

Applications to export or reexport Schedule 2 chemicals and mixtures controlled under ECCN 1C350.b, ECCN 1C355.a, or ECCN 1C395 to States not Party to the CWC (destinations *not* listed in Supplement No. 2 to part 745 of the EAR) generally will be denied, consistent with U.S. obligations under the CWC to prohibit exports of these chemicals to States not Party to the CWC.

**(3) Schedule 3 chemicals and mixtures.**

(i) *Exports.* Applications to export Schedule 3 chemicals and mixtures controlled under ECCN 1C350.c, ECCN 1C355.b, or ECCN 1C395.b to States not Party to the CWC (destinations *not* listed in Supplement No. 2 to part 745 of the EAR) generally will be denied.

(ii) *Reexports from States not Party to the CWC.* Applications to reexport Schedule 3 chemicals and mixtures controlled under ECCN 1C350.c, ECCN 1C355.b, or ECCN 1C395.b from a State not Party to the CWC (a destination *not* listed in Supplement No. 2 to part 745 of the EAR) to any other State not Party to the CWC generally will be denied.

**(4) Technology controlled under ECCN 1E355.** Exports and reexports of technology controlled under ECCN 1E355 will be reviewed on a case-by-case basis.

**(c) Contract sanctity**

Contract sanctity provisions are not available for license applications reviewed under this section.

**§ 742.19 ANTI-TERRORISM: NORTH KOREA**

**\*\*AT-NK**

**(a) License requirements**

**(1)** All items on the Commerce Control List (CCL) (i.e., with a designation other than

EAR99) that are controlled for anti-terrorism reasons require a license for export or reexport to North Korea. This includes all items on the CCL containing AT column 1 or AT column 2 in the Country Chart column of the License requirements section of an ECCN; and ECCNs 0A505.c, 0A988, 0A999, 0B505.c, 0B999, 0D999, 1A999, 1B999, 1C995, 1C999, 1D999, 2A994, 2A999, 2B999, 2D994, 2E994, 3A999, and 6A999. See also part 746 of the EAR.

(2) The Secretary of State has designated North Korea as a country whose Government has repeatedly provided support for acts of international terrorism.

(3) In support of U.S. foreign policy on terrorism-supporting countries, BIS maintains two types of anti-terrorism controls on the export and reexport of items described in Supplement 2 to part 742.

(i) Items described in paragraphs (c)(1) through (c)(5) of Supplement No. 2 to part 742 are controlled under section 6(j) of the Export Administration Act, as amended (EAA), if destined to military, police, intelligence or other sensitive end-users.

(ii) Items described in paragraphs (c)(1) through (c)(5) of Supplement No. 2 to part 742 destined to non-sensitive end-users, as well as items described in paragraph (c)(6) through (c)(45) to all end-users, are controlled to North Korea under section 6(a) of the EAA. License applications for items reviewed under section 6(a) controls will also be reviewed to determine the applicability of section 6(j) controls to the transaction. When it is determined that an export or reexport could make a significant contribution to the military potential of North Korea, including its military logistics capability, or could enhance North Korea's ability to support acts of international terrorism, the Secretaries of State and Commerce will notify the Congress 30 days prior to issuance of a license. (See

Supplement No. 2 to part 742 for more information on items controlled under sections 6(a) and 6(j) of the EAA and §750.6 of the EAR for procedures for processing license applications for items controlled under EAA section 6(j).)

**(b) Licensing policy**

(1) Applications for export and reexport to all end-users in North Korea of the following items will generally be denied:

(i) *Items controlled for chemical and biological weapons proliferation reasons to any destination.* These items contain CB Column 1, CB Column 2, or CB Column 3 in the Country Chart column of the “License Requirements” section of an ECCN on the CCL.

(ii) Items controlled for missile proliferation reasons to any destination. These items have an MT Column 1 in the Country Chart column of the “License Requirements” section of an ECCN on the CCL.

(iii) *Items controlled for nuclear weapons proliferation reasons to any destination.* These items contain NP Column 1 or NP Column 2 in the Country Chart column of the “License Requirements” section of an ECCN on the CCL.

(iv) *Items controlled for national security reasons to any destination.* These items contain NS Column 1 or NS Column 2 in the Country Chart column of the “License Requirements” section of an ECCN on the CCL.

(v) *Military-related items controlled for national security reasons to any destination.* These items contain NS Column 1 in the Country Chart column of the “License Requirements” section in an ECCN on the CCL and are controlled by equipment or material entries ending in the number “18.”

(vi) *All aircraft (powered and unpowered),*

**helicopters, engines, and related spare parts and components.** Such items contain an NS Column 1, NS Column 2, MT Column 1, or AT Column 1 in the Country Chart column of the “License Requirements” section of an ECCN on the CCL. (Not including parts and components for safety-of-flight, which will be reviewed on a case-by-case basis in accordance with paragraph (b)(2) of this section.)

**(vii) Cryptographic, cryptanalytic, and crypto-logic items controlled any destination.** These are items that contain an NS Column 1, NS Column 2, AT Column 1 or AT Column 2 in the Country Chart column of the “License Requirements” section of an ECCN on the CCL.

**(viii)** Submersible systems controlled under ECCN 8A992.

**(ix)** Scuba gear and related equipment controlled under ECCN 8A992.

**(x)** Pressurized aircraft breathing equipment controlled under ECCN 9A991.

**(xi)** Explosives detection equipment controlled under ECCN 2A983.

**(xii)** “Software” (ECCN 2D983) specially designed or modified for the “development”, “production” or “use” of explosives detection equipment controlled by 2A983.

**(xiii)** “Technology” (ECCN 2E983) specially designed or modified for the “development”, “production” or “use” of explosives detection equipment controlled by 2A983.

**(xiv)** Commercial charges and devices controlled under ECCN 1C992.

**(xv)** Computer numerically controlled machine tools controlled under ECCN 2B991.

**(xvi)** Aircraft skin and spar milling machines controlled under ECCN 2B991.

**(xvii)** Semiconductor manufacturing equipment controlled under ECCN 3B991.

**(xviii)** Digital computers with an Adjusted Peak Performance (APP) exceeding 0.0004 Weighted TeraFLOPS (WT).

**(xix)** Microprocessors with a processing speed of 0.5 GFLOPS or above.

**(xx)** Ammonium nitrate, including certain fertilizers containing ammonium nitrate, controlled under ECCN 1C997.

**(xxi)** Technology for the production of Chemical Weapons Convention (CWC) Schedule 2 and 3 Chemicals controlled under ECCN 1E355.

**(xxii)** Concealed object detection equipment controlled under ECCN 2A984.

**(xxiii)** “Software” (ECCN 2D984) “required” for the “development”, “production” or “use” of concealed object detection equipment controlled by 2A984.

**(xxiv)** “Technology” (ECCN 2E984) “required” for the “development”, “production” or “use” of concealed object detection equipment controlled by 2A984, or the “development” of “software” controlled by 2D984.

**(2)** Applications for export and reexport to North Korea of all other items described in paragraph (a) of this section, and not described by paragraph (b)(1) of this section, will generally be denied if the export or reexport is destined to a military end-user or for military end-use. Applications for non-military end-users or for non-military end-uses will be considered on a case-by-case basis. Applications to export or reexport humanitarian items intended for the benefit of the North Korean people; items in support of United Nations humanitarian efforts; and agricultural

commodities and medical devices will generally be approved.

(3) Applications for export and reexport to North Korea of items described in paragraphs (c)(12), (c)(24), (c)(34), (c)(37), (c)(38), and (c)(45) of Supplement No. 2 to part 742 will generally be denied if the export or reexport is destined to nuclear end-users or nuclear end-uses. Applications for non-nuclear end-users or for non-nuclear end-uses, excluding items described in (c)(24)(iv)(A) of Supplement No. 2 to part 742, will be considered on a case-by-case basis.

(4) License applications for items reviewed under section 6(a) controls will also be reviewed to determine the applicability of section 6(j) controls to the transaction. When it is determined that an export or reexport could make a significant contribution to the military potential of North Korea, including its military logistics capability, or could enhance North Korea's ability to support acts of international terrorism, the Secretaries of State and Commerce will notify the Congress 30 days prior to issuance of a license.

**SUPPLEMENT NO. 1 TO PART 742 - NONPROLIFERATION OF CHEMICAL AND BIOLOGICAL WEAPONS**

***NOTE:** Exports and reexports of items in performance of contracts entered into before the applicable contract sanctity date(s) will be eligible for review on a case-by-case basis or other applicable licensing policies that were in effect prior to the contract sanctity date. The contract sanctity dates set forth in this Supplement are for the guidance of exporters. Contract sanctity dates are established in the course of the imposition of foreign policy controls on specific items and are the relevant dates for the purpose of licensing determinations involving such items. If you believe that a specific contract sanctity date is applicable to your transaction, you should include all relevant information with your license application.*

(1) The contract sanctity date for exports to Iran or Syria of dimethyl methylphosphonate, phosphorous oxychloride, thiodiglycol, dimethylamine hydrochloride, dimethylamine, ethylene chlorohydrin (2-chloroethanol), and potassium fluoride is April 28, 1986.

(2) The contract sanctity date for exports to Iran or Syria of dimethyl phosphite (dimethyl hydrogen phosphite), methyl phosphonyldichloride, 3-quinuclidinol, N,N-diisopropylamino-ethane-2-thiol, N,N-diisopropylaminoethyl-2-chloride, 3-hydroxy-1-methylpiperidine, trimethyl phosphite, phosphorous trichloride, and thionyl chloride is July 6, 1987.

(3) The contract sanctity date for exports to Iran or Syria of items in ECCNs 1C351, 1C353 and 1C354 is February 22, 1989.

(4) The contract sanctity date for exports to Iran of dimethyl methylphosphonate, phosphorous oxychloride, and thiodiglycol is February 22, 1989.

(5) The contract sanctity date for exports to Iran or Syria of potassium hydrogen fluoride, ammonium hydrogen fluoride, sodium fluoride, sodium bifluoride, phosphorus pentasulfide, sodium cyanide, triethanolamine, diisopropylamine, sodium sulfide, and N,N-diethylethanolamine is December 12, 1989.

(6) The contract sanctity date for exports to all destinations (except Iran or Syria) of phosphorous trichloride, trimethyl phosphite, and thionyl chloride is December 12, 1989. For exports to Iran or Syria, paragraph (2) of this Supplement applies.

(7) The contract sanctity date for exports to all destinations (except Iran or Syria) of 2-chloroethanol and triethanolamine is January 15, 1991. For exports of 2-chloroethanol to Iran or Syria, paragraph (1) of this Supplement applies. For exports of triethanolamine to Iran or Syria, paragraph (5) of this Supplement applies.

(8) The contract sanctity date for exports to all destinations (except Iran or Syria) of chemicals controlled by ECCN 1C350 is March 7, 1991, except for applications to export the following chemicals: 2-chloroethanol, dimethyl methylphosphonate, dimethyl phosphite (dimethyl hydrogen phosphite), phosphorous oxychloride, phosphorous trichloride, thiodiglycol, thionyl chloride triethanolamine, and trimethyl phosphite. (See also paragraphs (6) and (7) of this Supplement.) For exports to Iran or Syria, see paragraphs (1) through (6) of this Supplement.

(9) The contract sanctity date for exports and reexports of the following commodities and technical data is March 7, 1991:

(i) Equipment (for producing chemical

weapon precursors and chemical warfare agents) described in ECCNs 2B350 and 2B351;

(ii) Equipment and materials (for producing biological agents) described in ECCNs 1C351, 1C353, 1C354, and 2B352; and

(iii) Technology (for the development, production, and use of equipment described in ECCNs 1C351, 1C353, 1C354, 2B350, 2B351, and 2B352) described in ECCNs 2E001, 2E002, and 2E301.

(10) The contract sanctity date for license

applications subject to §742.2(b)(3) of this part is March 7, 1991.

(11) The contract sanctity date for reexports of chemicals controlled under ECCN 1C350 is March 7, 1991, except that the contract sanctity date for reexports of these chemicals to Iran or Syria is December 12, 1989.

(12) The contract sanctity date for reexports of human pathogens, zoonoses, toxins, animal pathogens, genetically modified microorganisms and plant pathogens controlled by ECCNs 1C351, 1C353 and 1C354 is March 7, 1991.

**SUPPLEMENT NO. 2 TO PART 742 - ANTI-TERRORISM CONTROLS: NORTH KOREA, SYRIA CONTRACT SANCTITY DATES AND RELATED POLICIES**

*NOTE: Exports and reexports of items in performance of contracts entered into before the applicable contract sanctity date(s) will be eligible for review on a case-by-case basis or other applicable licensing policies that were in effect prior to the contract sanctity date. The contract sanctity dates set forth in this Supplement are for the guidance of exporters. Contract sanctity dates are established in the course of the imposition of foreign policy controls on specific items and are the relevant dates for the purpose of licensing determinations involving such items. If you believe that a specific contract sanctity date is applicable to your transaction, you should include all relevant information with your license application. BIS will determine any applicable contract sanctity date at the time an application with relevant supporting documents is submitted.*

**(a) Terrorist-supporting countries**

The Secretary of State has designated North Korea, and Syria as countries whose governments have repeatedly provided support for acts of international terrorism under section 6(j) of the Export Administration Act (EAA).

**(b) Items controlled under EAA sections 6(j) and 6(a)**

Whenever the Secretary of State determines that an export or reexport to any of these countries could make a significant contribution to the military potential of such country, including its military logistics capability, or could enhance the ability of such country to support acts of international terrorism, the item is subject to mandatory control under EAA section 6(j) and the Secretaries of Commerce and State are required to notify appropriate Committees of the Congress 30 days before a license for such an item may be issued.

(1) On December 28, 1993, the Secretary of State determined that the export to North Korea, or Syria of items described in paragraphs (c)(1) through (c)(5) of this Supplement, if destined to military, police, intelligence or other sensitive end-users, are controlled under EAA section 6(j). Therefore, the 30-day advance Congressional notification requirement applies to the export or reexport of these items to sensitive end-users in any of these countries.

(2) License applications for items controlled to designated terrorist-supporting countries under EAA section 6(a) will also be reviewed to determine whether the Congressional notification requirements of EAA section 6(j) apply.

(3) Items controlled for anti-terrorism reasons under section 6(a) to North Korea, and Syria are:

(i) Items described in paragraphs (c)(1) through (c)(5) to non-sensitive end-users, and

(ii) The following items to all end-users: for North Korea, items in paragraph (c)(6) through (c)(45) of this Supplement and for Syria, items in paragraphs (c)(6) through (c)(8), (c)(10) through (c)(14), (c)(16) through (c)(19), and (c)(22) through (c)(44) of this Supplement.

(c) The license requirements and licensing policies for items controlled for anti-terrorism reasons to Syria and North Korea are generally described in §§ 742.9 and 742.19 of this part, respectively. This Supplement provides guidance on licensing policies for North Korea and Syria and related contract sanctity dates that may be available for transactions benefiting from pre-existing contracts involving Syria.

(1) All items subject to national security

**controls.**

(i) [RESERVED].

(ii) *Syria.* Applications for military end-users or military end-uses in Syria will generally be denied. Applications for non-military end-users or end-uses will be considered on a case-by-case basis, unless otherwise specified in paragraphs (c)(2) through (c)(42) of this Supplement. No contract sanctity date is available for items valued at \$7 million or more to military end-users or end-uses. The contract sanctity date for all other items for all end-users: December 16, 1986.

(iii) [Reserved]

(iv) *North Korea.* Applications for all end-users in North Korea of such equipment will generally be denied.

**(2) All items subject to chemical and biological weapons proliferation controls.**

Applications for all end-users in North Korea and Syria of these items will generally be denied. See Supplement No. 1 to part 742 for contract sanctity dates for Syria.

**(3) All items subject to missile proliferation controls (MTCR).** Applications for all end-users in North Korea and Syria will generally be denied. Contract sanctity provisions for Syria are not available.

**(4) All items subject to nuclear weapons proliferation controls (NRL).**

(i) [RESERVED]

(ii) *Syria.* Applications for military end-users or end-uses to Syria will generally be denied. Applications for non-military end-users or end-uses will be considered on a case-by-case

basis unless otherwise specified in paragraphs (c)(2) through (c)(42) of this Supplement. No contract sanctity date is available.

(iii) *Sudan.* Applications for military end-users or end-uses in Sudan will generally be denied. Applications for export and reexport to non-military end-users or end-uses will be considered on a case-by-case basis unless otherwise specified in paragraphs (c)(2) through (c)(42) of this Supplement. No contract sanctity date is available.

(iv) *North Korea.* Applications for all end-users in North Korea will generally be denied.

**(5) All military-related items, i.e., applications for export and reexport of items controlled by CCL entries ending with the number “18”.**

(i) [RESERVED]

(ii) *Syria.* Applications for all end-users in Syria will generally be denied. Contract sanctity date: see paragraph (c)(1)(ii) of this Supplement.

(iii) *Sudan.* Applications for all end-users in Sudan will generally be denied. Contract sanctity date for Sudan: January 19, 1996, unless a prior contract sanctity date applies (e.g., items first controlled to Sudan for foreign policy reasons under EAA section 6(j) have a contract sanctity date of December 28, 1993).

(iv) *North Korea.* Applications for all end-users in North Korea will generally be denied.

**(6) All aircraft (powered and unpowered), helicopters, engines, and related spare parts and components.**

(i) [RESERVED]

(ii) *Syria.* Applications for all end-users in Syria will generally be denied.

(A) There is no contract sanctity for helicopters exceeding 10,000 lbs. empty weight or fixed wing aircraft valued at \$3 million or more; except that passenger aircraft, regardless of value, have a contract sanctity date of December 16, 1986, if destined for a regularly scheduled airline with assurance against military use.

(B) Contract sanctity date for helicopters with 10,000 lbs. empty weight or less: April 28, 1986.

(C) Contract sanctity date for other aircraft and gas turbine engines therefor: December 16, 1986.

(D) Contract sanctity date for helicopter or aircraft parts and components controlled by ECCN 9A991.d: August 28, 1991.

(iii) [RESERVED]

(iv) *North Korea*. Applications for all end-users in North Korea will generally be denied.

**(7) Heavy duty, on-highway tractors.**

(i) [RESERVED]

(ii) *Syria*. Applications for military end-users or for military end-uses in Syria will generally be denied. Applications for non-military end-users or for non-military end-uses in Syria will be considered on a case-by-case basis. Contract sanctity date: August 28, 1991.

(iii) *Sudan*. Applications for military end-users or for military end-uses in Sudan will generally be denied. Applications for non-military end-users or for non-military end-uses in Sudan will be considered on a case-by-case basis. Contract sanctity date: January 19, 1996.

(iv) *North Korea*. Applications for military end-users or for military end-uses in North Korea will generally be denied. Applications for non-

military end-users or for non-military end-uses in North Korea will be considered on a case-by-case basis.

**(8) Off-highway wheel tractors of carriage capacity 9t (10 tons) or more.**

(i) [RESERVED]

(ii) *Syria*. Applications for military end-users or for military end-uses in Syria will generally be denied. Applications for non-military end-users or for non-military end-uses in

Syria will be considered on a case-by-case basis. Contract sanctity date: August 28, 1991.

(iii) *Sudan*. Applications for military end-users or for military end-uses in Sudan will generally be denied. Applications for non-military end-users or for non-military end-uses in Sudan will be considered on a case-by-case basis. Contract sanctity date: January 19, 1996.

(iv) *North Korea*. Applications for military end-users or for military end-uses in North Korea will generally be denied. Applications for non-military end-users or for non-military end-uses in North Korea will be considered on a case-by-case basis.

**(9) Large diesel engines (greater than 400 horsepower) and parts to power tank transporters.**

(i) [RESERVED]

(ii) *Sudan*. Applications for military end-users or for military end-uses in Sudan will generally be denied. Applications for non-military end-users or for non-military end-uses in Sudan will be considered on a case-by-case basis. Contract sanctity date: January 19, 1996.

(iii) *North Korea*. Applications for military end-users or for military end-uses in North Korea

will generally be denied. Applications for non-military end-users or for non-military end-uses in North Korea will be considered on a case-by-case basis.

**(10) Cryptographic, cryptoanalytic, and cryptologic equipment.**

(i) [RESERVED]

(ii) *Syria.* A license is required for all national security-controlled cryptographic, cryptoanalytic, and cryptologic equipment to all end-users. Applications for all end-users in Syria will generally be denied. Contract sanctity date for cryptographic, cryptoanalytic, and cryptologic equipment that was subject to national security controls on August 28, 1991: see paragraph (c)(1)(ii) of this Supplement.

(iii) [RESERVED]

(iv) *North Korea.* Applications for all end-users in North Korea of any such equipment will generally be denied.

**(11) Navigation, direction finding, and radar equipment.**

(i) [RESERVED]

(ii) *Syria.* Applications for military end-users or for military end-uses in Syria of such equipment will generally be denied. Applications for non-military end-users or for non-military end-uses in Syria will be considered on a case-by-case basis.

(A) Contract sanctity date for exports of navigation, direction finding, and radar equipment that was subject to national security controls on August 28, 1991: see paragraph (c)(1)(ii) of this Supplement.

(B) Contract sanctity date for all other navigation, direction finding, and radar

equipment: August 28, 1991.

(iii) [RESERVED]

(iv) *North Korea.* Applications for military end-users or for military end-uses in North Korea of such equipment will generally be denied. Applications for non-military end-users or for non-military end-uses in North Korea will be considered on a case-by-case basis.

**(12) Electronic test equipment.**

(i) [RESERVED]

(ii) *Syria.* Applications for military end-users or for military end-uses in Syria of such equipment will generally be denied. Applications for non-military end-users or for non-military end-uses in Syria will be considered on a case-by-case basis.

(A) Contract sanctity date for electronic test equipment that was subject to national security controls on August 28, 1991: see paragraph (c)(1)(ii) of this Supplement.

(B) Contract sanctity date for all other electronic test equipment: August 28, 1991.

(iii) [RESERVED]

(iv) *North Korea.* Applications for military end-users or for military end-uses, or for nuclear end-users or nuclear end-uses, in North Korea of such equipment will generally be denied. Applications for non-military end-users or for non-military end-uses, or for non-nuclear end-users or non-nuclear end-uses, in North Korea will be considered on a case-by-case basis.

**(13) Mobile communications equipment.**

(i) [RESERVED]

(ii) *Syria.* Applications for military end-

users or for military end-uses in Syria of such equipment will generally be denied. Applications for non-military end-users or for non-military end-uses in Syria will be considered on a case-by-case basis.

(A) Contract sanctity date for mobile communications equipment that was subject to national security controls on August 28, 1991: see paragraph (c)(1)(ii) of this Supplement.

(B) Contract sanctity date for exports of all other mobile communications equipment: August 28, 1991.

(iii) [RESERVED]

(iv) *North Korea.* Applications for military end-users or for military end-uses in North Korea of such equipment will generally be denied. Applications for non-military end-users or for non-military end-uses in North Korea will be considered on a case-by-case basis.

**(14) Acoustic underwater detection equipment.**

(i) [RESERVED]

(ii) *Syria.* A license is required for acoustic underwater detection equipment that was subject to national security controls on August 28, 1991, to all end-users. Applications for military end-users or for military end-uses in Syria will generally be denied. Applications for non-military end-users or for non-military end-uses in Syria will be considered on a case-by-case basis. Contract sanctity date for acoustic underwater detection equipment that was subject to national security controls on August 28, 1991: see paragraph (c)(1)(ii) of this Supplement.

(iii) [RESERVED]

(iv) *North Korea.* Applications for military end-users or for military end-uses in North Korea

of such equipment of these items will generally be denied. Applications for non-military end-users or for non-military end-uses in North Korea of such equipment will be considered on a case-by-case basis.

**(15) Portable electric power generator.**

(i) [RESERVED]

(ii) *North Korea.* Applications for military end-users or for military end-uses in North Korea of such equipment will generally be denied. Applications for non-military end-users or for non-military end-uses in North Korea of such equipment will be considered on a case-by-case basis.

**(16) Vessels and boats, including inflatable boats.**

(i) [RESERVED]

(ii) *Syria.* A license is required for national security-controlled vessels and boats. Applications for military end-users or for military end-uses in Syria of these items will generally be denied. Applications for non-military end-users or for non-military end-uses in Syria will be considered on a case-by-case basis. Contract sanctity date for vessels and boats that were subject to national security controls on August 28, 1991: see paragraph (c)(1)(ii) of this Supplement.

(iii) [RESERVED]date of December 28, 1993).

(iv) *North Korea.* Applications for military end-users or for military end-uses in North Korea of these items will generally be denied. Applications for non-military end-users or for non-military end-uses in North Korea of these items will be considered on a case-by-case basis.

**(17) Marine and submarine engines (out-board/inboard, regardless of horsepower).**

(i) [RESERVED]

(ii) *Syria*. A license is required for all marine and submarine engines subject to national security controls to all end-users. Applications for military end-users or for military end-uses in Syria of these items will generally be denied. Applications for non-military end-users or for non-military end-uses in Syria will be considered on a case-by-case basis. Contract sanctity date for marine and submarine engines that were subject to national security controls on August 28, 1991: see paragraph (c)(1)(ii) of this Supplement.

(iii) [RESERVED]

(iv) *North Korea*. Applications for military end-users or for military end-uses in North Korea of these items will generally be denied. Applications for non-military end-users or for non-military end-uses in North Korea of these items will be considered on a case-by-case basis.

**(18) Underwater photographic equipment.**

(i) [RESERVED]

(ii) *Syria*. Applications for military end-users or for military end-uses in Syria of such equipment will generally be denied. Applications for non-military end-users or for non-military end-uses in Syria will be considered on a case-by-case basis.

(A) Contract sanctity date for underwater photographic equipment that was subject to national security controls on August 28, 1991: see paragraph (c)(1)(ii) of this Supplement.

(B) Contract sanctity date for all other underwater photographic equipment: August

28, 1991.

(iii) [RESERVED]

(iv) *North Korea*. Applications for all end-users in North Korea of such equipment will generally be denied.

**(19) Submersible systems.**

(i) [RESERVED]

(ii) *Syria*. Applications for military end-users or for military end-uses in Syria of such systems will generally be denied. Applications for non-military end-users or for non-military end-uses in Syria will be considered on a case-by-case basis.

(A) Contract sanctity date for submersible systems that were subject to national security controls on August 28, 1991: see paragraph (c)(1)(ii) of this Supplement.

(B) Contract sanctity date for all other submersible systems: August 28, 1991.

(iii) [RESERVED]

(iv) *North Korea*. Applications for all end-users in North Korea of such equipment will generally be denied.

**(20) Scuba gear and related equipment.**

(i) [RESERVED]

(ii) [RESERVED]

(iii) *North Korea*. Applications for all end-users in North Korea of such equipment will generally be denied.

**(21) Pressurized aircraft breathing equipment.**

(i) [RESERVED]

(ii) [RESERVED]

(iii) *North Korea.* Applications for all end-users in North Korea of such equipment will generally be denied.

**(22) Computer numerically controlled machine tools.**

(i) [RESERVED]

(ii) *Syria.* Applications for military end-users or for military end-uses in Syria of these items will generally be denied. Applications for non-military end-users or for non-military end-uses will be considered on a case-by-case basis.

(A) Contract sanctity date for computer numerically controlled machine tools that were subject to national security controls on August 28, 1991: see paragraph (c)(1)(ii) of this Supplement.

(B) Contract sanctity date for exports of all other computer numerically controlled machine tools: August 28, 1991.

(iii) [RESERVED]

(iv) *North Korea.* Applications for all end-users in North Korea of such equipment will generally be denied.

**(23) Vibration test equipment.**

(i) [RESERVED]

(ii) *Syria.* Applications for military end-users or for military end-uses in Syria of such equipment will generally be denied. Applications for non-military end-users or for non-military end-uses will be considered on a case-by-case basis.

(A) Contract sanctity date for vibration test equipment that was subject to national security controls on August 28, 1991: see paragraph (c)(1)(ii) of this Supplement.

(B) Contract sanctity date for exports of all other vibration test equipment: August 28, 1991.

(iii) [RESERVED]

(iv) *North Korea.* Applications for military end-users or for military end-uses in North Korea of these items will generally be denied. Applications for non-military end-users or for non-military end-uses will be considered on a case-by-case basis.

**(24) Digital computers with an APP of .00001 WT or above, assemblies, related equipment, equipment for development or production of magnetic and optical storage equipment, and materials for fabrication of head/disk assemblies.**

(i) [RESERVED]

(ii) *Syria.* Applications for military end-users or for military end-uses in Syria of these items will generally be denied. Applications for non-military end-users or for non-military end-uses will be considered on a case-by-case basis.

(A) Contract sanctity dates for items that were subject to national security controls on August 28, 1991: see paragraph (c)(1)(ii) of this Supplement.

(B) Contract sanctity date for all other items: August 28, 1991.

(iii) [RESERVED]

(iv) *North Korea.*

(A) Computers with an APP exceeding

0.0004 WT: Applications for all end-users will generally be denied.

(B) Computers with an APP equal to or less than 0.0004 WT: Applications for military end-users or for military end-uses, or for nuclear end-users or nuclear end-uses, will generally be denied. Applications for non-military end-users or for non-military end-uses, or for non-nuclear end-users or non- nuclear end-uses, will be considered on a case-by-case basis.

**(25) Telecommunications equipment.**

(i) A license is required for the following telecommunications equipment:

(A) Radio relay systems or equipment operating at a frequency equal to or greater than 19.7 GHz or “spectral efficiency” greater than 3 bit/s/Hz;

(B) Fiber optic systems or equipment operating at a wavelength greater than 1000 nm;

(C) “Telecommunications transmission systems” or equipment with a “digital transfer rate” at the highest multiplex level exceeding 45 Mb/s.

(ii) [RESERVED]

(iii) *Syria.* Applications for military end-users or for military end-uses in Syria of such equipment will generally be denied. Applications for non-military end-users or for non-military end-uses will be considered on a case-by-case basis.

(A) Contract sanctity date for exports of telecommunications equipment that was subject to national security controls on August 28, 1991: see paragraph (c)(1)(ii) of this Supplement.

(B) Contract sanctity date for exports of

all other telecommunications equipment: August 28, 1991.

(iv) [RESERVED],

(v) *North Korea.* Applications for military end-users or for military end-uses in North Korea of such equipment will generally be denied. Applications for non-military end-users or for non-military end-uses will be considered on a case-by-case basis.

**(26) Microprocessors.**

(i) Operating at a clock speed over 25 MHz.

(A) [RESERVED]

(B) *Syria.* Applications for military end-users or for military end-uses in Syria of these items will generally be denied. Applications for non-military end-users or for non-military end-uses will be considered on a case-by-case basis.

(I) Contract sanctity date for microprocessors that were subject to national security controls on August 28, 1991: see paragraph (c)(1)(ii) of this Supplement.

(2) Contract sanctity date for all other microprocessors: August 28, 1991.

(ii) With a processing speed of 0.5 GFLOPS or above.

(A) *North Korea.* Applications for all end-users in North Korea of these items will generally be denied.

(B) [RESERVED]

**(27) Semiconductor manufacturing equipment.**

For Syria, Sudan, or North Korea, a license is required for all such equipment described in ECCNs 3B001 and 3B991.

(i) [RESERVED]

(ii) *Syria*. Applications for military end-users or for military end-uses in Syria of such equipment will generally be denied. Applications for non-military end-users or for non-military end-uses will be considered on a case-by-case basis.

(A) Contract sanctity date for semiconductor manufacturing equipment that was subject to national security controls on August 28, 1991: see paragraph (c)(1)(ii) of this Supplement.

(B) Contract sanctity date for all other semiconductor manufacturing equipment: August 28, 1991.

(iii) [RESERVED]

(iv) *North Korea*. Applications for all end-users in North Korea of such equipment will generally be denied.

**(28) Software specially designed for the computer-aided design and manufacture of integrated circuits.**

(i) [RESERVED]

(ii) *Syria*. Applications for military end-users or for military end-uses in Syria of such software will generally be denied. Applications for non-military end-users or for non-military end-uses will be considered on a case-by-case basis.

(A) Contract sanctity date for such software that was subject to national security controls on August 28, 1991: see paragraph

(c)(1)(ii) of this Supplement.

(B) Contract sanctity date for all other such software: August 28, 1991.

(iii) [RESERVED]

(iv) *North Korea*. Applications for military end-users or for military end-uses in North Korea of such software will generally be denied. Applications for non-military end-users or for non-military end-uses will be considered on a case-by-case basis.

**(29) Packet switches. Equipment described in ECCN 5A991.c.**

(i) [RESERVED]

(ii) *Syria*. Applications for military end-users or for military end-uses in Syria of such equipment will generally be denied. Applications for non-military end-users or for non-military end-uses will be considered on a case-by-case basis.

(A) Contract sanctity date for packet switches that were subject to national security controls on August 28, 1991: see paragraph (c)(1)(ii) of this Supplement.

(B) Contract sanctity date for all other packet switches: August 28, 1991.

(iii) [RESERVED]

(iv) *North Korea*. Applications for military end-users or for military end-uses in North Korea of these items will generally be denied. Applications for non-military end-users or for non-military end-uses will be considered on a case-by-case basis.

**(30) Specially designed software for air traffic control applications that uses any digital signal processing techniques for**

**automatic target tracking or that has a facility for electronic tracking.**

(i) [RESERVED]

(ii) *Syria.* Applications for military end-users or for military end-uses in Syria of such software will generally be denied. Applications for non-military end-users or for non-military end-uses will be considered on a case-by-case basis.

(A) Contract sanctity date for such software that was subject to national security controls on August 28, 1991: see paragraph (c)(1)(ii) of this Supplement.

(B) Contract sanctity date for exports of all other such software: August 28, 1991.

(iii) [RESERVED]

(iv) *North Korea.* Applications for military end-users or for military end-uses in North Korea of such software will generally be denied. Applications for non-military end-users or for non-military end-uses will be considered on a case-by-case basis.

**(31) Gravity meters having static accuracy of less (better) than 100 microgal, or gravity meters of the quartz element (worden) type.**

(i) [RESERVED]

(ii) *Syria.* Applications for military end-users or for military end-uses in Syria of these items will generally be denied. Applications for non-military end-users or for non-military end-uses will be considered on a case-by-case basis.

(A) Contract sanctity date for gravity meters that were subject to national security controls on August 28, 1991: see paragraph (c)(1)(ii) of this Supplement.

(B) Contract sanctity date for exports of all other such gravity meters: August 28, 1991.

(iii) [RESERVED]

(iv) *North Korea.* Applications for military end-users or for military end-uses in North Korea of these items will generally be denied. Applications for non-military end-users or for non-military end-uses will be considered on a case-by-case basis.

**(32) Magnetometers with a sensitivity lower (better) than 1.0 nt rms per square root Hertz.**

(i) [RESERVED]

(ii) *Syria.* Applications for military end-users or for military end-uses in Syria of these items will generally be denied. Applications for non-military end-users or for non-military end-uses will be considered on a case-by-case basis.

(A) Contract sanctity date for such magnetometers that were subject to national security controls on August 28, 1991: see paragraph (c)(1)(ii) of this Supplement.

(B) Contract sanctity date for all other such magnetometers: August 28, 1991.

(iii) [RESERVED]

(iv) *North Korea.* Applications for military end-users or for military end-uses in North Korea of these items will generally be denied. Applications for non-military end-users or for non-military end-uses will be considered on a case-by-case basis.

**(33) Fluorocarbon compounds described in ECCN 1C006.d for cooling fluids for radar.**

(i) [RESERVED]

(ii) *Syria.* Applications for military end-

users or for military end-uses in Syria of such compounds will generally be denied. Applications for non-military end-users or for non-military end-uses will be considered on a case-by-case basis.

(A) Contract sanctity date for such fluorocarbon compounds that were subject to national security controls on August 28, 1991: see paragraph (c)(1)(ii) of this Supplement.

(B) Contract sanctity date for all other such fluorocarbon compounds: August 28, 1991.

(iii) [RESERVED]

(iv) *North Korea.* Applications for military end-users or for military end-uses in North Korea of these items will generally be denied. Applications for non-military end-users or for non-military end-uses will be considered on a case-by-case basis.

**(34) High strength organic and inorganic fibers (kevlar) described in ECCN 1C210.**

(i) [RESERVED]

(ii) *Syria.* Applications for military end-users or for military end-uses in Syria of such fibers will generally be denied. Applications for non-military end-users or for non-military end-uses will be considered on a case-by-case basis.

(A) Contract sanctity date for high strength organic and inorganic fibers (kevlar) described in ECCN 1C210 that were subject to national security controls on August 28, 1991: see paragraph (c)(1)(ii) of this Supplement.

(B) Contract sanctity date for all other high strength organic and inorganic fibers (kevlar) described in ECCN 1C210: August 28, 1991.

(iii) [RESERVED]

(iv) *North Korea.* Applications for military end-users or for military end-uses, or for nuclear end-users or nuclear end-uses, in North Korea of such equipment will generally be denied. Applications for non-military end-users or for non-military end-uses, or for non-nuclear end-users or non-nuclear end-uses, in North Korea will be considered on a case-by-case basis.

**(35) Machines described in ECCNs 2B003 and 2B993 for cutting gears up to 1.25 meters in diameter.**

(i) [RESERVED]

(ii) *Syria.* Applications for military end-users or for military end-uses in Syria of these items will generally be denied. Applications for non-military end-users or for non-military end-uses will be considered on a case-by-case basis.

(A) Contract sanctity date for machines that were subject to national security controls on August 28, 1991: see paragraph (c)(1)(ii) of this Supplement.

(B) Contract sanctity date for all other machines: August 28, 1991.

(iii) [RESERVED]

(iv) *North Korea.* Applications for military end-users or for military end-uses in North Korea of these items will generally be denied. Applications for non-military end-users or for non-military end-uses will be considered on a case-by-case basis.

**(36) Aircraft skin and spar milling machines.**

(i) [RESERVED]

(ii) *Syria.* Applications for military end-users or for military end-uses in Syria of these

items will generally be denied. Applications for non-military end-users or for non-military end-users will be considered on a case-by-case basis.

(A) Contract sanctity date for aircraft skin and spar milling machines that were subject to national security controls on August 28, 1991: see paragraph (c)(1)(ii) of this Supplement.

(B) Contract sanctity date for all other aircraft skin and spar milling machines: August 28, 1991.

(iii) RESERVED]

(iv) *North Korea.* Applications for all end-users in North Korea of such equipment will generally be denied.

**(37) Manual dimensional inspection machines described in ECCN 2B996.**

(i) [RESERVED]

(ii) *Syria.* Applications for military end-users or for military end-uses in Syria of these items will generally be denied. Applications for non-military end-users or for non-military end-uses in Syria will be considered on a case-by-case basis.

(A) Contract sanctity date for such manual dimensional inspection machines that were subject to national security controls on August 28, 1991: see paragraph (c)(1)(ii) of this Supplement.

(B) Contract sanctity date for all other such manual dimensional inspection machines: August 28, 1991.

(iii) [RESERVED]

(iv) *North Korea.* Applications for military end-users or for military end-uses, or for nuclear end-users or nuclear end-uses, in North Korea of

such equipment will generally be denied. Applications for non-military end-users or for non-military end-uses, or for non-nuclear end-users or non-nuclear end-uses, in North Korea will be considered on a case-by-case basis.

**(38) Robots capable of employing feedback information in real time processing to generate or modify programs.**

(i) [RESERVED]

(ii) *Syria.* Applications for military end-users or for military end-uses in Syria of these items will generally be denied. Applications for non-military end-users or for non-military end-uses in Syria will be considered on a case-by case basis.

(A) Contract sanctity date for such robots that were subject to national security controls on August 28, 1991: see paragraph (c)(1)(ii) of this Supplement.

(B) Contract sanctity date for all other such robots: August 28, 1991.

(iii) [RESERVED]

(iv) *North Korea.* Applications for military end-users or for military end-uses, or for nuclear end-users or nuclear end-uses, in North Korea of such equipment will generally be denied. Applications for non-military end-users or for non-military end-uses, or for non-nuclear end-users or non-nuclear end-uses, in North Korea will be considered on a case-by-case basis.

**(39) Explosives detection equipment described in ECCN 2A983.**

(i) Explosives detection equipment described in ECCN 2A983, controlled prior to April 3, 2003 under ECCN 2A993.

(A) [RESERVED]

**(B) Syria.** Applications for all end-users in Syria of these items will generally be denied. Contract sanctity date: January 19, 1996.

**(C)** [RESERVED]

**(D) North Korea.** Applications for all end-users in North Korea of these items will generally be denied.

**(ii)** Explosives detection equipment described in ECCN 2A983, not controlled prior to April 3, 2003 under ECCN 2A993.

**(A)** [RESERVED]

**(B) Syria.** Applications for all end-users in Syria of these items will generally be denied. Contract sanctity date: March 21, 2003.

**(C) Sudan.** Applications for all end-users in Sudan of these items will generally be denied. Contract sanctity date for reexports by non-U.S. persons: March 21, 2003.

**(D) North Korea.** Applications for all end-users in North Korea of these items will generally be denied. Contract sanctity date: March 21, 2003.

**(40) “Software” described in ECCN 2D983 specially designed or modified for the “development”, “production” or “use” of explosives detection equipment.**

**(i)** [RESERVED]

**(ii) Syria.** Applications for all end-users in Syria of these items will generally be denied. Contract sanctity date: March 21, 2003.

**(iii)** [RESERVED]

**(iv) North Korea.** Applications for all end-users in North Korea of these items will generally

be denied. Contract sanctity date: March 21, 2003.

**(41) “Technology” described in ECCN 2E983 specially designed or modified for the “development”, “production” or “use” of explosives detection equipment.**

**(i)** [RESERVED]

**(ii) Syria.** Applications for all end-users in Syria of these items will generally be denied. Contract sanctity date: March 21, 2003.

**(iii)** [RESERVED]

**(iv) North Korea.** Applications for all end-users in North Korea of these items will generally be denied. Contract sanctity date: March 21, 2003.

**(42) Production technology controlled under ECCN 1C355 on the CCL.**

**(i)** [RESERVED]

**(ii) Syria.** Applications for military end-users or for military end-uses in Syria of these items will generally be denied. Applications for non-military end-users or for non-military end-uses in Syria will be considered on a case-by-case basis.

**(iii)** [RESERVED]

**(iv) North Korea.** Applications for military end-users or for military end-uses in North Korea of these items will generally be denied. Applications for non-military end-users or for non-military end-uses will be considered on a case-by-case basis.

**(43) Commercial Charges and devices controlled under ECCN 1C992 on the CCL.**

**(i)** [RESERVED]

(ii) *Syria*. Applications for all end-users in Syria of these items will generally be denied.

(iii) RESERVED]

(iv) *North Korea*. Applications for all end-users in North Korea of these items will generally be denied.

**(44) Ammonium nitrate, including certain fertilizers containing ammonium nitrate, under ECCN 1C997 on the CCL.**

(i) [RESERVED]

(ii) *Syria*. Applications for all end-users in Syria of these items will generally be denied. Contract sanctity date: June 15, 2001.

(iii) [RESERVED]

(iv) *North Korea*. Applications for all end-users in North Korea of these items will generally be denied. Contract sanctity date: June 15, 2001.

**(45) Specific processing equipment, materials and software controlled under ECCNs 0A999, 0B999, 0D999, 1A999, 1C999, 1D999, 2A999, 2B999, 3A999, and 6A999 on the CCL.**

(i) *North Korea*. Applications for military end-users or for military end-uses, or for nuclear end-users or nuclear end-uses, in North Korea of such equipment will generally be denied. Applications for non-military end-users or for non-military end-uses, or for non-nuclear end-users or non-nuclear end-uses, in North Korea will be considered on a case-by-case basis.

(ii) [RESERVED]

**(46) Concealed object detection equipment described in ECCN 2A984.**

(i) *Syria*. Applications for all end-users in Syria of these commodities will generally be denied. Contract sanctity date: March 19, 2010.

(ii) [RESERVED]

(iii) *North Korea*. Applications for all end-users in North Korea of these commodities will generally be denied. Contract sanctity date: March 19, 2010.

**(47) “Software” described in ECCN 2D984 “required” for the “development”, “production” or “use” of concealed object detection equipment controlled by 2A984.**

(i) *Syria*. Applications for all end-users in Syria of these software will generally be denied. Contract sanctity date: March 19, 2010.

(ii) [RESERVED]

(iii) *North Korea*. Applications for all end-users in North Korea of these software will generally be denied. Contract sanctity date: March 19, 2010.

**(48) “Technology” described in ECCN 2E984 “required” for the “development”, “production” or “use” of concealed object detection equipment controlled by 2A984, or the “development” of “software” controlled by 2D984.**

(i) *Syria*. Applications for all end-users in Syria of these items will generally be denied. Contract sanctity date: March 19, 2010.

(ii) [RESERVED]

(iii) *North Korea*. Applications for all end-users in North Korea of these items will generally be denied. Contract sanctity date: March 19, 2010.

**\*\*742-S3**

**Supplement No. 3 to Part 742**—page 1

**SUPPLEMENT NO. 3 - [RESERVED]**

**\*\*742-S4**

**Supplement No. 4 to Part 742**—page 1

**SUPPLEMENT NO. 4**— [RESERVED]

**\*\*742-S5**

[RESERVED]

**Supplement No. 5 to Part 742**—page 1

**SUPPLEMENT NO. 5**— [RESERVED]

**SUPPLEMENT NO. 6 TO PART 742 -- TECHNICAL QUESTIONNAIRE FOR ENCRYPTION AND OTHER “INFORMATION SECURITY” ITEMS****(a) For all items:**

(1) State the name(s) of each product being submitted for classification or other consideration (as a result of a request by BIS) and provide a brief non technical description of the type of product (e.g., routers, disk drives, cell phones, and chips) being submitted, and provide brochures, data sheets, technical specifications or other information that describe the item(s).

(2) Indicate whether there have been any prior classifications of the product(s), if they are applicable to the current submission. For products with minor changes in encryption functionality, you must include a cover sheet with complete reference to the previous review (Commodity Classification Automated Tracking System (CCATS) number, Export Control Classification Number (ECCN), authorization paragraph) along with a clear description of the changes.

(3) Describe how encryption is used in the product and the categories of encrypted data (e.g., stored data, communications, management data, and internal data).

(4) For ‘mass market’ encryption products, describe specifically to whom and how the product is being marketed and state how this method of marketing and other relevant information (e.g., cost of product and volume of sales) are described by the Cryptography Note (Note 3 to Category 5, Part 2).

(5) Is any “encryption source code” being provided (shipped or bundled) as part of this offering? If yes, is this source code publicly available source code, unchanged from the code obtained from an open source web site, or is it proprietary “encryption source code?”

**(b) For classification requests and other submissions, provide the following information:**

(1) Description of all the symmetric and asymmetric encryption algorithms and key lengths and how the algorithms are used, including relevant parameters, inputs and settings. Specify which encryption modes are supported (e.g., cipher feedback mode or cipher block chaining mode).

(2) Describe how encryption keys are generated or managed by your product, including algorithms and modulus sizes supported.

(3) Describe whether the products incorporate or use “non-standard cryptography” defined as incorporating or using proprietary, unpublished cryptographic functionality, including encryption algorithms or protocols that have not been adopted or approved by a duly recognized international standards body. Provide a textual description and the source code of the algorithm.

(4) Describe the pre-processing methods (e.g., data compression or data interleaving) that are applied to the plaintext data prior to encryption.

(5) Describe the post-processing methods (e.g., packetization, encapsulation) that are applied to the cipher text data after encryption.

(6) State all communication protocols (e.g., X.25, Telnet, TCP, IEEE 802.11, IEEE 802.16, SIP ...) and cryptographic protocols and methods (e.g., SSL, TLS, SSH, IPSEC, IKE, SRTP, ECC, MD5, SHA, X.509, PKCS standards...), including application programming interfaces (APIs), that are supported and describe how they are used.

(7) State how the product is written to preclude

user modification of the encryption algorithms, key management and key space.

**(8)** Describe the cryptographic functionality that is provided by third-party hardware or software encryption components (if any). Identify the manufacturers of the hardware or software components, including specific part numbers and version information as needed to describe the product. Describe whether the encryption software components (if any) are statically or dynamically linked.

**(9)** Identify the version(s) and type(s) of compilers, runtime interpreters or code assemblers used, as applicable.

**(10)** With respect to your company’s encryption products, are any of the products (or its encryption components) manufactured outside the United States? If yes, provide manufacturing locations (city and country).

**(11) See § 740.17(b)(2) of the EAR.** Describe whether the item meets any of the §740.17(b)(2) criteria. Provide a comparison of your item against the criteria listed in each paragraph of § 740.17(b)(2). Give specific data for each of the parameters listed, as applicable (*e.g.*, maximum aggregate encrypted throughput, maximum number of encrypted endpoints, maximum satellite or terrestrial wireless transmission rates, terrestrial wireless operating range, customized cryptography, network penetration capability, cryptanalytic capability and “non-standard cryptography”).

**(12) See § 740.17(b)(3) of the EAR.** Describe whether the product meets any of the criteria described under each of the paragraphs in § 740.17(b)(3) (*e.g.*, chip, chipset, electronic assembly, programmable logic device, cryptographic library, cryptographic development kit, “non-standard cryptography,” digital forensics, and “cryptographic activation”).

**(13) See § 740.17(b)(2)(iii) of the EAR.** For products which incorporate an “open cryptographic interface” as defined in part 772 of the EAR, describe the cryptographic interface.

**(14)** For products with IPsec capabilities:

**(a)** Please describe your product’s implementation of IKE vendor IDs, including vendor specific and capability IDs; *and*

**(b)** Please specify which version of IKE you use (IKEv1 or IKEv2).

**(c) For classification requests for hardware or software “encryption components” other than source code (i.e., chips, toolkits, executable or linkable modules intended for use in or production of another encryption item) provide the following additional information:**

**(1)** Reference the application for which the components are used in, if known;

**(2)** State if there is a general programming interface to the component;

**(3)** State whether the component is constrained by function; *and*

**(4)** Identify the encryption component and include the name of the manufacturer, component model number or other identifier.

**(d) For classification requests for “encryption source code” provide the following information:**

**(1)** If applicable, reference the executable (object code) product that was previously classified by BIS;

**(2)** Include whether the source code has been modified, and the technical details on how the source code was modified; *and*

**(3)** *Upon request*, include a copy of the sections of the source code that contain the encryption algorithm, key management routines and their

related calls.

**SUPPLEMENT NO. 7 TO PART 742—DESCRIPTION OF MAJOR WEAPONS SYSTEMS**

**(1) Battle Tanks:** Tracked or wheeled self-propelled armored fighting vehicles with high cross-country mobility and a high-level of self protection, weighing at least 16.5 metric tons unladen weight, with a high muzzle velocity direct fire main gun of at least 75 millimeters caliber.

**(2) Armored Combat Vehicles:** Tracked, semi-tracked, or wheeled self-propelled vehicles, with armored protection and cross-country capability, either designed and equipped to transport a squad of four or more infantrymen, or armed with an integral or organic weapon of a least 12.5 millimeters caliber or a missile launcher.

**(3) Large-Caliber Artillery Systems:** Guns, howitzers, artillery pieces combining the characteristics of a gun or a howitzer, mortars or multiple-launch rocket systems, capable of engaging surface targets by delivering primarily indirect fire, with a caliber of 75 millimeters and above.

**(4) Combat Aircraft:** Fixed-wing or variable-geometry wing aircraft designed, equipped, or modified to engage targets by employing guided missiles, unguided rockets, bombs, guns, cannons, or other weapons of destruction, including versions of these aircraft which perform specialized electronic warfare, suppression of air defense or reconnaissance missions. The term “combat aircraft” does not include primary trainer aircraft, unless designed, equipped, or modified as described above.

**(5) Attack Helicopters:** Rotary-wing aircraft designed, equipped or modified to engage targets by employing guided or unguided anti-armor, air-to-surface, air-to-subsurface, or air-to-air weapons and equipped with an integrated fire

control and aiming system for these weapons, including versions of these aircraft that perform specialized reconnaissance or electronic warfare missions.

**(6) Warships:** Vessels or submarines armed and equipped for military use with a standard displacement of 750 metric tons or above, and those with a standard displacement of less than 750 metric tons that are equipped for launching missiles with a range of at least 25 kilometers or torpedoes with a similar range.

**(7) Missiles and Missile Launchers:**

**(a)** Guided or unguided rockets, or ballistic, or cruise missiles capable of delivering a warhead or weapon of destruction to a range of at least 25 kilometers, and those items that are designed or modified specifically for launching such missiles or rockets, if not covered by systems identified in paragraphs (1) through (6) of this Supplement. For purposes of this rule, systems in this paragraph include remotely piloted vehicles with the characteristics for missiles as defined in this paragraph but do not include ground-to-air missiles;

**(b)** Man-Portable Air-Defense Systems (MANPADS); or

**(c)** Unmanned Aerial Vehicles (UAVs) of any type, including sensors for guidance and control of these systems, except model airplanes.

**(8) Offensive Space Weapons:** Systems or capabilities that can deny freedom of action in space for the United States and its allies or hinder the United States and its allies from denying an adversary the ability to take action in space. This includes systems such as anti-satellite missiles, or other systems designed to defeat or destroy assets in space.

**(9) Command, Control, Communications, Computer, Intelligence, Surveillance, and Reconnaissance (C4ISR):** Systems that support military commanders in the exercise of authority and direction over assigned forces across the range of military operations; collect, process, integrate, analyze, evaluate, or interpret information concerning foreign countries or areas; systematically observe aerospace, surface or subsurface areas, places, persons, or things by visual, aural, electronic, photographic, or other means; and obtain, by visual observation or other detection methods, information about the activities and resources of an enemy or potential enemy, or secure data concerning the meteorological, hydrographic, or geographic characteristics of a particular area, including Undersea communications. Also includes sensor technologies.

**(10) Precision Guided Munitions (PGMs), including “smart bombs”:** Weapons used in precision bombing missions such as specially designed weapons, or bombs fitted with kits to allow them to be guided to their target.

**(11) Night vision equipment:** Any electro-optical device that is used to detect visible and infrared energy and to provide an image. This includes night vision goggles, forward-looking infrared systems, thermal sights, and low-light level systems that are night vision devices, as well as infrared focal plane array detectors and cameras specifically designed, developed, modified, or configured for military use; image intensification and other night sighting equipment or systems specifically designed, modified or configured for military use; second generation and above military image intensification tubes specifically designed, developed, modified, or configured for military use, and infrared, visible and ultraviolet devices specifically designed, developed, modified, or configured for military application.

**SUPPLEMENT NO. 8 TO PART 742 -- SELF-CLASSIFICATION REPORT FOR ENCRYPTION ITEMS**

This supplement provides certain instructions and requirements for self-classification reporting to BIS and the ENC Encryption Request Coordinator (Ft. Meade, MD) of encryption commodities, software and components exported or reexported pursuant to §740.17(b)(1) of the EAR. See §740.17(e)(3) of the EAR for additional instructions and requirements pertaining to this supplement, including when to report and how to report.

***(a) Information to report***

The following information is required in the file format as described in paragraph (b) of this supplement, for each encryption item subject to the requirements of this supplement and §§ 740.17(b)(1) and 740.17(e)(3) of the EAR:

- (1)** Name of product (50 characters or less.)
- (2)** Model / series / part number (50 characters or less.) If necessary, enter ‘NONE’ or ‘N/A’.
- (3)** Primary manufacturer (50 characters or less.) Enter ‘SELF’ if you are the primary manufacturer of the item. If there are multiple manufacturers for the item but none is clearly primary, either enter the name of one of the manufacturers or else enter ‘MULTIPLE’. If necessary, enter ‘NONE’ or ‘N/A’.
- (4)** Export Control Classification Number (ECCN), selected from one of the following:
  - (i) 5A002
  - (ii) 5B002
  - (iii) 5D002
  - (iv) 5A992

- (v) 5D992
- (5)** Encryption authorization type identifier, selected from *one* of the following, which denote eligibility under License Exception ENC § 740.17(b)(1):
  - (i) ENC
  - (ii) MMKT
- (6)** Item type descriptor, selected from one of the following:
  - (i) Access point;
  - (ii) Cellular;
  - (iii) Computer or computing platforms;
  - (iv) Computer forensics;
  - (v) Cryptographic accelerator;
  - (vi) Data backup and recovery;
  - (vii) Database;
  - (viii) Disk / drive encryption;
  - (ix) Distributed computing;
  - (x) E-mail communications;
  - (xi) Fax communications;
  - (xii) File encryption;
  - (xiii) Firewall;
  - (xiv) Gateway;
  - (xv) Intrusion detection;

- (xvi) Identity management;
  - (xvii) Key exchange;
  - (xviii) Key management;
  - (xix) Key storage;
  - (xx) Link encryption;
  - (xxi) Local area networking (LAN);
  - (xxii) Metropolitan area networking (MAN);
  - (xxiii) Mobility and mobile applications n.e.s.;
  - (xxiv) Modem;
  - (xxv) Multimedia n.e.s.;
  - (xxvi) Network convergence or infrastructure n.e.s.;
  - (xxvii) Network forensics;
  - (xxviii) Network intelligence;
  - (xxix) Network or systems management (OAM / OAM&P);
  - (xxx) Network security monitoring;
  - (xxxii) Operating system;
  - (xxxiii) Optical networking;
  - (xxxiv) Radio communications;
  - (xxxv) Router;
  - (xxxvi) Satellite communications;
  - (xxxvii) Short range wireless n.e.s.;
  - (xxxviii) Storage Area Networking (SAN);
  - (xxxix) 3G / 4G / 5G / LTE / WiMAX;
  - (xl) Trusted computing;
  - (xli) Videoconferencing;
  - (xlii) Virtual private networking (VPN);
  - (xliii) Voice communications n.e.s.;
  - (xliv) Voice over Internet Protocol (VoIP);
  - (xlv) Wide Area Networking (WAN);
  - (xlvi) Wireless Local Area Networking (WLAN);
  - (xlvii) Wireless Personal Area Networking (WPAN);
  - (xlviii) Test equipment n.e.s.; or
  - (xlix) Other (please specify).
- (7)** Name of company or individual submitting the report (50 characters or less).
- (8)** Telephone number (50 characters or less).
- (9)** E-mail address (50 characters or less).
- (10)** Mailing address (50 characters or less).
- (11)** With respect to your company’s encryption products, do they incorporate encryption components produced or furnished by non-U.S. sources or vendors? Enter ‘YES’, ‘NO’, or if necessary, ‘N/A’ (250 characters or less).
- (12)** With respect to your company’s encryption products, are any of them manufactured in non-

U.S. locations?” If yes, list the non-U.S. manufacturing locations by city and country. If necessary, enter ‘NONE’ or ‘N/A’ (250 characters or less).

**(b) File format requirements.**

(1) The information described in paragraph (a) of this supplement must be provided in tabular or spreadsheet form, as an electronic file in comma separated values format (.csv), only. No file formats other than .csv will be accepted, as your encryption self-classification report must be directly convertible to tabular or spreadsheet format, where each row (and all entries within a row) properly correspond to the appropriate encryption item.

*Note to paragraph (b)(1): An encryption self-classification report data table created and stored in spreadsheet format (e.g., file extension .xls, .numbers, .qpw, .wb\*, .wrk, and .wks) can be converted and saved into a comma delimited file format directly from the spreadsheet program. This .csv file is then ready for submission.*

(2) Each line of your encryption self-classification report (.csv file) must consist of twelve entries as further described in this supplement.

(3) The first line of the .csv file must consist of the following twelve entries (i.e., match the following) without alteration or variation: PRODUCT NAME, MODEL NUMBER, MANUFACTURER, ECCN, AUTHORIZATION TYPE, ITEM TYPE, SUBMITTER NAME, TELEPHONE NUMBER, E-MAIL ADDRESS, MAILING ADDRESS, NON-U.S. COMPONENTS, NON-U.S. MANUFACTURING LOCATIONS.

*Note to paragraph (b)(3): These first twelve entries (i.e., first row) of an encryption self-classification report in .csv format correspond to the twelve column headers of a spreadsheet data file. The responses provided under column*

*headers 7 through 12 (SUBMITTER NAME through NON-U.S. MANUFACTURING LOCATIONS) relate to the company as a whole, and thus should be entered the same for each product (i.e., only one point of contact, one ‘YES’ or ‘NO’ answer to whether any of the reported products incorporate non-U.S. sourced encryption components, and one list of non-U.S. manufacturing locations, is required for the report). However, even though the information is the same for each product, please duplicate this information into each row of the spreadsheet, leaving no entry blank, so each product has the same identifying company information.*

(4) Each subsequent line of the .csv file must correspond to a single encryption item (or a distinguished series of products) as described in paragraph (c) of this supplement.

(5) Each line must consist of six entries as described in paragraph (a)(1), (a)(2), (a)(3), (a)(4), (a)(5), and (a)(6) of this supplement. No entries may be left blank. Each entry must be separated by a comma (.). Certain additional instructions are as follows:

(i) Line entries (a)(1) (‘PRODUCT NAME’) and (a)(4) (‘ECCN’) must be completed with relevant information.

(ii) For entries (a)(2) (‘MODEL NUMBER’) and (a)(3) (‘MANUFACTURER’), if these entries do not apply to your item or situation you may enter ‘NONE’ or ‘N/A’.

(iii) For entries (a)(5) (‘AUTHORIZATION TYPE’), if none of the provided choices apply to your situation, you may enter ‘OTHER’.

(6) Because of .csv file format requirements, the only permitted use of a comma is as the necessary separator between line entries. You may not use a comma for any other reason in your encryption self-classification report.

*(c) Other instructions*

(1) The information provided in accordance with this supplement and §§ 740.17(b)(1) and 740.17(e)(3) of the EAR must identify product offerings as they are typically distinguished in inventory, catalogs, marketing brochures and other promotional materials.

(2) For families of products where all the information described in paragraph (a) of this supplement is identical except for the model / series / part number (entry (a)(2)), you may list and describe these products with a single line in your .csv file using an appropriate model / series / part number identifier (e.g., ‘300’ or ‘3xx’) for entry (a)(2), provided each line in your .csv file corresponds to a single product series (or product

type) within an overall product family.

(3) For example, if Company A produces, markets and sells both a ‘100’ (‘1xx’) and a ‘300’ (‘3xx’) series of product, in its encryption self-classification report (.csv file) Company A must list the ‘100’ product series in one line (with entry (a)(2) completed as ‘100’ or ‘1xx’) and the ‘300’ product series in another line (with entry (a)(2) completed as ‘300’ or ‘3xx’), even if the other required information is common to all products in the ‘100’ and ‘300’ series.

**(4) Only products self-classified by the exporter or reexporter must be reported.** Products submitted for classification by the Bureau of Industry and Security for which a CCATS is issued do not need to be reported.

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**SUPPLEMENT NO. 1** TO PART 743 - WASSENAAR ARRANGEMENT PARTICIPATING STATES ..... 1

**§ 743.1 WASSENAAR ARRANGEMENT**

**(a) Scope**

This section outlines special reporting requirements for exports of certain commodities, software and technology controlled under the Wassenaar Arrangement. Such reports must be submitted to BIS semiannually in accordance with the provisions of paragraph (f) of this section, and records of all exports subject to the reporting requirements of this section must be kept in accordance with part 762 of the EAR. This section does not require reports for reexports. This section is limited to the Wassenaar Arrangement reporting requirements for items listed on the Wassenaar Arrangement’s Dual-Use list. For reporting requirements for conventional arms listed on the Wassenaar Arrangement Munitions List that are subject to the EAR (i.e., “600 series” ECCNs), see § 743.4 of this part for Wassenaar Arrangement and United Nations reporting requirements.

**NOTE TO PARAGRAPH (a) OF THIS SECTION:** For purposes of part 743, the term “you” has the same meaning as the term “exporter”, as defined in part 772 of the EAR.

**(b) Requirements**

You must submit two (2) copies of each report required under the provisions of this section and maintain accurate supporting records (see §762.2(b) of the EAR) for all exports of items specified in paragraph (c) of this section for the following:

(1) Exports authorized under License Exceptions GBS, CIV, TSR, LVS, APP, and the cooperating government portions (§§740.11(c) of the EAR) of GOV (see part 740 of the EAR). Note that exports of technology and source code under License Exception TSR to foreign nationals located in the U.S. should not be reported; and

(2) [Reserved]

(3) Exports authorized under the Validated End-User authorization (see §748.15 of the EAR).

(4) Exports authorized under License Exception STA (See § 740.20 of the EAR).

**(c) Items for which reports are required**

You must submit reports to BIS under the provisions of this section only for exports of items on the Sensitive List (see Supplement No. 6 to part 774 of the EAR).

**(d) Country Exceptions**

You must report each export subject to the provisions of this section, except for exports to Wassenaar member countries, as identified in Supplement No. 1 to part 743.

**(e) Information that must be included in each report**

(1) Each report submitted to BIS for items other than those identified in paragraph (e)(2) of this section must include the following information for each export during the time periods specified in paragraph (f) of this section:

(i) Export Control Classification Number and paragraph reference as identified on the Commerce Control List;

(ii) Number of units in the shipment; and

**NOTE TO PARAGRAPH (e)(1)(ii):** For exports of technology for which reports are required under §743.1(c) of this section, the number of units in the shipment should be reported as one (1) for the initial export of the technology to a single ultimate consignee. Additional exports of the technology must be reported only when the type or scope of technology changes or exports are made to other ultimate consignees. Additionally, do not report the release of technology or source code subject to the EAR to foreign nationals in the U.S.

(iii) Country of ultimate destination.

(2) [RESERVED]

**(f) Frequency and timing of reports**

You must submit reports subject to the provisions of this section semiannually. The reports must be labeled with the exporting company's name and address at the top of each page and must include for each such export all the information specified in paragraph (e) of this section. The reports shall cover exports made during six month time periods spanning from January 1 through June 30 and July 1 through December 31.

(1) The first report must be submitted to and received by BIS no later than August 1, 1998 for the partial reporting period beginning January 15, 1998 and ending June 30, 1998. Thereafter,

reports are due according to the provisions of paragraphs (f)(2) and (f)(3) of this section.

(2) Reports for the reporting period ending June 30 must be submitted to and received by BIS no later than August 1.

(3) Reports for the reporting period ending December 31 must be submitted to and received by BIS no later than February 1.

**(g) Where to submit Wassenaar reports**

(1) **E-mail.** Reports may be E-mailed to [WAreports@bis.doc.gov](mailto:WAreports@bis.doc.gov).

(2) **Mail.** If mailed, two (2) copies of reports are required to be delivered via courier to: Bureau of Industry and Security, U.S. Department of Commerce, Attn: "Wassenaar Reports", Room 2099B, 14th Street and Pennsylvania Ave., NW., Washington, DC 20230. BIS will not accept reports sent C.O.D.

(3) **Facsimile.** Reports may also be sent by facsimile to: (202) 482-3345 or 202-482-1373, Attn: "Wassenaar Reports".

**(h) Contacts**

General information concerning the Wassenaar Arrangement and reporting obligations thereof is available from the Office of National Security and Technology Transfer Controls, Tel. (202) 482-4479, Fax: (202) 482-3345 or (202) 482-1373, or E-mail: [WAreports@bis.doc.gov](mailto:WAreports@bis.doc.gov).

**§ 743.2 HIGH PERFORMANCE COMPUTERS: POST SHIPMENT VERIFICATION REPORTING****(a) Scope**

This section outlines special post-shipment reporting requirements for exports of certain computers to destinations in Computer Tier 3, see §740.7(d) for a list of these destinations. Post-

shipment reports must be submitted in accordance with the provisions of this section, and all relevant records of such exports must be kept in accordance with Part 762 of the EAR.

**(b) Requirement**

Exporters must file post-shipment reports and keep records in accordance with recordkeeping requirements in part 762 of the EAR for high performance computer exports to destinations in Computer Tier 3, as well as, exports of commodities used to enhance computers previously exported or reexported to Computer Tier 3 destinations, where the “Adjusted Peak Performance” (“APP”) is greater than that listed in ECCN 4A003.b in the Commerce Control List, Supplement No. 1 to part 774 of the EAR.

**(c) Information that must be included in each post-shipment report**

No later than the last day of the month following the month in which the export takes place, the exporter must submit the following information to BIS at the address listed in paragraph (d) of this section:

- (1) Exporter name, address, and telephone number;
- (2) License number;
- (3) Date of export;
- (4) End-user name, point of contact, address, telephone number;
- (5) Carrier;
- (6) Air waybill or bill of lading number;
- (7) Commodity description, quantities - listed by model numbers, serial numbers, and APP level in WT; and
- (8) Certification line for exporters to sign and date. The exporter must certify that the

information contained in the report is accurate to the best of his or her knowledge.

**NOTE TO PARAGRAPH (c) OF THIS SECTION:** *Exporters are required to provide the PRC End-User Certificate Number to BIS as part of their post-shipment report. When providing the PRC End-User Certificate Number to BIS, you must identify the transaction in the post shipment report to which that PRC End-User Certificate Number applies.*

**(d) Address**

A copy of the post-shipment report[s] required under paragraph (b) of this section shall be delivered, via courier, to:

U.S. Department of Commerce  
Office of Enforcement Analysis  
HPC Team  
14th Street and Constitution Ave., NW.  
Room 4065  
Washington, DC 20230

Note that BIS will not accept reports sent C.O.D.

**§ 743.3 THERMAL IMAGING CAMERA REPORTING**

**(a) General requirement.**

Exports of thermal imaging cameras must be reported to BIS as provided in this section.

**(b) Transactions to be reported**

Exports that are not authorized by an individually validated license of more than 100 thermal imaging cameras in a monocular, biocular or binocular configuration controlled by ECCN 6A003.b.4.b to a destination in Country Group A:1 (see supplement no. 1 to part 740 of the EAR), except Canada, must be reported to BIS.

**(c) Party responsible for reporting**

The exporter as defined in § 772.1 of the EAR must ensure the reports required by this section are submitted to BIS.

**(d) Information to be included in the reports**

For each export described in paragraph (b) of this section, the report must identify: the name, address, and telephone number of the exporter; the date of each export; the name, address and telephone number of the consignee or end user; the model number(s) of each camera exported; the serial number of each exported camera that has a serial number; and the quantity of each model number of camera exported. (NOTE: Technical specifications may be requested on an as needed basis and must be provided to BIS after any such request.)

**(e) Where to submit reports**

Submit the reports via e-mail to [UTICreport@bis.doc.gov](mailto:UTICreport@bis.doc.gov).

**(f) Reporting periods and due dates**

This reporting requirement applies to exports made on or after May 22, 2009. Exports must be reported within one month of the reporting period in which the export takes place. The first reporting period begins on May 22, 2009 and runs through June 30, 2009. Subsequent reporting periods shall begin on January 1 and July 1 of each year, and shall run through June 30, and December 31 respectively. Exports in each reporting period must be reported to BIS no later than the last day of the month following the month in which the reporting period ends.

**§ 743.4 CONVENTIONAL ARMS REPORTING**

**(a) Scope**

This section outlines special reporting requirements for exports of certain items listed on the Wassenaar Arrangement Munitions List and the UN Register of Conventional Arms.

Participating States of the Wassenaar Arrangement exchange information every six months on deliveries to non-participating states of conventional arms set forth in the *Wassenaar Arrangement's Basic Documents* under Part II Guideline and Procedures, including the Initial Elements, Appendix 3: Specific Information Exchange on Arms Content by Category (at [www.wassenaar.org](http://www.wassenaar.org)), derived from the categories of the UN Register of Conventional Arms (at [www.un.org/disarmament/convarms/Register/](http://www.un.org/disarmament/convarms/Register/)). Similar, although not identical, information is also reported by the U.S. Government to the United Nations on an annual basis. The reported information should include the quantity and the name of the recipient state and, except in the category of missiles and missile launchers, details of model and type. Such reports must be submitted to BIS semi-annually in accordance with the provisions of paragraph (f) of this section for items identified in paragraph (c)(1) of this section and annually for items identified in paragraph (c)(2) of this section, and records of all exports subject to the reporting requirements of this section must be kept in accordance with part 762 of the EAR. This section does not require reports for reexports or transfers (in-country).

This section does not require reports when the exporter uses the alternative submission method described under paragraph (h) of this section. The alternative submission method under paragraph (h) requires the exporter to submit the information required for conventional arms reporting in this section as part of the required EEI submission in AES, pursuant to § 758.1(b)(9) of the EAR. Because of the requirements in § 758.1(g)(4)(ii) of the EAR for the firearms that require conventional arms reporting of all conventional arms, the Department of Commerce believes all conventional arms reporting requirements for firearms will be met by using the alternative submission method. The Department of Commerce leaves standard method for submitting reports in place in case any additional items are moved from the USML to the CCL, that may require conventional arms reporting.

**NOTE 1 TO PARAGRAPH (a):** For purposes of this section, the term “you” has the same meaning as the term “exporter”, as defined in part 772 of the EAR.

**(b) Requirements**

You must submit one electronic copy of each report required under the provisions of this section, or submit this information using the alternative submission method specified in paragraph (h) of this section, and maintain accurate supporting records (see § 762.2(b) of the EAR) for all exports of items specified in paragraph (c) of this section for the following:

(1) Exports authorized under License Exceptions **LVS**, **TMP**, **RPL**, **STA**, or **GOV** (see part 740 of the EAR);

(2) [Reserved]

(3) Exports authorized under the Validated End User authorization (see § 748.15 of the EAR).

**(c) Items for which reports are required --**

**(1) Wassenaar Arrangement reporting.** You must submit reports to BIS under the provisions of this section only for exports of items classified under the following ECCNs:

(i) ECCN 0A501.a and .b.

(ii) [RESERVED]

**(2) United Nations reporting.** You must submit reports to BIS under the provisions of this section only for exports of items classified under the following ECCNs:

(i) ECCN 0A501.a and .b.

(ii) [RESERVED]

**(d) Country Exceptions for Wassenaar Arrangement reporting**

You must report each export subject to the

provisions of this section, except for exports to Wassenaar member countries, identified in Supplement No. 1 to part 743 for reports required under paragraph (c)(1) of this section.

**(e) Information that must be included in each report**

(1) Each report submitted to BIS for items other than those identified in paragraph (e)(2) of this section must include the following information for each export during the time periods specified in paragraph (f) of this section:

(i) Export Control Classification Number and paragraph reference as identified on the Commerce Control List;

(ii) Number of units in the shipment; and

**NOTE 2 TO PARAGRAPH (e)(1)(ii):** For exports of technology for which reports are required under § 743.1(c) of this section, the number of units in the shipment should be reported as one (1) for the initial export of the technology to a single ultimate consignee. Additional exports of the technology must be reported only when the type or scope of technology changes or exports are made to other ultimate consignees.

(iii) Country of ultimate destination.

**(f) Frequency and timing of reports --**

**(1) Semi-annual reports for items identified in paragraph (c)(1) of this section.** You must submit reports subject to the provisions of this section semiannually. The reports must be labeled with the exporting company's name and address at the top of each page and must include for each such export all the information specified in paragraph (e) of this section. The reports shall cover exports made during six-month time periods from January 1 through June 30 and July 1 through December 31.

(i) The first report must be submitted to and

received by BIS no later than 180 days after the effective date of the rule that revises paragraph (c)(1) of this section to add the ECCN for the item being reported. Thereafter, reports are due according to the provisions of paragraphs (f)(2) and (f)(3) of this section.

(ii) Reports for the reporting period ending June 30 must be submitted to and received by BIS no later than August 1.

(iii) Reports for the reporting period ending December 31 must be submitted to and received by BIS no later than February 1.

**(2) Annual reports for items identified in paragraph (c)(2) of this section.** You must submit reports subject to the provisions of this section annually. The reports must be labeled with the exporting company's name and address at the top of each page and must include for each such export all the information specified in paragraph (e) of this section. The reports shall cover exports made during twelve month time periods from January 1 through December 31.

(i) The first report must be submitted to and received by BIS no later than 180 days after the effective date of the rule that revises paragraph (c)(1) of this section to add the ECCN for the item being reported.. Thereafter, reports are due according to the provisions of paragraph (f)(2) of this section.

(ii) Reports for the reporting period ending December 31 must be submitted to and received by BIS no later than February 1.

**(g) Submission of reports**

Information should be submitted in the form of a spreadsheet and emailed to [WAreports@BIS.DOC.GOV](mailto:WAreports@BIS.DOC.GOV) or [UNreports@BIS.DOC.GOV](mailto:UNreports@BIS.DOC.GOV).

**(h) Alternative submission method**

This paragraph (h) describes an alternative submission method for meeting the conventional arms reporting requirements of this section. The alternative submission method requires the exporter, when filing the required EEI submission in AES, pursuant to § 758.1(b)(9) of the EAR, to include the six character ECCN classification (*i.e.*, 0A501.a or 0A501.b) as the first text to appear in the Commodity description block. If the exporter properly includes this information in the EEI filing in AES, the Department of Commerce will be able to obtain that export information directly from AES to meet the U.S. Government's commitments to the Wassenaar Arrangement and United Nations for conventional arms reporting. An exporter that complies with the requirements in § 758.1(g)(4)(ii) of the EAR does not have to submit separate annual and semi-annual reports to the Department of Commerce pursuant to this section.

**(i) Contacts**

General information concerning the Wassenaar Arrangement and reporting obligations thereof is available from the Office of National Security and Technology Transfer Controls, Tel.: (202) 482-0092, Fax: (202) 482-4094. Information concerning the reporting requirements for items identified in paragraphs (c)(1) and (2) of this section is available from the Office of Nonproliferation and Treaty Compliance (NPTC), Tel.: (202) 482-4188, Fax: (202) 482-4145.

**§ 743.5 PRIOR NOTIFICATIONS TO CONGRESS OF EXPORTS OF "600 SERIES MAJOR DEFENSE EQUIPMENT"**

**(a) General requirement**

Applications to export items on the Commerce Control List that are "600 Series Major Defense Equipment" will be notified to Congress as provided in this section before licenses for such items are issued.

(1) Exports of “600 Series Major Defense Equipment” to U.S. Government end users under License Exception GOV (§ 740.11(b) of the EAR) do not require such notification.

(2) Exports of “600 Series Major Defense Equipment” that have been or will be described in a notification filed by the U.S. State Department under the Arms Export Control Act do not require such notification by BIS.

(b) BIS will notify Congress prior to issuing a license authorizing the export of items to a country *outside* the countries listed in Country Group A:5 (see Supplement No.1 to part 740 of the EAR) that are sold under a contract that includes \$14,000,000 or more of “600 Series Major Defense Equipment.”

(c) BIS will notify Congress prior to issuing a license authorizing the export of items to a

country listed in Country Group A:5 (see Supplement No.1 to part 740 of the EAR) that are sold under a contract that includes \$25,000,000 or more of “600 Series Major Defense Equipment.”

(d) In addition to information required on the application, the exporter must include a copy of the signed contract (including a statement of the value of the “600 Series Major Defense Equipment” items to be exported under the contract) for any proposed export described in paragraphs (b) or (c) of this section.

**(e) Address**

Munitions Control Division at  
bis.compliance@bis.doc.gov.

**SUPPLEMENT NO. 1 TO PART 743 - WASSENAAR ARRANGEMENT**  
**PARTICIPATING STATES**

Argentina  
Australia  
Austria  
Belgium

Bulgaria  
Canada  
Croatia  
Czech Republic  
Denmark  
Estonia  
Finland  
France  
Germany

Greece  
Hungary  
India  
Ireland  
Italy  
Japan  
Latvia  
Lithuania  
Luxembourg  
Malta  
Mexico  
Netherlands

New Zealand  
Norway  
Poland  
Portugal  
Romania  
Russia  
Slovakia  
Slovenia  
South Africa  
South Korea  
Spain  
Sweden  
Switzerland  
Turkey  
Ukraine  
United Kingdom  
United States

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**§ 744.1 GENERAL PROVISIONS**

**(a)(1) Introduction.**

In this part, references to the EAR are references to 15 CFR chapter VII, subchapter C. This part contains prohibitions against exports, reexports, and selected transfers to certain end-users and end-uses as introduced under General Prohibition Five (End-use/End-users) and Nine (Orders, Terms, and Conditions), unless authorized by BIS. Sections 744.2, 744.3, 744.4 prohibit exports, reexports and transfers (in-country) of items subject to the EAR to defined nuclear, missile, and chemical and biological proliferation activities. Section 744.5 prohibits exports, reexports and transfers (in-country) of items subject to the EAR to defined nuclear maritime end-uses. Section 744.6 prohibits certain activities by U.S. persons in support of certain nuclear, missile, chemical, or biological end-uses. Section 744.7 prohibits exports and reexports of certain items for certain aircraft and vessels. Section § 744.8 prohibits exports and reexports without authorization to certain parties who have been designated as proliferators of weapons of mass destruction or as supporters of such proliferators pursuant to Executive Order 13382. Section 744.10 prohibits exports and reexports of any item subject to the EAR to Russian entities, included in Supplement No. 4 of this part. Section 744.11 imposes license requirements, to the extent specified in Supplement No. 4 to this part on entities listed in Supplement No. 4 to this part for activities contrary to the national security or foreign policy interests of the United States. Sections 744.12, 744.13 and 744.14 prohibit exports and reexports of any item subject to the EAR to persons designated as Specially Designated Global Terrorists, Specially Designated Terrorists, or Foreign Terrorist Organizations, respectively. Section 744.15 sets forth the conditions for exports, reexports, and transfers (in-country) to persons listed on the Unverified List (UVL) in Supplement No. 6 of this part, the criteria for revising the UVL, as well as procedures for requesting removal or modification of a listing on the UVL. Section 744.16 sets forth the license requirements, policies and procedures for the Entity List. Section 744.19 sets forth BIS’s

licensing policy for applications for exports or reexports when a party to the transaction is an entity that has been sanctioned pursuant to any of three specified statutes that require certain license applications to be denied. Section 744.20 requires a license, to the extent specified in Supplement No. 4 to this part, for exports and reexports of items subject to the EAR destined to certain sanctioned entities listed in Supplement No. 4 to this part. In addition, these sections include license review standards for export license applications submitted as required by these sections. It should also be noted that part 764 of the EAR prohibits exports, reexports and certain transfers of items subject to the EAR to denied parties. Section 744.21 imposes restrictions for exports, reexports and transfers (in-country) of items on the CCL for a ‘military end use’ or ‘military end user’ in the People's Republic of China (PRC or China), Russia, or Venezuela. Section 744.22 imposes restrictions on exports, reexports and transfers to persons whose property and interests in property are blocked pursuant to Executive Orders 13310, 13448, or 13464.

(2) If controls set forth under more than one section of part 744 apply to a person, the license requirements for such a person will be determined based on the requirements of all applicable sections of part 744, and license applications will be reviewed under all applicable licensing policies.

**(b) Steps**

The following are steps you should follow in using the provisions of this part:

**(1) Review end-use and end-user prohibitions.** First, review each end-use and

<sup>1</sup> Part 772 of the EAR defines “knowledge” for all of the EAR except part 760, Restrictive Trade Practices and Boycotts. The definition, which includes variants such as “know” and “reason to know”, encompasses more than positive knowledge. Thus, the use of “know” in this section in place of the

end-user prohibition described in this part to learn the scope of these prohibitions.

**(2) Determine applicability.** Second, determine whether any of the end-use and end-user prohibitions described in this part are applicable to your planned export, reexport, transfer (in-country) or other activity. See Supplement No. 1 to part 732 for guidance. For exports, reexports or transfers (in-country) that are in transit at the time you are informed by BIS that a license is required in accordance with §§744.2(b), 744.3(b), 744.4(b) or 744.6(b) of the EAR, you may not proceed any further with the transaction unless you first obtain a license from BIS (see part 748 of the EAR for instructions on how to apply for a license). The provisions of §748.4(d)(2) shall not apply to license applications submitted pursuant to a notification from BIS that occurs while an export, reexport, or transfer (in-country) is in transit.

**§ 744.2 RESTRICTIONS ON CERTAIN NUCLEAR END-USES**

**(a) General prohibition**

In addition to the license requirements for items specified on the CCL, you may not export, reexport, or transfer (in-country) to any destination, other than countries in Supplement No. 3 to this part, an item subject to the EAR without a license if, at the time of export, reexport, or transfer (in-country) you know<sup>1</sup> that the item will be used directly or indirectly in any one or more of the following activities described in paragraphs (a)(1), (a)(2), and (a)(3) of this section:

former wording “know or have reason to know” does not lessen or otherwise change the responsibilities of persons subject to the EAR.

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**(1) Nuclear explosive activities.** Nuclear explosive activities, including research on or development, design, manufacture, construction, testing or maintenance of any nuclear explosive device, or components or subsystems of such a device.<sup>2 3</sup>

**(2) Unsafeguarded nuclear activities.** Activities including research on, or development, design, manufacture, construction, operation, or maintenance of any nuclear reactor, critical facility, facility for the fabrication of nuclear fuel, facility for the conversion of nuclear material from one chemical form to another, or separate storage installation, where there is no obligation to accept International Atomic Energy Agency (IAEA) safeguards at the relevant facility or installation when it contains any source or special fissionable material (regardless of whether or not it contains such material at the time of export), or where any such obligation is not met.

**(3) Safeguarded and unsafeguarded nuclear activities.** Safeguarded and unsafeguarded nuclear fuel cycle activities, including research on or development, design, manufacture, construction, operation or maintenance of any of the following facilities, or components for such facilities:<sup>4</sup>

**(i)** Facilities for the chemical processing of irradiated special nuclear or source material;

**(ii)** Facilities for the production of heavy water;

<sup>2</sup> Nuclear explosive devices and any article, material, equipment, or device specifically designed or specially modified for use in the design, development, or fabrication of nuclear weapons or nuclear explosive devices are subject to export licensing or other requirements of the Directorate of Defense Trade Controls, U.S. Department of State, or the licensing or other restrictions specified in the Atomic Energy Act of 1954, as amended. Similarly, items specifically designed or specifically modified for use in devising, carrying out, or evaluating nuclear weapons tests or nuclear explosions (except such items as are in normal commercial use for other purposes) are subject to the

**(iii)** Facilities for the separation of isotopes of source and special nuclear material; or

**(iv)** Facilities for the fabrication of nuclear reactor fuel containing plutonium.

**(b) Additional prohibition on persons informed by BIS**

BIS may inform persons, either individually by specific notice or through amendment to the EAR, that a license is required for a specific export, reexport, or transfer (in-country), or for the export, reexport, or transfer (in-country) of specified items to a certain end-user, because there is an unacceptable risk of use in, or diversion to, the activities specified in paragraph (a) of this section.

**Specific notice is to be given only by, or at the direction of, the Deputy Assistant Secretary for Export Administration.**

When such notice is provided orally, it will be followed by a written notice within two working days signed by the Deputy Assistant Secretary for Export Administration. However, the absence of any such notification does not excuse persons from compliance with the license requirements of paragraph (a) of this section.

**(c) Exceptions**

Despite the prohibitions described in paragraph (a) and (b) of this section, you may export technology subject to the EAR under the *operation technology and software* or *sales technology and software* provisions of License

same requirements.

<sup>3</sup> Also see §§744.5 and 748.4 of the EAR for special provisions relating to technical data for maritime nuclear propulsion plants and other commodities.

<sup>4</sup> Such activities may also require a specific authorization from the Secretary of Energy pursuant to §57.b.(2) of the Atomic Energy Act of 1954, as amended, as implemented by the Department of Energy's regulations published in 10 CFR 810.

Exception TSU (see §740.13(a) and (b)), but *only* to and for use in countries listed in Supplement No. 3 to part 744 of the EAR (Countries Not Subject to Certain Nuclear End-Use Restrictions in §744.2(a)). Notwithstanding the provisions of part 740 of the EAR, the provisions of §740.13(a) and (b) will only overcome General Prohibition Five for countries listed in Supplement No. 3 to part 744 of the EAR.

**(d) License review standards**

The following factors are among those used by the United States to determine whether to grant or deny license applications required under this section:

- (1) Whether the commodities, software, or technology to be transferred are appropriate for the stated end-use and whether that stated end-use is appropriate for the end-user;
- (2) The significance for nuclear purposes of the particular commodity, software, or technology;
- (3) Whether the commodities, software, or technology to be exported are to be used in research on or for the development, design, manufacture, construction, operation, or maintenance of any reprocessing or enrichment facility;
- (4) The types of assurances or guarantees given against use for nuclear explosive purposes or proliferation in the particular case;
- (5) Whether the end-user has been engaged in clandestine or illegal procurement activities;
- (6) Whether an application for a license to export to the end-user has previously been denied, or whether the end-use has previously diverted items received under a license, License Exception, or NLR to unauthorized activities;
- (7) Whether the export would present an unacceptable risk of diversion to a nuclear

explosive activity or unsafeguarded nuclear fuel-cycle activity described in §744.2(a) of the EAR;

(8) The nonproliferation credentials of the importing country, based on consideration of the following factors:

(i) Whether the importing country is a party to the Nuclear Non-Proliferation Treaty (NPT) or to the Treaty for the Prohibition of Nuclear Weapons in Latin America (Treaty of Tlatelolco) (see Supplement No. 2 to part 742 of the EAR), or to a similar international legally-binding nuclear nonproliferation agreement;

(ii) Whether the importing country has all of its nuclear activities, facilities or installations that are operational, being designed, or under construction, under International Atomic Energy Agency (IAEA) safeguards or equivalent full scope safeguards;

(iii) Whether there is an agreement for cooperation in the civil uses of atomic energy between the U.S. and the importing country;

(iv) Whether the actions, statements, and policies of the government of the importing country are in support of nuclear nonproliferation and whether that government is in compliance with its international obligations in the field of nonproliferation;

(v) The degree to which the government of the importing country cooperates in nonproliferation policy generally (e.g., willingness to consult on international nonproliferation issues);

(vi) Intelligence data on the importing country's nuclear intentions and activities; and

(9) Whether the recipient state has sufficient national export controls (as described in paragraph 3 of United Nations Security Council Resolution 1540 (2004)) to prevent an unacceptable risk of retransfer or diversion to a nuclear explosive activity or unsafeguarded

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nuclear fuel-cycle activity described in § 744.2(a) of the EAR.

vehicles, or

**§ 744.3 RESTRICTIONS ON CERTAIN ROCKET SYSTEMS (INCLUDING BALLISTIC MISSILES, SPACE LAUNCH VEHICLES AND SOUNDING ROCKETS) AND UNMANNED AERIAL VEHICLES (INCLUDING CRUISE MISSILES, TARGET DRONES AND RECONNAISSANCE DRONES) END-USES**

(ii) Whether the rocket systems or unmanned aerial vehicles, regardless of range capabilities, will be used in a manner prohibited under paragraph (a)(2) of this section.

*NOTE TO PARAGRAPH (a) OF THIS SECTION: For the purposes of this section, "Rocket Systems" include, but are not limited to, ballistic missiles, space launch vehicles, and sounding rockets. Also, for the purposes of this section, "unmanned aerial vehicles" include, but are not limited to, cruise missiles, target drones and reconnaissance drones.*

**(a) General prohibition**

**(b) Additional prohibition on persons informed by BIS**

In addition to the license requirements for items specified on the CCL, you may not export, reexport, or transfer (in-country) an item subject to the EAR without a license if, at the time of the export, reexport or transfer (in-country) you know that the item:

BIS may inform persons, either individually by specific notice or through amendment to the EAR, that a license is required for a specific export, reexport or transfer (in-country) or for the export, reexport, or transfer (in-country) of specified items to a certain end-user, because there is an unacceptable risk of use in, or diversion to, the activities specified in paragraphs

(1) Will be used in the design, development, production or use of rocket systems or unmanned aerial vehicles capable of a range of at least 300 kilometers in or by a country listed in Country Group D:4 of Supplement No. 1 to part 740 of the EAR.

(a)(1) or (a)(2) of this section. **Specific notice is to be given only by, or at the direction of, the Deputy Assistant Secretary for Export Administration.**

(2) Will be used, anywhere in the world except by governmental programs for nuclear weapons delivery of NPT Nuclear Weapons States that are also members of NATO, in the design, development, production or use of rocket systems or unmanned aerial vehicles, regardless of range capabilities, for the delivery of chemical, biological, or nuclear weapons; or

When such notice is provided orally, it will be followed by a written notice within two working days signed by the Deputy Assistant Secretary for Export Administration. However, the absence of any such notification does not excuse persons from compliance with the license requirements of paragraphs (a)(1), (a)(2), or (a)(3) of this section.

(3) Will be used in the design, development, production or use of any rocket systems or unmanned aerial vehicles in or by a country listed in Country Group D:4, but you are unable to determine:

**(c) Exceptions**

No License Exceptions apply to the prohibitions described in paragraph (a) and (b) of this section.

(i) The characteristics (*i.e.*, range capabilities) of the rocket systems or unmanned aerial

**(d) License Review Standards**

**Control Policy: End-User and End-Use Based**

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(1) Applications to export, reexport or transfer (in-country) the items subject to this section will be considered on a case-by-case basis to determine whether the export, reexport or transfer (in-country) would make a material contribution to the proliferation of certain rocket systems, or unmanned aerial vehicles. When an export, reexport or transfer (in-country) is deemed to make a material contribution, the license will be denied.

(2) The following factors are among those that will be considered to determine what action should be taken on an application required by this section:

(i) The specific nature of the end use;

(ii) The significance of the export, reexport or transfer in terms of its contribution to the design, development, production or use of certain rocket systems or unmanned aerial vehicles;

(iii) The capabilities and objectives of the rocket systems or unmanned aerial vehicles of the recipient country;

(iv) The nonproliferation credentials of the importing country;

(v) The types of assurances or guarantees against design, development, production, or use for certain rocket system or unmanned aerial vehicle delivery purposes that are given in a particular case; and

(vi) The existence of a pre-existing contract.

**§ 744.4 RESTRICTIONS ON CERTAIN CHEMICAL AND BIOLOGICAL WEAPONS END-USES**

**(a) General prohibition**

In addition to the license requirements for items specified on the CCL, you may not export, reexport, or transfer (in-country) an item subject

to the EAR without a license if, at the time of export, reexport, or transfer (in-country) you know that the item will be used in the design, development, production, stockpiling, or use of chemical or biological weapons in or by any country or destination, worldwide.

**(b) Additional prohibition on persons informed by BIS**

BIS may inform persons, either individually by specific notice or through amendment to the EAR, that a license is required for a specific export, reexport, or transfer (in-country), or for the export, reexport, or transfer (in-country) of specified items to a certain end-user, because there is an unacceptable risk of use in or diversion to the activities specified in paragraph (a) of this section, anywhere in the world.

**Specific notice is to be given only by, or at the direction of, the Deputy Assistant Secretary for Export Administration.**

When such notice is provided orally, it will be followed by a written notice within two working days signed by the Deputy Assistant Secretary for Export Administration. However, the absence of any such notification does not excuse persons from compliance with the license requirements of paragraph (a) of this section.

**(c) Exceptions**

No License Exceptions apply to the prohibitions described in paragraphs (a) and (b) of this section.

**(d) License review standards**

(1) Applications to export, reexport, or transfer (in-country) items subject to this section will be considered on a case-by-case basis to determine whether the export, reexport, or transfer (in-country) would make a material contribution to the design, development, production, stockpiling, or use of chemical or biological weapons. When an export, reexport, or transfer (in-country) is deemed to make such a contribution, the license will be denied.

(2) The following factors are among those that will be considered to determine what action should be taken on an application required under this section:

- (i) The specific nature of the end-use;
- (ii) The significance of the export, reexport, or transfer in terms of its contribution to the design, development, production, stockpiling, or use of chemical or biological weapons;
- (iii) The nonproliferation credentials of the importing country or the country in which the transfer would take place;
- (iv) The types of assurances or guarantees against the design, development, production, stockpiling, or use of chemical or biological weapons that are given in a particular case; and
- (v) The existence of a pre-existing contract. See Supplement No. 1 to Part 742 of the EAR for relevant contract sanctity dates.

**§ 744.5 RESTRICTIONS ON CERTAIN MARITIME NUCLEAR PROPULSION END-USES**

**(a) General prohibition**

In addition to the license requirements for items specified on the CCL, you may not export, reexport, or transfer (in-country) certain technology subject to the EAR without a license if at the time of the export, reexport or transfer (in-country) you know the item is for use in connection with a foreign maritime nuclear propulsion project. This prohibition applies to any technology relating to maritime nuclear propulsion plants, their land prototypes, and special facilities for their construction, support, or maintenance, including any machinery, devices, components, or equipment specifically developed or designed for use in such plants or facilities.

**(b) Exceptions**

The exceptions provided in part 740 of the EAR do not apply to the prohibitions described in paragraph (a) of this section.

**(c) License review standards**

It is the policy of the United States Government not to participate in and not to authorize United States firms or individuals to participate in foreign naval nuclear propulsion plant projects, except under an Agreement for Cooperation on naval nuclear propulsion executed in accordance with §123(d) of the Atomic Energy Act of 1954. However, it is the policy of the United States Government to encourage United States firms and individuals to participate in maritime (civil) nuclear propulsion plant projects in friendly foreign countries provided that United States naval nuclear propulsion information is not disclosed.

**§ 744.6 RESTRICTIONS ON CERTAIN ACTIVITIES OF U.S. PERSONS**

**(a) General prohibitions**

**(1) Activities related to exports.**

(i) **No U.S. person** as defined in paragraph (c) of this section may, without a license from BIS, export, reexport, or transfer (in-country) an item where that person knows that such item:

(A) Will be used in the design, development, production, or use of **nuclear explosive devices** in or by a country listed in Country Group D:2 (see Supplement No. 1 to part 740 of the EAR).

(B) Will be used in the design, development, production, or use of **missiles in or by a country listed in Country Group D:4** (see Supplement No. 1 to part 740 of the EAR); or

(C) Will be used in the design, development, production, stockpiling, or use of

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chemical or biological weapons in or by any country or destination, worldwide.

(ii) No U.S. person shall, without a license from BIS, knowingly support an export, reexport, or transfer (in-country) that does not have a license as required by this section. Support means any action, including financing, transportation, and freight forwarding, by which a person facilitates an export, reexport, or transfer (in-country).

(2) **Other activities unrelated to exports.** No U.S. person shall, without a license from BIS:

(i) Perform any contract, service, or employment that the U.S. person knows will directly assist in the design, development, production, or use of missiles in or by a country listed in Country Group D:4 (see Supplement No. 1 to part 740 of the EAR); or

(ii) Perform any contract, service, or employment that the U.S. person knows will directly assist in the design, development, production, stockpiling, or use of chemical or biological weapons in or by any country or destination, worldwide.

(3) **Whole plant requirement.** No U.S. person shall, without a license from BIS, participate in the design, construction, export, reexport, or transfer (in-country) of a whole plant to make chemical weapons precursors identified in ECCN 1C350, in countries other than those listed in Country Group A:3 (Australia Group) (See Supplement No. 1 to part 740 of the EAR).

**(b) Additional prohibitions on U.S. persons informed by BIS**

BIS may inform U.S. persons, either individually by specific notice or through amendment to the EAR, that a license is required because an activity could involve the types of participation and support described in paragraph (a) of this section. Specific notice is to be given only by, or at the direction of, the Deputy Assistant Secretary for

Export Administration. When such notice is provided orally, it will be followed by a written notice within two working days signed by the Deputy Assistant Secretary for Export Administration. However, the absence of any such notification does not excuse the U.S. person from compliance with the license requirements of paragraph (a) of this section.

**(c) Definition of U.S. person**

For purposes of this section, the term U.S. person includes:

(1) Any individual who is a citizen of the United States, a permanent resident alien of the United States, or a protected individual as defined by 8 U.S.C. 1324b(a)(3);

(2) Any juridical person organized under the laws of the United States or any jurisdiction within the United States, including foreign branches; and

(3) Any person in the United States.

**(d) Exceptions**

No License Exceptions apply to the prohibitions described in paragraphs (a) and (b) of this section.

**(e) License review standards**

Applications to engage in activities otherwise prohibited by this section will be denied if the activities would make a material contribution to the design, development, production, stockpiling, or use of nuclear explosive devices, chemical or biological weapons, or of missiles.

**§ 744.7 RESTRICTIONS ON CERTAIN EXPORTS TO AND FOR THE USE OF CERTAIN FOREIGN VESSELS OR AIRCRAFT**

**(a) General end-use prohibition**

In addition to the license requirements for items specified on the CCL, you may not export or reexport an item subject to the EAR to, or for the use of, a foreign vessel or aircraft, whether an operating vessel or aircraft or one under construction, located in any port including a Canadian port, unless a License Exception or NLR permits the shipment to be made:

- (1) To the country in which the vessel or aircraft is located, and
- (2) To the country in which the vessel or aircraft is registered, or will be registered in the case of a vessel or aircraft under construction, and
- (3) To the country, including a national thereof, which is currently controlling, leasing, or chartering the vessel or aircraft.

**(b) Exception for U.S. and Canadian carriers**

(1) Notwithstanding the general end-use prohibition in paragraph (a) of this section, export and reexport may be made of the commodities described in paragraph (b)(3) of this section, for use by or on a specific vessel or plane of U.S. or Canadian registry located at any seaport or airport outside the United States or Canada except a port in Country Group D:1 (excluding the PRC), (see Supplement No. 1 to part 740) provided that such commodities are all of the following:<sup>5</sup>

- (i) Ordered by the person in command or the owner or agent of the vessel or plane to which they are consigned;
- (ii) Intended to be used or consumed on board such vessel or plane and necessary for its proper operation;
- (iii) In usual and reasonable kinds and quantities during times of extreme need, except that usual and reasonable quantities of ship's bunkers or aviation fuel are considered to be only

that quantity necessary for a single onward voyage or flight; and

(iv) Shipped as cargo for which Electronic Export Information (EEI) is filed to the Automated Export System (AES) in accordance with the requirements of the Foreign Trade Regulations (FTR) (15 CFR Part 30), except EEI is not required to be filed when any of the commodities, other than fuel, is exported by U.S. airlines to their own aircraft abroad for their own use, see 15 CFR 30.37(o) of the FTR.

**(2) Exports to U.S. or Canadian Airline's Installation or Agent.** Exports and reexports of the commodities described in paragraph (e) of this section, except fuel, may be made to a U. S. or Canadian airline's installation or agent in any foreign destination except Country Group D:1 (excluding the PRC), (see Supplement No. 1 to part 740) provided such commodities are all of the following:

- (i) Ordered by a U.S. or Canadian airline and consigned to its own installation or agent abroad;
- (ii) Intended for maintenance, repair, or operation of aircraft registered in either the United States or Canada, and necessary for the aircraft's proper operation, except where such aircraft is located in, or owned, operated or controlled by, or leased or chartered to, Country Group D:1 (excluding the PRC) (see Supplement No. 1 to part 740) or a national of such country;
- (iii) In usual and reasonable kinds and quantities; and
- (iv) Shipped as cargo for which Electronic Export Information (EEI) is filed to the Automated Export System (AES) in accordance with the requirements of the Foreign Trade Regulations (FTR) (15 CFR Part 30), except EEI is not required to be filed when any of these commodities is exported by U.S. airlines to their

<sup>5</sup> Where a license is required, see §§748.2 and

748.4(g) of the EAR.

own installations and agents abroad for use in their aircraft operations, see 15 CFR 30.37(o) of the FTR.

**(3) Applicable commodities.** This §744.7 applies to the commodities listed subject to the provisions in paragraph (b) of this section:

(i) Fuel, including crude oil, petroleum products other than crude oil that are of non-Naval Petroleum Reserves origin or derivation (see § 754.3 of the EAR), and blends of crude oil with such petroleum products;

(ii) Deck, engine, and steward department stores, provisions, and supplies for both port and voyage requirements, provided that any petroleum products other than crude oil which are listed in Supplement No. 1 to part 754 of the EAR are of non-Naval Petroleum Reserves origin or derivation (see § 754.3 of the EAR);

(iii) Medical and surgical supplies;

(iv) Food stores;

(v) Slop chest articles;

(vi) Saloon stores or supplies; and

(vii) Equipment and spare parts.

**§ 744.8 RESTRICTIONS ON EXPORTS AND REEXPORTS TO PERSONS DESIGNATED PURSUANT TO EXECUTIVE ORDER 13382 – BLOCKING PROPERTY OF WEAPONS OF MASS DESTRUCTION PROLIFERATORS AND THEIR SUPPORTERS**

BIS maintains restrictions on exports and reexports to persons designated in or pursuant to Executive Order 13382 of June 28, 2005 (Weapons of Mass Destruction Proliferators and their Supporters). Executive Order 13382 blocks the property and interests in property of

persons named in or designated pursuant to Executive Order 13382 in the United States or that comes within the United States or within the possession or control of United States persons. The parties whose property or interests in property are blocked pursuant to Executive Order 13382 are identified by the Department of the Treasury, Office of Foreign Assets Control (OFAC) in Appendix A to 31 CFR Chapter V with the bracketed suffix [NPWMD]. This section imposes export and reexport license requirements for items subject to the EAR on those same parties to further the objectives of Executive Order 13382.

**(a) License requirement(s) and authorization**

**(1) EAR license requirement.** A license is required for the export or reexport of any item subject to the EAR to any party listed in Appendix A to 31 CFR Chapter V with the bracketed suffix [NPWMD].

**(2) BIS authorization.**

(i) To avoid duplication, U.S. persons are not required to seek separate authorization from BIS for an export or reexport to a party listed in Appendix A to 31 CFR Chapter V with the bracketed suffix [NPWMD] of an item subject to the EAR. If OFAC authorizes an export from the United States or an export or reexport by a U.S. person to a party listed in Appendix A to 31 CFR Chapter V with the bracketed suffix [NPWMD], such authorization constitutes authorization for purposes of the EAR as well.

(ii) U.S. persons must seek authorization from BIS for the export or reexport to a party listed in Appendix A to 31 CFR Chapter V with the bracketed suffix [NPWMD] of any item subject to the EAR that is not subject to OFAC's regulatory authority pursuant to Executive Order 13382.

(iii) Non-U.S. persons must seek authorization from BIS for any export from abroad or reexport to a party listed in Appendix A to 31 CFR Chapter V with the bracketed suffix [NPWMD] of any item subject to the EAR.

(iv) Any export or reexport to a party listed in Appendix A to 31 CFR Chapter V with the bracketed suffix [NPWMD] of any item subject to the EAR and not authorized by OFAC is a violation of the EAR.

(v) Any export or reexport by a U.S. person to a party listed in Appendix A to 31 CFR Chapter V with the bracketed suffix [NPWMD] of any item subject to the EAR that is not subject to regulation by OFAC and not authorized by BIS is a violation of the EAR. Any export from abroad or reexport by a non-U.S. person to a party listed in Appendix A to 31 CFR Chapter V with the bracketed suffix [NPWMD] of any item subject to the EAR and not authorized by BIS is a violation of the EAR.

**(3) Relation to other EAR license requirements.** The license requirements in this section supplement any other requirements set forth elsewhere in the EAR.

**(b) License exceptions**

No license exceptions are available for the EAR license requirements imposed in this section.

**(c) Licensing policy**

Applications for EAR licenses required by this section generally will be denied. You should consult with OFAC concerning transactions subject to OFAC licensing requirements.

**(d) Contract sanctity**

Contract sanctity provisions are not available for license applications reviewed under this section.

**§ 744.9 RESTRICTIONS ON EXPORTS, REEXPORTS, AND TRANSFERS OF CERTAIN CAMERAS, SYSTEMS, OR RELATED COMPONENTS**

**(a) General prohibitions**

(1) In addition to the applicable license requirements for national security, regional stability, anti-terrorism and United Nations embargo reasons in §§ 742.4, 742.6, 742.8, 746.1(b), and 746.3 of the EAR, a license is required to export, reexport, or transfer (in-country) to any destination other than Canada commodities described in ECCNs 0A504 (incorporating commodities controlled by ECCNs 6A002 or 6A003, or commodities controlled by 6A993.a that meet the criterion of Note 3.a to 6A003.b.4), 6A002, 6A003, or 6A993.a (having a maximum frame rate equal to or less than 9 Hz and thus meeting the criteria of Note 3.a to 6A003.b.4), or 8A002.d if at the time of export, reexport, or transfer, the exporter, reexporter, or transferor knows or is informed that the item will be or is intended to be:

(i) Used by a “military end user,” as defined in paragraph (d) of this section; or

(ii) Incorporated into a “military commodity” controlled by ECCN 0A919.

(2) The license requirement described in paragraph (a)(1) of this section does not apply to exports, reexports, or transfers (in-country) of items described in that paragraph when such items are being reexported or transferred as part of a military deployment by a unit of the government of a country in Country Group A:1 (see Supplement No. 1 to part 740).

**(b) Additional prohibition on exporters, reexporters, or transferors informed by BIS**

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BIS may inform an exporter, reexporter, or transferor, either individually by specific notice or through amendment to the EAR, that a license is required for the export, reexport, or transfer of commodities described in ECCNs 0A504 (incorporating commodities controlled by ECCNs 6A002 or 6A003, or commodities controlled by 6A993.a that meet the criterion of Note 3.a to 6A003.b.4), 6A002, 6A003, or 6A993.a (having a maximum frame rate equal to or less than 9 Hz and thus meeting the criteria of Note 3.a to 6A003.b.4), or 8A002.d to specified end users, because BIS has determined that there is **an unacceptable risk of diversion to the users or unauthorized incorporation into the "military commodities" described in paragraph (a) of this section.** **Specific notice is to be given only by, or at the direction of, the Deputy Assistant Secretary for Export Administration.** When such notice is provided orally, it will be followed by a written notice within two working days signed by the Deputy Assistant Secretary for Export Administration.

consigned to and for the official use of the U.S. Government authorized pursuant to § 740.11(b)(2)(ii) of the EAR may be made under License Exception GOV. No other license exceptions apply to the prohibitions described in paragraphs (a) and (b) of this section.

**§ 744.10 RESTRICTIONS ON CERTAIN ENTITIES IN RUSSIA**

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**(a) General prohibition**

Certain entities in Russia are included in Supplement No. 4 to this part 744 (Entity List). (See also §744.1(c) of the EAR.) A license is required, to the extent specified on the Entity List, to export, reexport, or transfer (in-country) any item subject to the EAR to such entities.

**(b) Exceptions**

No License Exceptions apply to the prohibition described in paragraph (a) of this section.

**(c) License review standard**

Applications to export, reexport, or transfer (in-country) items subject to the EAR to these entities will be reviewed with a presumption of denial.

**(c) License review standard**

Applications for licenses required by this section will be reviewed by applying the policies that would be applied under the International Traffic in Arms Regulations (22 CFR Part 120 - 130).

**(d) Military end-user**

In this section, the term "military end-user" means the national armed services (army, navy, marine, air force, or coast guard), as well as the national guard and national police, government intelligence or reconnaissance organizations, or any person or entity whose actions or functions are intended to support "military end-uses" as defined in § 744.17(d).

**(e) Exception**

Shipments subject to the prohibitions in paragraphs (a) and (b) of this section that are

**§ 744.11 LICENSE REQUIREMENTS THAT APPLY TO ENTITIES ACTING CONTRARY TO THE NATIONAL SECURITY OR FOREIGN POLICY INTERESTS OF THE UNITED STATES.**

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BIS may impose foreign policy export, reexport, and transfer (in-country) license requirements, limitations on availability of license exceptions, and set license application review policy based on the criteria in this section. Such requirements, limitations and policy are in addition to those set forth elsewhere in the EAR. License requirements, limitations on use of license exceptions and license application review policy

will be imposed under this section by adding an entity to the Entity List (Supp. No. 4 to this part) with a reference to this section and by stating on the Entity List the license requirements and license application review policy that apply to that entity. BIS may remove an entity from the Entity List if it is no longer engaged in the activities described in paragraph (b) of this section and is unlikely to engage in such activities in the future. BIS may modify the license exception limitations and license application review policy that applies to a particular entity to implement the policies of this section. BIS will implement the provisions of this section in accordance with the decisions of the End-User Review Committee or, if appropriate in a particular case, in accordance with the decisions of the body to which the End-User Review Committee decision is escalated. The End-User Review Committee will follow the procedures set forth in Supplement No. 5 to this part.

**(a) License requirement, availability of license exceptions, and license application review policy**

A license is required, to the extent specified on the Entity List, to export, reexport, or transfer (in-country) any item subject to the EAR when an entity that is listed on the Entity List is a party to the transaction as described in § 748.5(c) through(f). License exceptions may not be used unless authorized in the Entity List entry for the entity that is party to the transaction. Applications for licenses required by this section will be evaluated as stated in the Entity List entry for the entity that is party to the transaction, in addition to any other applicable review policy stated elsewhere in the EAR.

**(b) Criteria for revising the Entity List**

Entities for which there is reasonable cause to believe, based on specific and articulable facts, that the entity has been involved, is involved, or poses a significant risk of being or becoming involved in activities that are contrary to the national security or foreign policy interests of the

United States and those acting on behalf of such entities may be added to the Entity List pursuant to this section. This section may not be used to place on the Entity List any party to which exports or reexports require a license pursuant to §§ 744.12, 744.13, 744.14 or 744.18 of this part. This section may not be used to place on the Entity List any party if exports or reexports to that party of items that are subject to the EAR are prohibited by or require a license from another U.S. government agency. This section may not be used to place any U.S. person, as defined in §772.1 of the EAR, on the Entity List. Examples (1) through (5) of this paragraph provide an illustrative list of activities that could be contrary to the national security or foreign policy interests of the United States.

- (1) Supporting persons engaged in acts of terror.
- (2) Actions that could enhance the military capability of, or the ability to support terrorism of governments that have been designated by the Secretary of State as having repeatedly provided support for acts of international terrorism.
- (3) Transferring, developing, servicing, repairing or producing conventional weapons in a manner that is contrary to United States national security or foreign policy interests or enabling such transfer, service, repair, development, or production by supplying parts, components, technology, or financing for such activity.
- (4) Preventing accomplishment of an end use check conducted by or on behalf of BIS or the Directorate of Defense Trade Controls of the Department of State by: precluding access to; refusing to provide information about; or providing false or misleading information about parties to the transaction or the item to be checked. The conduct in this example includes: expressly refusing to permit a check, providing false or misleading information, or engaging in dilatory or evasive conduct that effectively prevents the check from occurring or makes the check inaccurate or useless. A nexus between the conduct of the party to be listed and the failure

to produce a complete, accurate and useful check is required, even though an express refusal by the party to be listed is not required.

(5) Engaging in conduct that poses a risk of violating the EAR when such conduct raises sufficient concern that the End-User Review committee believes that prior review of exports, reexports, or transfers (in-country) involving the party and the possible imposition of license conditions or license denial enhances BIS's ability to prevent violations of the EAR.

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**§ 744.12 RESTRICTIONS ON EXPORTS AND REEXPORTS TO PERSONS DESIGNATED IN OR PURSUANT TO EXECUTIVE ORDER 13224 (SPECIALLY DESIGNATED GLOBAL TERRORIST) (SDGT)**

BIS maintains restrictions on exports and reexports to persons designated in or pursuant to Executive Order 13224 of September 23, 2001 (Blocking Property and Prohibiting Transactions with Persons Who Commit, Threaten to Commit, or Support Terrorism). These persons include individuals and entities listed in the Annex to Executive Order 13224, as well as persons subsequently designated by the Secretary of State or Secretary of the Treasury pursuant to criteria set forth in the order. Pursuant to Executive Order 13224, the Department of the Treasury's Office of Foreign Assets Control (OFAC) maintains 31 CFR part 594, the Global Terrorism Sanctions Regulations. OFAC announces the names of persons designated pursuant to Executive Order 13224 in the Federal Register and includes such persons in Appendix A to 31 CFR Chapter V, which lists persons subject to various sanctions programs administered by OFAC. The Department of State also announces the names of foreign persons designated pursuant to Executive Order 13224 in the Federal Register. All persons designated in or pursuant to Executive Order 13224 are identified in Appendix A to 31 CFR Chapter V by the

bracketed initials [SDGT] and are also known as Specially Designated Global Terrorists (SDGTs).

**(a) License requirement(s)**

(1) A license requirement applies to the export or reexport to an SDGT of any item subject to the EAR.

(2) To avoid duplication, U.S. persons are not required to seek separate authorization for an export or reexport to an SDGT of an item subject to both the EAR and OFAC's regulatory authority pursuant to Executive Order 13224. Therefore, if OFAC authorizes an export from the United States or an export or reexport by a U.S. person to an SDGT, no separate authorization from BIS is necessary.

(3) U.S. persons must seek authorization from BIS for the export or reexport to an SDGT of any item subject to the EAR that is not subject to OFAC's Global Terrorism Sanctions Regulations in 31 CFR Part 594.

(4) Non-U.S. persons must seek authorization from BIS for any export from abroad or reexport to an SDGT of any item subject to the EAR.

(5) Any export or reexport to an SDGT of any item subject to both the EAR and OFAC's regulatory authority pursuant to Executive Order 13224 and not authorized by OFAC is a violation of the EAR.

(6) Any export or reexport by a U.S. person to an SDGT of any item subject to the EAR that is not subject to regulation by OFAC and not authorized by BIS is a violation of the EAR. Any export from abroad or reexport by a non-U.S. person to an SDGT of any item subject to the EAR and not authorized by BIS is a violation of the EAR.

(7) These licensing requirements supplement any other requirements set forth elsewhere in the EAR.

**(b) Exceptions**

No License Exceptions or other BIS authorization are available for any export or reexport to an SDGT of any item subject to the EAR.

**(c) Licensing Policy**

Applications for licenses for the export or reexport to an SDGT of any item subject to the EAR generally will be denied. You should consult with OFAC concerning transactions subject to OFAC licensing requirements.

**(d) Contract Sanctity**

Contract sanctity provisions are not available for license applications reviewed under this section.

*NOTE TO §744.12: This section does not implement, construe, or limit the scope of any criminal statute, including (but not limited to) 18 U.S.C. 2339B(a)(1) and 2339A, and does not excuse any person from complying with any criminal statute, including (but not limited to) 18 U.S.C. 2339B(a)(1) and 18 U.S.C. 2339A.*

**§ 744.13 RESTRICTIONS ON EXPORTS AND REEXPORTS TO PERSONS DESIGNATED PURSUANT TO EXECUTIVE ORDER 12947 (SPECIALLY DESIGNATED TERRORISTS) (SDT)**

Consistent with the purpose of Executive Order 12947 of January 23, 1995, BIS maintains restrictions on exports and reexports to Specially Designated Terrorists (SDTs). Executive Order 12947 prohibits transactions by U.S. persons with terrorists who threaten to disrupt the Middle East peace process. Pursuant to the Executive Order, the Department of the Treasury, Office of Foreign Assets Control (OFAC), maintains 31 CFR part 595, the Terrorism Sanctions Regulations. In Appendix A to 31 CFR Chapter V, pursuant to 31 CFR part 595, these Specially Designated Terrorists are identified by the bracketed suffix

initials [SDT]. The requirements set forth below further the objectives of Executive Order 12947.

**(a) License requirement(s)**

(1) A license requirement applies to the export or reexport to an SDT of any item subject to the EAR.

(2) To avoid duplication, U.S. persons are not required to seek separate authorization for an export or reexport to an SDT of an item subject both to the EAR and to OFAC's Terrorism Sanctions Regulations in 31 CFR part 595. Therefore, if OFAC authorizes an export or reexport of an item by a U.S. person to a SDT, no separate authorization from BIS is necessary.

(3) U.S. persons must seek authorization from BIS for the export or reexport to an SDT of an item subject to the EAR but not subject to OFAC's Terrorism Sanctions Regulations in 31 CFR part 595.

(4) Non-U.S. persons must seek authorization from BIS for the export from abroad or reexport to an SDT of any item subject to the EAR.

(5) Any export or reexport to an SDT by a U.S. person of any item subject both to the EAR and OFAC's Terrorism Sanctions Regulations in 31 CFR part 595 and not authorized by OFAC is a violation of the EAR.

(6) Any export or reexport by a U.S. person to an SDT of any item subject to the EAR that is not subject to OFAC's Terrorism Sanctions Regulations in 31 CFR part 595 and not authorized by BIS is a violation of the EAR. Any export from abroad or reexport by a non-U.S. person to an SDT of any item subject to the EAR and not authorized by BIS is a violation of the EAR.

(7) These licensing requirements supplement any other requirements set forth elsewhere in the EAR.

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**(b) Exceptions**

No License Exceptions or other BIS authorization are available for export or reexport to an SDT of any item subject to the EAR.

**(c) Licensing policy**

Applications for licenses for the export or reexport to an SDT of any item subject to the EAR generally will be denied. You should consult with OFAC concerning transactions subject to OFAC licensing requirements.

**(d) Contract sanctity**

Contract sanctity provisions are not available for license applications reviewed under this section.

*NOTE TO §744.13: This section does not implement, construe, or limit the scope of any criminal statute, including (but not limited to) 18 U.S.C. 2339B(a)(1) and 2339A, and does not excuse any person from complying with any criminal statute, including (but not limited to) 18 U.S.C. 2339B(a)(1) and 18 U.S.C. 2339A.*

**§ 744.14 RESTRICTIONS ON EXPORTS AND REEXPORTS TO DESIGNATED FOREIGN TERRORIST ORGANIZATIONS (FTOs)**

Consistent with the objectives of section 219 of the Immigration and Nationality Act, as amended (INA) (8 U.S.C. 1189), and section 303 of the Antiterrorism and Effective Death Penalty Act 1996, as amended (Anti-Terrorism Act) (18 U.S.C. 2339B) (Public Law 104-132. 110 Stat. 1214-1319), BIS maintains restrictions on exports and reexports to organizations designated as Foreign Terrorist Organizations (FTOs) pursuant to section 219 of the INA. The Department of the Treasury, Office of Foreign Assets Control, maintains 31 CFR part 597, the Foreign Terrorist Organizations Sanctions Regulations, requiring U.S. financial institutions to block all financial transactions involving assets

of designated FTOs within the possession or control of such U.S. financial institutions. Section 303 of the Anti-Terrorism Act prohibits persons within the United States or subject to U.S. jurisdiction from knowingly providing material support or resources to a designated FTO and makes violations punishable by criminal penalties under title 18, United States Code. These designated FTOs are listed in Appendix A to 31 CFR Chapter V and identified by the bracketed initials [FTO]. A designation of a foreign organization determined to meet the criteria of section 219 of the INA takes effect upon publication in the Federal Register by the Secretary of State, or the Secretary's designee.

**(a) License requirement(s)**

(1) A license requirement applies to the export or reexport to an FTO of any item subject to the EAR.

(2) U.S. persons must seek authorization from BIS for the export or reexport to an FTO of any item subject to the EAR.

(3) Non-U.S. persons must seek authorization from BIS for the export from abroad or reexport to an FTO of any item subject to the EAR.

(4) Any export or reexport to an FTO by any person of any item subject to the EAR and not authorized by BIS is a violation of the EAR.

(5) These licensing requirements supplement any other requirements set forth elsewhere in the EAR.

**(b) Exceptions**

No License Exceptions or other BIS authorization for items described by paragraph (a) of this section are available for exports or reexports to FTOs.

**(c) Licensing policy**

Return to "U.S. Person" in § 772

Applications for exports and reexports to FTOs of all items identified by paragraph (a) of this section will generally be denied, to the extent they constitute material support or resources, as defined in 18 U.S.C. 2339A(b).

but not limited to any license requirements, the record filing requirements pursuant to § 758.1(b)(8), and the restrictions on license exceptions described in § 740.2(a)(17) of the EAR.

**(d) Contract sanctity**

Contract sanctity provisions are not available for license applications reviewed under this section.

**(e) FTOs also designated as SDTs or SDGTs**

In cases in which an FTO is also an SDT, as described in §744.13, or an SDGT, as described in §744.12, the license requirements and licensing policy set forth in §744.13 or §744.12 will apply.

*NOTE TO §744.14: This section does not implement, construe, or limit the scope of any criminal statute, including (but not limited to) 18 U.S.C. 2339B(a)(1) and 2339A, and does not excuse any person from complying with any criminal statute, including (but not limited to) 18 U.S.C. 2339B(a)(1) and 18 U.S.C. 2339A.*

**\*\*UVL**

**§ 744.15 RESTRICTIONS ON EXPORTS, REEXPORTS AND TRANSFERS (IN-COUNTRY) TO PERSONS LISTED ON THE UNVERIFIED LIST**

**(a) General requirement**

In addition to the requirements set forth elsewhere in the EAR, exports, reexports, or transfers (in-country) subject to the EAR involving parties to the transaction who are listed on the Unverified List (UVL) must be made in accordance with paragraph (b) of this section.

The names and addresses of foreign persons subject to end-user controls based on the criteria described in paragraph (c) of this section are identified in the Unverified List found in Supplement No. 6 to this part. Requirements found elsewhere in the EAR also apply, including

**(b) UVL statement**

Before proceeding with any export, reexport, or transfer (in-country) subject to the EAR that is not subject to a license requirement, involving a person listed on the Unverified List as a party described in § 748.5 of the EAR, an exporter, reexporter, or transferor (in-country) must obtain a UVL statement from such person, according to the provisions set forth in this section. The statement must be retained in accordance with part 762 of the EAR.

(1) One UVL statement may be used for multiple exports, reexports, and transfers (in-country) of the same items between the same parties, so long as the party names, the description(s) of the items and the ECCNs are correct. If one UVL statement is used for multiple exports, reexports, and transfers (in-country), the exporter, reexporter, and transferor must maintain a log or other record that identifies each export, reexport, and transfer (in-country) made pursuant to this section and the specific UVL statement that is associated with each. The log or record must be retained in accordance with Part 762 of the EAR.

(2) The UVL statement must be in writing, signed and dated by an individual of sufficient authority to legally bind the UVL party, and state the following:

The UVL Statement

(i) Name of UVL party; complete physical address, to include shipping, corporate, and end user addresses, if different (simply listing a post office box is insufficient); telephone number; fax number; e-mail address; Web site (if available); and name and title of individual signing the UVL statement.

(ii) Agrees not to use the item(s) for any use prohibited by the United States Export

Administration Regulations (EAR), 15 C.F.R. Parts 730-772, and agrees not to reexport or transfer (in-country) the item(s) to any destination, use or user prohibited by the EAR.

(iii) Declares that the end use, end user, and country of ultimate destination of the item(s) subject to the EAR are as follows: [INSERT END USE, END USER, AND COUNTRY OF ULTIMATE DESTINATION].

(iv) Agrees to cooperate with end-use checks, including a Post-Shipment Verification, conducted by or on behalf of the Bureau of Industry and Security, U.S. Department of Commerce, for any item subject to the EAR in transactions to which they were a party in the last five years. This cooperation includes facilitating the timely conduct of the check and providing full and accurate information concerning the disposition of items subject to the EAR.

(v) Agrees to provide copies of this document and all other export, reexport or transfer (in-country) records required to be retained in part 762 of the EAR.

(vi) Certifies that the individual signing the UVL statement has sufficient authority to legally bind the party.

**(c) Criteria for revising the Unverified List**

(1) Foreign persons who are parties to an export, reexport, and transfer (in-country) subject to the EAR may be added to the Unverified List if BIS or federal officials acting on BIS's behalf cannot verify the *bona fides* (i.e., legitimacy and reliability relating to the end use and end user of items subject to the EAR) of such persons because an end-use check, such as a pre-license check (PLC) or a post-shipment verification (PSV), cannot be completed satisfactorily for reasons outside of the U.S. Government's control. Examples in paragraphs (c)(1)(i) through (iii) of this section provide an illustrative list of those circumstances.

(i) During the conduct of an end-use check, the subject of the check is unable to demonstrate the disposition of items subject to the EAR.

(ii) The existence or authenticity of the subject of an end-use check cannot be verified (e.g., the subject of the check cannot be located or contacted).

(iii) Lack of cooperation by the host government authority prevents an end-use check from being conducted.

(2) BIS will remove a person from the Unverified List when BIS is able to verify the *bona fides* of the listed person as an end user, consignee, or other party to exports, reexports, or transfers (in-country) involving items subject to the EAR by completing a PLC or PSV. In the limited circumstance involving a PLC or PSV that cannot be completed due to lack of host government cooperation, an alternative *bona fides* verification process may be determined by BIS to be sufficient. A determination to remove a person from the Unverified List based on the criteria in this paragraph is separate from any determination made by BIS pursuant to § 744.11(b) of the EAR, and must be requested through paragraph (d) of this section.

**(d) Procedure for requesting removal of a person on the Unverified List**

Any person listed on the Unverified List may request that its listing be amended or removed.

(1) All such requests, including reasons therefor and information that verifies the *bona fides*, i.e., legitimacy and reliability of the person listed on the Unverified List as an end user, consignee or other party to exports, reexports, and transfers (in-country) of items subject to the EAR, must be in writing and sent to: Director, Office of Enforcement Analysis, Bureau of Industry and Security, U.S. Department of Commerce, 14th Street and Pennsylvania Avenue, N.W., Room 4065, Washington, D.C. 20230, via fax to (202) 482-0971, or by e-mail to

[UVLRequest@bis.doc.gov](mailto:UVLRequest@bis.doc.gov).

(2) The Deputy Assistant Secretary for Export Enforcement will review such requests and will convey the decision on the request to the requester in writing based on an assessment of the listed person's *bona fides* as a party to exports, reexports, and transfers (in-country) subject to the EAR. That decision will be the final agency action on the request.

### **§ 744.16 ENTITY LIST**

The Entity List (Supplement No. 4 to part 744) identifies persons reasonably believed to be involved, or to pose a significant risk of being or becoming involved, in activities contrary to the national security or foreign policy interests of the United States. The entities are added to the Entity List pursuant to sections of part 744 (Control Policy: End-User and End-Use Based) and part 746 (Embargoes and Other Special Controls) of the EAR

#### **(a) License requirements**

In addition to the license requirements for items specified on the Commerce Control List (CCL), you may not, without a license from BIS, export, reexport, or transfer (in-country) any items included in the License Requirement column of an entity's entry on the Entity List (supplement No. 4 to this part) when that entity is a party to a transaction as described in § 748.5(c) through(f) of the EAR. The specific license requirement for each listed entity is identified in the license requirement column on the Entity List in Supplement No. 4 to this part.

#### **(b) License exceptions**

No license exceptions are available for exports, reexports or transfers (in-country) to listed entities of specified items, except license exceptions for items listed in §740.2(a)(5) of the EAR destined to listed Indian or Pakistani entities to ensure the safety of civil aviation and safe

operation of commercial passenger aircraft, and in the case of entities added to the Entity List pursuant to §744.20, to the extent specified on the Entity List.

#### **(c) License review policy**

(1) General review policy. The license review policy for each listed entity is identified in the License Review Policy column on the Entity List.

#### **(d) The End-User Review Committee (ERC)**

The End-User Review Committee (ERC), composed of representatives of the Departments of Commerce (Chair), State, Defense, Energy and, where appropriate, the Treasury, generally makes decisions regarding additions to, removals from, or other modifications to the Entity List.

#### **(e) Removal or modification requests**

Any entity listed on the Entity List may request that its listing be removed or modified. All such requests, including reasons therefor, must be in writing and sent to: Chair, End-User Review Committee, Bureau of Industry and Security, U.S. Department of Commerce, 14th Street and Pennsylvania Avenue, NW, Room 3886, Washington, DC 20230.

**(1) Review.** The ERC will review such requests in accordance with the procedures set forth in Supplement No. 5 to this part.

**(2) BIS action.** The Deputy Assistant Secretary for Export Administration will convey the decision on the request to the requester in writing. That decision will be the final agency action on the request.

**§ 744.17 RESTRICTIONS ON CERTAIN EXPORTS, REEXPORTS AND TRANSFERS (IN-COUNTRY) OF MICROPROCESSORS AND ASSOCIATED “SOFTWARE” AND “TECHNOLOGY” FOR ‘MILITARY END USES’ AND TO ‘MILITARY END USERS.’**

**(a) General prohibition**

In addition to the license requirements set forth elsewhere in the EAR, you may not export, reexport or transfer (in-country) microprocessors (“microprocessor microcircuits,” “microcomputer microcircuits,” and microcontroller microcircuits having a processing speed of 5 GFLOPS or more and an arithmetic logic unit with an access width of 32 bit or more, including those incorporating “information security” functionality), or associated “software” and “technology” for the “production” or “development” of such microprocessors without a license if, at the time of the export, reexport or transfer (in-country), you know, have reason to know, or are informed by BIS that the item will be or is intended to be used for a ‘military end use,’ as defined in paragraph (d) of this section, in a destination listed in Country Group D:1 (see Supplement No. 1 to part 740 of the EAR); or by a ‘military end user,’ as defined in paragraph (e) of this section, in a destination listed in Country Group D:1.

**(b) Additional prohibition on exporters or reexporters informed by BIS**

BIS may inform an exporter, reexporter or transferor, either individually by specific notice or through amendment to the EAR, that a license is required for export, reexport or transfer (in-country) of items described in paragraph (a) of this section to specified end users, because BIS has determined that there is an unacceptable risk of diversion to the end uses or end users described in paragraph (a) of this section. Specific notice is to be given only by, or at the direction of, the Deputy Assistant Secretary for Export Administration. When such notice is provided

orally, it will be followed by a written notice within two working days signed by the Deputy Assistant Secretary for Export Administration. The absence of any such notification does not excuse the exporter, reexporter or transferor from compliance with the license requirements of paragraph (a) of this section.

**(c) License review standards**

There is a presumption of denial for applications to export, reexport or transfer (in-country) items subject to this section.

**(d) ‘Military end-use’**

In this section, the phrase ‘military end use’ means incorporation into: a military item described on the U.S. Munitions List (USML) (22 CFR part 121, International Traffic in Arms Regulations) or the Wassenaar Arrangement Munitions List (as set out on the Wassenaar Arrangement website at <http://www.wassenaar.org>); commodities classified under ECCNs ending in “A018” or under “600 series” ECCNs; or any commodity that is designed for the “use,” “development,” “production,” or deployment of military items described on the USML, the Wassenaar Arrangement Munitions List or classified under ECCNs ending in “A018” or under “600 series” ECCNs. Supplement No. 1 of this part lists examples of ‘military end use.’

**(e) ‘Military end user’**

In this section, the term ‘military end user’ means the national armed services (army, navy, marine, air force, or coast guard), as well as the national guard and national police, government intelligence or reconnaissance organizations, or any person or entity whose actions or functions are intended to support ‘military end uses’ as defined in paragraph (d) of this section.

**(f) Exceptions**

The prohibitions described in paragraphs (a) and (b) of this section supersede any license exception or No License Required (NLR) designation that would otherwise apply to a transaction subject to the EAR, except that this license requirement does not apply to exports, reexports or transfers (in-country) of items for or on behalf of the official use by personnel and agencies of the U.S. Government or to agencies of a cooperating government authorized by License Exception GOV pursuant to § 740.11 of the EAR. See § 740.11(b)(1) of the EAR for the definition of ‘agency of the U.S. Government’ and §740.11(c)(1) for the definition of ‘agency of a cooperating government.’

**§ 744.18 RESTRICTIONS ON EXPORTS, REEXPORTS AND TRANSFERS TO PERSONS DESIGNATED IN OR PURSUANT TO EXECUTIVE ORDER 13315**

Consistent with Executive Order (E.O.) 13315 of August 28, 2003 (“Blocking Property of the Former Iraqi Regime, Its Senior Officials and Their Family Members, and Taking Certain Other Actions”), BIS maintains restrictions on exports, reexports, and transfers to persons designated in or pursuant to E.O. 13315. These persons include individuals and entities listed in the Annex to Executive Order 13315, as well as persons subsequently designated pursuant to criteria set forth in the order. OFAC includes the names of persons designated pursuant to E.O. 13315 in Appendix A to 31 CFR Chapter V, which lists persons subject to various sanctions programs administered by OFAC. All persons designated in or pursuant to E.O. 13315 are identified in Appendix A by the bracketed initials [IRAQ2].

**(a) License Requirements**

(1) A license requirement applies to the export, reexport, or transfer of any item subject to the EAR to –

(i) Persons listed in the Annex to E.O. 13315 of August 28, 2003; or

(ii) Persons determined to be subject to E.O. 13315.

(2) To avoid duplication, U.S. persons are not required to seek separate BIS authorization for an export, reexport, or transfer to a person identified in paragraph (a) of this section of any item subject to both the EAR and regulations maintained by OFAC. Therefore, if OFAC authorizes an export from the United States or an export, reexport, or transfer by a U.S. person to a person identified in paragraph (a) of this section, no separate authorization from BIS is necessary.

(3) U.S. persons must seek authorization from BIS for the export, reexport, or transfer to a person identified in paragraph (a) of this section of any item subject to the EAR but not subject to regulations maintained by OFAC.

(4) Non-U.S. persons must seek authorization from BIS for the export from abroad, reexport, or transfer to a person identified in paragraph (a) of this section of any item subject to the EAR.

(5) Any export, reexport, or transfer to a person identified in paragraph (a) of this section by a U.S. person of any item subject both to the EAR and regulations maintained by OFAC and not authorized by OFAC is a violation of the EAR.

(6) Any export, reexport, or transfer by a U.S. person to a person identified in paragraph (a) of this section of any item subject to the EAR that is not subject to regulations maintained by OFAC and not authorized by BIS is a violation of the EAR. Any export from abroad, reexport, or transfer by a non-U.S. person to a person identified in paragraph (a) of this section of any item subject to the EAR and not authorized by BIS is a violation of the EAR.

(7) These licensing requirements supplement any other requirements set forth elsewhere in the EAR.

**(b) Exceptions**

No License Exceptions or other BIS authorizations are available for export, reexport, or transfer to a person identified in paragraph (a) of this section of any item subject to the EAR.

**(c) Licensing policy**

Applications for licenses for the export, reexport, or transfer to a person identified in paragraph (a) of this section of any item subject to the EAR will generally be denied. You should consult with OFAC concerning transactions subject to OFAC licensing requirements.

**(d) Contract sanctity**

Contract sanctity provisions are not available for license applications reviewed under this section.

**§744.19 LICENSING POLICY REGARDING PERSONS SANCTIONED PURSUANT TO SPECIFIED STATUTES**

Notwithstanding any other licensing policy elsewhere in the EAR, BIS will deny any export or reexport license application if any person who is a party to the transaction (*i.e.*, the applicant, other party authorized to receive a license, purchaser, intermediate consignee, ultimate consignee, or end-user) is subject to one or more of the sanctions described in paragraphs (a), (b), (c) and (e) of this section and will deny any export or reexport license application for an item listed on the Commerce Control List with a reason for control of MT if a person who is a party to the transaction is subject to a sanction described in paragraph (d) of this section.

(a) A sanction issued pursuant to the Iran-Iraq

Arms Nonproliferation Act of 1992 (50 U.S.C. 1701 note) that prohibits the issuance of any license to or by the sanctioned person.

(b) A sanction issued pursuant to the Iran, North Korea, and Syria Nonproliferation Act (50 U.S.C.1701 note) that prohibits the granting of a license and requires the suspension of an existing license for the transfer to foreign persons of items, the export of which is controlled under the Export Administration Act of 1979, as amended (50 U.S.C. app. 2401-2420), or the Export Administration Regulations.

(c) A sanction issued pursuant to section 11B(b)(1)(B)(ii) of the Export Administration Act of 1979, as amended (50 U.S.C. app. 2401-2420), that prohibits the issuance of new licenses for exports to the sanctioned person of items controlled pursuant to the Export Administration Act of 1979, as amended.

(d) A sanction issued pursuant to section 11B(b)(1)(B)(i) of the Export Administration Act of 1979, as amended (50 U.S.C. app. 2401-2420), that prohibits the issuance of new licenses for exports to the sanctioned person of MTCR Annex equipment or technology controlled pursuant to the Export Administration Act of 1979, as amended.

(e) A sanction issued pursuant to the Iran Sanctions Act of 1996 (50 U.S.C. 1701 note) that prohibits the issuance of a specific license or grant of any other specific permission or authority to export any goods or technology to a sanctioned person under the Export Administration Act of 1979, as amended (50 U.S.C. app. §§ 2401-2420).

**§ 744.20 LICENSE REQUIREMENTS THAT APPLY TO CERTAIN SANCTIONED ENTITIES**

BIS may impose, as foreign policy controls, export, reexport, and transfer (in-country) license requirements and set licensing policy with respect

**\*\*China Rule \*\*Russia Rule  
\*\*Venezuela Rule**

**Control Policy: End-User and End-Use Based**

to certain entities that have been sanctioned by the State Department. Such license requirements and policy are in addition to those imposed elsewhere in the EAR. License requirements and licensing policy may be imposed pursuant to this section even when the sanction and the legal authority under which the State Department imposed the sanction do not require or authorize the imposition of any license requirement or licensing policy. License requirements and licensing policy will be imposed pursuant to this section by adding an entity to the Entity List in accordance with paragraphs (a), (b), and (c) of this section.

specified on the Commerce Control List (CCL), you may not export, reexport, or transfer (in-country) any item subject to the EAR listed in **supplement no. 2** to part 744 to Burma, the People's Republic of China (China), the Russian Federation, or Venezuela without a license if, at the time of the export, reexport, or transfer (in-country), you have "knowledge," as defined in § 772.1 of the EAR, that the item is intended, entirely or in part, for a 'military end use,' as defined in paragraph (f) of this section, or 'military end user,' as defined in paragraph (g) of this section, in Burma, China, the Russian Federation, or Venezuela.

X-  
Reference  
to § 744-S2,  
re the  
China Rule  
ECCNs

**(a) General requirement**

Certain entities that have been sanctioned by the State Department are listed in Supplement No. 4 to this part (the Entity List) with a reference to this section. A license is required, to the extent specified on the Entity List, to export, reexport, or transfer (in-country) any item to such entities.

**(b) Additional prohibition on those informed by BIS.**

BIS may inform you either individually by specific notice, through amendment to the EAR published in the *Federal Register*, or through a separate notice published in the *Federal Register*, that a license is required for specific exports, reexports, or transfers (in-country) of any item because there is an unacceptable risk of use in or diversion to a 'military end use' or 'military end user' in Burma, China, the Russian Federation, or Venezuela. **Specific notice will be given only by, or at the direction of, the Deputy Assistant Secretary for Export Administration.** When such notice is provided orally, it will be followed by written notice within two working days signed by the Deputy Assistant Secretary for Export Administration or the Deputy Assistant Secretary's designee. The absence of BIS notification does not excuse the exporter from compliance with the license requirements of paragraph (a) of this section.

**(b) License Exceptions**

No license exception may be used to export, reexport, or transfer (in-country) to such entities unless specifically authorized on the Entity List.

**(c) Licensing policy**

Applications to export, reexport, or transfer (in-country) to such entities will be reviewed according to the licensing policy set forth on the Entity List.

**§ 744.21 RESTRICTIONS ON CERTAIN 'MILITARY END USE' OR 'MILITARY END USER' IN BURMA, THE PEOPLE'S REPUBLIC OF CHINA, THE RUSSIAN FEDERATION, OR VENEZUELA**

(1) **'Military End-User' (MEU) List.** BIS may inform and provide notice to the public that certain entities are subject to the additional prohibition described under this paragraph (b) following a determination by the End-User Review Committee (ERC) that a specific entity is a 'military end user' pursuant to this section and therefore any exports, reexports, or transfers (in-country) to that entity represent an

See § 742.4(b)  
National  
Security

**(a) General prohibition.**

In addition to the license requirements for items

**\*\*additional prohibitions \*\*extra requirements - 7 of 7  
[Note: This is the "China Rule" - likewise for Russia and Venezuela.]**

unacceptable risk of use in or diversion to a ‘military end use’ or ‘military end user’ in Burma, China, the Russian Federation, or Venezuela. Such entities may be added to supplement No. 7 to part 744 – ‘Military End-User’ (MEU) List through *Federal Register* notices published by BIS, and will thus be subject to a license requirement for exports, reexports, or transfers (in-country) of items specified in supplement No. 2 to part 744. The listing of entities under supplement No. 7 to part 744 is not an exhaustive listing of ‘military end users’ for purposes of this section. Exporters, reexporters, and transferors are responsible for determining whether transactions with entities not listed on supplement No. 7 to part 744 are subject to a license requirement under paragraph (a) of this section. The process in paragraph this (b)(1) for placing entities on the MEU List is only one method BIS may use to inform exporters, reexporters, and transferors of license requirements under this section.

(i) *End-User Review Committee (ERC)*. The End-User Review Committee (ERC), composed of representatives of the Departments of Commerce (Chair), State, Defense, Energy and, where appropriate, the Treasury, makes all decisions regarding additions to, removals from, or other modifications to the MEU List. Decisions by the ERC for purposes of the MEU List will be made following the procedures identified in this section and in supplement no. 5 to part 744 - Procedures for End-User Review Committee Entity List and ‘Military End User’ (MEU) List Decisions.

(ii) *License requirement for parties to the transaction*. The license requirement for entities listed in supplement no. 7 to part 744 applies to the export, reexport, or transfer (in-country) of any item subject to the EAR listed in supplement No. 2 to part 744 when an entity that is listed on the MEU List is a party to the transaction as described in § 748.5(c) through (f).

(2) *Requests for removal from or modification of*

*‘Military End User’ (MEU) List*. Any entity listed on the MEU List may request that its listing be removed or modified. All such requests, including reasons therefor, must be in writing and sent to: Chair, End-User Review Committee, Bureau of Industry and Security, U.S. Department of Commerce, 14th Street and Pennsylvania Avenue, NW, Room 3886, Washington, DC 20230. In order for an entity listed on the MEU List to petition BIS for their removal or modification, as applicable, the entity must address why the entity is not a ‘military end user’ for purposes of this section.

(i) *Review*. The ERC will review such requests for removal or modification in accordance with the procedures set forth in supplement No. 5 to part 744.

(ii) *BIS action*. The Deputy Assistant Secretary for Export Administration will convey the decision on the request to the requester in writing. That decision will be the final agency action on the request.

**(c) License exception.**

Despite the prohibitions described in paragraphs (a) and (b) of this section, you may export, reexport, or transfer (in-country) items subject to the EAR under the provisions of License Exception GOV set forth in §740.11(b)(2)(i) and (ii) of the EAR.

**(d) License application procedure.**

When submitting a license application pursuant to this section, you must state in the “additional information” block of the application that “this application is submitted because of the license requirement in this section. In addition, either in the additional information block of the application or in an attachment to the application, you must include all known information concerning the ‘military end use’ and ‘military end user(s)’ of the item(s). If you submit an attachment with your license application, you must reference the attachment

in the “additional information” block of the application.

are intended to support ‘military end uses’ as defined in paragraph (f) of this section.

**(e) License review standards.**

**(h) Effects on contracts.**

(1) Applications to export, reexport, or transfer (in-country) items described in paragraph (a) of this section will be reviewed with a presumption of denial.

Venezuela: Transactions involving the export, reexport, or transfer (in country) of items to or within Venezuela are not subject to the provisions of § 744.21 if the contracts for such transactions were signed prior to November 7, 2014.

(2) Applications may be reviewed under chemical and biological weapons, nuclear nonproliferation, or missile technology review policies, as set forth in §§ 742.2(b)(4), 742.3(b)(4), and 742.5(b)(4) of the EAR, if the end use may involve certain proliferation activities.

**§ 744.22 [Reserved]**

**This was formerly:**

§ 744.22 RESTRICTIONS ON EXPORTS, REEXPORTS AND TRANSFERS TO PERSONS WHOSE PROPERTY AND INTERESTS IN PROPERTY ARE BLOCKED PURSUANT TO EXECUTIVE ORDERS 13310, 13448 or 13464

(3) Applications for items requiring a license for any reason that are destined to Burma, China, the Russian Federation, or Venezuela for a ‘military end use’ or ‘military end user’ also will be subject to the review policy stated in paragraph (e)(1) of this section.

**(f) Military end use.**

In this section, ‘military end use’ means: incorporation into a military item described on the U.S. Munitions List (USML) (22 CFR part 121, International Traffic in Arms Regulations); incorporation into items classified under ECCNs ending in “A018” or under “600 series” ECCNs; or any item that supports or contributes to the operation, installation, maintenance, repair, overhaul, refurbishing, “development,” or “production,” of military items described on the USML, or items classified under ECCNs ending in “A018” or under “600 series” ECCNs.

**(g) Military end user.**

In this section, the term ‘military end user’ means the national armed services (army, navy, marine, air force, or coast guard), as well as the national guard and national police, government intelligence or reconnaissance organizations, or any person or entity whose actions or functions

**SUPPLEMENT NO. 1 TO PART 744 - MILITARY END-USE EXAMPLES FOR §744.17**

- (a) *Examples of military end-uses (as described in §744.17 (d) of this part) of general-purpose microprocessors classified as ECCN 3A991.a.1 includes employing such microprocessors in the “use”, “development”, “production”, or deployment of :*
- (1) Cruise missiles;
  - (2) Electronic suites of military aircraft and helicopters;
  - (3) Radar for searching, targeting, or tracking systems;
  - (4) Command/control/communications or navigation systems;
  - (5) Unmanned aerial vehicles capable of performing military reconnaissance, surveillance, or combat support;
  - (6) Rocket or missile systems;
  - (7) Electronic or information warfare systems; *or*
  - (8) Intelligence, reconnaissance, or surveillance systems suitable for supporting military operations.
- (b) [RESERVED]

**SUPPLEMENT NO. 2 TO PART 744 - LIST OF ITEMS SUBJECT TO THE MILITARY END-USE OR END USER LICENSE REQUIREMENT OF §744.21**

X-Reference to § 744.21, re the China Rule ECCNs

The following items, as described, are subject to the **military end use or end user license requirement in §744.21.**

**(1) Category 1 Materials, Chemicals, Microorganisms, and Toxins**

See § 742.4(b) National Security

- (i) 1A290 Depleted uranium (any uranium containing less than 0.711% of the isotope U 235) in shipments of more than 1,000 kilograms in the form of shielding contained in X ray units, radiographic exposure or teletherapy devices, radioactive thermoelectric generators, or packaging for the transportation of radioactive materials.
- (ii) 1C990 Fibrous and filamentary materials, not controlled by 1C010 or 1C210, for use in “composite” structures and with a specific modulus of  $3.18 \times 10^6$  m or greater and a specific tensile strength of  $7.62 \times 10^4$  m or greater.
- (iii) 1C996 Hydraulic fluids containing synthetic hydrocarbon oils, having all the characteristics in the List of Items Controlled.
- (iv) 1D993 Software” specially designed for the “development”, “production”, or “use” of equipment or materials controlled by 1C210.b, or 1C990.
- (v) 1D999 Limited to specific software controlled by 1D999.b for equipment controlled by 1B999.e that is specially designed for the production of prepregs controlled in Category 1, n.e.s.
- (vi) 1E994 Limited to “technology” for the “development”, “production”, or “use” of fibrous and filamentary materials other than glass, aramid or polyethylene controlled by 1C990

**(2) Category 2 Materials Processing**

- (i) 2A290 Generators and other equipment “specially designed,” prepared, or intended for use with nuclear plants.
- (ii) 2A291 Equipment, except items controlled by 2A290, related to nuclear material handling and processing and to nuclear reactors, and “parts,” “components” and “accessories” therefor (see List of Items Controlled).
- (iii) 2A991 Limited to bearings and bearing systems not controlled by 2A001 and with operating temperatures above 573 K (300° C).
- (iv) 2B991 Limited to “numerically controlled” machine tools having “positioning accuracies”, with all compensations available, less (better) than 9 µm along any linear axis; and machine tools controlled under 2B991.d.1.a.
- (v) 2B992 Non “numerically controlled” machine tools for generating optical quality surfaces, and specially designed components therefor.
- (vi) 2B996 Limited to dimensional inspection or measuring systems or equipment not controlled by 2B006 with measurement uncertainty equal to or less (better) than  $(1.7 + L/1000)$  micrometers in any axes (L measured Length in mm).
- (vii) 2B999 Specific processing equipment, n.e.s. (see List of Items Controlled)
- (viii) 2D290 “Software” “specially designed” or modified for the “development,” “production,” or “use” of items controlled by 2A290 or 2A291.

**(3) Category 3 Electronics Design,  
Development and Production**

- (i) 3A991 Electronic devices, and “components” not controlled by 3A001.
- (ii) 3A992 General purpose electronic equipment not controlled by 3A002.
- (iii) 3A999 Specific processing equipment, n.e.s. (see List of Items Controlled).
- (iv) 3B991 Equipment not controlled by 3B001 for the manufacture of electronic “parts,” “components” and materials, and “specially designed” “parts,” “components” and “accessories” therefor.
- (v) 3B992 Equipment not controlled by 3B002 for the inspection or testing of electronic “components” and materials, and “specially designed” “parts,” “components” and “accessories” therefor.
- (vi) 3C992 Positive resists designed for semiconductor lithography specially adjusted (optimized) for use at wavelengths between 370 and 245 nm.
- (vii) 3D991 “Software” “specially designed” for the “development”, “production”, or “use” of electronic devices, “parts” or “components” controlled by 3A991, general purpose electronic equipment controlled by 3A992, or manufacturing and test equipment controlled by 3B991 and 3B992; or “software” “specially designed” for the “use” of equipment controlled by 3B001.g and .h.
- (viii) 3E991 Limited to “technology” according to the General Technology Note for the “development”, “production”, or “use” of digital oscilloscopes and transient recorders with sampling rates greater than 2.5 giga samples per second, which are controlled by 3A992.g.

**(4) Category 4 Computers**

- (i) 4A994 Limited to computers not controlled by 4A001 or 4A003, with an Adjusted Peak Performance (“APP”) exceeding 0.5 Weighted TeraFLOPS (WT).
- (ii) 4D993 “Program” proof and validation “software”, “software” allowing the automatic generation of “source codes”, and operating system “software” that are specially designed for real time processing equipment.
- (iii) 4D994 Limited to “software” specially designed or modified for the “development”, “production”, or “use” of equipment controlled by 4A101.

**(5) Category 5 (Part 1)  
Telecommunications and Category 5  
(Part 2) Information Security**

- (i) 5A991 Limited to telecommunications equipment designed to operate outside the temperature range from 219K (-54 °C) to 397K (124 °C), which is controlled by 5A991.a., radio equipment using Quadrature-amplitude-modulation (QAM) techniques, which is controlled by 5A991.b.7., and phased array antennae, operating above 10.5 Ghz, except landing systems meeting ICAO standards (MLS), which are controlled by 5A991.f.
- (ii) 5B991 Telecommunications test equipment, n.e.s.
- (iii) 5D991 Limited to “software” specially designed or modified for the “development”, “production”, or “use” of equipment controlled by 5A991.a., 5A991.b.7., and 5A991.f., or of “software” specially designed or modified for the “development”, “production”, or “use” of equipment controlled by 5A991.a., 5A991.b.7., and 5A991.f.
- (iv) 5E991 Limited to “technology” for the “development”, “production” or “use” of

equipment controlled by 5A991.a., 5A991.b.7., or 5A991.f., or of “software” specially designed or modified for the “development”, “production”, or “use” of equipment controlled by 5A991.a., 5A991.b.7., and 5A991.f.

(v) 5A992 Equipment not controlled by 5A002 (see List of Items Controlled).

(vi) 5D992 “Information Security” “software” not controlled by 5D002 (see List of Items Controlled).

#### **(6) Category 6 Sensors and Lasers**

(i) 6A991 Marine or terrestrial acoustic equipment, n.e.s., capable of detecting or locating underwater objects or features or positioning surface vessels or underwater vehicles; and “specially designed” “parts” and “components,” n.e.s.

(ii) 6A993 Cameras, not controlled by 6A003 or 6A203 (see List of Items Controlled).

(iii) 6A995 “Lasers”, not controlled by 6A005 or 6A205.

(iv) 6A996 “Magnetometers” not controlled by ECCN 6A006, “Superconductive” electromagnetic sensors, and “specially designed” “components” therefor, as follows (see List of Items Controlled).

(v) 6C992 Optical sensing fibers not controlled by 6A002.d.3 which are modified structurally to have a “beat length” of less than 500 mm (high birefringence) or optical sensor materials not described in 6C002.b and having a zinc content of equal to or more than 6% by “mole fraction.”

#### **(7) Category 7 Navigation and Avionics**

(i) 7A994 Other navigation direction

finding equipment, airborne communication equipment, all aircraft inertial navigation systems not controlled under 7A003 or 7A103, and other avionic equipment, including parts and components, n.e.s.

(ii) 7B994 Other equipment for the test, inspection, or “production” of navigation and avionics equipment.

(iii) 7D994 “Software”, n.e.s., for the “development”, “production”, or “use” of navigation, airborne communication and other avionics.

(iv) 7E994 “Technology”, n.e.s., for the “development”, “production”, or “use” of navigation, airborne communication, and other avionics equipment.

#### **(8) Category 8 Marine**

(i) 8A992 Vessels, marine systems or equipment, not controlled by 8A001 or 8A002, and “specially designed” “parts” and “components” therefor, and marine boilers and “parts,” “components,” “accessories,” and “attachments” therefor (see List of Items Controlled).

(ii) 8D992 “Software” specially designed or modified for the “development”, “production” or “use” of equipment controlled by 8A992.

(iii) 8E992 “Technology” for the “development”, “production” or “use” of equipment controlled by 8A992.

#### **(9) Category 9 Propulsion Systems, Space Vehicles and Related Equipment**

(i) 9A991 “Aircraft”, n.e.s., and gas turbine engines not controlled by 9A001 or 9A101 and “parts” and “components,” n.e.s. (see List of Items Controlled).

(ii) 9B990 Vibration test equipment and “specially designed” “parts” and “components,” n.e.s.

(iii) 9D991 “Software”, for the "development" or "production" of equipment controlled by 9A991 or 9B991.

(iv) 9E991 “Technology”, for the “development”, “production” or “use” of equipment controlled by 9A991 or 9B991.

**SUPPLEMENT NO. 3 TO PART 744 - COUNTRIES NOT SUBJECT TO  
CERTAIN NUCLEAR END-USE RESTRICTIONS IN §744.2(a)**

Australia  
Austria  
Belgium  
Canada  
Denmark  
Finland  
France  
Germany  
Greece  
Iceland  
Ireland  
Italy (includes San Marino and Holy See)  
Japan  
Luxembourg  
Netherlands  
New Zealand  
Norway  
Portugal  
Spain  
Sweden  
Turkey  
United Kingdom

**Supplement No. 4 to Part 744 - ENTITY LIST**

This Supplement lists certain entities subject to license requirements for specified items under this part 744 and part 746 of the EAR. License requirements for these entities include exports, reexports, and transfers (in-country) unless otherwise stated. A license is required, to the extent specified on the Entity List, to export, reexport, or transfer (in-country) any item subject to the EAR when an entity that is listed on the Entity List is a party to the transaction as described in § 748.5(c) through (f). This list of entities is revised and updated on a periodic basis in this Supplement by adding new or amended notifications and deleting notifications no longer in effect.

<b>COUNTRY</b>	<b>ENTITY</b>	<b>LICENSE REQUIREMENT</b>	<b>LICENSE REVIEW POLICY</b>	<b>FEDERAL REGISTER CITATION</b>
<b>AFGHANISTAN</b>	Abdul Satar Ghoura, 501, 5 <sup>th</sup> Floor, Amanullah Sancharaki Market Opp Chaman E Huzuri, Kabul, Afghanistan; <i>and</i> Flat No. 41 Block No. 24 Macroyan 3, Kabul, Afghanistan. (See alternate addresses under Pakistan).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 71869, 11/21/11.
	Afghan-German Construction Company, Golaye Park, Shari Naw, Kabul, Afghanistan, <i>and</i> Dasht Qala, Takhar Province, Afghanistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	77 FR 25057, 4/27/12.
	Assadullah Majed, 42S WD 18476 22167 Kabul, Afghanistan; <i>and</i> A2 Ground Floor, City Computer Plaza, Shar-e-Naw, Kabul, Afghanistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 71869, 11/21/11.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Emal Bilal Construction Company (EBCC), a.k.a., the following two aliases:            -Imal Bilal Road Construction Company; <i>and</i>            -Aimal and Balal Company.</p> <p>Kolola Pushta, Charahi Gul-e-Surkh, Kabul, Afghanistan; <i>and</i>            Maidan Sahr, Hetefaq Market, Paktiya, Afghanistan.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 44683, 8/1/14.
	<p>Emal Bilal Mangal, a.k.a., the following three aliases:            -Imal Bilal; <i>and</i>            -Aimal Balal; <i>and</i>            -Bellal Mangal.</p> <p>Kolola Pushta, Charahi Gul-e-Surkh, Kabul, Afghanistan; <i>and</i>            Maidan Sahr, Hetefaq Market, Paktiya, Afghanistan.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 44683, 8/1/14.
	<p>Fazal Rahim Farid, a.k.a., the following three aliases:            -Fazel Rahim Farid;            -Farid; <i>and</i>            -Engineer Idris.</p> <p>Microrayan 3<sup>rd</sup> Apt. 45, block #21, Kabul, Afghanistan; <i>and</i>            A2 Ground Floor, City Computer Plaza, Shar-e-Naw, Kabul, Afghanistan. (See alternate addresses under Pakistan).</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 71869, 11/21/11.
	Gulf Gate Sea Cargo LLC, Gulzaad Market Building, 4th Floor, Room 2, Kabul, Afghanistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 40178, 6/21/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Habib ur Rahman, a.k.a., the following two aliases: -Hanif; <i>and</i> -Habib Rahman.  Ghazni City, Afghanistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 71869, 11/21/11.
	Haji Khalil Construction Company, Wazir Akbar Khan, Road Number 10, In front of National Bank, District 10, Kabul, Afghanistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	77 FR 25057, 4/27/12.
	Hanif Computer Zone (HCZ), Ghazni City, Afghanistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 71869, 11/21/11.
	Heim German Afghan Khalil Company, Wazir Akbar Khan, District 10, Kabul, Afghanistan; <i>and</i> Shahr-e-Now, Kabul, Afghanistan, <i>and</i> Paktiyakoot, Jalalabad Road, District #9, Kabul, Afghanistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	77 FR 25057, 4/27/12.
	Ibrahim Haqqani, a.k.a., the following two aliases: -Hajji Sahib; <i>and</i> -Maulawi Haji Ibrahim Haqqani.  Afghanistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	77 FR 25057, 4/27/12.
	Iqra Computer Products, a.k.a., the following two aliases: -Iqra IT solutions; <i>and</i> -Iqra Computer Store.  A2 Ground Floor, City Computer Plaza, Shar-e-Naw, Kabul, Afghanistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 71869, 11/21/11.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Khalil Zadran, a.k.a., the following eight aliases:            -Samar Gul Khalil;            -Khalil Samar Gul;            -Samer Khalil;            -Samer Gul Khalil;            -Khlil Khalil;            -Kalil Khalil;            -Khalil Khualil; <i>and</i>            -Haji Khalil.</p> <p>Shahreno, Kabul, Afghanistan. (See alternate address in Pakistan).</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	77 FR 25057, 4/27/12.
	<p>Khalil Zadran Company, a.k.a., the following alias:            -Khalil Construction.</p> <p>Afghanistan (See alternate address in Pakistan).</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	77 FR 25057, 4/27/12.
	<p>Kurshid Ghoura, a.k.a., the following two aliases:            -Kurshed Ghoura; <i>and</i>            -Kursheed Ghoura.</p> <p>501, 5<sup>th</sup> Floor, Amanullah Sancharaki Market Opp Chaman E Huzuri, Kabul, Afghanistan; <i>and</i>            Flat No. 41 Block No. 24 Macroyan 3, Kabul, Afghanistan. (See alternate addresses under Pakistan).</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 71869, 11/21/11.
	<p>Lapcom Computer Stores,            A2 Ground Floor, City Computer Plaza, Shar-e-Naw, Kabul, Afghanistan. (See alternate address under Pakistan).</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 71869, 11/21/11.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Mohammad Jan Khan Mangal, Kolola Pushta, Charahi Gul-e-Surkh, Kabul, Afghanistan; <i>and</i> Maidan Sahr, Hetefaq Market, Paktiya, Afghanistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 44683, 8/1/14.
	Mohammad Jan Mangal Construction Company (MMCC), Kolola Pushta, Charahi Gul-e-Surkh, Kabul, Afghanistan; <i>and</i> Maidan Sahr, Hetefaq Market, Paktiya, Afghanistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 56003, 9/18/14.
	Muhammad Halim Ghoura, 501, 5 <sup>th</sup> Floor, Amanullah Sancharaki Market Opp Chaman E Huzuri, Kabul, Afghanistan; <i>and</i> Flat No. 41 Block No. 24 Macroyan 3, Kabul, Afghanistan. (See alternate addresses under Pakistan).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 71869, 11/21/11.
	Ologh Beg International Forwarders Ltd., 501, 5 <sup>th</sup> Floor, Amanullah Sancharaki Market Opp Chaman E Huzuri, Kabul, Afghanistan. (See alternate address under Pakistan).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 71869, 11/21/11.
	Onyx Construction Company, Shahr-e-Now, Charahi Haji Yaqoub, In front of the AIB Bank, District 10, Kabul, Afghanistan; <i>and</i> Char Rahi Ansari, Toaward Kolola Poshta, Shar-Naw Kabul, Afghanistan 11496.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	77 FR 25057, 4/27/12.
	Qazi Abdallah, a.k.a., the following four aliases: -Khan Dilawar; -Ibrahim Valid Javaid; -Jawid, Sa'id Jan 'Abd-al-Salam; <i>and</i> -Ibrahim Walid  Microrayan 3 <sup>rd</sup> Apt. 45, Block No. #21, Kabul, Afghanistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 71869, 11/21/11.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Shan Mahmoud Khan Mangal, Kolola Pushta, Charahi Gul-e-Surkh, Kabul, Afghanistan; <i>and</i> Maidan Sahr, Hetefaq Market, Paktiya, Afghanistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 44683, 8/1/14.
	Triangle Technologies, Afghanistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	77 FR 25057, 4/27/12.
	Wahab Karwan Construction Company (WKCC), Qabel Boy, Jalalabad Road, District 9, Kabul, Afghanistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 44683, 8/1/14.
	Zurmat Construction Company offices, House No. 319, 10 <sup>th</sup> Street Wazeer Akbar Khan, Kabul, Afghanistan; <i>and</i> Wazir Akbar Khan, District 10, Apartment 319, Kabul, Afghanistan; <i>and</i> Tarin Cot City, Afghanistan; <i>and</i> Behind UNAMA Office, Pir Bagh Office, Gardez, Afghanistan; <i>and</i> House No. 01, Street No. 01, Muhageq Road (Behind Pakistan and Turkish Embassies), Mazar-e-Sharif, Afghanistan; <i>and</i> Hazratan Street (Behind Jalalabad Teaching Hospital), Jalalabad, Afghanistan, <i>and</i> Aino Mena, Street No. 22 (Blue Color House Left Side of Road), Kandahar, Afghanistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	77 FR 25057, 4/27/12.
	Zurmat Foundation, House No. 319, 10 <sup>th</sup> Street Wazeer Akbar Khan, Kabul, Afghanistan; <i>and</i> Wazir Muhammad – Akbar Khan, Kabul, Afghanistan; <i>and</i> Wazir Akbar Khan, District 10, Apartment 319, Kabul, Afghanistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	77 FR 25057, 4/27/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Zurmat Group of Companies, House No. 319, 10 <sup>th</sup> Street Wazeer Akbar Khan, Kabul, Afghanistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	77 FR 25057, 4/27/12.
	Zurmat Material Testing Laboratory, House 01, Street 01, Kart-e-3 (opposite of Habibia High School), Dar-ul-Aman Road, Kabul, Afghanistan; <i>and</i> House No. 02, Street No. 01, Kart-e-Malemin, Khandahar, Afghanistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	77 FR 25057, 4/27/12.
<b>ARGENTINA</b>	Huawei Cloud Argentina, Buenos Aires, Argentina.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	85 FR 51603, 8/20/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Huawei Tech Investment Co., Ltd. Argentina, Av. Leandro N. Alem 815, C1054 CABA, Argentina.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 43495, 8/21/19. 85 FR 29852, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
<b>ARMENIA</b>	Bold Bridge International, LLC, a.k.a., the following alias: -BB Bold Bridge International.  Room 463, H. Hakobyan 3, Yerevan, Armenia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 1701, 1/13/10. 77 FR 24590, 4/25/12.
	Markel Closed Joint Stock Company (Markel CJSC), 17, Apt 31, Mashtoc Avenue, Yerevan, Armenia, 375002; and 26 Dzorapi Street, Yerevan, 0015, Armenia.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	84 FR 40241, 8/14/19.
	Vertir Airlines, 8/3 D Angaght Street, 376009 Yerevan, Armenia; and 54-100 Mamikonyan Str., Yerevan, Armenia 79, Armenia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 75463 12/12/13.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Veteran Avia LLC, a.k.a., the following one alias: -Veteran Airline.</p> <p>64, Baghramyam Avenue, Apt 16, Yerevan 0033, Armenia; <i>and</i> 1 Eervand Kochari Street Room 1, 375070 Yerevan, Armenia (See also addresses under Greece, Pakistan, and U.K.).</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 56003, 9/18/14. 81 FR 8829, 2/23/16, 82 FR 2887, 1/10/17.
	Yerevan Telecommunications Research Institute (YETRI) Closed Joint Stock Company (CJSC), 26, Dzorapy Street, 0015, Yerevan, Armenia.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	84 FR 40241, 8/14/19.
<b>AUSTRALIA</b>	Huawei Technologies (Australia) Pty Ltd., L6 799 Pacific Hwy, Chatswood, New South Wales, 2067, Australia.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 43495, 8/21/19. 85 FR 29852, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
<b>AUSTRIA</b>	Gulf Gate Spedition GmbH, A-1040 Argentinierstrasse 35/6, Vienna, Austria.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 40178, 6/21/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
<b>BAHRAIN</b>	Huawei Technologies Bahrain, Building 647 2811 Road 2811, Block 428, Muharraq, Bahrain.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 43495, 8/21/19. 85 FR 29852, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	Marzoghi Ltd., 12-20 Albaba Building 119 Road 1507, Manama, Bahrain.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	84 FR 61541, 11/13/19.
	Mohammed Marzoghi, 12-20 Albaba Building 119 Road 1507, Manama, Bahrain. (See also addresses in the United Arab Emirates).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	84 FR 61541, 11/13/19.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
<b>BELARUS</b>	Bel Huawei Technologies LLC, a.k.a., the following one alias, -BellHuawei Technologies LLC.  5 Dzerzhinsky Ave., Minsk, 220036, Belarus.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 43495, 8/21/19. 85 FR 29852, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	Belmicrosystems Research and Design Center, Office 313, 12 Korzhenevsky Street, 20108 Minsk, Republic of Belarus; <i>and</i> Korjenevsky Str., 12, Minsk, 220108, Republic of Belarus; <i>and</i> 12, Korzhenevskogo Str., Minsk, 220108, Republic of Belarus.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 36516, 6/28/10. 77 FR 58006, 9/19/12.
	Mohammad Ghassem Najafi,  Unit 705, No. 103, Potbediteley Ave., Minsk, Belarus.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 48534, 9/26/18.
	Nilco Group, a.k.a., the following one alias: -Nilfam Khazar Co.  Unit 705, No. 103, Potbediteley Ave., Minsk, Belarus (see alternate addresses under Iran and Russia).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 48534, 9/26/18.
	SOE Semiconductor Devices Factory, Office 313, 12 Korzhenevsky Street, 20108 Minsk, Republic of Belarus; <i>and</i> Korjenevsky Str., 12, Minsk, 220108, Republic of Belarus; <i>and</i> 12, Korzhenevskogo Str., Minsk, 220108, Republic of Belarus.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 36516, 6/28/10. 77 FR 58006, 9/19/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Vasili Kuntsevich, Office 313, 12 Korzhenevsky Street, 20108 Minsk, Republic of Belarus; <i>and</i> Korjenevsky Str., 12, Minsk, 220108, Republic of Belarus; <i>and</i> 12, Korzhenevskogo Str., Minsk, 220108, Republic of Belarus.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 36516, 6/28/10. 77 FR 58006, 9/19/12.
<b>BELGIUM</b>	Huawei Technologies Research & Development Belgium NV. Technologiepark 19, 9052 Zwijnaarde Belgium	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 84 FR 43495, 8/21/19. 85 FR 29852, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	Industrial Metals and Commodities, Goffarstraat 16, B-1050, Brussels, Belgium.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	84 FR 40241, 8/14/19.
	Nicolas Kaiga, a.k.a., the following one alias: -Nicholas Kaiga.  Goffarstraat 16, B-1050, Brussels, Belgium. (See alternate addresses under Netherlands and United Kingdom).	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	84 FR 40241, 8/14/19.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
<b>BELIZE</b>	Experian Holdings, Inc., N Eyre Str, Blake Bldg, Suite 302, Belize City, Belize 99008; <i>and</i> Corner Hutson Eyre Str, Blake Bldg, Suite 302, Belize City, Belize 99008.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
<b>BOLIVIA</b>	Huawei Technologies (Bolivia) S.R.L., La Paz, Bolivia.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29852, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
<b>BRAZIL</b>	Huawei Cloud Brazil, Sao Paulo, Brazil.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	85 FR 51603, 8/20/20.
	Huawei do Brasil Telecomunicações Ltda, Sao Paulo, Brazil; <i>and</i> Av. Jerome Case, 2600, Sorocaba - SP, 18087-220, Brazil.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 84 FR 43495, 8/21/19. 85 FR 29852, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
<b>BULGARIA</b>	Dimitar Milanov Dimitrov, G.K. Dianabad, BL.57, ET.11, AP.74. Sofia, Bulgaria.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Iskren Georgiev, 51 Aleksandar Malinov Blvd., Sofia 1712, Bulgaria.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 3580, 1/26/18.
	Lyubka Hristova, 51 Aleksandar Malinov Blvd., Sofia 1712, Bulgaria.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 3580, 1/26/18
	Mariana Marinova Gargova, G.K. Dianabad, BL. 32, VH. V, AP. 53, 1172 Sofia, Bulgaria; <i>and</i> UL.132, NO.14, ET.2, AP.11, Sofia, Bulgaria.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
	Mihaela Nenova, a.k.a., the following one alias: -Mihaela Nenova-Muhy.  51 Aleksandar Malinov Blvd., Sofia 1712, Bulgaria.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 3580, 1/26/18.
	Milan Dimitrov, UL.132, NO.14, ET.2, AP.11, Sofia, Bulgaria.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
	Multi Technology Integration Group EOOD (MTIG), G.K. Dianabad, BL. 32, VH. V, AP. 53, 1172 Sofia, Bulgaria; <i>and</i> UL 132 No 14 AP 11, Sofia, Bulgaria.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
	Zhelyaz Andreev, 51 Aleksandar Malinov Blvd., Sofia 1712, Bulgaria.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 3580, 1/26/18.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
<b>BURMA</b>	Huawei Technologies (Yangon) Co., Ltd., Yangon, Burma.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29852, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	Ministry of Defence, a.k.a., the following two aliases: -Ministry of Defense; <i>and</i> -MoD.  Building 24, Nay Pyi Taw, Burma.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	86 FR 13180, 3/8/21.
	Ministry of Home Affairs, a.k.a., the following one alias: -MOHA.  Building 10, Nay Pyi Taw, Burma.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	86 FR 13180, 3/8/21.
	Myanmar Economic Corporation, a.k.a., the following one alias: -MEC.  Corner of Ahlone Road and Strand Road, Ahlone Township, Yangon, Myanmar.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	86 FR 13180, 3/8/21.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Myanmar Economic Holdings Limited, a.k.a., the following eight aliases:            -MEHL;            -Myanma Economic Holdings Limited;            -Myanma Economic Holdings Public Company Limited;            -Myanmar Business Holdings Public Company Limited;            -Myanmar Economic Holdings Public Company Limited;            -UMEH;            -Union of Myanmar Economic Holdings Company Limited; <i>and</i>            -Union of Myanmar Economic Holdings Limited.</p> <p>189-191 Maha Bandoola Road, Botahtaung Township, Yangon, Burma.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	86 FR 13180, 3/8/21.
<b>CANADA</b>	<p>Abou El-Khir Al Joundi, a.k.a., the following six aliases:            -Abou El Kheir Joundi;            -Abou Elkhir Al Joundi;            -Abou Joundi Et Kheir;            -Al Joundi;            -Al Jundi; <i>and</i>            -Elkheir Aljoundi Abou.</p> <p>2706 Carre Denise Pelletier, Montreal, Quebec, H4R 2T5 Canada.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	77 FR 23116, 4/18/12.
	<p>Alex Woolf,            2021 Atwater Street, Suite 216, Montreal, Quebec, Canada H3H2P2.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Alexandre Ivjenko, a.k.a., the following one alias: -Alexander Ivjenko,  7150 Rue Chouinard, Montreal, QC, H8N 2Z6 Canada.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Ali Bakhshien, 909-4005 Bayview Ave., Toronto, Canada M2M 3Z9; <i>and</i> HSBC Tower, Suite 502, 3601 Highway 7 East, Markham, Ontario, L3R 0M3, Canada.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54504, 9/22/08. 76 FR 71869, 11/21/11.
	Anastasiya Ivjenko, 7150 Rue Chouinard, Montreal, QC, H8N 2Z6, Canada.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Anastassia Voronkevitch, 7150 Rue Chouinard, Montreal, QC H8N 2Z6 Canada.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61249, 10/9/12. 78 FR 75463, 12/12/13.
	Canada Lab Instruments, a.k.a., the following alias: -SCO North America.  5995 Gouin Ouest, #212, Montreal, Quebec, H4J 2P8 Canada.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	77 FR 23116, 4/18/12.
	EKT 2, Inc., 371 Renforth Drive, Etobicoke M9C 2L8, Toronto, Ontario, Canada.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	77 FR 24590, 4/25/12.
	Enterprise Chips Hunter (ECH), 2021 Atwater Street, Suite 216, Montreal, Quebec, Canada H3H2P2.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Huawei Technologies Canada Co., Ltd., Markham, ON, Canada.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29852, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	Ibrahim Nasir,  1902-1155 High Street, Coquitlam, BC, Canada V3B 7W4. (See alternate address in UAE)	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 59421, 9/22/20.
	Kelvo Inc. 6600 21 <sup>st</sup> Avenue, Laval, Quebec H7R3G8, Canada; <i>and</i> 7169 19 <sup>th</sup> Avenue, Laval, Quebec H7R3E5, Canada.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	84 FR 40241, 8/14/19.
	Kitro Corporation, 909-4005 Bayview Ave., Toronto, Canada M2M 3Z9; <i>and</i> HSBC Tower, Suite 502, 3601 Highway 7 East, Markham, Ontario, L3R 0M3, Canada.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54504, 9/22/08. 76 FR 71869, 11/21/11.
	Liubov “Luba” Skvortsova, a.k.a., the following one alias: -Liubov Skvortsova.  7150 Rue Chouinard, Montreal, QC, H8N 2Z6 Canada.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Magtech, a.k.a., the following one alias: -M.A.G. Tech.  5762 Royalmount Ave, Montreal, QC, H4P 1K5, Canada; <i>and</i> 5440 Queen Mart St, Office 103, Montreal, Canada.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Maria Pashovkina, 7150 Rue Chouinard, Montreal, QC, H8N 2Z6, Canada.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Mercury Electronic Solutions, a.k.a., the following one alias: -Mercury Group International.  380 Vansickle Rd Unit 660, St. Catharines, ON L2126P7, Canada; <i>and</i> 127 Rue Wilson, Dollard-des-Ormeaux, Quebec H9A1W7, Canada.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Natalie Sobolev, 5762 Royalmount Ave, Montreal, QC H4P 1K5, Canada; <i>and</i> 5440 Queen Mart St., Office 103, Montreal, Canada.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Saeed Talebi, a.k.a., the following one alias: -Allen Talebi.  P.O. Box 626, Gormley, ONT LOH 1G0 Canada (See alternate addresses under Iran and U.A.E.).	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	78 FR 75463 12/12/13. 85 FR 52901, 8/27/20.
	Satco Corporation, P.O. Box 626, Gormley, ONT LOH 1G0 Canada.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	78 FR 75463 12/12/13.
	Sputnik E, 7150 Rue Chouinard, Montreal, QC H8N 2Z6 Canada.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Zurab Kartvelishvili, a.k.a., the following one alias: -George Kartveli.</p> <p>7380 Vansickle Rd. Unit 660, St. Catharines, ON L2I26P7, Canada; <i>and</i> 127 Rue Wilson, Dollard-des-Ormeaux, Quebec H9A1W7, Canada.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61249, 10/9/12. 78 FR 75463 12/12/13.
<b>CHILE</b>	Huawei Chile S.A., Santiago, Chile.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29852, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Huawei Cloud Chile, Santiago, Chile.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	85 FR 51603, 8/20/20.
<b>CHINA, PEOPLE’S REPUBLIC OF</b>	32Group China Ltd., Room 1905, 19/F, Nam Wo Hong Bldg., 148 Wing Lok Street, Sheung Wang, Hong Kong; <i>and</i> Room 1119, 11/F, Block B, Yau Tong Industrial City, 17 Ko Fai Road, Yau Tong, Kowloon, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 69856, 11/12/15. 85 FR 83769, 12/23/20.
	54th Research Institute of China, a.k.a., the following three aliases:  -China Electronics Technology Group Corp. (CETC) 54th Research Institute; -Communication, Telemetry and Telecontrol Research Institute (CTI); <i>and</i> -Shijiazhuang Communication Observation and Control Technology Institute.	For all items subject to the EAR.	See §744.3(d) of this part.	66 FR 24266, 5/14/01. 75 FR 78883, 12/17/10. 77 FR 58006, 9/19/12. 81 FR 64696, 9/20/16.
	A.C. International, Room 1104, North Tower Yueziu City Plaza, No. 445 Dong Feng Zhong Rd., Guangzhou, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54503, 9/22/08.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	ACTeam Logistics Ltd., Unit B1-B3, 21/F, Block B, Kong Nam Industrial Building, 603-609 Castle Peak Road, Tsuen Wan, N.T., Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 7359, 2/19/10. 85 FR 83769, 12/23/20.
	Action Global, a.k.a., the following one alias: -Action Global Co., Limited.  C/O Win Sino Flat 12, 9/F, PO Hong Centre, 2 Wang Tung Street, Kowloon Bay, KLN, Hong Kong; <i>and</i> Flat/RM 1510A, 15/F Ho King COMM Ctr, 2-16 Fa Yuen Street, Mongkok KL, Hong Kong (See alternate address under Singapore).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 67062, 10/31/11. 85 FR 83769, 12/23/20.
	AGCU Scientech, a.k.a. the following two aliases: -AGCU ScienTech Incorporation; <i>and</i> -Wuxi Zhongde Meilian Biotechnology Co., Ltd.  No. 18-1, Wenhui Road, Huishan Economic Development Zone, Wuxi City, 214000 China	All items subject to the EAR. (See §744.11 of the EAR).	Case-by-case review for items necessary to detect, identify and treat infectious disease; Presumption of denial for all other items subject to the EAR.	85 FR 83420, 12/22/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Aksu District Public Security Bureau, a.k.a., the following one alias:                      -Aqsu District Public Security Bureau.</p> <p>Yingbin Rd., Akesu City XUAR 843000, China.</p>	<p>For all items subject to the EAR.                      (See §744.11 of the EAR).</p>	<p>Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.</p>	<p>84 FR 54004, 10/9/19.                      85 FR 44159, 7/22/20.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Aksu Huafu Textiles Co., a.k.a., the following two aliases:                      -Akesu Huafu; <i>and</i>                      -Aksu Huafu Dyed Melange Yarn.</p> <p>992 Kilometers Place Wuka Road, Akesu, China; <i>and</i> Building B 538 Fengting Avenue, Suzhou Jiangsu Province, China.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.</p>	<p>85 FR 34505, 6/5/20.                      85 FR 44159, 7/22/20.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Altay Municipality Public Security Bureau, North West Rd., Altay City, XUAR, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR..	84 FR 54004, 10/9/19. 85 FR 44159, 7/22/20.
	Amaze International, Flat/Rm D, 11/F 8 Hart Avenue 8-10 Hart Avenue, Tsim Sha Tsui KL, Hong Kong (See alternate address under Singapore).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 67062, 10/31/11. 85 FR 83769, 12/23/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Anvik Technologies Sdn. Bhd., a.k.a., the following eight aliases:            -Anvik Technologies;            -Cason Technologies;            -Henan Electronics;            -Hixton Technologies;            -Hudson Technologies, Ltd.;            -Hudson Engineering (Hong Kong) Ltd.;            -Madison Engineering Ltd.; <i>and</i>            -Montana Advanced Engineering.</p> <p>Level 19, Two International Finance Centre, 8 Finance Street, Central, Hong Kong (See alternate addresses under Iran and Malaysia).</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 75463, 12/12/13. 85 FR 83769, 12/23/20.
	Asia International Trading Company, Room 1104, North Tower Yueziu City Plaza, No. 445 Dong Feng Zhong Rd., Guangzhou, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54503, 9/22/08.
	Avin Electronics Technology Co., Ltd. (AETC), Room 401, Yuepeng Building, Jiabin Road, Luohu District, Shenzhen, Guangdong, China; <i>and</i> 1019 Jiabin Road, Luohu Qu, Shenzhen Shi, Guangdong, China; <i>and</i> 10F, Kras Asia Industrial Bldg., No. 79 Hung To Road Kwun Kowloon, Hong Kong, 999077.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	84 FR 21236, 5/14/19. 85 FR 83769, 12/23/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Babak Jafarpour, a.k.a., the following five aliases:            -Bob Jefferson;            -Peter Jay;            -Sam Lee;            -Samson Lee; <i>and</i>            -David Lee.</p> <p>Unit 501, 5/F, Global Gateway, 168 Yeung HK Road, Tsuen Wan, Hong Kong; <i>and</i> 9/F, Henan Building, 19 Luard Road, Wanchai, Hong Kong; <i>and</i> Level 19, Two International Finance Centre, 8 Finance Street, Central, Hong Kong (See alternate addresses under Iran and Malaysia).</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 75463, 12/12/13. 85 FR 83769, 12/23/20.
	Bako Cheung, Unit 803, Fourseas Building, 208-212 Nathan Road, Kowloon, Hong Kong; <i>and</i> Room 803, Fourseas Bldg 208-212 Nathan Rd, Kowloon, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 56003, 9/18/14. 85 FR 83769, 12/23/20.
	<p>Baotou Guanghua Chemical Industrial Corporation (Parent Organization: China National Nuclear Group Corporation (CNNC)), a.k.a., the following five aliases:            -202 Plant, Baotou Nuclear Energy Facility;            -Baotou Guanghua Chemical Industrial Corporation;            -Baotou Guanghua Chemical Industry Company;            -Baotou Nuclear Fuel Element Plant; <i>and</i>            -China Nuclear Baotou Guanghua Chemical Industry Company.</p> <p>202 Factory Baotou, Inner Mongolia.</p>	For all items subject to the EAR.	See §744.2(d) of this part.	66 FR 24266, 5/14/01 75 FR 78883, 12/17/10. 81 FR 64696, 9/20/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Bayingolin Mongolian Autonomous Prefecture Public Security Bureau, Yingxia Rd., Korla City, XUAR 841000, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.	84 FR 54004, 10/9/19. 85 FR 44159, 7/22/20.
	Beijing 8 Star International Co., Unit 601, 6 <sup>th</sup> Floor, Tower 1, Prosper Center, No. 5, Guanghua Road, Chaoyang District, Beijing, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 12006, 3/8/16.
	Beijing Aeronautical Manufacturing Technology Research Institute, a.k.a., the following two aliases: -BAMTRI; <i>and</i> -Aviation Industry Corporation of China's (AVIC) Institute 625. No. 1 East Military Village, North Baliqiao Station, Chaoyang District, Beijing, China; <i>and</i> No. 1 Dongjunzhuang, Baliqiaobei, Chaoyang District, Beijing, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of approval for EAR99; case-by-case review for all items on the CCL.	79 FR 24566, 5/1/14. 83 FR 3580, 1/26/18.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Beijing Aeronautics Yangpu Technology Investment Company (BAYTIC), a.k.a., the following three aliases:            -Beijing Aerospace Yangpu Technology Investment Company; <i>and</i>            -Tian Hang Yang Pu Technology Investment Limited Company; <i>and</i>            -Bei Jing Tian Hang Yang Pu Technology Investment Limited Company.</p> <p>No. 27 Xiaoyun Road, Chaoyang District, Beijing 100027, China; <i>and</i>            Room 3120, Building 1, 16 Zhufang Road, Haidian District, Beijing, China.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 44683, 8/1/14.
	<p>Beijing Cloudmind Technology Co., Ltd., a.k.a., the following two aliases:            -Cloudminds Technologies Co., Ltd.; <i>and</i>            -Daxie Technology.</p> <p>Room 601-602, 4A Block, Baiziwan, Chaoyang District, Beijing 100022 China; <i>and</i> Room 220, No. 5, Jiaodao Da St., Fangshan District, Beijing, China; <i>and</i> 33/F, Unit 8, Wanjing Soho, Chaoyang District, Beijing, China; <i>and</i> No. 10 Wangjing Street, Wangjing SOHO Tower 2, Block C, Room 1506, Chaoyang District, Beijing, 100096 China; <i>and</i> No. 88 Nongda South Road, Wanlin Building, 2/F, Haidian District, Beijing 100022 China.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 34497, 6/5/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Beijing Computational Science Research Center, a.k.a., the following three aliases:            -BCSRC;            -Beijing Computing Science Research Center; <i>and</i>            -CSRC.</p> <p>Bldg. 9 East Zone, ZPark II No. 10 East Xibeiwang Road, Beijing, China; <i>and</i> Building 9, East District, Zhongguancun Software Park, No. 10, Northwest Wangdong Road, Haidian District, Beijing, China.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 34497, 6/5/20.
	<p>Beijing FJR Optoelectronic Technology Company Ltd, a.k.a, the following three aliases:            -FJIR Optoelectronic Technology Company Ltd.;            -Beijing Fu Jerry; <i>and</i>            -Fu Jirui.</p> <p>No. 2A Zhonghuan South Road, Wangjing, Chaoyang District, Beijing, China, 100102; <i>and</i>            Room 302 Office, Bldg. 11, No. 4, Anningzhuang Rd, Beijing, China, 100085; <i>and</i>            Beijing Shunyi district airport into 25-4, Huiyuan, 25th floor, 100028, Beijing; <i>and</i>            25-4 Yuhua Rd, 25th Floor, Shunyi District, Beijing, China 101318.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 44849, 7/28/15.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Beijing Huanjia Telecommunication Co., Ltd., a.k.a., the following one alias: -Beijing Huanjia Communication Co., Ltd.</p> <p>No. 2A Shuangquanpu, Deshengmenwai, Chaoyang District, Beijing, China; <i>and</i> Room 3-012, Building 1, Dahua Radio Instrument Factory, No. 5A Xueyuan Road, Haidian District, Beijing, China.</p>	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.
	Beijing Huawei Digital Technologies Co., Ltd., Beijing, China.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29852, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	Beijing Institute of Technology, No. 5 South Zhongguancun Street, Haidian District, Beijing, China.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Beijing Jincheng Huanyu Electronics Co., Ltd., Room 303, Building 7, No. 69, North Third Ring Road, Haidian District, Beijing, China; and No. 64 Mianshan Road, Mianyang City, Sichuan, China; and No. 11 Jindu Section Airport Road, Chengdu, China; and 302, 3rd Floor, Building 7, No 13 Building, Huayuan Road, Haidian District, Beijing, China; and Rm 7-302, No. Jia 13, Huayuan Road, Haidian, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 34497, 6/5/20.
	Beijing Lion Heart International Trading Company, a.k.a., the following one alias: -Wei Lai Xi Tong Ltd.  Suite number 1819, The International Center of Times, Number 101, Shoa Yao Ju BeiLi, Chaoyang District, Beijing, China; <i>and</i> Room 1318-20, 13F, Hollywood Plaza, 610 Nathan Road, Mongkok Kowloon, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 56003, 9/18/14. 85 FR 83769, 12/23/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Beijing Liuhe BGI, a.k.a., the following one alias: -Beijing Liuhe Huada Gene Technology.</p> <p>Room 106, Building 1, No. 25, North Taipingzhuang Road, Haidian District, Beijing.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR. *****</p>	<p>85 FR 44159, 7/22/20.</p>
	<p>Beijing Opto-Electronics Technology Company, a.k.a., the following one alias: -BOET.</p> <p>No. 4, Jiuxianqiao Road, Chaoyang District, Beijing, China, 100015.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Presumption of denial.</p>	<p>80 FR 44849, 7/28/15.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Beijing Sensetime Technology Development Co., Ltd., a.k.a., the following two aliases:            -Beijing Shangtang Technology Development Co., Ltd.;  <i>and</i>            -Sense Time.</p> <p>5F Block B, Science and Technology Building, Tsinghua Science Park, Haidian District, Beijing, China.</p>	<p>For all items subject to the EAR.            (See §744.11 of the EAR).</p>	<p>Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.</p>	<p>84 FR 54004, 10/9/19.            85 FR 34505, 6/5/20.            85 FR 44159, 7/22/20.</p>
	<p>Beijing Tianhua, a.k.a., the following seventeen aliases:            -Beijing Tianhua International Co., Ltd.;            -Beijing BUAA Tianhua Technology Company;            -Beijing BUAA Tianhua Technology Co., Ltd.;            -Beijing Aerospace Technology Limited Liability Company;            -Beihang Tenfine Industry Group;            -Beijing Beihang Assets Management Co., Ltd.;            -Beijing Beihang Science &amp; Technology Co., Ltd.;            -Beijing Aerospace Technology LLC;            -Beijing North China Aerospace Science &amp; Technology Ltd., Co.;            -Beijing North Space Technology Co., Ltd.;</p>	<p>For all items subject to the EAR.            (See §744.11 of the EAR).</p>	<p>Presumption of denial.</p>	<p>78 FR 75463 12/12/13.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>-Beijing the Tianhua Easytouch International Trade Co., Ltd.;</p> <p>-North and Astronautics, Beijing China Times Technology Co., Ltd.;</p> <p>-Beijing Beihang Haier Software Co., Ltd.;</p> <p>-Red Technology;</p> <p>-TRW Navigation Communication Technology Co., Ltd.;</p> <p>-Beijing North Aerospace Co-Technology Co., Ltd.; <i>and</i></p> <p>-Beijing Full Three Dimensional Power Engineering Co., Ltd.</p> <p>37 Xue Yuan Rd., Beijing, China; <i>and</i></p> <p>Room 301, 3f Shining Tower, 35 Xue Yuan Lu, Haidian District, Beijing, China; <i>and</i></p> <p>Room 311A, 3f Shining Tower, 35 Xue Yuan Lu, Haidian, Beijing, China; <i>and</i></p> <p>Room 411A, 4f Shining Tower, 35 Xue Yuan Lu, Haidian, Beijing, China; <i>and</i></p> <p>Room 401, 4f Shining Tower, 35 Xue Yuan Lu, Haidian District, Beijing, China; <i>and</i></p> <p>Room 402a, 4f Shining Tower, 35 Xue Yuan Lu, Haidian, Beijing, China; <i>and</i></p> <p>Xueyan Road, Haidain District, Beijing City, 35<sup>th</sup> Ning Building, Room 402a.</p>			
	<p>Beijing University of Aeronautics and Astronautics (BUAA), a.k.a., the following alias:</p> <p>-Beihang University.</p> <p>37 Xueyuan Road, Haidan District, Beijing.</p>	<p>For all items subject to the EAR.</p>	<p>See §744.3(d) of this part.</p>	<p>66 FR 24266, 5/14/01. 70 FR 54629, 9/16/05. 75 FR 78877, 12/17/10.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Beijing University of Posts and Telecommunications (BUPT), No. 10 Xitucheng Rd, Haidian District Beijing 100876, China.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
	Bing Lu, Room 804 Sino Center, 582-592 Sino Center Road, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 32445, 6/5/14. 85 FR 83769, 12/23/20.
	Biznest, LTD, Room 927 9/F Far East Consortium Building, 121 Des Voeux Road C, Central District, Hong Kong; <i>and</i> 4/F, Hong Kong Trade Centre, 161 167 Des Voeux Road, Central, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 44259, 7/25/11. 80 FR 69856, 11/12/15. 85 FR 83769, 12/23/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Boertala Mongolian Autonomous Prefecture Public Security Bureau, a.k.a., the following one alias: -Bortala Mongolian Autonomous Prefecture Public Security Bureau.</p> <p>Qingdeli St., Bole City, XUAR, China.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.</p>	<p>84 FR 54004, 10/9/19. 85 FR 44159, 7/22/20.</p>
	<p>BOP Opto-Electronics Technology Company, a.k.a., the following one alias: -Beijing BOP Electro-Optics.</p> <p>No. 10, Jiuxianqiao North Road, Chaoyang District, Beijing, China, 100016; <i>and</i> No. 4 Jiuxianqiao Road, Chaoyang District, Beijing, China, 100015.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Presumption of denial.</p>	<p>80 FR 44849, 7/28/15.</p>
	<p>BVI Electronics, B28 10/F Nanfang Da Sha, XIDI Ernalu GangZhou, China 511486; <i>and</i> G/F Far East FAC Building No. 334-336 Kwun Tong road, Kwun Tong Kowloon, Hong Kong.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Presumption of denial.</p>	<p>79 FR 32445, 6/5/14. 85 FR 83769, 12/23/20.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Calvin Law, Flat 2808, 28/F, Asia Trade Centre, 79 Lei Muk Road, Kwai Chung, N.T., Hong Kong; <i>and</i> Units 801-803 and 805, Park Sun Building, No. 97-107 Wo Yi Hop Road, Kwai Chung, N.T., Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 44824, 9/4/18. 84 FR 40241, 8/14/19. 85 FR 83769, 12/23/20.
	Caprice Group Ltd., Room 1119, 11/F, Block B1, Yau Tong Industrial City, 17 Ko Fai Road, Yau Tong, Kowloon, Hong Kong; <i>and</i> Unit B1, G/F Pioneer Building, 213 Wai Yip St., Kwun Tong, Kowloon, Hong Kong; <i>and</i> Unit A, G/F, Pioneer Building, 213 Wai Yip St., Kwun Tong, Kowloon, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 69856, 11/12/15. 85 FR 83769, 12/23/20.
	Center for High Pressure Science and Technology Advanced Research, a.k.a., the following two aliases: -HPSTAR; <i>and</i> ; -Beijing High Voltage Science Research Center.  No. 1690 Cailun Rd. Shanghai, China; <i>and</i> No. 10, Northeast Wangxi Road, Haidian District, Beijing, China; <i>and</i> 3rd Floor, Dongrong Building, No. 2699 Qianjin Street, High-Tech Development Zone, Changchun City, Jilin Province, China; <i>and</i> Bldg 8 East Zone, ZPark II No. 10, East Xibeiwang Road, Beijing, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 34497, 6/5/20.
	Centre Bright Electronics Company Limited, Unit 7A, Nathan Commercial Building 430-436 Nathan Road, Kowloon, Hong Kong; <i>and</i> Room D, Block 1, 6/F International sIndustrial Centre, 2-8 Kwei Tei Street, Shatin New Territories, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 1701, 1/13/10. 85 FR 83769, 12/23/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Changji Esquel Textile Co. Ltd., a.k.a., the following one alias: -Changji Yida Textile.</p> <p>No. 12 Oasis South Road, Changji City, Changji State, Xinjiang (District 55, 2 Hills); <i>and</i> 2 Hill, Area 55, No. 12, Oasis South Road, Changji City, Changji State, Xinjiang.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.</p>	<p>85 FR 44159, 7/22/20.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Changji Hui Autonomous Prefecture Public Security Bureau, 56 Yan'an N. Rd., Changji City, XUAR 831100, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.	84 FR 54004, 10/9/19. 85 FR 44159, 7/22/20.
	Changzhou Guoguang Data Communications Co., Ltd., Block C, No. 52 Songtao Rd, Zhonglou Economic Development Zone, Changzhou, China.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.
	Channel Rich Electronics Company Limited, Unit 803, Fourseas Building, 208-212 Nathan Road, Kowloon, Hong Kong; <i>and</i> Room 803, Fourseas Bldg 208-212 Nathan Rd, Kowloon, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 56003, 9/18/14. 85 FR 83769, 12/23/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Chen Qu, a.k.a., the following one alias: -Chen Choo.</p> <p>No. 4 Nanhuan Road, Jinzhou City, Hubei Province, China.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Presumption of denial.</p>	<p>81 FR 14958, 3/21/16. 84 FR 40241, 8/14/19.</p>
	<p>Chengdu Fine Optical Engineering Research Center,</p> <p>No 3 Keyuan, 1st Road, Chengdu Hi-Tech Zone, Chengdu, China.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Presumption of denial.</p>	<p>85 FR 34497, 6/5/20.</p>
	<p>Chengdu GaStone Technology Co., Ltd. (CGTC), a.k.a., the following four aliases: -Chengdu Jiashi Technology Co.; -Chengdu HiWafer Semiconductor; -Chengdu Haiwei Technology; <i>and</i> -Chengdu Zenith.</p> <p>31F, A Tower, Yanlord Square, No. 1, Section 2, Renmind South Road, Chengdu China; <i>and</i> Internet of Things Industrial Park Economic Development District Xinan Hangkonggang (Southwest Airport), Shuangliu County, Chengdu; <i>and</i> 29<sup>th</sup> Floor, Yanlord Landmark, No. 1 Renmin South Road Section 2, Chengdu; <i>and</i> 29/F Yanlord Landmark Tower A, Chengdu, China; <i>and</i> Union Road, No 88 Internet of Things Industrial, Chengdu, China; <i>and</i> No 88 Wulian Road, Southwest Airp Development Zone, Chengdu, China; <i>and</i> Industrial Park of Internet of Thing SW Airport Eco Dev Zone, Chengdu, China; <i>and</i> Internet Things of Industrial Pa Southwest Airport Economic, Chengdu, China; <i>and</i> The Industrial Park of Internet of Things, Southwest Airport Economic Development Zone, Chengdu, China.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Presumption of denial.</p>	<p>79 FR 44683, 8/1/14. 81 FR 14958, 3/21/16. 83 FR 37427, 8/1/18</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Chengdu Haiguang Integrated Circuit, a.k.a., the following two aliases:            -Hygon; <i>and</i>            -Chengdu Haiguang Jincheng Dianlu Sheji.</p> <p>China (Sichuan) Free Trade Zone, No. 22-31, 11th Floor, E5, Tianfu Software Park, No. 1366, Middle Section of Tianfu Avenue, Chengdu High-tech Zone, Chengdu, China.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	84 FR 29373, 6/24/19.
	<p>Chengdu Haiguang Microelectronics Technology, a.k.a., the following two aliases:            -HMC; <i>and</i>            -Chengdu Haiguang Wei Dianzi Jishu.</p> <p>China (Sichuan) Free Trade Zone, No. 23-32, 12th Floor, E5, Tianfu Software Park, No. 1366, Middle Section of Tianfu Avenue, Chengdu High-tech Zone, Chengdu, China.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	84 FR 29373, 6/24/19.
	Chengdu Huawei High-Tech Investment Co., Ltd., Chengdu, Sichuan, China.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29852, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Chengdu Huawei Technologies Co., Ltd., Chengdu, Sichuan, China.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29852, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	Chengdu Latest Electronics Technology Company, No. 2069 West Yuanda Road, Pixian Modern Industry Harbor South District, Chengdu, Sichuan, China 611730; <i>and</i> Suite 1-6-1702, West Diaoyu Yaijia Garden, Haidian District, Beijing, China 100142; <i>and</i> C8-1-402 Xiduan Zhonghua Century city, Technology Road, Xian, China 710075; <i>and</i> 2-308 No. 115 Hongshan Road, Nanjing, China 210018.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 24565, 5/1/14.
	Chengdu Spaceon Technology Co., Ltd., a.k.a., the following one alias: -Tianao Electronics Co., Ltd.  No. 88 Xinye Road, West High Tech Zone, Chengdu, China; <i>and</i> Spaceon Building, No. 1 Wulidun Road, Chadianzi, Chengdu, China; <i>and</i> Tianao Building, No. 1 Wulidun Road, Chadianzi, Chengdu, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 3580, 1/26/18.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	China Aerodynamics Research and Development Center (CARDIC), Sichuan Province.	For all items subject to the EAR.	See §744.3 of this part.	64 FR 28910, 5/28/99. 81 FR 64696, 9/20/16.
	China Aerospace Science and Industry Corporation (CASIC) 3rd Academy, a.k.a., the following three aliases: -China Haiying Electro-Mechanical Technology Academy (CHETA); -HiWING Mechanical & Electrical Technology Corporation; <i>and</i> -Beijing HY Electronic Tech Co.  No. 1 Haiying Rd, Fengtai Technology District, Tower 1, 7/F, Beijing; <i>and</i> F/5 #5 BLDG Hangtian Haiying Tech No 1 Kaiying Rd, Feng Tai District, Beijing 100089; <i>and</i> No. 11, Hepingli East Street, Dongcheng District, Beijing; <i>and</i> P.O. Box 7200-80, Beijing 100074.	For all items subject to the EAR.	See §744.3(d) of this part.	66 FR 24267, 5/14/01. 75 FR 78883, 12/17/10. 77 FR 58006, 9/19/12. 84 FR 40241, 8/14/19.
	China Aerospace Science and Industry Corporation (CASIC) 3rd Academy's 159 Factory, a.k.a., the following two aliases: -159th Factory; <i>and</i> -Beijing Xinghang Electromechanical Equipment Factory.  No.9, DongWangzuo North Road, Yungang, Fengtai District, Beijing, 100074.	For all items subject to the EAR.	See §744.3(d) of this part.	66 FR 24267, 5/14/01. 75 FR 78883, 12/17/10. 77 FR 58006, 9/19/12. 84 FR 40241, 8/14/19.
	China Aerospace Science and Industry Corporation (CASIC) 3rd Academy's 239 Factory, a.k.a., the following two aliases: -239th Factory; <i>and</i> -Beijing Hangxing Machinery Manufacturing	For all items subject to the EAR.	See §744.3(d) of this part.	66 FR 24267, 5/14/01. 75 FR 78883, 12/17/10. 77 FR 58006,

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Corporation, Ltd.  No. 11 Hepingli East Street, Dongcheng District, Beijing 100013.			9/19/12. 84 FR 40241, 8/14/19.
	China Aerospace Science and Industry Corporation (CASIC) 3rd Academy, 31 Research Institute, a.k.a., the following two aliases: -31st Institute; <i>and</i> -Beijing Power Machinery Institute.  No.17, Yungang West Road, Fengtai District, Beijing.	For all items subject to the EAR.	See §744.3(d) of this part.	66 FR 24266, 5/14/01. 75 FR 78877, 12/17/10. 84 FR 40241, 8/14/19.
	China Aerospace Science and Industry Corporation (CASIC) 3rd Academy, 33 Research Institute, a.k.a., the following two aliases: -33rd Institute; <i>and</i> -Beijing Automation Control Equipment Institute (BACEI).  No. 1, Yungang Beili, Fengtai District, Beijing 100074.	For all items subject to the EAR.	See §744.3(d) of this part.	66 FR 24266, 5/14/01. 75 FR 78883, 12/17/10. 77 FR 58006, 9/19/12. 81 FR 64696, 9/20/16. 84 FR 40241, 8/14/19.
	China Aerospace Science and Industry Corporation (CASIC) 3rd Academy, 35 Research Institute, a.k.a, the following two aliases: -35th Institute; <i>and</i> -Huahang Institute of Radio Measurement.  No. 3 South Street, Hepingli East Road, Dongcheng, Beijing, 100013.	For all items subject to the EAR.	See §744.3(d) of this part.	66 FR 24266, 5/14/01. 75 FR 78883, 12/17/10. 77 FR 58006, 9/19/12. 81 FR 64696, 9/20/16. 84 FR 40241, 8/14/19.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>China Aerospace Science and Industry Corporation Second Academy, a.k.a., the following eight aliases, and thirteen subordinate institutions:                      -China Changfeng Mechanics and Electronics Technology Academy;                      -China Chang Feng Mechano-Electronic Engineering Academy;                      -CASIC Second Academy;                      -China Chang Feng Mechano-Electronic Engineering Company;                      -CASIC Academy of Defense Technology;                      -Second Research Academy of CASIC;                      -Changfeng Electromechanical Technology Design Institute; <i>and</i>                      -China Chang Feng Mechanics and Electronics Technology Academy.</p> <p><i>Subordinate institution</i>                      Second Design Department, a.k.a., the following two aliases:                      -Beijing Institute of Electronics Systems Engineering; <i>and</i>                      -Second Planning Department.</p> <p><i>Subordinate institution</i>                      23<sup>rd</sup> Research Institute, a.k.a., the following two aliases:                      -Beijing Institute of Radio Measurement; <i>and</i>                      -BIRM.</p> <p><i>Subordinate institution</i>                      25<sup>th</sup> Research Institute, a.k.a., the following one alias:                      -Beijing Institute of Remote Sensing Equipment.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Presumption of denial.</p>	<p>83 FR 37427, 8/1/18.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p><u>Subordinate institution</u> 201 Research Institute, a.k.a., the following one alias: -Aerospace Science and Technology Defense Technology Research and Experimental Center.</p> <p><u>Subordinate institution</u> 203<sup>rd</sup> Research Institute, a.k.a., the following two aliases: -Beijing Radio Measurement and Testing Institute; <i>and</i> -Beijing Institute of Radio Metrology and Measurement.</p> <p><u>Subordinate institution</u> 204<sup>th</sup> Research Institute, a.k.a., the following two aliases: -Beijing Institute of Computer Applications and Simulation Technology; <i>and</i> -706<sup>th</sup> Research Institute.</p> <p><u>Subordinate institution</u> 206<sup>th</sup> Research Institute, a.k.a., the following two aliases: -Beijing Institute of Mechanical Equipment; <i>and</i> -Beijing Institute of Machinery and Equipment.</p> <p><u>Subordinate institution</u> 207<sup>th</sup> Research Institute, a.k.a., the following three aliases: -Beijing Guangda Optoelectronics; -Beijing Institute of Environmental Features; <i>and</i> -Beijing Institute of Environmental Characteristics.</p> <p><u>Subordinate institution</u> 208<sup>th</sup> Research Institute, a.k.a., the following one alias: -Beijing Electronic Document Service Center.</p>			

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p><u>Subordinate institution</u> 210<sup>th</sup> Research Institute, a.k.a., the following one alias: -Xian Changfeng Electromechanical Institute.</p> <p><u>Subordinate institution</u> 283 Factory, a.k.a., the following one alias: -Beijing Xinfeng Machinery Factory.</p> <p><u>Subordinate institution</u> 284 Factory, a.k.a., the following two aliases: -Beijing Changfeng Machinery Factory; <i>and</i> -Beijing Changfeng Xinlian Project Management.</p> <p><u>Subordinate institution</u> 699 Factory, a.k.a., the following one alias: -Beijing Xinli Machinery Factory. The following addresses apply to the entity and to the thirteen subordinate institutions:</p> <p>50 Yongding Road, Haidian District, Beijing, China; <i>and</i> 51 Yongding Road, Haidian District, Beijing, China; <i>and</i> 52 Yongding Road, Haidian District, Beijing, China; <i>and</i> 58 Yongding Road, Haidian District, Beijing, China; <i>and</i> 90 Dianzi Road, Section One, Xian, China.</p>			

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>China Aerospace Science and Technology Corporation (CASC) 1st Academy 12 Research Institute, a.k.a., the following two aliases:            -Beijing Aerospace Automatic Control Institute (BICD);  <i>and</i>            -12th Institute.</p> <p>51 Yong Ding Road, Beijing; <i>and</i> No. 50 Yongding Road, Haidian District, Beijing 100854.</p>	For all items subject to the EAR.	See §744.3 of this part.	64 FR 28909, 5/28/99. 75 FR 78883, 12/17/10. 77 FR 58006, 9/19/12. 81 FR 64696, 9/20/16. 84 FR 40241, 8/14/19.
	<p>China Aerospace Science and Technology Corporation (CASC) 1st Academy 702 Research Institute, a.k.a., the following two aliases:            -702nd Institute; <i>and</i>            -Beijing Institute of Structure and Environmental Engineering (BISE).</p> <p>No. 30 Wanyuan Road, Beijing.</p>	For all items subject to the EAR.	See §744.3 of this part.	64 FR 28909, 5/28/99. 75 FR 78877, 12/17/10. 81 FR 64696, 9/20/16. 84 FR 40241, 8/14/19.
	<p>China Aerospace Science and Technology Corporation (CASC) 1st Academy First Design Department, a.k.a., the following one alias:            -1st General Design Department.</p> <p>1 South Dahongmen Road, Fengtai District, Beijing 100076.</p>	For all items subject to the EAR.	See §744.3(d) of this part.	66 FR 24266, 5/14/01. 75 FR 78883, 12/17/10. 77 FR 58006, 9/19/12. 84 FR 40241, 8/14/19.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>China Aerospace Science and Technology Corporation (CASC) 8th Academy, and the following three aliases:            -Shanghai Academy of Spaceflight Technology (SAST);            -Shanghai Institute of Space; <i>and</i>            -MOA#8 Academy.</p> <p>Shanghai Spaceflight Tower, 222 Cao Xi Road, Shanghai, 200233; <i>and</i> No. 3888 Yuanjiang Road, Minhang District, Shanghai 201109; <i>and</i> No. 2965 Dongchuan Rd Minhang District Shanghai, China.</p>	For all items subject to the EAR.	See §744.3 of this part.	64 FR 28909, 5/28/99. 75 FR 78877, 12/17/10. 81 FR 64696, 9/20/16. 84 FR 40241, 8/14/19.
	<p>China Aerospace Science and Technology Corporation (CASC) 8th Academy 811 Research Institute, and the following two aliases:            -811th Institute; <i>and</i>            -Shanghai Institute of Space Power Sources.</p> <p>388 Cang Wu Road, Shanghai; <i>and</i>            2965 Dongchuan Road, Minhang District, Shanghai 200245.</p>	For all items subject to the EAR.	See §744.3 of this part.	64 FR 28909, 5/28/99. 75 FR 78883, 12/17/10. 77 FR 58006, 9/19/12. 81 FR 64696, 9/20/16. 84 FR 40241, 8/14/19.
	<p>China Aerospace Science and Technology Corporation (CASC) 9th Academy 13 Research Institute, a.k.a., the following four aliases:            -13th Institute;            -Beijing Institute of Aerospace Control Devices (BIACD);            -230 Factory; <i>and</i>            -Beijing Aerospace Times Optical-Electronic Technology Co., Ltd.</p> <p>No.1 Fengying East Road, Haidian District, Beijing 100094.</p>	For all items subject to the EAR.	See §744.3(d) of this part.	66 FR 24265, 5/14/01. 75 FR 78877, 12/17/10. 84 FR 40241, 8/14/19.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>China Communications Construction Company Dredging Group Co. Ltd., a.k.a., the following two aliases:            -CCCC Dredging (Group); <i>and</i>            -CCCC Dredging.</p> <p>Zhongjiao Building, Block A Desheng, International Beijing, 100088 China; <i>and</i> Room 201, 1296 Xuchang Road, Yangpu District, Shanghai, China; <i>and</i> China Communications Building, Block A, Desheng International, No. 85 Deshengmenwai Street, Xicheng District, Beijing, China.</p>	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.
	<p>China Communications Construction Company Guangzhou Waterway Bureau, a.k.a., the following two aliases:            -CCCC Guangzhou Waterway Bureau; <i>and</i>            -CCCC Guangzhou Dredging Company.</p> <p>29th Floor, No. 298 Lijiao Road, Haizhu District, Guangzhou, China; <i>and</i> No. 298, Lijiao Road, Haizhu District, Guangzhou, China.</p>	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.
	<p>China Communications Construction Company Ltd., No. 85 Deshengmenwai St. Xicheng District, Beijing 100088, China.</p>	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>China Communications Construction Company Second Navigation Engineering Bureau, a.k.a., the following three aliases:            -CCCC Second Navigation Engineering Bureau;            -China Communications Second Navigation Engineering Bureau; <i>and</i>            -CCCC Second Aviation Engineering Bureau.</p> <p>11 Jinyinhu Road, Dongxihu District, Wuhan City, Hubei Province, China.</p>	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.
	<p>China Communications Construction Company Shanghai Waterway Bureau, a.k.a., the following two aliases:            -CCCC Shanghai Waterway Bureau; <i>and</i>            -CCCC Shanghai Dredging Company.</p> <p>No. 13, Zhongshan East First Road, Huangpu District, Shanghai, China.</p>	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.
	<p>China Communications Construction Company Tianjin Waterway Bureau, a.k.a., the following two aliases:            -CCCC Tianjin Waterway Bureau; <i>and</i>            -CCCC Tianjin Dredging Company.</p> <p>Building 9, Shipping Service Center, Yuejin Road, Tianjin Port Free; <i>and</i> No.41 Taierzhuang Road, Hexi District, Tianjin.</p>	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	China Electronics Technology Group Corporation, 7th Research Institute (CETC-7), a.k.a., the following one alias: -Guangzhou Institute of Communications.  No. 381, Xingang Middle Road, Haizhu District, Guangzhou, China.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>China Electronic Technology Group Corporation No. 11 Research Institute, a.k.a, the following three aliases, <i>including the named subordinate institutions</i>:</p> <ul style="list-style-type: none"> <li>-North China Research Institute of Electro-Optics (NCRIEO);</li> <li>-China North Research Institute of Electro-Optics; <i>and</i></li> <li>-CETC 11<sup>th</sup> Research Institute (CETC 11<sup>th</sup> RI).</li> </ul> <p><u>Subordinate institution</u> Beijing Laiyin Company Ltd, a.k.a., the following one alias,</p> <ul style="list-style-type: none"> <li>-Beijing North China Lai Yin Opto-Electronics Technology Company.</li> </ul> <p><u>Subordinate Institution</u> China Electronics Technology Corporation (CETC) Infrared Engineering and Technology Company, a.k.a., the following one alias:</p> <ul style="list-style-type: none"> <li>-CETC Infrared or CETC IR.</li> </ul> <p>No. 10, Jiuxianqiao North Road, Chaoyang District, Beijing, China, 100016; <i>and</i> No. 4 Jiuxianqiao Road, Chaoyang District, Beijing, China, 100015; <i>and</i> Electronic City of Zhong Guan Cun Technical Zone, Beijing, China, 100015.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 44849, 7/28/15.
	<p>China Electronics Technology Group Corporation 13th Research Institute (CETC 13), a.k.a., the following six aliases, and twelve subordinate institutions:</p> <ul style="list-style-type: none"> <li>-Hebei Semiconductor Research Institute;</li> <li>-HSRI;</li> </ul>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 37427, 8/1/18.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>-Hebei Institute of Semiconductors;</p> <p>-Hebei Semiconductor Institute; -Hebei Semiconductor; <i>and</i> -CETC Research Institute 13.</p> <p>113 Hezuo Road, Shijiazhuang, Hebei, China; <i>and</i> 21 Changsheng Street, Shijiazhuang, Hebei, China; <i>and</i> 21 Changsheng Road, Shijiazhuang, Hebei, China.</p> <p><u>Subordinate institution</u> Bowei Integrated Circuits, a.k.a., the following three aliases: -Hebei Bowei Integrated; -Hebei Bowel Technology; <i>and</i> -Shijuang Bowei. 113 Hezuo Road, Shijiazhuang, Hebei, China; <i>and</i> 21 Changsheng Street, Shijiazhuang, Hebei, China; <i>and</i> 21 Changsheng Road, Shijiazhuang, Hebei, China; <i>and</i> Shijiazhuang New and Hi-Tech Dev Zone, Hebei, China.</p> <p><u>Subordinate institution</u> Envoltek, a.k.a., the following one alias: -Hebei Envoltex Electronics. 21 Changsheng Street, Shijiazhuang, Hebei, China; <i>and</i> 21 Changsheng Road, Shijiazhuang, Hebei, China.</p> <p><u>Subordinate institution</u> Hebei Sinopack Electronics, a.k.a., the following one alias: -Hebei Sinopack Elec. 113 Hezuo Road, Shijiazhuang, Hebei, China; <i>and</i> 21</p>			

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Changsheng Street, Shijiazhuang, Hebei, China; <i>and</i> 21 Changsheng Road, Shijiazhuang, Hebei, China.</p> <p><u>Subordinate institution</u> Hebei Brightway International, 21 Changsheng Street, Shijiazhuang, Hebei, China; <i>and</i> 21 Changsheng Road, Shijiazhuang, Hebei, China.</p> <p><u>Subordinate institution</u> Hebei Medicines Health, 113 Hezuo Road, Shijiazhuang, Hebei, China.</p> <p><u>Subordinate institution</u> Hebei Poshing Electronics, a.k.a., the following three aliases: -Hebei Poshin Electronics; -Hebei Poshing Elec.; <i>and</i> -Hubei PoshingElectronics. 113 Hezuo Road, Shijiazhuang, Hebei, China; <i>and</i> 21 Changsheng Street, Shijiazhuang, Hebei, China; <i>and</i> 21 Changsheng Road, Shijiazhuang, Hebei, China.</p> <p><u>Subordinate institution</u> Hebei Puxing Electronic, 113 Hezuo Road, Shijiazhuang, Hebei, China; <i>and</i> 21 Changsheng Street, Shijiazhuang, Hebei, China; <i>and</i> 21 Changsheng Road, Shijiazhuang, Hebei, China.</p> <p><u>Subordinate institution</u> Micro Electronic Technology, a.k.a., the following three aliases: -Micro Electronic Technology Development Application</p>			

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Corp; -METDA; <i>and</i> -METDAC. 113 Hezuo Road, Shijiazhuang, Hebei, China.</p> <p><u>Subordinate institution</u> Shijiazhuang Development Zone Maiteda Microelectronics Technology Development and Application Corporation, 21 Changsheng Street, Shijiazhuang, Hebei, China; <i>and</i> 21 Changsheng Road, Shijiazhuang, Hebei, China.</p> <p><u>Subordinate institution</u> MT Microsystems, 113 Hezuo Road, Shijiazhuang, Hebei, China.</p> <p><u>Subordinate institution</u> North China Integrated Circuit Corporation, 21 Changsheng Street, Shijiazhuang, Hebei, China; <i>and</i> 21 Changsheng Road, Shijiazhuang, Hebei, China; <i>and</i> 113 Hezuo Road, Shijiazhuang, Hebei, China.</p> <p><u>Subordinate institution</u> Tonghui Electronics, a.k.a., the following one alias: -Tonghui Electronics Technology. 21 Changsheng Street, Shijiazhuang, Hebei, China; <i>and</i> 21 Changsheng Road, Shijiazhuang, Hebei, China.</p>			

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>China Electronics Technology Group Corporation 14<sup>th</sup> Research Institute (CETC 14), a.k.a., the following seven aliases, and two subordinate institutions:                      -Nanjing Research Institute of Electronics Technology;                      -NRIET;                      -Nanjing Electronics Technology Institute;                      -Ministry of Information Industry Electronics;                      -No 14 Research Institute;                      -Research Institute 14; <i>and</i>                      -CETC Research Institute 14.</p> <p><u>Subordinate institution</u>                      Nanjing SunSea Industry Corporation.</p> <p><u>Subordinate institution</u>                      Nanjing Institute of Radio Technology.</p> <p>The following addresses apply to the entity and the two subordinate institutions:</p> <p>No 1 Dinghuaimen, Nanjing, China; <i>and</i> No 8 Guorui Road, Yuhua District, Nanjing, China; <i>and</i> No 4 Guping Gang, Nanjing, China; <i>and</i> 52 Huju Road, North, Nanjing, China.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Presumption of denial.</p>	<p>83 FR 37427, 8/1/18.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>China Electronics Technology Group Corporation 29 (CETC 29) Research Institute, a.k.a., the following ten aliases:            -CETC 29th Research Institute;            -China Southwest Electronic Equipment Research Institute (SWIEE);            -29 (SIWEI Co) Institute;            -SIWI Electronics Corporation;            -Chengdu SIWI Electronics Inc.;            -Chengdu SIWEI Electronics Company;            -Chengdu 29 Institute;            -Si Wei Company 29<sup>th</sup> Institute;            -SIWI Group; <i>and</i>            -Southwest China Institute of Electronics.</p> <p>No. 496 West Yingkang Road, Chengdu, Sichuan Province 610036, China; <i>and</i>            Box #429, #1 Waixichadianziheng Street, Chengdu, Sichuan Province 610036, China; <i>and</i>            5 Cheng Wen Road, Chengdu, China 610036; <i>and</i>            No.3 Research Department, Zhongdian, China; <i>and</i>            No. 29 Institute, Waixi Chadi, Chengdu, China; <i>and</i>            No.81 BaiChao Road, XiPu Town, PiXian County, Chengdu, China; <i>and</i>            Siwei Electron Mansion, Xiejiasi, Qingyang, Chengdu, China; <i>and</i> 1 Hengjie Chadianzi Western Suburb, Chengdu, China.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 44680, 8/1/14. 80 FR 69856, 11/12/15.
	<p>China Electronics Technology Group Corporation, 30th Research Institute (CETC-30), a.k.a., the following one alias:            -Southwest Communication Research Institute.</p>	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	No. 6, Chuangyue Road, High-Tech Zone of Xiaojiahe Street, Chengdu, China.			
	<p>China Electronics Technology Group Corporation 38<sup>th</sup> Research Institute (CETC 38), a.k.a., the following seven aliases, and seven subordinate institutions:</p> <ul style="list-style-type: none"> <li>-Hefei Institute of Electronic Engineering;</li> <li>-Southwest China Research Institute of Radar Technology;</li> <li>-East China Research Institute of Electronic Engineering;</li> <li>-ECRIIE;</li> <li>-No 38 Research Institute;-Research Institute 38; <i>and</i></li> <li>-CETC Research Institute 38.</li> </ul> <p><u>Subordinate institution</u> Anhui Sun-Create Electronics.</p> <p><u>Subordinate institution</u> Anhui Bowei Chang An Electronics.</p> <p><u>Subordinate institution</u> ECU Electronic Industrial.</p> <p><u>Subordinate institution</u> Hefei ECU-TAMURA Electric.</p> <p><u>Subordinate institution</u> Anhui Bowei Guangcheng Information Technology.</p> <p><u>Subordinate institution</u> Anhui Bowei Ruida Electronics Technology.</p> <p><u>Subordinate institution</u></p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 37427, 8/1/18. 85 FR 34497, 6/5/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Brainware Terahertz.</p> <p>The following addresses apply to the entity and to the seven subordinate institutions:            199 Xiangzhang Ave, Hefei, Anhui, China; <i>and</i> 19 He Huan Lu, Hefei, China; <i>and</i> 19 Hehuan Road, Hefei, China; <i>and</i> 260 Ji Xi Road, Hefei, China; <i>and</i> 88 Pihe Road, Hefei, China; <i>and</i> Forward Road, Economics Development Zone of Luan, Luan, Anhui, China.</p>			
	<p>China Electronics Technology Group Corporation 55<sup>th</sup> Research Institute (CETC55), a.k.a., the following three aliases, and three subordinate institutions:            -Nanjing Electronic Devices Institute;            -CETC Research Institute 55; <i>and</i>            -NEDI.</p> <p>524 Zhongzhan East Road, Nanjing, Jiangsu, China; <i>and</i> 524 East Zhongshan Road, Nanjing, Jiangsu, China; <i>and</i> 523 East Zhongshang Road, Nanjing, Jiangsu, China; <i>and</i> 166 Middle Zhenghang Road, Nanjing, China; <i>and</i> 166 Zhengfang Mid Road, Nanjing, China; <i>and</i> 166 Zhengfang Mid Road, Nanjing, China; <i>and</i> Huaxia Sci and Tech Park Hi-Tech Development, Nanjing, China; <i>and</i> RM 2105 Huaxia Bldg, No 81 Zhongshan Rd, Nanjing, China; <i>and</i> 8 Xingwen Road, Economic and Tech, Nanjing, China.</p> <p><u>Subordinate institution</u>            Nanjing Guosheng Electronics            8 Xingwen Road, Economic and Tech, Nanjing, China; <i>and</i> 166 Middle Zhenghang Road, Nanjing, China; <i>and</i> 166 Zhengfang Mid Road, Nanjing, China; <i>and</i> 166</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Presumption of denial.</p>	<p>83 FR 37427, 8/1/18.            85 FR 34497, 6/5/20.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Zhengfand Mid Road, Nanjing, China; <i>and</i> 168 Zhengfand Mid Road, Nanjing, China; <i>and</i> 165 Zhangfang Mid-Road, Nanjing, China; <i>and</i> 414 South Zhong Shan Road, Nanjing, Jiangsu, China; <i>and</i></p> <p><u>Subordinate institution</u> Nanjing Guobo Electronic, 166 Zhengfang Mid Road, Nanjing, China.</p> <p><u>Subordinate institution</u> NEDITEK, a.k.a, the following three aliases: -NEDI Technology; -NTESY; <i>and</i> -Nanjing Nade Technology.</p> <p>2<sup>nd</sup> Floor, B4 Block, Jiulonghui Park, No. 19 Suyuan Avenue, Nanjing, China; <i>and</i> 524 Zhongzhan East Road, Nanjing, Jiangsu, China; <i>and</i> 524 East Zhongshan Road, Nanjing, Jiangsu, China; <i>and</i> 523 East Zhongshang Road, Nanjing, Jiangsu, China; <i>and</i> 166 Middle Zhenghang Road, Nanjing, China; <i>and</i> 166 Zhengfang Mid Road, Nanjing, China; <i>and</i> 166 Zhengfang Mid Road, Nanjing, China; <i>and</i> Huaxia Sci and Tech Park Hi-Tech Development, Nanjing, China; <i>and</i> RM 2105 Huaxia Bldg, No 81 Zhongshan Rd, Nanjing, China; <i>and</i> 8 Xingwen Road, Economic and Tech, Nanjing, China.</p>			

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>China General Nuclear Power Corporation (CGNPC), a.k.a., the following one alias: -China Guangdong Nuclear Power Corporation.</p> <p>South Building, CGN Tower, 2002 Shennan Boulevard, Futian District, Shenzhen, Guangdong Province, China; <i>and</i> 1001 Shangbuzhong Road, Shenzhen Sci &amp; Tech Building, Shenzhen, China.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	84 FR 40241, 8/14/19.
	China General Nuclear Power Group, South Building, CGN Tower, 2002 Shennan Boulevard, Futian District, Shenzhen, Guangdong Province, China.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	84 FR 40241, 8/14/19.
	<p>China Jiuyuan Trading Corporation, a.k.a., the following three aliases: -China Long Term Material Trading Company; -China Long-Standing Material Trading Company; <i>and</i> -China Jiuyuan High-Tech Equipment Company.</p> <p>64 Mianshan Road, Mianyang City, Sichuan, China; <i>and</i> No 169, West Section, Yihuan Road, Chengdu, China; <i>and</i> No. 11 Jindu Section Airport Road, Chengdu, China; <i>and</i> Rm 302 Genfang International, No. A13, Huayuan Rd, Haidian, Beijing, China; <i>and</i> 8 Huayuan Road, Haidian District Beijing; <i>and</i> 6 Huayuan Road, Haidian District Beijing; <i>and</i> 1 Fenghao East Road, Haidian District, Beijing, China.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 34497, 6/5/20.
	China National Offshore Oil Corporation Ltd., No. 25 Chaoyangmen North Street, Dongcheng District, Beijing, 100010, China.	<p>All items subjects to the EAR except for:</p> <p>-crude oil, condensates, aromatics, natural gas liquids, hydrocarbon gas liquids, natural gas plant liquids, refined</p>	Presumption of denial.	86 FR 4864, 1/14/21.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
		<p>petroleum products, liquefied natural gas, natural gas, synthetic natural gas, and compressed natural gas under the following Harmonized System (HS) codes: 271111, 2711210000, 2711210000, 2709, 2709002010, 2707, 27075000, 2710, 271019, 271112, 271113, 271114, 271119, 27111990, 271311, 271312, 271012250, 2901, 290511, 2701, 29109020, 29151310, 29155020, 29156050, 29159020, 29161210, 29280025, 29321910, 29362920, 29419030, 2909300000, 2917194500, 2922504500, 2924296000, 2925294500, 2928002500, 2933194350; <i>or</i></p> <p>-required for the continued operation of joint ventures with persons from countries in Country Group A:1 in supplement no. 1 to part 740 of the EAR not operating in the South China Sea.</p>		

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>China National Scientific Instruments and Materials (CNSIM), a.k.a. the following four aliases:            -CSIMC;            -China National Scientific Instruments and Materials Corporation;            -China Scientific Equipment Co., Ltd.; <i>and</i>            -Sinopharm Equipment.</p> <p>Building 1, No. 19, Taiyanggong Road, Chaoyang District, Beijing, 100028, China; <i>and</i> 20 Chichunlu Road, Beijing, China; <i>and</i> 12 Caixiangdong Road, Beijing, China.</p>	All items subject to the EAR. (See §744.11 of the EAR).	Case-by-case review for items necessary to detect, identify and treat infectious disease; Presumption of denial for all other items subject to the EAR.	85 FR 83420, 12/22/20.
	<p>China Nuclear Power Technology Research Institute Co. Ltd.,            47 F/A Jiangsu Building, Yitian Road, Futian District, Shenzhen, 518026, China.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	84 FR 40241, 8/14/19.
	<p>China State Shipbuilding Corporation, Limited (CSSC) 7th Research Academy, a.k.a., the following two aliases:            -China Shipbuilding Industry Group Co., Ltd. (CSIC) 7th Research Academy; <i>and</i>            -China Ship Research and Development Academy.            No. 2 Shuangquan Baojia, Chaoyang District, Beijing, China.</p>	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>China State Shipbuilding Corporation, Limited (CSSC) 12th Research Institute, a.k.a., the following two aliases:            -China Shipbuilding Industry Group Co., Ltd. (CSIC) 12th Research Institute; <i>and</i>            -Thermal Processing Technology Research Institute, a.k.a., Hot Working Technology Research Institute.</p> <p>Xicheng District, Xiping, Shaanxi Province; <i>and</i>            Mailbox No. 44, Xingping, Shaanxi Province, China.</p>	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
	<p>China State Shipbuilding Corporation, Limited (CSSC) 701st Research Institute, a.k.a., the following two aliases:            -China Shipbuilding Industry Group Co., Ltd. (CSIC) 701st Research Institute; <i>and</i>            -China Ship Design and Research Center.</p> <p>No. 268 Ziyang Road, Wuchang District, Wuhan, China.</p>	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
	<p>China State Shipbuilding Corporation, Limited (CSSC) 702nd Research Institute, a.k.a., the following two aliases:            -China Shipbuilding Industry Group Co., Ltd. (CSIC) 702nd Research Institute; <i>and</i>            -China Ship Scientific Research Center (CSSRC).</p> <p>No. 222 Shanshui East Road, Binhu District, Wuxi, Jiangsu Province, China.</p>	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>China State Shipbuilding Corporation, Limited (CSSC) 703rd Research Institute, a.k.a., the following two aliases:            -China Shipbuilding Industry Group Co., Ltd. (CSIC) 703rd Research Institute; <i>and</i>            -Harbin Marine Boiler and Turbine Research Institute.</p> <p>No. 35 Honghu Road, Daoli District, Harbin; <i>and</i> No. 108 Hongqi Avenue, Xiangfang District, Harbin, China.</p>	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
	<p>China State Shipbuilding Corporation, Limited (CSSC) 704th Research Institute, a.k.a., the following two aliases:            -China Shipbuilding Industry Group Co., Ltd. (CSIC) 704th Research Institute; <i>and</i>            -Shanghai Marine Equipment Research Institute (SMERI).</p> <p>No. 10 Hengshan Road, Xuhui District, Shanghai, China; <i>and</i> No. 160 Xinpan Road, Shanghai, China.</p>	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
	<p>China State Shipbuilding Corporation, Limited (CSSC) 705th Research Institute, a.k.a., the following two aliases:            -China Shipbuilding Industry Group Co., Ltd. (CSIC) 705th Research Institute; <i>and</i>            -Xi'an Precision Machinery Research Institute.</p> <p>No. 18, Gaoxin 1st Road, High-tech Development Zone, Xi'an, China.</p>	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	China State Shipbuilding Corporation, Limited (CSSC) 707th Research Institute, a.k.a., the following two aliases: -China Shipbuilding Industry Group Co., Ltd. (CSIC) 707th Research Institute; <i>and</i> -Tianjin Navigational Instrument Research Institute.  No. 268, Dingzigu 1st Road, Hongqiao District, Tianjin, China.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
	China State Shipbuilding Corporation, Limited (CSSC) 709th Research Institute, a.k.a., the following two aliases: -China Shipbuilding Industry Group Co., Ltd. (CSIC) 709th Research Institute; <i>and</i> -Wuhan Digital Engineering Institute.  No. 718, Luoyu Road, Hongshan District, Wuhan, China.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
	China State Shipbuilding Corporation, Limited (CSSC) 710th Research Institute, a.k.a., the following two aliases: -China Shipbuilding Industry Group Co., Ltd. (CSIC) 710th Research Institute; <i>and</i> -Yichang Testing Technology Research Institute a.k.a. Yichang Institute of Testing Technology.  No. 58 Shengli 3rd Road, Yichang, Hubei Province, China.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>China State Shipbuilding Corporation, Limited (CSSC) 711th Research Institute, a.k.a., the following two aliases:            -China Shipbuilding Industry Group Co., Ltd. (CSIC) 711th Research Institute; <i>and</i>            -Shanghai Marine Diesel Engine Research Institute.</p> <p>No. 3111 Huaning Road, Minhang District, Shanghai, China.</p>	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
	<p>China State Shipbuilding Corporation, Limited (CSSC) 712th Research Institute, a.k.a., the following two aliases:            -China Shipbuilding Industry Group Co., Ltd. (CSIC) 712th Research Institute; <i>and</i>            -Wuhan Marine Electric Propulsion Equipment Research Institute.</p> <p>Nanhu Garden City, Hongshan District, Wuhan City, Hubei Province; <i>and</i>            Nanhu Steam School Courtyard, Wuchang District, Wuhan, China.</p>	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
	<p>China State Shipbuilding Corporation, Limited (CSSC) 713th Research Institute, a.k.a., the following two aliases:            -China Shipbuilding Industry Group Co., Ltd. (CSIC) 713th Research Institute; <i>and</i>            -Zhengzhou Institute of Mechanical and Electrical Engineering.</p> <p>No. 126 Jingguang Middle Road, Zhengzhou, Henan Province, China.</p>	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	China State Shipbuilding Corporation, Limited (CSSC) 714th Research Institute, a.k.a., the following two aliases: -China Shipbuilding Industry Group Co., Ltd. (CSIC) 714th Research Institute; <i>and</i> -Ship Information Research Center.  No. 2, Shuangquan Baojia, Chaoyang District, Beijing, China.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
	China State Shipbuilding Corporation, Limited (CSSC) 715th Research Institute, a.k.a., the following two aliases: -China Shipbuilding Industry Group Co., Ltd. (CSIC) 715th Research Institute; <i>and</i> -Hangzhou Institute of Applied Acoustics.  No. 715, Pingfeng Street, Xihu District, Hangzhou, China.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
	China State Shipbuilding Corporation, Limited (CSSC) 716th Research Institute, a.k.a., the following two aliases: -China Shipbuilding Industry Group Co., Ltd. (CSIC) 716th Research Institute; <i>and</i> -Jiangsu Institute of Automation.  No. 18, Shenghu Road, Lianyungang, Jiangsu Province, China.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>China State Shipbuilding Corporation, Limited (CSSC) 717th Research Institute, a.k.a., the following three aliases:            -China Shipbuilding Industry Group Co., Ltd. (CSIC) 717th Research Institute;            -Huazhong Institute of Optoelectronics Technology; <i>and</i>            -Huazhong Photoelectric Technology Research Institute.</p> <p>No. 981, Xiongchu Street, Hongshan District, Wuhan, China.</p>	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
	<p>China State Shipbuilding Corporation, Limited (CSSC) 718th Research Institute, a.k.a., the following two aliases:            -China Shipbuilding Industry Group Co., Ltd. (CSIC) 718th Research Institute; <i>and</i>            -Handan Purification Equipment Research Institute.</p> <p>No. 17 Zhanhan Road, Handan, Hebei Province, China.</p>	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
	<p>China State Shipbuilding Corporation, Limited (CSSC) 719th Research Institute, a.k.a., the following two aliases:            -China Shipbuilding Industry Group Co., Ltd. (CSIC) 719th Research Institute; <i>and</i>            -Wuhan Second Ship Design Research Institute.</p> <p>No. 19, Yangqiaohu Avenue, Zanglong Island Development Zone, Jiangxia District, Wuhan, Hubei Province; <i>and</i>            No. 450 Zhongshan Road, Wuchang District, Wuhan, China.</p>	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	China State Shipbuilding Corporation, Limited. (CSSC) 722nd Research Institute, a.k.a., the following two aliases: -China Shipbuilding Industry Group Co., Limited. (CSIC) 722 Institute; <i>and</i> -Wuhan Ship Communication Research Institute.  No. 312 Luoyu Road, Hongshan District, Wuhan, China.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
	China State Shipbuilding Corporation, Limited (CSSC) 723rd Research Institute, a.k.a., the following two aliases: -China Shipbuilding Industry Group Co., Ltd. (CSIC) 723rd Research Institute; <i>and</i> -Yangzhou Marine Electronic Instrument Research Institute.  No. 26, Nanhexia, Guangling District, Yangzhou, Jiangsu Province, China.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
	China State Shipbuilding Corporation, Limited (CSSC) 724th Research Institute, a.k.a., the following two aliases: -China Shipbuilding Industry Group Co., Ltd. (CSIC) 724th Research Institute; <i>and</i> -Nanjing Ship Radar Research Institute.  No. 30, Changqing Street, Jiangning District, Nanjing, Jiangsu Province, China; <i>and</i> No. 346 Zhongshan North Road, Nanjing, Jiangsu Province, China.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>China State Shipbuilding Corporation, Limited (CSSC) 725th Research Institute, a.k.a., the following two aliases:            -China Shipbuilding Industry Group Co., Ltd. (CSIC) 725th Research Institute; <i>and</i>            -Luoyang Institute of Ship Materials.</p> <p>No.169, Binhe South Road, Luolong District, Luoyang, Henan Province, China.</p>	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
	<p>China State Shipbuilding Corporation, Limited (CSSC) 726th Research Institute, a.k.a., the following two aliases:            -China Shipbuilding Industry Group Co., Ltd. (CSIC) 726th Research Institute; <i>and</i>            -Shanghai Ship Electronic Equipment Research Institute.</p> <p>No. 5200 Jindu Road, Minhang District, Shanghai, China.</p>	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
	<p>China State Shipbuilding Corporation, Limited (CSSC) 760th Research Institute, a.k.a., the following three aliases:            -China Shipbuilding Industry Group Co., Ltd. (CSIC) 760th Research Institute;            -Dalian Institute of Measurement and Control Technology; <i>and</i>            -Dalian Scientific Test and Control Institute.</p> <p>No. 16 Binhai Street, Zhongshan District, Dalian, Liaoning Province, China.</p>	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	China Tech Hi Industry Import and Export Corporation, a.k.a., the following two aliases: -CTHC; <i>and</i> -Tianhang Industry Import and Export Company.  30 Haidian Road, Beijing, China; <i>and</i> No A 16 Zao Jun Miao, Haidian, Beijing, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 37427, 8/1/18.
	China Volant Industry a.k.a., the following two aliases: -Volinco; <i>and</i> -China Huateng Industry.  30 Haidian Road, Beijing, China; <i>and</i> Room 703, 7 <sup>th</sup> Floor, Building 1, No 11, Changchunqiao Road, Haidian District, Beijing, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 37427, 8/1/18.
	China Xinshidai Company, a.k.a., the following one alias: -China New Era Group.  Xinshidai Plaza, Plaza No. 7 Huayuan Rd., Beijing, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 36202, 6/26/14.
	Chinese Academy of Engineering Physics, a.k.a., the following seventeen aliases: -Ninth Academy; -Southwest Computing Center; -Southwest Institute of Applied Electronics; -Southwest Institute of Chemical Materials; -Southwest Institute of Electronic Engineering; -Southwest Institute of Environmental Testing; -Southwest Institute of Explosives and Chemical Engineering; -Southwest Institute of Fluid Physics; -Southwest Institute of General Designing and	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	62 FR 35334, 6/30/97. 66 FR 24266, 5/14/01. 75 FR 78883, 12/17/10. 76 FR 21628, 4/18/11. 76 FR 50407, 8/15/11. 77 FR 58006, 9/19/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Assembly;</p> <ul style="list-style-type: none"> <li>-Southwest Institute of Machining Technology;</li> <li>-Southwest Institute of Materials;</li> <li>-Southwest Institute of Nuclear Physics and Chemistry (a.k.a., China Academy of Engineering Physics (CAEP)’s 902 Institute);</li> <li>-Southwest Institute of Research and Applications of Special Materials Factory;</li> <li>-Southwest Institute of Structural Mechanics; (all of preceding located in or near Mianyang, Sichuan Province)</li> <li>-The High Power Laser Laboratory, Shanghai;</li> <li>-The Institute of Applied Physics and Computational Mathematics, Beijing.</li> </ul> <p>901 Institute (P.O. Box 523 Chengdu, 610003) and 64 Mianshan Road, Mianyang, Sichuan, China; and 6 Huayuan Road, Haidian District, Beijing, China; and; 1 Fenghao East Road, Haidian District, Beijing, China.</p>			<p>85 FR 34497, 6/5/20.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Chitron Electronics Company Ltd, a.k.a., the following one alias: -Chi-Chuang Electronics Company Ltd (Chitron-Shenzhen).</p> <p>2127 Sungang Rd, Huatong Bldg, 19/F, Louhu Dist, Shenzhen, China 518001; <i>and</i> 169 Fucheng Rd, Fenggu Bldg., 7/F, Mianyang, China 621000; <i>and</i> Zhi Chun Rd, No 2 Bldg of Hoajing jiayuan, Suite #804, Haidian Dist, Beijing, China 100086; <i>and</i> 40 North Chang'an Rd, Xi'an Electronics Plaza Suite #516, Xi'an, China 710061; <i>and</i> 9 Huapu Rd, Chengbei Electronics &amp; Apparatus Mall, 1/F Suite #39, Chengdu, China 610081; <i>and</i> 2 North Linping Rd Bldg 1. Suite #1706, Hongkou Dist, Shanghai, China 200086; <i>and</i> 6 Shing Yip St. Prosperity Plaza 26/F, Suite #06, Kwun Tong, Kowloon, Hong Kong.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 1701, 1/13/10. 85 FR 83769, 12/23/20.
	<p>Cho-Man Wong, Room 2608, Technology Plaza 29-35 Sha Tsui Road Tsuen Wan, Hong Kong; <i>and</i> Unit 803, Fourseas Building, 208-212 Nathan Road, Kowloon, Hong Kong; <i>and</i> Room 803, Fourseas Bldg 208-212 Nathan Rd, Kowloon, Hong Kong.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 63184, 10/12/11. 79 FR 56003, 9/18/14. 85 FR 83769, 12/23/20.
	<p>Chongqing Chuandong Shipbuilding Industry Co Ltd., Shuanghekou, Lidu Town, Fuling District, Chongqing, China, 408102.</p>	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
	<p>Chongxin Bada Technology Development Co., Ltd., No. 13 Hangfeng Road, Science City, Fengtai, Beijing, China.</p>	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Chong Zhou, Room 602, Building No. 4, Jimen East, Haidian District, Beijing, 100081.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
	CLC Holdings Limited, a.k.a., the following one alias: -CLC Xpress.  Flat 2808, 28/F, Asia Trade Centre, 79 Lei Muk Road, Kwai Chung, N.T., Hong Kong; <i>and</i> Units 801-803 and 805, Park Sun Building, No. 97-107 Wo Yi Hop Road, Kwai Chung, N.T., Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 44824, 9/4/18. 84 FR 40241, 8/14/19. 85 FR 83769, 12/23/20.
	Cloudminds (Hong Kong) Limited, 10/F Massmutual Twr 33, Lockhart Rd, Wan Chai, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 34497, 6/5/20. 85 FR 83769, 12/23/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>CloudWalk Technology, a.k.a., the following four aliases:            -Chongqing Cloudwalk Technology Co., Ltd.;            -Guangzhou Yunshang Information Technology Co., Ltd.;            -Yun Cong Information Technology Co. Ltd.; <i>and</i>            -Yun Cong Technology.</p> <p>1306 Room, No. 26, Jinlong Road, Nansha District, Guangzhou, China.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.	85 FR 34505, 6/5/20. 85 FR 44159, 7/22/20.
	<p>Consum Technologies (Group) Ltd.,            Room 408, Unit 6, Xin Qi Dian Jia Yan, 5 Chang Qiao Road, Beijing, 100089, China; <i>and</i> Room 1005, 10/F Carnarvon Plaza, 20 Carnarvon Road, TST, Kowloon, Hong Kong.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 75463 12/12/13. 85 FR 83769, 12/23/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Corad Technology Limited, a.k.a., the following one alias: -Corad Technology (China) Limited.</p> <p>Unit 1306, 13/F, Nanyang Plaza 57 Hung To Road Kwun Tong, Hong Kong; <i>and</i> Room K, 5/F, Winner Factory Building No. 55 Hung To Road Kwun Tong Kowloon, Hong Kong.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	84 FR 40241, 8/14/19. 85 FR 83769, 12/23/20.
	<p>Corezing International, a.k.a., the following five aliases: -CoreZing Electronics; -Corezing International Group Company; -Corezing International Pte Ltd; -Corezing Technology Pte Ltd; <i>and</i> -Core Zing.</p> <p>Room 1007, Block C2, Galaxy Century Bldg., CaiTian Rd., FuTian District, Shenzhen, China; <i>and</i> Room 1702, Tower B, Honesty Building, Humen, Dongguan, Guangdong, China; <i>and</i> G/F, No. 89, Fuyan Street, Kwun Tong, Hong Kong; <i>and</i> Flat 12, 9F Po Hong Kong, 2 Wang Tung Street, Kowloon Bay, Hong Kong; <i>and</i> Flat/RM B 8/F, Chong Ming Bldg., 72 Cheung Sha Wan Road KL, Hong Kong; <i>and</i> Flat/RM 2309, 23/F, Ho King COMM Center, 2-16 Fa Yuen Street, Mongkok KLN, Hong Kong (See alternate address under Singapore).</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	76 FR 67062, 10/31/11. 85 FR 83769, 12/23/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	CSSC Huangpu Wenchong Shipbuilding Co., Ltd., No. 188 Changzhou Road, Huangpu District, Guangzhou, China.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
	Dahua Technology, 807, Block A, Meike Building No. 506, Beijing South Road, New City, Urumqi, Xinjiang, China; 1199 Bin'an Road, Binjiang High-tech Zone, Hangzhou, China; and 6/F, Block A, Dacheng Erya, Huizhan Avenue, Urumqi, China; and No. 1187, Bin'an Road, Binjiang District, Hangzhou City, Zhejiang Province, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.	84 FR 54004, 10/9/19. 85 FR 44159, 7/22/20.
	Dalian Ligong Safety Equipment Company Limited, No. 26 Liaohe East Road, Double D Port, Economic and Technological Development Zone, Dalian, China 116620.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 24565, 5/1/14.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Dick Kuo, Ltd., Room 9-11, 5/F, Block B, Hoplite Industrial Centre, 3-5 Wang Tai Road, Kowloon, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 7359, 2/19/10. 85 FR 83769, 12/23/20.
	Dick Leung, GF Seapower Industrial Building 177, Hoi Bun Road, Kowloon, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 7359, 2/19/10. 85 FR 83769, 12/23/20.
	DJI, a.k.a., the following four aliases: -Shenzhen DJI Innovation Technology Co., Ltd.; -SZ DJI Technology Co., Ltd.; -Shenzhen DJI Sciences and Technologies Ltd.; <i>and</i> -Da-Jiang Innovations.  14 Floor, West Wing, Skyworth Semiconductor Design Building, No.18 Gaoxin South 4th Ave, Nanshan District, Shenzhen, China, 518057.	All items subject to the EAR. (See §744.11 of the EAR).	Case-by-case review for items necessary to detect, identify and treat infectious disease; Presumption of denial for all other items subject to the EAR.	85 FR 83420, 12/22/20.
	Dongguan Huawei Service Co., Ltd., Dongguan, Guangdong, China.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
		“standard” (see §772.1).		
	Dongguan Lvyuan Industry Investment Co., Ltd., Dongguan, Guangdong, China.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	Edward Fan, Hucun, Huafeng Town, Ningyang County, Tai’an City, Shandong Province, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 14958, 3/21/16. 84 FR 40241, 8/14/19.
	Exodus Microelectronics Company Limited, Unit 9B, Nathan Commercial Building 430-436 Nathan Road, Kowloon, Hong Kong; <i>and</i> Unit 6B, Block 1, International Centre 2-8 Kwei Tei Street, Shatin, New Territories, Hong Kong; <i>and</i> Unit 6B, Block 1, International Industrial Centre, 2-8 Kwei Tei Street, Shatin, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 1701, 1/13/10. 85 FR 83769, 12/23/20.
	Fang Yu, 16 Gaoxin 4 <sup>th</sup> Road, Xian High Tech Industrial Development Zone, Xian, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 36519, 6/28/10.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>FiberHome Technologies Group, a.k.a., the following eight aliases:            -FiberHome;            -FiberHome International Technology Co., Ltd.;            -FiberHome Networks;            -FiberHome Networks Co. Ltd.;            -FiberHome Telecommunication Technologies Co., Ltd.;            -Haohuo Xiangyun Network Technology Co., Ltd;            -Wuhan Fiberhome International; <i>and</i>            -Wuhan Institute of Posts and Telecommunications.</p> <p>No. 6, Gaoxinsilu, East Lake High-Tech Development Zone, Wuhan, Hubei Province, 430205, China; <i>and</i> 88 Youkeyuan Road, Hongshan District, Wuhan China.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.	85 FR 34505, 6/5/20. 85 FR 44159, 7/22/20.
	<p>Foang Tech Inc., a.k.a., the following one alias:            -Ofogh Electronics Co.</p> <p>52F, Shun Hing Square, Unit 1-8 Di Wang Commercial Center, Shenzhen, China; <i>and</i> Flat/RM 1701-Ricky CTR, 36 Chowg Yip Street, Kwun Tong, Hong Kong.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 40178, 6/21/16. 81 FR 40178, 6/21/16. 85 FR 83769, 12/23/20.
	<p>FOC (HK) Technology Co., Ltd.,            Room 8, 6/F, Shun On Commercial Building, 112-114 Des Voeux Road, Central, Hong Kong.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 75463 12/12/13. 85 FR 83769, 12/23/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Fortune Source Electronics Co. Ltd., Unit A, 7/F Capri Building, 130 Austin Road, KLN, Hong Kong; <i>and</i> Unit A7/F Capri Building, 130 Austin Road, KLN, Hong Kong; <i>and</i> Unit 803, Fourseas Building, 208-212 Nathan Road, Kowloon, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 56003, 9/18/14. 85 FR 83769, 12/23/20.
	Fujian Jinhua Integrated Circuit Company, Ltd., a.k.a., the following one alias: -JHICC.  Sanchuang Park, Century Avenue, Jinjiang City, Fujian Province, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 54521, 10/30/18.
	Fushun Jinly Petrochemical Carbon Co., Ltd., Room 2104, Jinhui Plaza, No. 16 Dongsi Road, Xinfu District, Fushun, Liaoning, China; <i>and</i> 113015 East of No. 2 Petroleum Factory, Dongzhou District, Fushun, Liaoning, China, 113004.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 24565, 5/1/14.
	Fuyuan Huang, No. 2A Zhonghuan South Road, Wangjing, Chaoyang District, Beijing, China, 100102; <i>and</i> Room 302 Office, Bldg 11, No. 4, Anningzhuang Rd, Beijing, China, 100085.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 44849, 7/28/15.
	Gala Wang, Room 2506, Hengchang Building, No. 288, Hing Si Road, Jinan City, Shandong, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 14958, 3/21/16.
	Giant Base Asia Limited, Room 2205, 22/F, Kowloon Building, 555 Nathan Road, Hong Kong; <i>and</i> Flat E, Block 1, 12/F, Superluck Industrial Centre, Tsuen Wan, New Territories, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 18808, 03/28/13. 80 FR 69856, 11/12/15. 85 FR 83769, 12/23/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Giovan Ltd., Suite 1505-6, Albion Plaza, 2-6 Granville Road, TsimShatSui, Kowloon, Hong Kong (See alternate address under India).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 61601, 9/7/16. 85 FR 83769, 12/23/20.
	Guangxin Shipbuilding and Heavy Industry Co., Ltd., Comprehensive Office, No. 32 Cuizhu Road, Cuiheng New District, Zhongshan City, Guangdong Province, China, 528437.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
	Guangzhou Guangyou Communications Equipment Co., Ltd., a.k.a., the following one alias: -Guangzhou Guangyou Communication Technology Co., Ltd.  No. 13 Yiyuan Road, Haizhu District, Guangzhou, China.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.
	Guangzhou Haige Communication Group Co., Ltd., a.k.a., the following three aliases: -Haige Communications; -Guangzhou Radio Factory; <i>and</i> -State-owned 750 Factory.  No. 88 Nan Yun Er Road, Guangzhou, China; <i>and</i> No. 88 Haiyun Rd, Guangzhou, China.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.
	Guangzhou Hongyu Technology Co., Ltd. (a subordinate institute of CETC-7), Building 1, No. 381, Xingang Middle Road, Haizhu District, Guangzhou, China.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.
	Guangzhou Taicheng Shipbuilding Industry Co., Ltd., Dongdao Village, Dongyong Town, Nansha District, Guangzhou.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Guangzhou Tongguang Communication Technology Co., Ltd. (a subordinate institute of CETC-7), No. 381, Xingang Middle Road, Haizhu District, Guangzhou, China.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.
	Gui'an New District Huawei Investment Co., Ltd., Guiyang, Guizhou, China.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	Guilin Changhai Development Co., Ltd., a.k.a., the following two aliases: -Changhai Machinery Factory; <i>and</i> -State-owned 722 Factory.  No. 3 Changhai Road, Guilin, China.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Hami Municipality Public Security Bureau, a.k.a., the following two aliases:            -Kumul Municipality Public Security Bureau, <i>and</i>            -Qumul Municipality Public Security Bureau.</p> <p>Huancheng Rd., Hami District, Hami City, XUAR, China.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.</p>	<p>84 FR 54004, 10/9/19.            85 FR 44159, 7/22/20.</p>
	<p>Hang Tat Electronics Enterprises Co.,            Room 2608, Technology Plaza 29-35 Sha Tsui Road            Tsuen Wan, Hong Kong.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Presumption of denial.</p>	<p>76 FR 63186, 10/12/11.            85 FR 83769, 12/23/20.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Hangzhou Hikvision Digital Technology Co., Ltd., a.k.a., the following one alias: -Hikvision.</p> <p>No. 555 Qianmo Road, Binjiang District, Hangzhou 310052, China; <i>and</i> 23rd Floor, Block A, Yingke Plaza, No. 217 Gaoxin Street, Gaoxin District, Urumqi, China; <i>and</i> 700 Dongliu Road, Binjiang District, Hanzhou, China.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.</p>	<p>84 FR 54004, 10/9/19. 85 FR 34505, 6/5/20. 85 FR 44159, 7/22/20.</p>
	<p>Hangzhou Huawei Digital Technology Co., Ltd., Hangzhou, Zhejiang, China.</p>	<p>For all items subject to the EAR, see §§ 736.2(b)(3)(vi)<sup>1</sup>, and 744.11 of the EAR, EXCEPT<sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).</p>	<p>Presumption of denial.</p>	<p>84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Hansen Technologies Limited, Unit 501, 5/F, Global Gateway, 168 Yeung HK Road, Tsuen Wan, Hong Kong; <i>and</i> 9/F, Henan Building, 19 Luard Road, Wanchai, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 75463 12/12/13. 85 FR 83769, 12/23/20.
	Harbin Chuangyue Technology Co. Ltd., Room 101, Building 221, No. 8 Campus Street, Nangang District, Harbin, Heilongjiang, China; <i>and</i> Room 0103, 40 Nursery Street, Nangang District. Harbin, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 34497, 6/5/20.
	Harbin Engineering University, No. 145 South Tongda Street, Harbin, Heilongjiang Province, China 150001.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 34497, 6/5/20.
	Harbin Institute of Technology, No. 92 Xidazhi Street, Nangang District, Harbin, Heilongjiang, China; <i>and</i> No. 92 West Dazhi Street, Nangang District, Harbin, Heilongjiang, China; <i>and</i> No. 2 West Wenhua Road, Weihai, Shandong, China; <i>and</i> Pingshan 1st Road, Shenzhen, Guangdong, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 34497, 6/5/20.
	Harbin Yun Li Da Technology and Development Co., Ltd., Building 7, No. 92 West Dazhi Street, Nangang District, Harbin, Heilongjiang, China; <i>and</i> Room 1, Building 2, No. 509 Pioneer Road, Nangang District, Harbin, Heilongjiang, China; <i>and</i> Room 1, Building 2, No. 509 Xianfeng Road, Nangang District, Harbin, Heilongjiang, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 34497, 6/5/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Hebei Far East Communication System Engineering, a.k.a., the following two aliases:            -Hebei Far East Comm.; <i>and</i>            -HBFEC.</p> <p>21 Changsheng Street, Shijiazhuang, Hebei, China; <i>and</i>            21 Changsheng Road, Shijiazhuang, Hebei, China; <i>and</i>            589 West Zhongshan Road, Shijiazhuang, Hebei, China.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 37427, 8/1/18.
	<p>Hefei Bitland Information Technology Co. Ltd., a.k.a., the following three aliases:            -Anhui Hefei Baolongda Information Technology;            -Hefei Baolongda Information Technology Co., Ltd.; <i>and</i>            -Hefei Bitland Optoelectronic Technology Co., Ltd.</p> <p>No. 4088 Jinxiu Avenue, Economic and Technological Development Zone, Hefei City, Anhui Province.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.	85 FR 44159, 7/22/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Hefei Meiling Co. Ltd., a.k.a., the following one alias: -Hefei Meiling Group Holdings Limited.</p> <p>Main Factory Building No. 2 East of Lianhua Road, South of Tangkou Road, Economic <i>and</i> Technological Development Zone, Hefei City, Anhui Province.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.</p>	<p>85 FR 44159, 7/22/20.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Hetian Haolin Hair Accessories Co. Ltd., a.k.a., the following two aliases:                      -Hotan Haolin Hair Accessories; <i>and</i>                      -Hollin Hair Accessories.</p> <p>No. 4 Yulongwan Road, Beijing Industrial Park, Luopu County, Hotan District, Xinjiang; <i>and</i> No. 4 Yulong Bay Road, Beijing Industrial Park, Lopu County, Hetian, Xinjiang, China.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.</p>	<p>85 FR 44159, 7/22/20.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Hetian Prefecture Public Security Bureau, a.k.a., the following one alias:                      -Hotan Prefecture Public Security Bureau.</p> <p>92 Beijing W. Rd., Heitan City, Hetian Prefecture, XUAR 848000, China.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.</p>	<p>84 FR 54004, 10/9/19.                      85 FR 44159, 7/22/20.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Hetian Taida Apparel Co., Ltd., a.k.a., the following one alias: -Hetian TEDA Garment.</p> <p>No. 2 Jingdong Road, Hetian City, Hetian District, Xinjiang <i>and</i> Standardized Factory of Adelaide Industrial Park, Hetian Industrial Park, Hetian City, Hetian City, Xinjiang; <i>and</i> Standardized Plant of Edates, Beijing, Hetian Industrial Park, Hetian City, Hetian Area, Xinjiang, China.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.	85 FR 44159, 7/22/20.
	<p>Higon, a.k.a., the following five aliases: -Higon Information Technology; -Haiguang Xinxi Jishu Youxian Gongsi; -THATIC; -Tianjing Haiguang Advanced Technology Investment; <i>and</i> -Tianjing Haiguang Xianjin Jishu Touzi Youxian Gongsi.</p> <p>Industrial Incubation-3-8, North 2-204, 18 Haitai West Road, Huayuan Industrial Zone, Tianjin, China.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	84 FR 29373, 6/24/19.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	HiSilicon Optoelectronics Co., Ltd., Wuhan, Hubei, China.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	HiSilicon Technologies Co., Ltd (HiSilicon), Bantian Longgang District, Shenzhen, 518129, China.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	HiSilicon Tech (Suzhou) Co., Ltd., Suzhou, Jiangsu, China.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	Hong Chun Tai, Unit 27B, Block 8, Monte Vista, 9 Sha On Street, Ma On Shan New Territories, Hong Kong; <i>and</i> Unit 7A, Nathan Commercial Building, 430-436 Nathan Road Kowloon, Hong Kong; <i>and</i> Room D, Block 1, 6/F International Industrial Centre, 2-8 Kwei Tei Street, Shatin, New Territories, Hong Kong; <i>and</i> Unit 9B, Nathan Commercial Building, 430-436 Nathan Road Kowloon, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 1701, 1/13/10. 85 FR 83769, 12/23/20.
	Hong Kong Fung Tak Enterprise, FLAT/RM A 30, 9/F Silvercorp International Tower, 707-713, Nathan Road, Mongkok, Kowloon, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 59421, 9/22/20. 85 FR 83769, 12/23/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Hua Ying Management Co. Limited, Tsim Sha Tsui, Kowloon, Hong Kong.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20. 85 FR 83769, 12/23/20.
	Huawei Cloud Computing Technology, Huawei Cloud Data Center, Xinggong Road, Qianzhong Avenue, Gui'an New District, Guizhou Province, China; <u>and</u> Huawei Cloud Data Center, Jiaotianfu Road, Jinma Avenue, Gui'an New District, Guizhou Province, China.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	85 FR 51603, 8/20/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Huawei Cloud Beijing, Beijing, China.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	85 FR 51603, 8/20/20.
	Huawei Cloud Dalian, Dalian, China.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	85 FR 51603, 8/20/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Huawei Cloud Guangzhou, Guangzhou, China.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	85 FR 51603, 8/20/20.
	Huawei Cloud Guiyang, Guiyang, China.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	85 FR 51603, 8/20/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Huawei Cloud Hong Kong, Hong Kong.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	85 FR 51603, 8/20/20. 85 FR 52901, 8/27/20. 86 FR 12531, 3/4/21
	Huawei Cloud Shanghai, Shanghai, China.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	85 FR 51603, 8/20/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Huawei Cloud Shenzhen, Shenzhen, China.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	85 FR 51603, 8/20/20.
	Huawei Device Co., Ltd., a.k.a., the following two aliases,  -Huawei Device; <i>and</i>  -Songshan Lake Southern Factory  Dongguan, Guangdong, China <i>and</i> No. 2 Xincheng Avenue, Songshan Lake Road, Dongguan City, Guangdong, China; <i>and</i> Songshan Lake Base, Guangdong, China.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Huawei Device (Dongguan) Co., Ltd., Dongguan, Guangdong, China.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	Huawei Device (Hong Kong) Co., Limited, Tsim Sha Tsui, Kowloon, Hong Kong.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20. 85 FR 83769, 12/23/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Huawei Device (Shenzhen) Co., Ltd., Shenzhen, Guangdong Shenzhen, China; <i>and</i> Building 2, Zone B, Huawei Base, Bantian, Longgang District, Shenzhen, China.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	Huawei International Co., Limited, Hong Kong.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20. 85 FR 83769, 12/23/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Huawei Machine Co., Ltd., Dongguan, Guangdong, China.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	Huawei OpenLab Suzhou, a.k.a., the following one alias, -Huawei Suzhou OpenLab.  Suzhou, China.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	85 FR 51603, 8/20/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Huawei Software Technologies Co., Ltd., Nanjing, Jiangsu, China.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	Huawei Tech. Investment Co., Limited, Hong Kong.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20. 85 FR 83769, 12/23/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Huawei Technical Service Co., Ltd., China.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	Huawei Technologies Co., Ltd., a.k.a., the following two aliases, -Shenzhen Huawei Technologies; <i>and</i> -Huawei Technology, and to include the following addresses and the following 22 affiliated entities:  Addresses for Huawei Technologies Co., Ltd.: Bantian Huawei Base, Longgang District, Shenzhen, 518129, China; <i>and</i> No. 1899 Xi Yuan Road, High-Tech West District, Chengdu, 611731; <i>and</i> C1, Wuhan Future City, No. 999 Gaoxin Ave., Wuhan, Hebei Province; <i>and</i> Banxuegang Industrial Park, Buji Longgang, Shenzhen, Guangdong, 518129, China; <i>and</i> R&D Center, No. 2222, Golden Bridge Road, Pu Dong District, Shanghai, China; <i>and</i> Zone G, Huawei Base, Bantian, Longgang District, Shenzhen, China.  Affiliated entities:  <u>Beijing Huawei Longshine Information Technology Co.,</u>	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 84 FR 43495, 8/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p><u>Ltd.</u>, a.k.a., the following one alias: -Beijing Huawei Longshine, to include the following subordinate. Q80-3-25R, 3rd Floor, No. 3, Shangdi Information Road, Haidian District, Beijing, China.</p> <p><u>Hangzhou New Longshine Information Technology Co., Ltd.</u>, Room 605, No. 21, Xinba, Xiachang District, Hangzhou, China.</p> <p><u>Hangzhou Huawei Communication Technology Co., Ltd.</u>, Building 1, No. 410, Jianghong Road, Changhe Street, Binjiang District, Hangzhou, Zhejiang, China.</p> <p><u>Hangzhou Huawei Enterprises</u>, No. 410 Jianghong Road, Building 1, Hangzhou, China.</p> <p><u>Huawei Digital Technologies (Suzhou) Co., Ltd.</u>, No. 328 XINHU STREET, Building A3, Suzhou (Huawei R&amp;D Center, Building A3, Creative Industrial Park, No. 328, Xinghu Street, Suzhou), Suzhou, Jiangsu, China.</p> <p><u>Huawei Marine Networks Co., Ltd.</u>, a.k.a., the following one alias: -Huawei Marine. Building R4, No. 2 City Avenue, Songshan Lake Science &amp; Tech Industry Park, Dongguan, 523808, and No. 62, Second Ave., 5/F-6/F, TEDA, MSD-B2 Area, Tianjin Economic and Technological Development Zone, Tianjin, 300457, China.</p> <p><u>Huawei Mobile Technology Ltd.</u>,</p>			

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Huawei Base, Building 2, District B, Shenzhen, China.</p> <p><u>Huawei Tech. Investment Co.</u>, U1 Building, No. 1899 Xiyuan Avenue, West Gaoxin District, Chengdu City, 611731, China.</p> <p><u>Huawei Technology Co., Ltd. Chengdu Research Institute</u>, No. 1899, Xiyuan Ave., Hi-Tech Western District, Chengdu, Sichuan Province, 610041, China.</p> <p><u>Huawei Technology Co., Ltd. Hangzhou Research Institute</u>, No. 410, Jianghong Rd., Building 4, Changhe St., Binjiang District, Hangzhou, Zhejiang Province, 310007, China.</p> <p><u>Huawei Technologies Co., Ltd. Beijing Research Institute</u>, No. 3, Xixi Rd., Huawei Building, ShangDi Information Industrial Base, Haidian District, Beijing, 100095, China; <u>and</u> No. 18, Muhe Rd., Building 1-4, Haidian District, Beijing, China.</p> <p><u>Huawei Technologies Co., Ltd. Material Characterization Lab</u>, Huawei Base, Bantian, Shenzhen 518129, China.</p> <p><u>Huawei Technologies Co., Ltd. Xi'an Research Institute</u>, National Development Bank Building (Zhicheng Building), No. 2, Gaoxin 1st Road, Xi'an High-tech Zone, Xi'an, China.</p> <p><u>Huawei Terminal (Shenzhen) Co., Ltd.</u></p>			

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Huawei Base, B1, Shenzhen, China.</p> <p><u>Nanchang Huawei Communication Technology</u>, No. 188 Huoju Street, F10-11, Nanchang, China.</p> <p><u>Ningbo Huawei Computer &amp; Net Co., Ltd.</u>, No. 48 Daliang Street, Ningbo, China.</p> <p><u>Shanghai Huawei Technologies Co., Ltd.</u>, R&amp;D center, No. 2222, Golden Bridge Road, Pu Dong District, Shanghai, 286305 Shanghai, China, China.</p> <p><u>Shenzhen Huawei Anjixin Electricity Co., Ltd.</u>, a.k.a., the following one alias: -Shenzhen Huawei Agisson Electric Co., Ltd. Building 2, Area B, Putian Huawei Base, Longgang District, Shenzhen, China; <i>and</i> Huawei Base, Building 2, District B, Shenzhen, China.</p> <p><u>Shenzhen Huawei New Technology Co., Ltd.</u>, Huawei Production Center, Gangtou Village, Buji Town, Longgang District, Shenzhen, China.</p> <p><u>Shenzhen Huawei Technology Service</u>, Huawei Base, Building 2, District B, Shenzhen, China.</p> <p><u>Shenzhen Huawei Technologies Software</u>, Huawei Base, Building 2, District B, Shenzhen, China.</p> <p><u>Zhejiang Huawei Communications Technology Co., Ltd.</u>, No. 360 Jiangshu Road, Building 5, Hangzhou, Zhejiang, China.</p>			
	Huawei Technologies Co. Ltd.,	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and	Presumption of denial.	84 FR 22963, 5/21/19.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Tsim Sha Tsui, Kowloon, Hong Kong.	744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).		85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20. 85 FR 83769, 12/23/20.
	Huawei Technologies Service Co., Ltd., Langfang, Hebei, China.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Huawei Training (Dongguan) Co., Ltd., Dongguan, Guangdong, China.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	Huayi Internet Information Service Co., Ltd., Shenzhen, Guangdong, China.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	Hubei Guangxing Communications Technology Co., Ltd., a.k.a., the following one alias: -State-owned 711 Factory.  No. 287 Jiangjin West Road, Jingzhou City, Hubei, China.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Huisui Zhang, Room 204, Building 25, FuRen Ming Yuan, ShengGu Bei Li, ChaoYang District, Beijing, China 100029.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
	Hui Tong Business Ltd., Huawei Base, Electrical Research Center, Shenzhen, China.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 43495, 8/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	HWA Create, 5/F, Xinshidai Building/New Era Mansion, 7 Huayuan Rd., Beijing, China; <i>and</i> No. B3 Huayuan Rd., Beijing, China, <i>and</i> Unit 1001 – 1002, 10F, Chinachem Building, 34-37 Connaught Rd., Hong Kong; <i>and</i> Unit A 5 <sup>th</sup> Floor, Cheong Commercial Building, 19-25 Jervois St, Hong Kong; <i>and</i> Unit B, 6/F, Dah Sing Life Building, 99 – 1-5 Des Voeux Rd, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 36202, 6/26/14. 85 FR 83769, 12/23/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	IFLYTEK, National Intelligent Speech High-tech Industrialization Base, No. 666, Wangjiang Road West, Hefei City, Anhui Province, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.	84 FR 54004, 10/9/19. 85 FR 44159, 7/22/20.
	Infinity Wise Technology Limited, 7/F One Kowloon, 1 Wang Yuen Street, Kowloon Bay, Kowloon, Hong Kong; <i>and</i> Room 1213 Chui King House, Choi Hung Estate, Kowloon, Hong Kong (See alternate addresses under Taiwan).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 40178, 6/21/16. 85 FR 83769, 12/23/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Intellifusion, a.k.a., the following two aliases:                      -Shenzhen Yuntian Lifei Technology Co., Ltd.                      -Yuntian Lifei.</p> <p>1<sup>st</sup> Floor, Building 17, Shenzhen Dayun Software Town, 8288 Longgang Avenue, Yuanshan District, Longgang District, Shenzhen, China.</p>	<p>For all items subject to the EAR.                      (See §744.11 of the EAR).</p>	<p>Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.</p>	<p>85 FR 34505, 6/5/20.                      85 FR 44159, 7/22/20.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>IS'Vision, a.k.a., the following six aliases:            -Chengdu Yinchen Netcom Technology Co., Ltd;            -Isvision Tech;            -Isvision Technologies Co., Ltd.;;            -Shanghai Is'vision Co.;;            -Shanghai Isvision Technologies Co., Ltd.; <i>and</i>            -Yinchen Technology.</p> <p>Building 3, No. 498, Guoshoujing Road, Pudong, Shanghai, China; <i>and</i> 4F, No. 9 Building of Pudong Software Park, 498 GuoShoujing Road, Shanghai, China.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.	85 FR 34505, 6/5/20. 85 FR 44159, 7/22/20.
	Jadeshine, R1102 B Tainyutangang Center, Dong San Bei Lu Bing 2, Chaoyang District, Beijing, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 18811, 03/28/13.
	Jadeshine Engineering (HK) Co., Room 702, Boss Commercial Centre, Ferry Street 38, Kowloon, Hong Kong; <i>and</i> G/F BLK C 255 Sai Tau Wai DD 123 Lot 1307 Yuen Long, NT, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 18808, 03/28/13. 80 FR 69856, 11/12/15. 85 FR 83769, 12/23/20.
	Jadeshine Engineering HK Co., Shanghai, China; <i>and</i> Langfang, China; <i>and</i> G/F Blk C, 255 Tau Wai, DD 123 Lot, Yuen Long, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 18811, 03/28/13. 85 FR 83769, 12/23/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Jalal Rohollahnejad, a.k.a., the following two aliases:            -Jalal Nejad; <i>and</i>            -Jia Yuntao.</p> <p>1329, Unit 2, Building 1, Xin Shangdu, Block B            Optics Valley World City Plaza            Luoyu Road, Wuhan, Hubei, China 430000.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 14796, 03/16/20.
	<p>Jason Shuai, a.k.a., the following one alias:            -Jason Shine.</p> <p>Hong Kong.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 18811, 3/28/13. 85 FR 83769, 12/23/20.
	<p>JCN (HK) Technology Co., Ltd.,            Room 8D Block A, Guanghao International Center,            Meilong Road, Longhua District, Shenzhen,            Guangdong, China; <i>and</i> Unit 1516 Block B,            Guanghao International Center, Meilong Road,            Longhua District, Shenzhen, Guangdong, China; <i>and</i>            Rm. 502, Arion Centre, 2-12 Queen's Rd West, Hong            Kong.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 34497, 6/5/20. 85 FR 83769, 12/23/20.
	<p>Jiangsu Hengxiang Science and Education Equipment            Co., Ltd., a.k.a., the following one alias:            -Jiangsu Southern Airlines Hengxiang Co., Ltd.</p> <p>Ground Floor, Building 67, No. 29 Yudao Street,            Nanjing, Jiangsu.</p>	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
	<p>Jiangsu Leidian Technology Company (JLTC),            88 Luyuan Road, Yixing Environmental Sciences Park,            Jiangsu Province, China.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 44683, 8/1/14.
	<p>Jinan Tongbaolai Oilfield Equipment Co. Ltd,            Room 2506, Hengchang Building, No. 288, Hing Si            Road, Jinan City, Shandong, China.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 14958, 3/21/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Jinping Chen, No. 92 Weijin Road, Tianjin, China 300072; and 3rd Floor, Room 316, A2 Building, Tianjin University Science Park, No. 80, 4th Avenue, Tianjin Economic Development Area (TEDA), Tianjin, China.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
	JLD Technology, Hong Kong Co., Ltd., Room 1237, Pacific Trade Centre, No. 2 Kai Hing Road, Kowloon Bay, Hong Kong; <i>and</i> Room 301-2, Hang Seng Wanchai Building, 3 <sup>rd</sup> Floor, No. 200 Hennessy Road, Wanchai, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 32441, 6/5/14. 80 FR 69856, 11/12/15. 85 FR 83769, 12/23/20.
	Joe Shih, Room 9-11, 5/F, Block B, Hoplite Industrial Centre, 3-5 Wang Tai Road, Kowloon, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 7359, 2/19/10. 85 FR 83769, 12/23/20.
	Joinus Freight Systems HK Ltd, a.k.a., the following two aliases: -JFS Global Logistics; <i>and</i> -Joinus Freight Systems Global Logistics Limited.  Unit 07-07, 25F, Tower B, Regent Centre, 63 Wo Yi Hop Road, Kwai Chung, N.T. Hong Kong <i>and</i> Units 801-803 and 805, Park Sun Building, No. 97-107 Wo Yi Hop Road, Kwai Chung, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 14958, 3/21/16. 83 FR 44824, 9/4/18. 85 FR 83769, 12/23/20.
	K Logistics (China) Limited, a.k.a., the following one alias: -K Logistics Hong Kong.  Unit A, 4/F., China Fen Hin Building, No. 5 Cheung Yue St., Kowloon, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 34497, 6/5/20. 85 FR 83769, 12/23/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Kashgar Prefecture Public Security Bureau, a.k.a., the following one alias:                      -Kashi Prefecture Public Security Bureau.</p> <p>Youmulake Xiehai'er Rd., Kashgar ("Kashi") City, XUAR 844000, China.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.</p>	<p>84 FR 54004, 10/9/19.                      85 FR 44159, 7/22/20.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Kelamayi Municipality Public Security Bureau, a.k.a, the following two aliases:                      -Karamay Municipality Public Security Bureau; <i>and</i>                      -Qaramay Municipality Public Security Bureau.</p> <p>52 Yingbin Rd., Kelamayi City, Kelamayi District, XUAR 834000, China.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.</p>	<p>84 FR 54004, 10/9/19.                      85 FR 44159, 7/22/20.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Kezilesu Kyrgyz Autonomous Prefecture Public Security Bureau, a.k.a., the following one alias: -Kizilsu Autonomous Prefecture Public Security Bureau.</p> <p>Guangming Rd., Atushi City, XUAR 845350, China.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.</p>	<p>84 FR 54004, 10/9/19. 85 FR 34505, 6/5/20. 85 FR 44159, 7/22/20.</p>
	<p>Kinglead Electronics Co., Ltd., a.k.a., the following four aliases: -Kinglead International Trading; -Kinglead International Trading Limited; -Kinglead Trading;<i>and</i> -Phonide Electronics Limited.</p> <p>15H Office Building Buji, Central Plaza, Jihua Road, Buji, Longgang, Shenzhen, China; <i>and</i> Room 1041 Pacific Trade Center, No. 2 Kai Hing Road, Kowloon Bay, Hong Kong; <i>and</i> B5-3, 29/F, Legend Tower, 7 Shing Yip Street, Kwun Tong, Kowloon, Hong Kong.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Presumption of denial.</p>	<p>79 FR 32445, 6/5/14. 85 FR 83769, 12/23/20.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Kitronix Display, Unit B1, G/F, Pioneer Building, 213 Wai Yip St., Kwun Tong, Kowloon, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 69856, 11/12/15. 85 FR 83769, 12/23/20.
	Kong Fat Electronic Trading Limited, Unit 5, 1/F, Block A, Hoplite Industrial Centre, 3-5 Wang Tai Rd., Kowloon Bay, Kowloon, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54503, 9/22/08. 85 FR 83769, 12/23/20.
	KTK Group, a.k.a., the following three aliases: -Jiangsu Jinchuang Group; -Jiangsu Jinchuang Holding Group; <i>and</i> -KTK Holding.  No. 88, Jinchuang Road, Yaoguan Town, Wujin District, Changzhou City.	For all items subject to the EAR. (See §744.11 of the EAR).	Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.	85 FR 44159, 7/22/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Kuang-Chi Group; a.k.a. the following two aliases: - Shenzhen Guangqi Group; <i>and</i> - Guangqi Science Co., Ltd. Software Building, No. 9, Gaoxinzhong Road, Nanshan District, Shenzhen, 518057, China.	All items subject to the EAR. (See §744.11 of the EAR).	Case-by-case review for items necessary to detect, identify and treat infectious disease; Presumption of denial for all other items subject to the EAR.	85 FR 83420, 12/22/20.
	Kunhai (Yanjiao) Innovation Research Institute, a.k.a., the following two aliases: - Kunhai Academy for Innovative Research and Data Technologies Co.; <i>and</i> - Kunhai Innovation Engineering Research Institute.  17 <sup>th</sup> Floor, Block A, Building 5, Zhongguancun National Defense Science and Technology Park, Haidian District, Beijing, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 34497, 6/5/20.
	Landa Ariya Electronic Co., a.k.a., the following three aliases: - Landa Ariya Electronic Co. Ltd.; - Landa Electronic; <i>and</i> - Landa Electronics.  Building B, No. 20J, Huaqiang Plaza, Shenzhen, China; <i>and</i> Huaqiang North Road, Futian District, Shenzhen, Guangdong, China. (see alternate addresses in Iran).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 59421, 9/22/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	LHI Technology (H.K.) Company Limited, Units 801-803 and 805, Park Sun Building, No. 97-107 Wo Yi Hop Road, Kwai Chung, N.T., Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 44824, 9/4/18. 84 FR 40241, 8/14/19. 85 FR 83769, 12/23/20.
	Liaoyang Carbon Co., Ltd., No. 688 Liuan Road, Liuerpu Economic Development Zone, Liaoyang City, Liaoning, China 11212.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 24565, 5/1/14.
	Lim Kow Seng, a.k.a., the following five aliases: -Alvin Stanley; -Eric Lim; -James Wong; -Mike Knight; <i>and</i> -Seng Lim Kow.  Flat/Rm 3208 32/F, Central Plaza, 18 Harbour Road, Wanchai, Hong Kong; <i>and</i> Flat/RM 2309, 23/F, Ho King COMM Center, 2-16 Fa Yuen Street, Mongkok KLN, Hong Kong (See alternate addresses under Singapore).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 67062, 10/31/11. 85 FR 83769, 12/23/20.
	Lim Yong Nam, (a.k.a. Lin Rongnan, Steven Lim and Yong Nam Lim), YuJingHuaCheng Huaqiang South Road Futian, Shenzhen, China 518033; <i>and</i> Room 2613, NanGuangJieJia Building ShenNan Road, FuTian, Shenzhen, China 518033 (See alternate addresses under Singapore).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 67062, 10/31/11.
	Longkui Qu,  Gucheng, Linhai, Zhejiang, China 317000; <i>and</i> China Jincheon Tung Cheng Jin Road, Linhai City, Zhejiang Province, #431, 317005, China.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	84 FR 21236, 5/14/19.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Longtek Company, Ltd., a.k.a., the following one alias: -Beijing Landuyt Feng Technology Co., Ltd.</p> <p>Room 1105, TianZuo International Center A, No, 12, Zhongguncun South Street, Haidan District, Beijing 100081, China.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Presumption of denial.</p>	<p>78 FR 75463, 12/12/13.</p>
	<p>Luo Jie, a.k.a., the following three aliases: -Cherry; -Ivy Luo; <i>and</i> -Jie Luo.</p> <p>Room 1007, Block C2, Galaxy Century Bldg., CaiTian Rd., FuTian District, Shenzhen, China; <i>and</i> Room 1702, Tower B, Honesty Building, Humen, Dongguan, Guangdong, China; <i>and</i> Flat/RM 1510A, 15/F Ho King COMM Ctr, 2-16 Fa Yuen Street, Mongkok KL, Hong Kong; <i>and</i> C/O Win Sino Flat 12, 9/F, PO Hong Centre, 2 Wang Tung Street, Kowloon Bay, KLN, Hong Kong; <i>and</i> Flat/Rm D, 11/F 8 Hart Avenue, 8-10 Hart Avenue, Tsim Sha Tsui KL, Hong Kong; <i>and</i> G/F, No. 89, Fuyan Street, Kwun Tong, Hong Kong; <i>and</i> Flat 12, 9F Po Hong Kong, 2 Wang Tung Street, Kowloon Bay, Hong Kong; <i>and</i> Flat/RM B 8/F, Chong Ming Bldg., 72 Cheung Sha Wan Road, KL, Hong Kong; <i>and</i> Flat/Rm 3208 32/F Central Plaza, 18 Harbour Road, Wanchai, Hong Kong.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Presumption of denial.</p>	<p>76 FR 67062, 10/31/11. 85 FR 83769, 12/23/20.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Ma Yunong, a.k.a., the following one alias: -George Ma.</p> <p>B-804 SOHO New Town, 88 Jianguo Road, Chaoyang District, Beijing, 100022, China; <i>and</i> Room 1002, LT Square, No. 500, Chengdu North Road, Shanghai, 200003, China; <i>and</i> Unit 1906-2, West Tower, Fortune Plaza, No. 114, Tiyu Dong Rd, Tianhe District, Guangzhou 510620, China.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Presumption of denial.</p>	<p>83 FR 44824, 9/4/18.</p>
	<p>Megvii Technology, 3rd Floor, Block A, Rongke Information Center, No. 2 South Road, Haidian District, Beijing, China; <i>and</i> Floor 3<sup>rd</sup> Unit A Raycom Infotech Park, No 2 Kexueyuan, Beijing, China.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.</p>	<p>84 FR 54004, 10/9/19. 85 FR 44159, 7/22/20.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Ministry of Public Security’s Institute of Forensic Science of China, a.k.a., the following two aliases:            -Forensic Identification Center of the Ministry of Public Security of the People's Republic of China; <i>and</i>            -Material Identification Center of the Ministry of Public Security of the People's Republic of China.</p> <p>No. 18 West Dongbeiwang Road, Haidian District, China; <i>and</i> Ministry of Public Security, Xicheng District, Beijing, China; <i>and</i> No. 17 Mulidi South Lane, Xicheng District, Beijing, China; <i>and</i> No. 5 Qianhai West Street, Tumushuk City, Xinjiang Uyghur Autonomous Region (Tumushuk City Public Security Bureau).</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.	85 FR 34505, 6/5/20. 85 FR 44159, 7/22/20.
	MTech Industrial Limited, 1802, No. 26 Building, TianSheng Garden, Longwangshan Road, Huzhou, Zhejiang, China.	All items subject to the EAR. (See §744.11 of the EAR).	See §744.2(d) of the EAR.	85 FR 52901, 8/27/20.
	Multi-Mart Electronics Technology Co, Ltd., 5/F Blk 37A, 3 Qiaogao Road, Nanhai, Guangdong, Foshan, China; <i>and</i> 29J King Palace Plaza, 55 King Yip Street, Kwun Tong, Kowloon, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	84 FR 21236, 5/14/19. 85 FR 83769, 12/23/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Nanchang O-Film Tech., a.k.a., the following one alias: -Nanchang Oufeiguang Technology.</p> <p>Huangjiahu Road, Nanchang Economic and Technological Development Zone, Jiangxi Province; <i>and</i> Oufeiguang Technology Park, Aviation City Avenue, Nanchang High-tech Industrial Development Zone, Jiangxi Province; <i>and</i> No. 1588, Huangjiahu West Road, Nanchang Economic and Technological Development Zone, Jiangxi Province; <i>and</i> No.369 Longtan Road, Nanchang Economic and Technological Development Zone, Jiangxi Province; <i>and</i> No. 18 Fuying Road, Nanchang Economic and Technological Development Zone, Jiangxi Province; <i>and</i> No. 68/69, Xianghe First Road, Ganjiang New District, Nanchang City, Jiangxi Province; <i>and</i> No.698 Tianxiang Avenue, Nanchang High-tech Industrial Development Zone, Jiangxi Province; <i>and</i> No. 189, Export Processing Zone, Huoju Road, Nanchang High-tech Industrial Development Zone, Jiangxi Province.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.	85 FR 44159, 7/22/20.
	Nanjing Asset Management Co., Ltd., No. 29 Yudao Street, Nanjing, Jiangsu.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Nanjing FiberHome Starrisky Communication Development Co., a.k.a., the following two aliases:                      -Nanjing Fenghuo Xingkong Communication Development Co.; <i>and</i>                      -Fiberhome Starrisky Co., Ltd.</p> <p>88 Yunlongshan Road, Jianye District, Nanjing China.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.</p>	<p>85 FR 34505, 6/5/20.                      85 FR 44159, 7/22/20.                      86 FR 12531, 3/4/21.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Nanjing Synergy Textiles Co. Ltd., a.k.a., the following two aliases:            -Nanjing Xinyi Cotton Textile Printing and Dyeing; <i>and</i>            -Nanjing Xinyi Cotton Textile.</p> <p>No. 2 Shengan Avenue, Binjiang Economic Development Zone, Jiangning, Nanjing.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.	85 FR 44159, 7/22/20.
	Nanjing University of Aeronautics and Astronautics.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
	Nanjing University of Science and Technology, No. 200 Xiaolingwei Street, Xuanwu District, Nanjing, Jiangsu; <i>and</i> No. 89 Wenlan Road, Qixia District, Nanjing, Jiangsu.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
	National Supercomputing Center Changsha (NSCC-CS), Changsha City, Hunan Province, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Case-by-case basis.	80 FR 8527, 2/18/15.
	National Supercomputing Center Guangzhou (NSCC-GZ), Sun Yat-Sen University, University City, Guangzhou, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Case-by-case basis.	80 FR 8527, 2/18/15.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	National Supercomputing Center Tianjin (NSCC-TJ), 7 <sup>th</sup> Street, Binhai New Area, Tianjin, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Case-by-case basis.	80 FR 8527, 2/18/15.
	National University of Defense Technology (NUDT), a.k.a., the following one alias: -Hunan Guofang Keji University.  Garden Road (Metro West), Changsha City, Kaifu District, Hunan Province, China; <i>and</i> 109 Deya Road, Kaifu District, Changsha City, Hunan Province, China, <i>and</i> 47 Deya Road, Kaifu District, Changsha City, Hunan Province, China, <i>and</i> 147 Deya Road, Kaifu District, Changsha City, Hunan Province, China, <i>and</i> 47 Yanwachi, Kaifu District, Changsha, Hunan, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 8527, 2/18/15. 84 FR 29373, 6/24/19.
	NEL Electronics, (a.k.a., NEL Electronics Pte Ltd), 14K Block 2 YuJingHuaCheng Huaqiang South Road FuTian, Shenzhen, China 518033; <i>and</i> Room 2613, NanGuangJieJia Building ShenNan Road, FuTian, Shenzhen, China 518033 (See alternate address under Singapore).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 67062, 10/31/11.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>NetPosa, a.k.a., the following three aliases:            -Dongfang Netpower Technology Co.;            -Dongfang Wangli Technology; <i>and</i>            -NetPosa Technologies Ltd.</p> <p>Room 408, 4<sup>th</sup> Floor, Shining Xueyuan Road, Haidian District, Beijing, China; <i>and</i> Room 3603, Wanda Plaza, No. 555 Xuanwuhu Road, Economic and Technological Development Zone, Urumqi, China; <i>and</i> 26F, BLK C, Wangjing SOHO Tower 2, #1 Futong Ave, Chaoyang District, Beijing, China.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.	85 FR 34505, 6/5/20. 85 FR 44159, 7/22/20.
	Ninehead Bird Semiconductor, RM 15, Jufu Ge, Caifu Bld, Caitian Road, Futian Qu, Shenzhen, Guangdong, 518033, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 40178, 6/21/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Ningbo Semiconductor International Corporation (NSI), No. 331-335 Anju Road, Xiaogang Street, Beilun District, Ningbo, Zhejiang; <i>and</i> 1MC07, Jiuzhou Center, No. 95, Lane 85, Cailun Road, Pudong New Area, Shanghai.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial for items uniquely required for production of semiconductors at advanced technology nodes (10 nanometers and below, including extreme ultraviolet technology); Case by case for all other items.	85 FR 83420, 12/22/20.
	North Huawei Communication Technology Co., Ltd., Beijing, China.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Northwest Institute of Nuclear Technology in the Science Research (NINTF),  Xi'an, Shanxi; <i>and</i> P.O. Box 69-12, Xi'an, Shaanxi Province 710024.	For all items subject to the EAR.	See §744.2 of this part.	64 FR 28909, 5/28/99. 75 FR 78883, 12/17/10. 77 FR 58006, 9/19/12.
	Northwestern Polytechnical University, a.k.a., the following three aliases: -Northwestern Polytechnic University; -Northwest Polytechnic University; <i>and</i> -Northwest Polytechnical University.  127 Yonyi Xilu, Xi'an 71002 Shaanxi, China; <i>and</i> Youyi Xi Lu, Xi'an, Shaanxi, China; <i>and</i> No. 1 Bianjia Cun, Xi'an; <i>and</i> West Friendship Rd. 59, Xi'an; <i>and</i> 3 10 W Apt 3, Xi'an.	For all items subject to the EAR.	Presumption of denial.	66 FR 24266, 5/14/01. 75 FR 78883, 12/17/10. 77 FR 58006, 9/19/12. 81 FR 64696, 9/20/16. 84 FR 40241, 8/14/19.
	OEM Hub Co Ltd, Rm 3208 32/F Central Plaza, 18 Harbour Road, Wanchai, Hong Kong; <i>and</i> Flat/RM 2309, 23/F, Ho King COMM Center, 2-16 Fa Yuen Street, Mongkok KLN, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 67062, 10/31/11. 85 FR 83769, 12/23/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	OnTime Electronics Technology Company, Room 609-610 6/F Boss Commercial Center, 28 Ferry Street, Jordon, Kowloon, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 36519, 6/28/10. 85 FR 83769, 12/23/20.
	Oriental Logistics Group LTD, a.k.a., the following one alias: -Oriental Air Transport Service Ltd.  Room 2114, 21/F., Shenhua Commercial, Bldg, No. 2018 Jiabin Rd, Luo Hu District, Shenzhen, China 518001 <i>and</i> ; Unit B, 10th Floor, United Overseas Plaza, No. 11, Lai Yip Street, Kwun Tong, Kowloon, Hong Kong; <i>and</i> 10/F, Union Bldg, 112 How Ming, Kwun Tong, Kowloon, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 59421, 9/22/20. 85 FR 83769, 12/23/20.
	Panda International Information Technology Company, Ltd., 7/F, B Tower, Yingwu Conference Center, No. 6. Huayuan Road, Haidian District, Beijing, China; <i>and</i> Rm 606 Block B, Beijing Agricultural Science Building, Shugang Garden Haidian Middle Rd, Beijing, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 36202, 6/26/14.
	Panda Semiconductor, Room 2, Unit A 14/F Shun on Commercial building, 112-114 Des Voeux Road, Central, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 40178, 6/21/16. 85 FR 83769, 12/23/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Peac Institute of Multiscale Science, a.k.a., the following two aliases: -Peak Multiscale Science Institute; <i>and</i> -Peak Multi-Scale Scientific Research Institute.  111, 1st Section, Northern 2nd Ring Road, Chengdu, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 34497, 6/5/20.
	Peaceful Vision (Lianyungang) Electronic Co., Ltd., a.k.a., the following two aliases: -Hangxing Electronics (Lianyungang) Co., Ltd; <i>and</i> -Peaceful Vision Co., Ltd.  No. 1 Changxing Road, Song Economic High-tech Zone, Lianyungang, Jiangsu, China; <i>and</i> No. 1 Changxing Road, Songtiao Hi-Tech Industrial Development Zone, Lianyungang, Jiangsu, China; <i>and</i> 20K, West Building, Science <i>and</i> Technology Capital, 668 Beijing East Road, Huangpu District, Shanghai, China; <i>and</i> Room 601, Unit 4, Building 5, Yufu Jiayuan, Yuquan Road, Haidian District, Beijing, China; <i>and</i> 4201A, 42/F, SEG Plaza, Shennan Middle Road, Shenzhen, China; <i>and</i> Room 813 8/F Hung Hom Commercial Center Block A 39 Ma Tau Wai Road, Hung Hom, Kowloon, Hong Kong.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20. 85 FR 83769, 12/23/20.
	Pinky Trading Co., Ltd., 338 Queen's Road, Central, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 40178, 6/21/16. 85 FR 83769, 12/23/20.
	Poly Technologies Inc., 11F Poly Plaza, 14 Dongzhimen Nandajie, Beijing China; <i>and</i> 27 Wanshoulu, Haidian district, Beijing, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 36202, 6/26/14.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>PRC Lode Technology Company, a.k.a., the following the following five aliases:            -Lode International Limited;            -Lode Technology Company;            -Beijing Lode Technology Company, Ltd.;            -Beijing Nuodian Keji Youxian Gongs; <i>and</i>            -Beijing Nuodian Technology.</p> <p>Room 8306 Kelun Building, 12A Guanghua Road, Chaoyang, Beijing 100020, China; <i>and</i> Room 801, Unit 1, Building 8 Caiman Street, Chaoyang Road, Beijing 100025, China; <i>and</i> Building 1-1, No. 67 Caiman Str., Chaoyang Road, Beijing 100123, China; <i>and</i> Room A407 Kelun Building, 12A Guanghua Road, Chaoyang, Beijing 100020, China; <i>and</i> Rm 602, 5/F, No. 106 NanHu Road, ChaoYang District, Beijing, China; <i>and</i> Suite 801, Unit 1, Building 8 Caiman Street Finance &amp; Economics Center, Chaoyang Road, Chaoyang District, Beijing; <i>and</i> Suite 306, Lianhua Building No. 159 Tianzhou Road, Xuhui District, Shanghai 200233; <i>and</i> Suite 6B3, Building 15, No. 300 Tianlin Road, Xuhui District, Shanghai 200233; <i>and</i> Suite 1901, Unit 1, Block 8, District E, Ziwei Garden City, Chang'an Technological Garden, Xi'an, 710119; <i>and</i> Suite 2002, Unit 4, Building 1 Zhongda Junyue Jinsha Phase 3 No. 15 Jinxiang Road, Qingyang District, Chengdu, 610031; Suite 1506, Building 4, Dachengxiaoshi, No. 10 Qingjiang Zhong Road, Qingyang District, Chengdu 610072; <i>and</i> Suite 904, Building A6, Shunfeng Emerald Garden, No. 168 Zhaofeng Road, Shijing, Baiyun District, Guangzhou, 510410; <i>and</i> No. 1263 Airport Road, Baiyun District, Guangzhou; <i>and</i> Suite 201, Tower A, Building 14, Qianxihe Garden Center,</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 44683, 8/1/14. 81 FR 14958, 3/21/16. 85 FR 83769, 12/23/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Nanchang, 330002; <i>and</i> Room 1019 – 1020 Nan Fung Centre, 264 – 298 Castle Peak Road, Tsuen Wan New Territories, Hong Kong; <i>and</i> Room 1522 Nan Fung Centre, 264 – 298 Castle Peak Road, Tsuen Wan New Territories, Hong Kong.			
	Qihoo 360 Technology Company, No. 6 Jiuxianqiao Rd, Building No. 2, 3/F, Chaoyang District, Beijing, China; <i>and</i> No. 188-218 Shuangbin Road Qingpu District, Shanghai 200001, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 34497, 6/5/20.
	Qing'an International Trading Group, a.k.a., the following three aliases: -Qing'an International Trading Group Company; <i>and</i> -Qing'an Company Shenzhen Station; <i>and</i> -China Qing'an International Trading Group.  No. 27 Xiaoyun Road, Chaoyang District, Beijing 100027, China; <i>and</i> Room 901, Qing An Building, No. 27, Xiaoyun Road, Chaoyang District, Beijing, China 100027, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 44683, 8/1/14.
	Ray Hui, Units 801-803 and 805, Park Sun Building, No. 97-107 Wo Yi Hop Road, Kwai Chung, N.T., Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 44824, 9/4/18. 85 FR 83769, 12/23/20.
	Reekay Technology Ltd., a.k.a., the following one alias: -Reekay Technology.  Suite 502, 5 <sup>th</sup> Floor Arion Commercial Centre, No. 2-12 Queens Road West, Sheung Wan, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 69856, 11/12/15. 85 FR 83769, 12/23/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	ROFS Microsystems, No. 92 Weijin Road, Tianjin, China 300072; <i>and</i> 3rd Floor, Room 316, A2 Building, Tianjin University Science Park, No. 80, 4th Avenue, Tianjin Economic Development Area (TEDA), Tianjin, China.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
	Roin Luo, Room 2114, 21/F., Shenhua Commercial, Bldg, No. 2018 Jiabin Rd, Luo Hu District, Shenzhen, China 518001.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 59421, 9/22/20.
	Sau Luen Chan, Unit 803, Fourseas Building, 208-212 Nathan Road, Kowloon, Hong Kong; <i>and</i> Room 803, Fourseas Bldg 208-212 Nathan Rd, Kowloon, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 56003, 9/18/14. 85 FR 83769, 12/23/20.
	Seajet Company Limited, B-804 SOHO New Town, 88 Jianguo Road, Chaoyang District, Beijing, 100022, China; <i>and</i> Room 1002, LT Square, No. 500, Chengdu North Road, Shanghai, 200003, China; <i>and</i> Unit 1906-2, West Tower, Fortune Plaza, No. 114, Tiyu Dong Rd, Tianhe District, Guangzhou 510620, China; <i>and</i> No. 2, Juhe 6 Street, Jufuyuan, Business Development Tongzhou Di, Beijing, China; <i>and</i> Room 2, A316 Haidin 9 Road, Tianjin, Port Free Trade Zone, Tianjin, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 44824, 9/4/18.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Semiconductor Manufacturing International (Beijing) Corporation, a.k.a., the following one alias: -SMIC Beijing.</p> <p>No. 18 Wen Chang Road, Beijing Economic-Technological Development Area, Beijing 100176.</p>	<p>All items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Presumption of denial for items uniquely required for production of semiconductors at advanced technology nodes (10 nanometers and below, including extreme ultraviolet technology); Case by case for all other items.</p>	<p>85 FR 83420, 12/22/20.</p>
	<p>Semiconductor Manufacturing International Corporation (SMIC), a.k.a., the following three aliases: -Semiconductor Manufacturing International (Shanghai) Corporation; -SMIC Shanghai; <i>and</i> -Semiconductor Mfg International Corp.</p> <p>No. 18 Zhang Jiang Road, Pudong New Area, Shanghai 201203.</p>	<p>All items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Presumption of denial for items uniquely required for production of semiconductors at advanced technology nodes (10 nanometers and below, including extreme ultraviolet technology); Case by case for all other items.</p>	<p>85 FR 83420, 12/22/20.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Semiconductor Manufacturing International (Shenzhen) Corporation, a.k.a., the following one alias: -SMIC Shenzhen.</p> <p>No. 18 Gaoxin Road, Export Processing Zone, Pingshan New Area, Shenzhen 518118; <i>and</i> 1st Lanzhu Avenue, Pingshan Town, Longgang District, Shenzhen, Guangdong, 518118; <i>and</i> Qier Road, Export Processing Zone, Pingshan New Area, Shenzhen.</p>	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial for items uniquely required for production of semiconductors at advanced technology nodes (10 nanometers and below, including extreme ultraviolet technology); Case by case for all other items.	85 FR 83420, 12/22/20.
	<p>Semiconductor Manufacturing International (Tianjin) Corporation, a.k.a., the following one alias: -SMIC Tianjin.</p> <p>No. 19 Xing Hua Avenue, Xiqing Economic Development Area, Tianjin 300385.</p>	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial for items uniquely required for production of semiconductors at advanced technology nodes (10 nanometers and below, including extreme ultraviolet technology); Case by case for all other items.	85 FR 83420, 12/22/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Semiconductor Manufacturing South China Corporation, a.k.a., the following four aliases:            -SMSC;            -SMIC Southern Integrated Circuit Manufacturing Co., Ltd.;            -SMIC South; <i>and</i>            -SMIC Southern.</p> <p>5th Floor, Building 3, No.18 Zhang Jiang Road, China (Shanghai) Pilot Free Trade Zone.</p>	<p>All items subject to the EAR.            (See §744.11 of the EAR).</p>	<p>Presumption of denial for items uniquely required for production of semiconductors at advanced technology nodes (10 nanometers and below, including extreme ultraviolet technology); Case by case for all other items.</p>	<p>85 FR 83420,            12/22/20.</p>
	<p>SenseNets, a.k.a., the following six aliases:            -Deep Net Vision;            -Deep Network Vision;            -Sensenets Corporation;            -Shenzhen Net Vision;            -Shenzhen Shenwang Vision Technology Co., Ltd.; <i>and</i>            -Shenzhen Vision.</p> <p>8<sup>th</sup> Floor, East Tower, Skyworth Semiconductor Design Building, No. 18 Gaoxin South 4<sup>th</sup> Road, Yuehai Street, Nanshan District, Shenzhen, China; <i>and</i> 16F, China Merchants Development Center, No. 1063, Nanhai Avenue, Nanshan District, Shenzhen, China.</p>	<p>For all items subject to the EAR.            (See §744.11 of the EAR).</p>	<p>Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.</p>	<p>85 FR 34505,            6/5/20.            85 FR 44159,            7/22/20.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Sergey Koynov, a.k.a., the following one alias: -Sergey V. Coyne.  Room 704 7/F, Landwide Commercial Building, 118-120 Austin Rd, Tsim Sha Tsui, Hong Kong (See alternate address in Russia).	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12. 85 FR 83769, 12/23/20.
	Serko Limited, Room 704 7/F, Landwide Commercial Building, 118-120 Austin Rd, Tsim Sha Tsui, Hong Kong; <i>and</i> Room 1509, Unit A, 15 <sup>th</sup> Floor, Mai Shun Industrial Building, No. 18-24 Kwai Cheong Road, New Territories, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61249, 10/9/12. 80 FR 69856, 11/12/15. 85 FR 83769, 12/23/20.
	Shaanxi Changling Electronic Technology Co., Ltd., a.k.a., the following one alias: -State-owned 782 Factory.  No.75 Qingjiang Road, Weibin District, Baoji City, Shaanxi Province, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.
	Shandong Sheenrun Optics & Electronics Co., Ltd., a.k.a., the following two aliases: -China Sheenrun Optics and Electronics Co. Ltd.; <i>and</i> -Jinan Sheenrun Electronics Company Ltd.  Room A312, Tower F1 Qilu Software Park, Hi-tech Zone, Jinan, China 250101.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 22640, 4/23/15.
	Shanghai Cable Offshore Engineering Co., Ltd., Room 910, 9th/10th Floor, No. 825 Yingkou Road, Yangpu District, Shanghai, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Shanghai Fengjin Electronic Technology Co., Ltd., Room 301-331, 3/F, Building 1, No. 400 Fangchun Road, China (Shanghai) Pilot Free Trade Zone, Shanghai, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.
	Shanghai Haisi Technology Co., Ltd., Shanghai, China.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	Shanghai HiSilicon Technologies Co., Ltd., Room 101, No. 318, Shuixiu Road, Jinze Town (Xiqi), Qingpu District, Shanghai, China.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 43495, 8/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Shanghai Mossel Trade Co., Ltd., Shanghai, China.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	Shanghai Nova Instruments Co., Ltd., a.k.a., the following four aliases: -Shanghai Weiyi Electromechanical Equipment Co.; -Shanghai Weiyi Mechanical and Electrical Equipment Co., Ltd.; -Shanghai Weiyi Measurement and Control Technology Co., Ltd.; <i>and</i> -Nova Instruments.  Rm 408 Bldg. 3 No 911-11 Hulan Rd., Boashan District, Shanghai, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 34497, 6/5/20.
	Sharon Yang, No. 96 Haining Road, Zhifu District, Yantai City, Shandong Province, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 14958, 3/21/16. 84 FR 40241, 8/14/19.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Shenzhen HiSilicon Technologies Co., Electrical Research Center, Huawei Base, Shenzhen, China.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 43495, 8/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	Shenzhen Huawei Technical Services Co., Ltd., Shenzhen, Guangdong, China.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Shenzhen Huawei Terminal Commercial Co., Ltd., Shenzhen, Guangdong, China.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	Shenzhen Huawei Training School Co., Ltd., Shenzhen, Guangdong, China.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Shenzhen Huayi Loan Small Loan Co., Ltd., Shenzhen, Guangdong, China.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	Shenzhen Iprogift Technology Co., Ltd, a.k.a., the following three aliases: -Iprogift Shenzhen Technology Co., Ltd.; -Shenzhen Iprogift Technology; <i>and</i> -Iprogift Shenzhen Technology.  New North Door 25H Shenhua Commercial Building, Jiabin Road 2018, Luohu District, Shenzhen, China, 518000; <i>and</i> Floor 2, 4 Bldg., Jinyuan Science and Technology Industry Park, Fengmen Road Bantian Town, Longgang District, Shenzhen, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 59421, 9/22/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Shenzhen Legrit Technology Co., Ltd., Shenzhen, Guangdong, China.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	Shenzhen Shunjinxin Import & Export Co. Ltd., a.k.a., the following one alias: -Shenzhen Shunjinxin IMP&Export Co. Ltd.  25H North Door Shenhua Comm. Build., Jiabin Road 2018, Luohu District, Shenzhen, China; <i>and</i> Room 2114, 21/FL Shenhua Commercial Bldg, Luohu District Shenzhen, China, 518001; <i>and</i> Room 815, 8F Zhongzhen Bld., No. 68, Luofang, South Louhu, Shenzhen, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 59421, 9/22/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Shenzhen Smartcom Business Co., Ltd., Shenzhen, Guangdong, China.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	Shi Lirong, Yuanzhong Garden Tower A, Room 26A, Futian, Shenzhen, China; <i>and</i> Xinghai Mingcheng, 2nd Floor, Shenzhen, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	82 FR 15461, 3/29/17.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Shihezi Municipality Public Security Bureau, 209 N. Fourth Rd., Shihezi City, XUAR 832000, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.	84 FR 54004, 10/9/19. 85 FR 44159, 7/22/20.
	Sichuan Dingcheng Material Trade Co., Ltd., No. 64 Mianshan Road, Mianyang City, Sichuan, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 34497, 6/5/20.
	Sichuan Haitian New Technology Group Co., Ltd., a.k.a., the following two aliases: -Haitian Group; <i>and</i> - Sichuan Haitian Hi-Tech Group.  64 Mianshan Road, Mianyang City, Sichuan, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 34497, 6/5/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Sichuan University, No. 24 South Section 1, Yihuan Road, Chengdu, China, 610065; <i>and</i> No. 29 Jiuyanqiao Wangjiang Road, Chengdu, China, 610064; <i>and</i> People’s South Road, Chengdu, China, 610041; <i>and</i> Shuangliu County, Chuanda Road, Chengdu, China, 610207.	For all items subject to the EAR.	Case-by-case basis.	77 FR 58006, 9/19/12.
	Sichuan Zhonghe Import and Export Trade Co., Ltd., Building 26, No. 169-185, West Third Section, First Ring Road, Jinniu District, Chengdu, China; <i>and</i> No 169, West Section, Yihuan Road, Chengdu, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 34497, 6/5/20.
	Signet Express Co., Ltd., Room 9-11, 5/F, Block B, Hoplite Industrial Centre, 3-5 Wang Tai Road, Kowloon, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 7359, 2/19/10. 85 FR 83769, 12/23/20.
	Sik Yin Ngai, a.k.a., the following one alias: -Spencer Ngai.  Unit 401, Harbour Ctr., Tower 2, 8 Hok Cheung Street, Hung Hom, Kowloon, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	74 FR 35799, 7/21/09. 85 FR 83769, 12/23/20.
	Sinovac Technology Limited, Rm 804 Sino Center, 582-592 Sino Center Road, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 32445, 6/5/14. 85 FR 83769, 12/23/20.
	Siu Ching Ngai, a.k.a. the following one alias: -Terry Ngai,  Unit C, 9/F Neich Tower, 128 Gloucester Road, Wanchai, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	74 FR 35799, 7/21/09. 85 FR 83769, 12/23/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>SJ Semiconductor, a.k.a., the following two aliases:            -SJ Semiconductor (Jiangyin) Corp.; <i>and</i>            -SJ Jiangyin.</p> <p>6 Dongsheng West Road, Building A8-4, Jiangyin City, Jiangsu Province 214437.</p>	<p>All items subject to the EAR.            (See §744.11 of the EAR).</p>	<p>Presumption of denial for items uniquely required for production of semiconductors at advanced technology nodes (10 nanometers and below, including extreme ultraviolet technology); Case by case for all other items.</p>	<p>85 FR 83420, 12/22/20.</p>
	<p>Sky Rise Technology Ltd., a.k.a., the following one alias:            -Sky Rise Tech.</p> <p>4-4-2301 Xinyi Jiayuan, Chongwenmen, Dongcheng, Beijing, China; <i>and</i> Room 1905, 19/F, Nam Wo Hong Bldg., 148 Wing Lok Street, Sheung Wang, Hong Kong; <i>and</i> Room 1118, 11/F, Block B1, Yau Tong Industrial City, 17 Ko Fai Road, Yau Tong, Kowloon, Hong Kong; Room 1119, 11/F, Block B, Yau Tong Industrial City, 17 Ko Fai Road, Yau Tong, Kowloon, Hong Kong.</p>	<p>For all items subject to the EAR.            (See §744.11 of the EAR).</p>	<p>Presumption of denial.</p>	<p>80 FR 69856, 11/12/15.            85 FR 83769, 12/23/20.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Skyeye Laser Technology Limited, a.k.a., the following one alias:            -Mianyang Tianyan Laser Technology,</p> <p>237 Chuangye Road Zhongduan, Mianyang, Sichuan, China.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Presumption of denial.</p>	<p>85 FR 34497, 6/5/20.</p>
	<p>Skylinks FZC, a.k.a., the following two aliases:            -Skylinks; <i>and</i>            -Skylinks Satellite Comm.</p> <p>RM 1905, 19/F, Nam Wo Hong Bldg., 148 Wing Lok Street, Sheung Wang, Hong Kong (See alternate addresses under U.A.E.).</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Presumption of denial.</p>	<p>81 FR 14958, 3/21/16.            85 FR 83769, 12/23/20.</p>
	<p>Smartcom (Hong Kong) Co., Limited, Sheung Wan, Hong Kong.</p>	<p>For all items subject to the EAR, see §§ 736.2(b)(3)(vi)<sup>1</sup>, and 744.11 of the EAR, EXCEPT<sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).</p>	<p>Presumption of denial.</p>	<p>84 FR 22963, 5/21/19.            85 FR 29853, 5/19/20.            85 FR 36720, 6/18/20.            85 FR 51603, 8/20/20.            85 FR 83769, 12/23/20.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	SMIC Holdings Limited, Building 1, No. 1059 Dangui Road, China (Shanghai) Pilot Free Trade Zone, Shanghai.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial for items uniquely required for production of semiconductors at advanced technology nodes (10 nanometers and below, including extreme ultraviolet technology); Case by case for all other items.	85 FR 83420, 12/22/20.
	SMIC Hong Kong International Company Limited, a.k.a., the following one alias: -SMIC Hong Kong.  Suite 3003, 30th Floor, No. 9 Queen's Road Central Hong Kong.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial for items uniquely required for production of semiconductors at advanced technology nodes (10 nanometer and below, including extreme ultraviolet technology). Case by case for all other items.	85 FR 83420, 12/22/20. 85 FR 83769, 12/23/20. 86 FR 12531, 3/4/21.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>SMIC Northern Integrated Circuit Manufacturing (Beijing) Co., Ltd., a.k.a., the following two aliases:            -Semiconductor Manufacturing North China (Beijing) Corporation; <i>and</i>            -SMIC North.</p> <p>Building 9, No. 18 Wenchang Avenue, Beijing Economic and Technological Development Zone, Beijing.</p>	<p>All items subject to the EAR.            (See §744.11 of the EAR).</p>	<p>Presumption of denial for items uniquely required for production of semiconductors at advanced technology nodes (10 nanometers and below, including extreme ultraviolet technology); Case by case for all other items.</p>	<p>85 FR 83420, 12/22/20.</p>
	<p>SMIC Semiconductor Manufacturing (Shanghai) Co., Ltd., a.k.a., the following one alias:            -Suzhou Design Center.</p> <p>Room 602, Building 1, No.158 Suya Road, Suzhou Industrial Park.</p>	<p>All items subject to the EAR.            (See §744.11 of the EAR).</p>	<p>Presumption of denial for items uniquely required for production of semiconductors at advanced technology nodes (10 nanometers and below, including extreme ultraviolet technology); Case by case for all other items.</p>	<p>85 FR 83420, 12/22/20.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Southwest Research Institute of Electronics Technology, a.k.a., the following three aliases: -10th Research Institute of China Electronic Technology Group Corp (CETC); -CETC 10th Research Institute; <i>and</i> -Southwest Institute of Electronic Technology (SWIET);  No. 6 Yong Xin Street, Chengdu; <i>and</i> No. 90 Babao Street, Chengdu; <i>and</i> 48 Chadianzi Street East, Jinniu District, Chengdu, 610036.	For all items subject to the EAR.	See §744.3(d) of this part.	66 FR 24267, 5/14/01. 75 FR 78883, 12/17/10. 77 FR 58006, 9/19/12. 81 FR 64696, 9/20/16.
	Su Bin, a.k.a., the following two aliases: -Stephen Subin; <i>and</i> -Steve Su.  Room 8306 Kelun Building, 12A Guanghua Road, Chaoyang, Beijing 100020, China; <i>and</i> Room 801, Unit 1, Building 8 Caiman Street, Chaoyang Road, Beijing 100025, China; <i>and</i> Building 1-1, No. 67 Caiman Str., Chaoyang Road, Beijing 100123, China; <i>and</i> Room A407 Kelun Building, 12A Guanghua Road, Chaoyang, Beijing 100020, China; <i>and</i> Rm 602, 5/F, No. 106 NanHu road, ChaoYang District, Beijing, China; <i>and</i> Rm 1019 – 1020 Nan Fung Centre, 264 – 298 Castle Peak Road, Tsuen Wan New Territories, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 44683, 8/1/14. 85 FR 83769, 12/23/20. 85 FR 12531, 3/4/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Sugon, a.k.a., the following nine aliases:            -Dawning;            -Dawning Information Industry;            -Sugon Information Industry;            -Shuguang;            -Shuguang Information Industry;            -Zhongke Dawn;            -Zhongke Shuguang;            -Dawning Company; <i>and</i>            -Tianjin Shuguang Computer Industry.</p> <p>Sugon Building, No. 36 Zhongguancun Software Park, No. 8 Dongbeiwang West Road, Haidian District, Beijing; <i>and</i> No. 15, Haitai Huake Street, Huayuan Industrial Zone, Tianjin; <i>and</i> Sugon Science and Technology Park, No. 64 Shuimo West Street, Haidian District, Beijing, China.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	84 FR 29373, 6/24/19.
	<p>Suki Zhan,            Room 2114, 21/FL Shenhua Commercial Bldg, Luohu District Shenzhen, China, 518001; <i>and</i> Floor 2, 4 Bld., Jinyuan Science and Technology Industry Park, Fengman Road Bantian Town, Longgang District, Shenzhen, China.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 59421, 9/22/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Suzhou Huawei Investment Co., Ltd., Suzhou, Jiangsu, China.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	Suzhou Nuclear Power Research Institute Co. Ltd., 1788 Xihuan Road, Suzhou, 215000, China.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	84 FR 40241, 8/14/19.
	Synergy Express Ltd., Room 1237, Pacific Trade Centre, No. 2 Kai Hing Road, Kowloon Bay, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 32445, 6/5/14. 85 FR 83769, 12/23/20.
	Sysdynamic Limited, Unit 716A, 7/F Enterprise Place (Building 9), No. 5 Science Park West Avenue, Hong Kong Science Park, Shatin, New Territories, Hong Kong; <i>and</i> Unit 401, Harbour Ctr., Tower 2, 8 Hok Cheung Street Hung Hom, Kowloon, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	74 FR 35799, 7/21/09. 85 FR 83769, 12/23/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Tacheng Prefecture Public Security Bureau, Tuanjie Rd. Tacheng City, XUAR 834700, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.	84 FR 54004, 10/9/19. 85 FR 44159, 7/22/20.
	Taihe Electric (Hong Kong) Limited, Room No. 2002, 20th Floor, Building B, Jinsha Winera Plaza, No. 1, Shujin Road, Qingyang District, Chengdu, Sichuan, 610091, P.R. China; <i>and</i> MOWA 2188, Rm. 1007, 10/F., Ho King Ctr., No. 2-16 Fa Yuen Street, Mongkok, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	See §744.2(d) of the EAR.	85 FR 52901, 8/27/20. 85 FR 83769, 12/23/20.
	Taizhou CBM-Future New Material Science and Technology Co., Ltd., a.k.a., the following one alias: -CBM Future.  China Jincheon Tung Cheng Jin Road, Linhai City, Zhejiang Province #431, 317005, China.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	84 FR 21236, 5/14/19.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Tam Shue Ngai, Unit C, 9/F Neich Tower, 128 Gloucester Road, Wanchai, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	74 FR 35799, 7/21/09. 85 FR 83769, 12/23/20.
	Tam Wai Tak, a.k.a., the following one alias: -Thomsom Tam.  Room 609-610 6/F, Boss Commercial Center, 28 Ferry Street, Jordon, Kowloon, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 36519, 6/28/10. 85 FR 83769, 12/23/20.
	TanWei, a.k.a., the following one alias: -Terry Tan.  No. 288, Fuhai Road, Fushan District, Yantai City, Shandong Province, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 14958, 3/21/16. 84 FR 40241, 8/14/19.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Tanyuan Technology Co. Ltd., a.k.a., the following five aliases:</p> <ul style="list-style-type: none"> <li>-Carbon Yuan Technology;</li> <li>-Changzhou Carbon Yuan Technology Development;</li> <li>-Carbon Element Technology</li> <li>-Jiangsu Carbon Element Technology; <i>and</i></li> <li>-Tanyuan Technology Development.</li> </ul> <p>No. 7 Lanxiang Road, Wujin Economic Development Zone, Jiangsu.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.	85 FR 44159, 7/22/20.
	Technopole Ltd., Suite 1505-6, Albion Plaza, 2-6 Granville Road, TsimShatSui, Kowloon, Hong Kong (See alternate address under India).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 61601, 9/7/16. 85 FR 83769, 12/23/20.
	Telixin Electronics Technology Co., Ltd., Building 1, Jianxiang Garden, No., 209 North Fourth Ring Middle Road, Haidian, Beijing, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Tenco Technology Company Ltd., a.k.a., the following three aliases:  -Tenco International Co., Ltd.;  -Shenzhen Tenco Technology Co., Ltd.; <i>and</i>  -Shenzhen Shengfaweiye Electronic Co., Ltd.</p> <p>Rm. 2709, Block A, Jiahe Huaqiang Building, Shennan Middle Rd., F Shenzhen, Guangdong 518007, China; <i>and</i> Room 2709, Block A, Jiahe Building, Shennan Mid Road, Futian District, Shenzhen, 518000, China; <i>and</i> Room 311 3F Genplas Industrial Building, 56 Hoi Yuen Road, Kwun Kowloon, Hong Kong; <i>and</i> Room 15, 6F Corporation Square, 8 Lam Lok Street, Kowloon Bay, Hong Kong.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	84 FR 21236, 5/14/19. 85 FR 83769, 12/23/20.
	<p>Tenfine Ltd., a.k.a., the following two aliases:  -Beijing Beihang Assets Management Co. Ltd.; <i>and</i>  -Tenfine Limited Company.</p> <p>No 37 Xue Yuan Lu, Haidian, Beijing, China; <i>and</i> 37 Xue Yuan Road, Beijing, China; <i>and</i> Room 401, 4F Shining Tower, 35 Xue Yuan Lu, Haidian District, Beijing, China; <i>and</i> Room 402b, 4F Shining Tower, 35 Xue Yuan Lu, Haidian, Beijing, China; <i>and</i> Xueyan Road, Haidain District, Beijing City, 35<sup>th</sup> Ning Building, Room 402a.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 75463 12/12/13.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Tex-Co Logistics Ltd., a.k.a., the following one alias: -Tex-Co Hongxin Logistics Limited.</p> <p>GF Seapower Industrial Building 177, Hoi Bun Road, Kowloon, Hong Kong, <i>and</i> Room 2202, 22F, Causeway Bay Plaza 1, 489 Hennessey Road, Causeway Bay, Hong Kong, <i>and</i> Room B03, 6/F, Cheong Wah Factory Building, 39-41 Sheung Heung Road, Tokwawan, Kowloon, Hong Kong; <i>and</i> Room G, 6/F Winner Building, 36 Man Yue Street, Hung Hom, Kowloon.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 7358, 2/19/10. 80 FR 69856, 11/12/15. 85 FR 83769, 12/23/20.
	Tianjin 764 Avionics Technology Co., Ltd., Room 1002-2, No. 88 Haibin 8th Road, Tianjin Pilot Free Trade Zone (Tianjin Port Free Trade Zone), China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.
	Tianjin 764 Communication and Navigation Technology Co., Ltd., Room 401, Door 1, Block F, No. 6 Erwei Road, Huayuan Industrial Zone, Tianjin, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.
	<p>Tianjin Broadcasting Equipment Co., Ltd., a.k.a., the following two aliases: -Tianjin Communications and Guidance Technology Co., Ltd.; <i>and</i> -State-owned 764 Factory.</p> <p>No. 882 Dagu South Road, Hexi District, Tianjin.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.
	Tianjin Micro Nano Manufacturing (MNMT), 3rd Floor, Room 316, A2 Building, Tianjin University Science Park, No. 80, 4th Avenue, Tianjin Economic Development Area (TEDA), Tianjin, China.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Tianjin University, No. 92 Weijin Road, Tianjin, China 300072.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
	TiMi Technologies Co., Ltd., a.k.a., the following two aliases: -TiMi Technology Co. Ltd.; <i>and</i> -TiMi Tech.  F/10, A-Tower, Nongke Building, 11/Shu Guang Hua Yuan Zhong Lu, Haidian District, Beijing, China, 100097; <i>and</i> Nanhai Avenue, Nanshan District, 518054, Shenzhen, China; <i>and</i> Room 1119, 11/F, Block B, Yau Tong Industrial City, 17 Ko Fai Road, Yau Tong, Kowloon, Hong Kong; <i>and</i> Room 1118, 11/F, Block B1, Yau Tong Industrial City, 17 Ko Fai Road, Yau Tong, Kowloon, Hong Kong; <i>and</i> Unit A, G/F, Pioneer Building, 213 Wai Yip St., Kwun Tong, Kowloon, Hong Kong; <i>and</i> Room 1905, 19/F, Nam Wo Hong Bldg., 148 Wing Lok Street, Sheung Wang, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 69856, 11/12/15. 85 FR 83769, 12/23/20.
	Tongfang NucTech Technology Ltd., a.k.a. the following alias: -NucTech.  Second Floor, Building A, Tongfang Skyscraper, Shuangqing Road, Haidian District, Beijing, China	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
	Toptics, Inc., Chuangye Building 7/1F, 1197 Bin'An Road, Binjiang, Hangzhou, Zhejiang 310052, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 36519, 6/28/10.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Tumushuke Municipal Public Security Bureau, a.k.a., the following one alias: -Tumxuk Municipal Public Security Bureau.</p> <p>Qian Hai West Rd., Tumushuke City, XUAR S21866, China.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.</p>	<p>84 FR 54004, 10/9/19. 85 FR 44159, 7/22/20.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Turfan Municipality Public Security Bureau, a.k.a., the following one alias: -Turpan Municipality Public Security Bureau.</p> <p>2447 Gaochang N. Rd., Turfan City, Gaocheng District, XUAR 838000, China.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.	84 FR 54004, 10/9/19. 85 FR 44159, 7/22/20.
	<p>University of Electronic Science and Technology of China,</p> <p>No. 4, 2nd Section, North Jianshe Road, Chengdu, 610054.</p>	For all items subject to the EAR.	Case-by-case basis.	77 FR 58006, 9/19/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Urumqi Municipal Public Security Bureau, 339 Hebei East Rd., Urumqi XUAR, China <i>and</i> New China North Road, XUAR, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.	84 FR 54004, 10/9/19. 85 FR 44159, 7/22/20.
	Victory Wave Holdings Limited, Unit 2401 A, Park-In Commercial Centre, 56 Dundas Street, Hong Kong; <i>and</i> Unit 2401A, 24/F Park-In Commercial Centre, 56 Dundas Street, Mongkok, Kowloon, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 1701, 1/13/10. 85 FR 83769, 12/23/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Wang Wei, a.k.a., the following one alias: -Jack Wang.</p> <p>4-4-2301 Xinyi Jiayuan, Chongwenmen, Dongcheng, Beijing, China; <i>and</i> F/10, A-Tower, Nongke Building, 11/Shu Guang Hua Yuan Zhong Lu, Haidian District, Beijing, China, 100097; <i>and</i> Room 1905, 19/F, Nam Wo Hong Bldg., 148 Wing Lok Street, Sheung Wang, Hong Kong; <i>and</i> Room 1118, 11/F, Block B, Yau Tong Industrial City, 17 Ko Fai Road, Yau Tong, Kowloon, Hong Kong; <i>and</i> Room 1119, 11/F, Block B, Yau Tong Industrial City, 17 Ko Fai Road, Yau Tong, Kowloon, Hong Kong.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 69856, 11/12/15. 85 FR 83769, 12/23/20.
	Wei Pang, No. 92 Weijin Road, Tianjin, China 300072; <i>and</i> 3rd Floor, Room 316, A2 Building, Tianjin University Science Park, No. 80, 4th Avenue, Tianjin Economic Development Area (TEDA), Tianjin, China.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
	Well Smart (HK) Technology, Room 604, Kalok Building, 720 Nathan Road, Kowloon, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 40178, 6/21/16. 85 FR 83769, 12/23/20.
	Wise Smart (HK) Electronics Limited, Room 1213, Chui King House, Choi Hung Estate, Kowloon, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 40178, 6/21/16. 85 FR 83769, 12/23/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Wong Wai Chung, a.k.a., the following one alias: -David Wong.</p> <p>Unit 27B, Block 8, Monte Vista, 9 Sha On Street, Ma On Shan, New Territories, Hong Kong; <i>and</i> Unit 7A, Nathan Commercial Building 430-436 Nathan Road, Kowloon, Hong Kong; <i>and</i> Room D, Block 1, 6/F International Industrial Centre, 2-8 Kwei Tei Street, Shatin, New Territories, Hong Kong.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 1701, 1/13/10. 85 FR 83769, 12/23/20.
	<p>Wong Yung Fai, a.k.a., the following one alias: -Tonny Wong.</p> <p>Unit 27B, Block 8, Monte Vista, 9 Sha On Street, Ma On Shan, New Territories, Hong Kong; <i>and</i> Unit 1006, 10/F Carnarvon Plaza, 20 Carnarvon Road, TST, Kowloon, Hong Kong; <i>and</i> Unit 7A, Nathan Commercial Building, 430-436 Nathan Road, Kowloon, Hong Kong; <i>and</i> Room D, Block 1, 6/F International Industrial Centre, 2-8 Kwei Tei Street, Shatin, New Territories, Hong Kong; <i>and</i> Unit 9B, Nathan Commercial Building 430-436 Nathan Road, Kowloon, Hong Kong; <i>and</i> Unit 2401A, 24/F Park-In Commercial Centre 56 Dundas Street, Mongkok, Kowloon, Hong Kong.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 1701, 1/13/10. 85 FR 83769, 12/23/20.
	Wong Yung Fai, a.k.a., Tonny Wong, Unit 12B, Block 11, East Pacific Garden, Xiang Lin Road, Futian District, Shenzhen, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial	75 FR 1701, 1/13/10.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Wuhan Huawei Investment Co., Ltd., Wuhan, Hubei, China.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	Wuhan IRCEN Technology, 1329, Unit 2, Building 1, Xin Shangdu, Block B Optics Valley World City Plaza Luoyu Road, Wuhan, Hubei, China 430000.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 14796, 03/16/20.
	Wuhan Mailite Communication Co., Ltd., a.k.a., the following three aliases: -Mailite Communications Co., Ltd.; -Wuhan Melite Communication Co. Ltd.; <i>and</i> -Wuhan Melit Communication Co. Ltd.  No. 999 Gaoxin Avenue, Wuhan, China; <i>and</i> No. 312 Luoyu Road, Hongshan District, Wuhan, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Wulanchabu Huawei Cloud Computing Technology, a.k.a., the following one alias,</p> <p>Ulan Qab Huawei Cloud Computing Technology.</p> <p>Huawei Cloud Data Center at the Intersection of Manda Road and Jingqi Road, Jining District, Wulanchabu City, Inner Mongolia Autonomous Region, China.</p>	<p>For all items subject to the EAR, see §§ 736.2(b)(3)(vi)<sup>1</sup>, and 744.11 of the EAR, EXCEPT<sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).</p>	<p>Presumption of denial.</p>	<p>85 FR 51603, 8/20/20.</p>
	<p>Wujiaqu Municipality Public Security Bureau, 676 Changan W. Rd., Wujiaqu City, XUAR 831300, China.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.</p>	<p>84 FR 54004, 10/9/19. 85 FR 44159, 7/22/20.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Wuxi Jiangnan Institute of Computing Technology, a.k.a., the following two aliases: -Jiangnan Institute of Computing Technology; <i>and</i> -JICT.</p> <p>No. 699, Shanshui East Road, Binhu District, Wuxi City, China, <i>and</i> No. 188, Shanshui East Road, Binhu District, Wuxi City, China.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	84 FR 29373, 6/24/19.
	Xi'an Huawei Technologies Co., Ltd., Xi'an, Shaanxi, China.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	<p>Xi'an Overland Science and Technology Co., Ltd., a.k.a., the following one alias: -Xi'an Wolan Science and Technology Co., Ltd.</p> <p>No. 127 Youyi Xi Road, Xi'an, China; <i>and</i> No 17 Laodong South Rd, Xi'an, China; <i>and</i> Room 1-202, No. 18 Science and Technology Road, High-tech Zone, Xi'an, China; <i>and</i> Room 1-202, Keji Wu Rd, Gaoxin District, Xi'an, China.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Xi'an Research Institute of Navigation Technology, a.k.a., the following two aliases: -20th Research Institute of China Electronic Technology Group Corp (CETC); <i>and</i> -CETC 20th Research Institute.  1 Baisha Rd., Xi'an, Shaanxi.	For all items subject to the EAR.	See §744.3(d) of this part.	66 FR 24267, 5/14/01. 75 FR 78883, 12/17/10. 77 FR 58006, 9/19/12. 81 FR 64696, 9/20/16.
	Xi'an Ruixin Investment Co., Ltd., Xi'an, Shaanxi, China.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	Xi'an Xiangyu Aviation Technology Group, a.k.a., Xi'an Xiangyu Aviation Technology Company, 16 Gaoxin 4 <sup>th</sup> Road, Xian High Tech Industrial Development Zone, Xian, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 36516, 6/28/10.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Xian Semi Electronic Co., Ltd., a.k.a., the following three aliases:            -Semi Electronics Co.;            -Semi Electronics International Co. Limited; <i>and</i>            -Exodus Microelectronics Co., Ltd.</p> <p>Room 24F, Duhui 100 Building Block B, ZhongHang Road, Futian District, Shenzhen City Guangdong Province, China; Room 1810 Lang Chen Building, No. 13 Gaoxin Road, High Technology Development Zone, Xian, China; Room 24F-27E Duhui B, Zhonghang Road, Futian District, Shenzhen City, China; <i>and</i> Room 1802 Xigema Building No. 25, Gaoxin Road, High-Tech Development Zone, Xian, China; <i>and</i> CAMDY, F1, 6/F BR3 Lanzhou Ind., No. 20-30 Jiangyuan, Yantian, Hong Kong; <i>and</i> Room 611 6/F Ricky CTR 36 Chong Yip St., Kwun Tong Kowloon, Hong Kong.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 71869, 11/21/11. 85 FR 83769, 12/23/20.
	<p>Xianfa Lin, a.k.a., the following one alias:            -Alpha Lam.</p> <p>15H Office Building, Buji Central Plaza, Jihua Road, Buji Longgang, Shenzhen, China.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 32445, 6/5/14. 82 FR 24245 5/26/17. 85 FR 83769, 12/23/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Xiamen Meiya Pico Information Co. Ltd., No. 131, Unit 1, Building 1, Tuman Road Construction Company, Kashi City, Xinjiang; <i>and</i> Room 1504, Block B, Sunshine 100 Commercial Complex 333, Qiantangjiang Road, Urumqi, Xinjiang, China; <i>and</i> Meiya Pico Building,12,Guanri Road,2nd Phase of Xiamen Software Park, Xiamen, Fujian, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.	84 FR 54004, 10/9/19. 85 FR 44159, 7/22/20.
	Xinghe Xingyong Carbon Co., Ltd., Xicheng Wai, Chengguan Town, Xinghe County, Inner Mongolia, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 24565, 5/1/14.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Xinjiang Police College, Xinshi District, Changsha Road, No. 1108, Urumqi, Xinjiang, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.	84 FR 54004, 10/9/19. 85 FR 44159, 7/22/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Xinjiang Production and Construction Corps (XPCC) Public Security Bureau, 106 Guangming Rd., Urumqi, Tianshan, XUAR, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.	84 FR 54004, 10/9/19. 85 FR 44159, 7/22/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Xinjiang Silk Road BGI, a.k.a., the following one alias: -Xinjiang Silk Road Huada Gene Technology.</p> <p>Xinjiang Urumqi High-tech Industrial Development Zone (New Urban District) No.258 Gaoxin Street Cyberport Building 2015-891.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.</p>	<p>85 FR 44159, 7/22/20.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Xinjiang Uyghur Autonomous Region (XUAR) People's Government Public Security Bureau, 28 Qiantangjiang Rd., Shayibake District, Urumqi, XUAR, 830006, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.	84 FR 54004, 10/9/19. 85 FR 44159, 7/22/20.
	Y-Sing Components Limited, Unit 401, Harbour Ctr., Tower 2, 8 Hok Cheung Street, Hung Hom, Kowloon, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54503, 9/22/08. 85 FR 83769, 12/23/20.
	Yeraz, LTD, a.k.a., the following one alias: -Mikrocity HK Limited.  Room 927 9/F Far East Consortium Building, 121 Des Voeux Road C, Central District, Hong Kong; <i>and</i> Room 402-403, 4/F, Hong Kong Trade Centre, 161-167 Des Voeux Road, Central, Hong Kong.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 44259, 7/25/11. 80 FR 69856, 11/12/15. 85 FR 83769, 12/23/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Yili Kazakh Autonomous Prefecture Public Security Bureau, a.k.a., the following one alias: -Ili Kazakh Autonomous Prefecture Public Security Bureau.</p> <p>Sidalin W. Rd., Yining City, XUAR 835000, China.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.</p>	<p>84 FR 54004, 10/9/19. 85 FR 44159, 7/22/20.</p>
	<p>Yin Zhao, No. 2A Zhonghuan South Road, Wangjing, Chaoyang District, Beijing, China, 100102; <i>and</i> Room 302 Office, Bldg 11, No. 4, Anningzhuang Rd, Beijing, China, 100085.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Presumption of denial.</p>	<p>80 FR 44849, 7/28/15.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Yitu Technologies, 23F, Shanghai Arch Tower I, 523 Loushanguan Rd, Changning District, Shanghai, China.	For all items subject to the EAR. (See §744.11 of the EAR).	Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.	84 FR 54004, 10/9/19. 85 FR 44159, 7/22/20.
	Yiwu Tianying Optical Instrument Company, Room 301, 1 Unit, 18 Building, Houcheng Yi Qu, Jiangdong Street, Yiwu City, Zhejiang, China, 322000.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 44849, 7/28/15.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Yixin Science and Technology Co. Ltd., a.k.a., the following four aliases:            - Yixin Technology;            - Yuxin Technology;            - Yuxin Science and Technology; <i>and</i>            - Ecguard.</p> <p>216 Qiantangjiang Rd., Urumqi, Xinjiang, China; <i>and</i> 17<sup>th</sup> Floor Tong Guang Building, No 12 Beijing Agricultural Exhibition South, Chaoyang District, Beijing, China; <i>and</i> 17F Tongguang Mansion # 12 Nongzhannanli, Chaoyang, Beijing, China; <i>and</i> 216 Qiantangjiang Road, Urumqi, Xinjiang.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Case-by-case review for ECCNs 1A004.c, 1A004.d, 1A995, 1A999.a, 1D003, 2A983, 2D983, and 2E983, and for EAR99 items described in the Note to ECCN 1A995; case-by-case review for items necessary to detect, identify and treat infectious disease; and presumption of denial for all other items subject to the EAR.	84 FR 54004, 10/9/19. 85 FR 44159, 7/22/20.
	<p>Yutron Technology Co. Ltd.,            Room 201-203, Building 7B, International Business Center, 1001 Honghua Road, Futian Free Trade Zone, Shenzhen, China; <i>and</i> Suite B, 11/F, Foo Cheong Building, 82-86 Wing Lok Street, Sheung Wan, Hong Kong; <i>and</i> 24-28 5F, Topsail Plaza, 11 On Sum Street, Shaitin, Hong Kong.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	84 FR 21236, 5/14/19. 85 FR 83769, 12/23/20.
	<p>Zhao Gang,            No. 92 Weijin Road, Tianjin, China 300072; <i>and</i> 3rd Floor, Room 316, A2 Building, Tianjin University Science Park, No. 80, 4th Avenue, Tianjin Economic Development Area (TEDA), Tianjin, China.</p>	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Zhou Zhenyong, a.k.a., the following two aliases:            -Benny Zhou; <i>and</i>            -Zhenyong Zhou.</p> <p>Room 1007, Block C2, Galaxy Century Bldg., CaiTian Rd., FuTian District, Shenzhen, China; and Room 1702, Tower B, Honesty Building, Humen, Dongguan, Guangdong, China; <i>and</i> G/F, No. 89, Fuyan Street, Kwun Tong, Hong Kong; <i>and</i> Flat 12, 9F Po Hong Kong 2 Wang Tung Street, Kowloon Bay, Hong Kong; <i>and</i> Flat/RM B 8/F, Chong Ming Bldg., 72 Cheung Sha Wan Road, KL, Hong Kong; <i>and</i> Flat/RM 2309, 23/F, Ho King COMM Center, 2-16 Fa Yuen Street, Mongkok KLN, Hong Kong.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial	76 FR 67062, 10/31/11. 85 FR 83769, 12/23/20.
	<p>Zhu Jiejin, a.k.a., the following one alias:            -Anna Zhu.</p> <p>Rm 408 Bldg. 3 No 911-11 Hulan Rd., Boashan District, Shanghai, China.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 34497, 6/5/20.
	<p>Zhu Kuibao,            No. 51 Yongding Rd., Haidian District, Beijing, China;  <i>and</i>            No. 37 Xueyuan Road, Haidian District, Beijing, China.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 24565, 8/1/14.
	<p>ZM International Company Ltd.,            4/F Enterprise Bldg 228-238, Queen's Road Central, Hong Kong; <i>and</i> Room C, 22/F, 235 Wing Lok Street, Trade Centre, Sheung Wan, N.T., Hong Kong.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 44824, 9/4/18. 84 FR 40241, 8/14/19. 85 FR 83769, 12/23/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
<b>COSTA RICA</b>	Huawei Technologies Costa Rica SA, a.k.a., the following one alias: -Huawei Technologies Costa Rica Sociedad Anonima.  S.J, Sabana Norte, Detras De Burger King, Edif Gru, Po Nueva, San Jose, Costa Rica.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 43495, 8/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
<b>CRIMEA REGION OF UKRAINE</b>	Aksionernoje Obschestvo ‘Yaltinskaya Kinostudiya,’ a.k.a., the following eight aliases: -CJSC Yalta-Film; -Film Studio Yalta-Film; -Joint Stock Company Yalta Film Studio; -JSC Yalta Film Studio; -Kinostudiya Yalta-Film; -Oao Yaltinskaya Kinostudiya; -Yalta Film Studio; <i>and</i> -Yalta Film Studios.  Ulitsa Mukhina, Building 3, Yalta, Crimea 298063, Ukraine; <i>and</i> Sevastopolskaya 4, Yalta, Crimea, Ukraine.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 80646, 12/28/15.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Chernomorneftegaz, a.k.a., the following two aliases:            -Chornomornaftogaz, <i>and</i>            -NJSC Chornomornaftogaz.</p> <p>Kirova / per. Sovnarkomovskaya, 52/1, Simferopol, Crimea, 95000, Ukraine. (See Ukraine)</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 21396, 4/16/14.
	<p>Crimean Enterprise Azov Distillery Plant, a.k.a., the following five aliases:            -Azovsky Likero gorilchany Zavod, Krymske Respublikanske Pidpryemstvo;            -Azovsky Likero vo-Dochny Zavod;            -Crimean Republican Enterprise Azov Distillery;            -Crimean Republican Enterprise Azovsky Likero vodochny Zavod; <i>and</i>            -Krymske Respublikanske Pidpryemstvo Azovsky Likero gorilchany Zavod.</p> <p>Bud. 40 vul. Zaliznychna, Smt Azovske, Dzhankoisky R-N, Crimea 96178, Ukraine; <i>and</i>            40 Railway St., Azov, Dzhankoy District 96178, Ukraine; <i>and</i>            40 Zeleznodorozhnaya str., Azov, Jankoysky District 96178, Ukraine.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 80646, 12/28/15.
	<p>Crimean Ports, a.k.a., the following three aliases:            -State Unitary Enterprise of the Republic of Crimea ‘Crimean Ports’;            -Sue RC ‘KMP’; <i>and</i>            -Sue RK ‘Crimean Ports’.</p> <p>28 Kirov Street, Kerch, Crimea Region of Ukraine 98312.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 94968, 12/27/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Crimean Railway, a.k.a., the following three aliases: -Federal State Unitary Enterprise ‘Crimean Railway’; -Krymzhd; <i>and</i> -The Railways of Crimea.  34 Pavlenko Street, Simferopol, Crimea Region of Ukraine 95006.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 94968, 12/27/16.
	FAU ‘Glavosekspertiza Rossii’, a.k.a., the following three aliases: -Federal Autonomous Institution ‘Main Directorate of State Examination’; -General Board of State Expert Review; <i>and</i> -Glavosekspertiza.  13 Demidova Street, Sevastopol, Crimea, Ukraine; <i>and</i> 10 Vokzalnaya Street, Sevastopol, Crimea, Ukraine (See alternate address under Russia).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 61601, 9/7/16.
	Federal SUE Shipyard ‘Morye’, a.k.a., the following four aliases: -Federal State Unitary Enterprise SZ Morye; -FSUE SZ ‘Morye’; -Morye Shipyard; <i>and</i> -More Shipyard.  1 Desantnikov Street, Feodosia, Crimea 98176, Ukraine.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 61601, 9/7/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Feodosiya Enterprise, a.k.a., the following four aliases:            -Feodosia Oil Products Supply Co.; <i>and</i>            -Feodosiya Enterprise on Providing Oil Products; <i>and</i>            -Feodosiyske Company for the Oil; <i>and</i>            -Theodosiya Oil Terminal.</p> <p>Feodosiya, Geologicheskaya str. 2, Crimea 98107, Ukraine; <i>and</i>            Feodosia, Str. Geological 2, Crimea 98107, Ukraine (See alternate address under Ukraine).</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 42455, 7/22/14.
	<p>KPSK, OOO, a.k.a., the following two aliases:            -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Krymskaya Pervaya Strakhovaya Kompaniya’; <i>and</i>            -OOO ‘Krymskaya Pervaya Strakhovaya Kompaniya’.</p> <p>29 ul. Karla Marksa, Simferopol, Crimea 295006, Ukraine.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	82 FR 28408, 6/22/17.
	<p>OAo ‘Uranis-Radiosistemy’, a.k.a., the following three aliases:            -OJSC ‘Uranis Radio Systems’;            -OJSC Uranis-Radiosistemy; <i>and</i>            -Uranis-Radiosistemy OAO.</p> <p>33 G, Vakulenchuk Street, Sevastopol, Crimea 99053, Ukraine.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 61601, 9/7/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>           OAO Ship Repair Center ‘Zvezdochka’, a.k.a., the following four aliases:            -‘Zvezdochka’ Shipyard;            -AO Ship Repair Center ‘Zvezdochka’;            -Joint Stock Company Ship Repair Center ‘Zvezdochka;’  <i>and</i>            -Ship Repair Center Zvezdochka.             13 Geroyev Sevastopolya Street, Sevastopol, Crimea 99001, Ukraine (See alternate address in Russia).         </p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Presumption of denial.</p>	<p>81 FR 61601, 9/7/16.</p>
	<p>           OOO Shipyard ‘Zaliv’ (f.k.a., AO Shipyard ‘Zaliv’; JSC Shipyard ‘Zaliv’; JSC Zaliv Shipyard; <i>and</i> OJSC ZALIV SHIPYARD), a.k.a., the following two aliases:            -LLC Shipyard ‘Zaliv’; <i>and</i>            -Zaliv Shipyard LLC.             4 Tankistov Street, Kerch, Crimea 98310, Ukraine.         </p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Presumption of denial.</p>	<p>81 FR 61601, 9/7/16.</p>
	<p>           Resort Nizhnyaya Oreanda (f.k.a., Federalnoe Gosudarstvennoe Byudzhethnoe Uchrezhdenie Sanatori Nizhnyaya Oreanda Upravleniya), a.k.a., the following three aliases:            -Federalnoe Gosudarstvennoe Byudzhethnoe Uchrezhdenie Sanatori Nizhnyaya Oreanda Upravleniya Delami Prezidenta Rossiskoi Fe;            -FGBU Sanatori Nizhnyaya Oreanda; <i>and</i>            -Sanatorium Nizhnyaya Oreanda.             Pgt Oreanda, Dom 12, Yalta, Crimea 298658, Ukraine;  <i>and</i>            Resort Nizhnyaya Oreanda, Oreanda, Yalta 08655, Crimea; Oreanda - 12, Yalta 298658, Crimea.         </p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Presumption of denial.</p>	<p>80 FR 80646, 12/28/15.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Riviera Sunrise Resort & Spa, a.k.a., the following one alias: -Riviera Sunrise Resort and Spa.  Lenin St. 2, Alushta, Crimea 29850, Ukraine.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	82 FR 28408, 6/22/17.
	SMT-K, a.k.a., the following six aliases: -Krym SMT OOO LLC; -LLC CMT Crimea; -OOO ‘CMT-K’; -OOO ‘SMT-K’; -SMT-Crimea; <i>and</i> -Sovmortrans-Crimea.  ul. Zoi Zhiltsovoy, d. 15, office 51, Simferopol, Crimea, Ukraine (See Alternate address under Russia).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 61601, 9/7/16.
	State Concern National Production and Agricultural Association Massandra, a.k.a., the following four aliases: -Massandra National Industrial Agrarian Association of Wine Industry; -Massandra State Concern, National Production and Agrarian Union, OJSC; -Nacionalnoye Proiz-Vodstvenno Agrarnoye Obyedinenye Massandra; <i>and</i> -State Concern National Association of Producers Massandra.  6, str. Mira, Massandra, Yalta 98600, Ukraine; <i>and</i> 6, Mira str., Massandra, Yalta, Crimea 98650, Ukraine; <i>and</i> Mira str, h. 6, Massandra, Yalta, Crimea 98600, Ukraine; <i>and</i> 6, Myra st., Massandra, Crimea 98650, Ukraine.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 80646, 12/28/15.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>State Enterprise Evpatoria Sea Commercial Port, a.k.a., the following eight aliases:                      -Port of Evpatoria;                      -Port of Yevpatoria;                      -Seaport of Yevpatoriya;                      -Yevpatoria Commercial Seaport;                      -Yevpatoria Merchant Sea Port;                      -Yevpatoria Sea Port;                      -Yevpatoriya Commercial Sea Port; <i>and</i>                      -Yevpatoriya Sea Port.</p> <p>Mariners Square 1, Evpatoria, Crimea 97416, Ukraine;  <i>and</i>                      1, Moryakov Sq, Yevpatoriya, Crimea 97408, Ukraine;  <i>and</i>                      1 Moryakov Sq., Yevpatoria, Crimea 97416, Ukraine;  <i>and</i>                      1 Moryakov Sq, Yevpatoriya, Crimea 97416, Ukraine.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Presumption of denial.</p>	<p>80 FR 52968, 9/2/15.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>State Enterprise Factory of Sparkling Wine Novy Svet, a.k.a., the following six aliases:            -Derzhavne Pidpryemstvo Zavod Shampanskykh Vyn Novy Svit;            -Gosudarstvenoye Predpriyatiye Zavod Shampanskykh Vin Novy Svet;            -Novy Svet Winery;            -Novy Svet Winery State Enterprise;            -State Enterprise Factory of Sparkling Wines New World; <i>and</i>            -Zavod Shampanskykh Vyn Novy Svit, DP.</p> <p>1 Shaliapin Street, Novy Svet Village, Sudak, Crimea 98032, Ukraine; <i>and</i>            Bud. 1 vul. Shalyapina Smt, Novy Svit, Sudak, Crimea 98032, Ukraine; <i>and</i>            1 Shalyapina str. Novy Svet, Sudak 98032, Ukraine.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 80646, 12/28/15.
	<p>State Enterprise Feodosia Sea Trading Port, a.k.a., the following five aliases:            -Port of Feodosia;            -Seaport of Feodosiya;            -Theodosia Commercial Seaport;            -Theodosia Merchant Sea Port; <i>and</i>            -Theodosia Sea Port.</p> <p>14 Gorky Street, Theodosia 98100, Ukraine.; <i>and</i>            14, Gorky Str., Feodosiya, Crimea 98100, Ukraine; <i>and</i>            Gorky Street 11, Feodosia, Crimea 98100, Ukraine.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 52968, 9/2/15.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>State Enterprise Kerch Sea Commercial Port, a.k.a., the following six aliases:                      -Kerch Commercial Seaport;                      -Kerch Merchant Sea Port;                      -Kerch Sea Port;                      -Port of Kerch;                      -Seaport of Kerch; <i>and</i>                      -State Enterprise Kerch Commercial Sea Port.</p> <p>Kirova Street 28, Kerch, Crimea 98312, Ukraine; <i>and</i>                      28 Kirova Str., Kerch, Crimea 98312, Ukraine; <i>and</i>                      28, Kirov Str., Kerch, Crimea 98312, Ukraine; <i>and</i>                      Ul. Kirov, 28, Kerch, Crimea 98312, Ukraine; <i>and</i>                      ul Kirova 28, Kerch 98312, Ukraine.</p>	<p>For all items subject to the EAR.                      (See §744.11 of the EAR).</p>	<p>Presumption of denial.</p>	<p>80 FR 52968, 9/2/15.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>State Enterprise Magarach of the National Institute of Wine, a.k.a., the following five aliases:            -Agrofirma Magarach Natsionalnogo Instytutu Vynogradu I Vyna Magarach, DP;            -Derzhavne Pidpryemstvo Agrofirma Magarach Natsionalnogo Instytutu Vynogradu I Vyna Magarach;            -Gosudarstvenoye Predpriyatiye Agro-Firma Magarach Nacionalnogo Instituta Vinograda I Vina Magarach;            -Magarach Agricultural Company Of National Institute Of Wine And Grapes Magarach; <i>and</i>            -State Enterprise Agricultural Company Magarach National Institute of Vine and Wine Magarach.</p> <p>Bud. 9 vul. Chapaeva, S.Viline, Bakhchysaraisky R-N, Crimea 98433, Ukraine; <i>and</i>            9 Chapayeva str., Vilino, Bakhchisaray Region, Crimea 98433, <i>and</i> Ukraine; <i>and</i>            9 Chapayeva str., Vilino, Bakhchisarayski district 98433, Ukraine; <i>and</i>            9, Chapaeva Str., Vilino, Bakhchisaray Region, Crimea 98433, Ukraine.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 80646, 12/28/15.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>State Enterprise Sevastopol Sea Trading Port, a.k.a., the following seven aliases:            -Port of Sevastopol;            -Seaport of Sevastopol;            -Sevastopol Commercial Seaport;            -Sevastopol Merchant Sea Port;            -Sevastopol Sea Port;            -Sevastopol Sea Trade Port; <i>and</i>            -State Enterprise Sevastopol Commercial Seaport.</p> <p>3 Place Nakhimova, Sevastopol 99011, Ukraine; <i>and</i>            5, Nakhimova square, Sevastopol, Crimea 99011, Ukraine; <i>and</i>            Nahimova Square 5, Sevastopol, Crimea 99011, Ukraine.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 52968, 9/2/15.
	<p>State Enterprise Universal-Avia, a.k.a., the following six aliases:            -Crimean State Aviation Enterprise Universal-Avia;            -Gosudarstvennoe Unitarnoe Predpriyatie Respubliki Krym Universal;            -Gosudarstvennoe Unitarnoe Predpriyatie Respubliki Krym Universal-Avia;            -Gosudarstvenoye Predpriyatiye Universal-Avia;            -Universal-Avia, Crimea State Aviation Enterprise; <i>and</i>            -Universal-Avia, Gup RK.</p> <p>5, Aeroflotskaya Street, Simferopol, Crimea 95024, Ukraine.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 80646, 12/28/15.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>State Enterprise Yalta Sea Trading Port, a.k.a., the following five aliases:            -Port of Yalta;            -Seaport of Yalta            -Yalta Commercial Seaport;            -Yalta Merchant Sea Port; <i>and</i>            -Yalta Sea Port.</p> <p>Roosevelt Street 3, Yalta, Crimea 98600, Ukraine; <i>and</i>            5, Roosevelt Str., Yalta, Crimea 98600, Ukraine; <i>and</i>            5 Roosevelt Street, Yalta, Crimea 98600, Ukraine.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 52968, 9/2/15.
	<p>State Shipping Company Kerch Sea Ferry, a.k.a., the following one alias:            -State Ferry Enterprise Kerch Ferry.</p> <p>Tselimbernaya Street 16, Kerch, Crimea, 98307, Ukraine; <i>and</i>            16 Tselibernaya Street, Kerch, Crimea 98307, Ukraine.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 52968, 9/2/15.
	<p>Sue RC ‘Feodosia Optical Plant’, a.k.a., the following two aliases:            -Feodosia State Optical Plant; <i>and</i>            -State Optical Plant – Feodosia.</p> <p>Feodosia State Optical Plant, 11 Moskovskaya Street, Feodosia, Crimea 98100, Ukraine.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 61601, 9/7/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
CUBA	Huawei Cuba, Cuba.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 43495, 8/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
CYPRUS	Didessar Limited, Archbishop Makarios III Ave, Nicosia, Cyprus.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	IPP Oil Products (Cyprus) Limited, 12 Esperidon Street, 4th Floor, Nicosia 1087, Cyprus.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	80 FR 52968, 9/2/15.
	Leondica Holding Ltd, 25 Kolonakiou Str, Za Vos Kolonakiy Center, Limassol, Cyprus.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Niki Panteli Kyriakou, 91, Evgeniou Voulgareous, Limassol 4153, Cyprus (See alternate address under United Kingdom).	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	76 FR 50410, 8/15/11.
	Rosneft Trade Limited, f.k.a., TNK Trade Limited.  Elenion Building 5 Themistokli Dervi, 2nd floor, Lefkosia, Nicosia 1066, Cyprus.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	80 FR 52968, 9/2/15.
	Southport Management Services Limited, Nicosia, Cyprus (See also address under United Kingdom).	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	80 FR 52968, 9/2/15.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Stroytransgaz Holding, a.k.a., the following four aliases: -STG Holding Limited, <i>and</i> -STG Holdings Limited, <i>and</i> -Stroytransgaz Holding Limited, <i>and</i> -STGH.  33 Stasinou Street, Office 2 2003, Nicosia Strovolos, Cyprus.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 24561, 5/1/14.
	White Seal Holdings Limited, 115 Spyrou Kyprianou Avenue, Limassol 3077, Cyprus.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 80646, 12/28/15.
<b>DENMARK</b>	Huawei Denmark, Vestre Teglgade 9, Kobenhavn Sv, Hovedstaden, 2450, Denmark.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 43495, 8/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
<b>EGYPT</b>	AL-AMIR ELECTRONICS, 46 Falaki St. BabLouk Area, Cairo, Egypt.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	77 FR 24590, 4/25/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Huawei OpenLab Cairo, a.k.a., the following one alias, -Huawei Cairo OpenLab.  Cairo-Alex Desert Rd, Al Giza Desert, Giza Governorate, Egypt.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	85 FR 51603, 8/20/20.
	Huawei Technology, Cairo, Egypt.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
<b>ESTONIA</b>	Andrey Shevlyakov, Kalevipoja 12A, 13625 Tallinn, Estonia.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61249, 10/9/12. 78 FR 75463 12/12/13.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Yaxart OU, Kalevipoja 12A, 13625 Tallinn, Estonia.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
<b>FINLAND</b>	Airfix Aviation Oy, Tullimiehentie 4-6, Vantaa 01530, Finland (See also address under Switzerland).	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	80 FR 52968, 9/2/15.
	Aleksei Kolominen, 20 Nuolitie, Vantaa, Finland 01740	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Andrey Kirievski, Lastaajanvayla 22, Lappeenranta, Finland 53420.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Eliron Logistics Oy, Vanha Porvoontie 229, Vantaa, Finland 01380.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Irina Pavlova, Lastaajanvayla 22, Lappeenranta, Finland 53420.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Kuusiaaren Sarnetex & Ter Oy, Kaasuntintie 8A, Helsinki, Finland 00770.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Lemon LLC Oy, Peltoinlahdentie 19, FI-54800 Savitaipale.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Olkebor Oy, 231B Vanha Porvoontie, Vantaa, Finland 01380.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12. 78 FR 3319, 1/16/13. 81 FR 40178, 6/21/16.
	Russian Cargo Oy, 22 Lastaajanvayla, Lappeenranta, Finland 53420.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Set Petrochemicals Oy, Ukonvaaja 2 A, Espoo 02130, Finland.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	80 FR 52968, 9/2/15.
	SM Way Oy, Lastaajanvayla 22, Lappeenranta, Finland 53420.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Southeast Trading Oy, a.k.a., the following one alias: -Southeast Trading LTD.  Espoo, Finland; <i>and</i> Kannelkatu 8, Lappeenranta 53100, Finland; <i>and</i> PL 148, Lappeenranta 53101, Finland (See also addresses under Romania and Russia).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 52968, 9/2/15.
	Transsphere Oy, a.k.a., the following two aliases: -Transsphere Limited Oy; <i>and</i> -Transsphere Oy Ltd.,  20 Nuolitie, Vantaa, Finland 01740.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Vitaliy Dankov,  Vanha Porvoontie 231B, Vantaa, Finland 01380.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
<b>FRANCE</b>	Aerotechnic France SAS, 8 Rue de la Bruyere, 31120 Pinsaguel, France.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 37633, 6/28/11.
	France Tech Services, a.k.a., the following one alias: -France Technology Services.  73 Rue Jean Jaures 92800 Puteaux, France	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
	Dart Aviation, a.k.a., the following four aliases: -Dart Aviation Technics; -Dart Aviation Marlbrine S.A.R.L.; -MBP Trading Ltd.; <i>and</i> -SARL IEAS.  3, rue de la Janaie – ZA Yves Burgot 35400 Saint Malo I&V, France. (See alternate addresses under Iran, Senegal and the United Kingdom).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	84 FR 61541, 11/13/19. 85 FR 14796, 03/16/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Huawei Cloud France, Paris, France.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	85 FR 51603, 8/20/20.
	Huawei France, a.k.a., the following one alias: -Huawei Technologies France SASU.  36-38, quai du Point du Jour, 92659 Boulogne-Billancourt cedex, France.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 43495, 8/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Huawei OpenLab Paris, a.k.a., the following one alias, -Huawei Paris OpenLab.  101 Boulevard Murat, 75016 Paris, France.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	85 FR 51603, 8/20/20.
	IKCO France, 147 Avenue Charles de Gaulle, 92200, Neuilly-Sur-Seine, France.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	77 FR 24590, 4/25/12.
	Kish Motor Jahan Technic, a.k.a., the following one alias: -Kisk Motor Jahan Technic.  3, Route De Cessey Road, 25440 Charnay, Franche-Comte, France.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.
	Luc Teuly, 8 Rue de la Bruyere, 31120 Pinsaguel, France.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 37633, 6/28/11.
	Philippe Sanchez, 8 Rue de la Bruyere, 31120 Pinsaguel, France.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 37633, 6/28/11.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Satori Corporation, a.k.a., the following one alias: -Satori SAS.  Zone Musie 4-6 rue de Rome BP 151, Aeroport du Bourget 93352 Le Bourget Cedex, France, <i>and</i> 57 Avenue Jean Monnet Greenpark, 31770, Colomiers, France, <i>and</i> Aeroport Du Bourget Batiment No. 66, BP 151, Le Bourget, France (See alternate address under U.A.E.).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
<b>GEORGIA</b>	Georgia Petrochemical and Aviatech, No. 35 Bldg. V Moscow Avenue, Tbilisi, Georgia.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	84 FR 40241, 8/14/19.
	ZAO Vneshtorgservis, 1 Geroyev Street, Tskhinval, South Ossetia, Georgia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 6952, 2/16/18.
<b>GERMANY</b>	Albrecht Import-Export, a.k.a., the following one alias: -Elena Albrecht Import-Export,  Gmunder Str. 25, Heubach, Germany 73540.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Alexander Brovarenko, Fasanenweg 9L, Kelsterbach, Germany D-65451; <i>and</i> Fasanenweg 9, Gate 23, Kelsterbach, Germany 65451; <i>and</i> Fasanenweg 7, Kelsterbach, Germany D-65451; <i>and</i> IM Taubengrund 35 Gate 1-2, Kelsterbach, Germany 65451.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Chimconnect GmbH, Reichenauestrasse 1a, DE-78467, Konstanz, Germany.	For all items subject to the EAR.	See §§ 744.2(d), 744.3(d), and 744.4(d) of this part..	86 FR 12531, 3/4/2021.
	Christof Schneider, Margaretenweg #10, 42929 Wermelskirchen, Germany; <i>and</i> P.O Box 501168, D-42904, Wermelskirchen, Germany; <i>and</i> Neuenhaus 96, 42929, Wermelskirchen, Germany.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	74 FR 35797, 7/21/09. 78 FR 18811, 03/28/13.
	Djamshid Nezhad, a.k.a., the following alias: -Nezhad Djamshid.  Poppentrade 25, D-24148 Kiel, Germany; <i>and</i> Moesemann 2, 24144, Hamburg, Germany.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54504, 9/22/08. 77 FR 24590, 4/25/12.
	Elena Albrecht, a.k.a., the following one alias: -Elena Grinenko,  Gmunder Str. 25, Heubach, Germany 73540.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Hans Werner Schneider, Bertha von Suttner Weg #1, 42929 Wermelskirchen, Germany.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	74 FR 35799, 7/21/09.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Huawei Cloud Berlin, Berlin Germany.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	85 FR 51603, 8/20/20.
	Huawei OpenLab Munich, a.k.a., the following one alias, —Huawei Munich OpenLab.  Huawei Germany Region R&D Centre Riesstr. 22 80992 Munich, Germany; <i>and</i> Huawei Germany Region R&D Centre Riesstr. 12 80992 Munich, Germany.	For all items subject to the EAR, see § 736.2(b)(3)(vi), <sup>1</sup> and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see § 772.1) for the purpose of contributing to the revision or development of a “standard” (see § 772.1).	Presumption of denial.	85 FR 51603, 8/20/20. 85 FR 52901, 8/27/20. 86 FR 12531, 3/4/2021.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Huawei Technologies Deutschland GmbH, Germany.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	Huawei Technologies Dusseldorf GmbH, Huawei Germany Region R&D Centre Riesstr. 25, 80992 Munich, Germany, <i>and</i> Am Seestern 24 Duesseldorf, D-40547 Germany.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	85 FR 51603, 8/20/20.
	IKCO Trading GmbH, Schadowplatz 5, 40212 Dusseldorf, Germany; and Kaiserswerther Str. 117, 40474, Düsseldorf, Germany.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54504, 9/22/08. 77 FR 24590, 4/25/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Maintenance Services International (MSI) GmbH, a.k.a., the following two aliases:            -MSI Aircraft Maintenance Services International GmbH &amp; Co. KG; <i>and</i>            -MSI International GmbH and Company.</p> <p>Pommernstrasse 8 65428, Ruesselsheim, Germany; <i>and</i>            Kobaltstrasse 2-4 FZS1 BH02, Russelsheim, Germany;  <i>and</i> Parlerstrasse 18, Stuttgart, Germany.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
	<p>Manufacturers Equipment Organization (MEO), a.k.a. the following one alias:            -MEO GMBH</p> <p>P.O Box 501168, D-42904, Wermelskirchen, Germany;  <i>and</i>            Neuenhaus 96, 42929, Wermelskirchen, Germany.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 18811, 03/28/13.
	<p>MRS GmbH, a.k.a., the following one alias:            -MRS International.</p> <p>Wiener Strasse 23 A Regensburg, Germany 93065; <i>and</i>            Gewerhofstrasse 11 Essen, Germany 45145.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
	<p>Nezhad Enterprise Company, a.k.a., the following three aliases:            -Nezhad Co.;            -Nezhad Enterprise; <i>and</i>            -Nezhad Trading.</p> <p>Poppentrade 25, D-24148 Kiel, Germany; <i>and</i>            Moesemann 2, 24144, Hamburg, Germany.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54504, 9/22/08. 77 FR 24590, 4/25/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Pharmcontract GmbH., a.k.a., the following one alias: —Farmkontract GmbH.  Goethestrasse 4–8 D–60313 Frankfurtam Main, Germany.	For all items subject to the EAR.	See §§ 744.2(d), 744.3(d), and 744.4(d) of this part.	86 FR 12531 3/4/21.
	Riol-Chemie, Gobelstrasse 21, Lilienthal, Germany.	For all items subject to the EAR.	See §§ 744.2(d), 744.3(d), and 744.4(d) of this part.	86 FR 12531, 3/4/21
	Russ Cargo Service GMBH, Fasanenweg 9L, Kelsterbach, Germany D-65451; <i>and</i> Fasanenweg 9, Gate 23, Kelsterbach, Germany 65451; <i>and</i> Fasanenweg 7, Kelsterbach, Germany D-65451; <i>and</i> IM Taubengrund 35 Gate 1-2, Kelsterbach, Germany 65451.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Schneider GMBH, Thomas Mann Str. 35-37, 42929 Wermelskirchen, Germany; <i>and</i> P.O. Box 1523, Wermelskirchen, 42908 DE; <i>and</i> Thomas Mann Str., 35-37, P.O. Box 1523, Wermelskirchen, 42908 DE.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	74 FR 35799, 7/21/09.
	Sergey Grinenko, a.k.a., the following one alias: -Sergey Albrecht,  Gmunder Str. 25, Heubach, Germany 73540.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
<b>GREECE</b>	Aeolian Airlines, 551 Mesogeion Ave, Agia Paraskevi, 15343A, Athens, Greece; <i>and</i> 72 Vouliagmenis Ave, Glyfada 16675, Athens, Greece; <i>and</i> Blg Mtb 1/E 74, Athens, Greece; <i>and</i> 58 Vouliagmenis Ave, Voula 16673, Athens, Greece; (See alternate addresses under Turkey).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 75463 12/12/13.
	Aerospace One, S.A., 24 Andrea Koumpi Str. Markopoulo19003 Attica, Greece.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 56003, 9/18/14.
	Sergei (Sergi) Ivanovich Tomchani, a.k.a., Sergey Ivanovich Tomchani, 58, Vouliagmenis Ave Voula, 16673, Athens, Greece (See alternate addresses under Ukraine and United Kingdom).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 50410, 8/15/11.
	Seyyed Abdolreza Mousavi, 551 Mesogeion Ave, Agia Paraskevi, 15343A, Athens, Greece; (See alternate address under Turkey).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 75463 12/12/13.
	Sky Wings Airlines SA, 58, Vouliagmenis Ave Voula, 16673, Athens, Greece.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 50410, 8/15/11.
	Socrates Vasilakis, 58, Vouliagmenis Ave Voula, 16673, Athens, Greece.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 50410, 8/15/11.
	Veteran Avia LLC, a.k.a., the following one alias: -Veteran Airline.  24, A. Koumbi Street, Markopoulo 190 03, Attika, Greece (See also addresses under Armenia, Pakistan, and U.K.).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 56003, 9/18/14. 81 FR 8829, 2/23/16, 82 FR 2887, 1/10/ 17.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
<b>INDIA</b>	The following <b>Department of Atomic Energy</b> entities: Bhabha Atomic Research Center (BARC) Indira Gandhi Atomic Research Center (IGCAR) Indian Rare Earths Nuclear reactors (including power plants) not under International Atomic Energy Agency (IAEA) safeguards (excluding Kundankulam 1 and 2), fuel reprocessing and enrichment facilities, heavy water production facilities and their collocated ammonia plants.	For all items subject to the EAR.	Case-by-case for all items listed on the CCL. Presumption of approval for EAR99 items.	63 FR 64322, 11/19/98. 65 FR 14444, 03/17/00. 66 FR 50090, 10/01/01. 69 FR 56694, 09/22/04.
	Giovan Ltd., C-16A, New Multan Nagar, Surya Enclave, New Rohtak Road 099 Paschim Vihar, New Delhi, India	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 61601, 9/7/16. 85 FR 83769, 12/23/20.
	Huawei OpenLab Delhi, a.k.a., the following one alias, -Huawei Delhi OpenLab. Delhi, India.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	85 FR 51603, 8/20/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Huawei Technologies India Private Limited, a.k.a., the following one alias: -Huawei Technologies India Pvt., Ltd.</p> <p>Level-3/4, Leela Galleria, The Leela Palace, No. 23, Airport Road, Bengaluru, 560008, India; <i>and</i> SYNO 37, 46,45/3,45/4 ETC KNO 1540, Kundalahalli Village Bengaluru Bangalore KA 560037 India.</p>	<p>For all items subject to the EAR, see §§ 736.2(b)(3)(vi)<sup>1</sup>, and 744.11 of the EAR, EXCEPT<sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).</p>	<p>Presumption of denial.</p>	<p>84 FR 43495, 8/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.</p>
	<p>Technopole Ltd., D-79, New Multan Nagar, Surya Enclave, New Rohtak Road 099 Paschim Vihar, New Delhi, India 110056 (See alternate address under China).</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Presumption of denial.</p>	<p>81 FR 61601, 9/7/16. 85 FR 83769, 12/23/20.</p>
<b>INDONESIA</b>	<p>Huawei Tech Investment, PT, Bri li Building 20Th Floor, Suite 2005 , Jl. Jend., Sudirman Kav. 44-46, Jakarta, 10210, Indonesia.</p>	<p>For all items subject to the EAR, see §§ 736.2(b)(3)(vi)<sup>1</sup>, and 744.11 of the EAR, EXCEPT<sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).</p>	<p>Presumption of denial.</p>	<p>84 FR 43495, 8/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	PT. Kuantum Tekno Kreatif, Jl. Sarirasa No. 113 Blok 4 Sanijadi, Kec. Sukasari, Bandung, Indonesia, 40151.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.
<b>IRAN</b>	Abbas Goldoozan, No. 86 Negin Tower, Farmaniyeh St., 1937944633 Tehran, Iran (See also alternate address under Turkey).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 22640, 4/23/15.
	Aflak Micro Electronics, Tehranno 14, Golkade St., Arash Mehr Ave., Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54503, 9/22/08.
	Ahmad Nozad Gholik, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 59421, 9/22/20.
	Ahmad Rahzad, a.k.a., Saeb Karim, 29, 1st Floor, Amjad Bldg., Jomhoori Ave., Tehran, Iran (See alternate address under Malaysia).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54503, 9/22/08.
	Ali Basati. No. 2, 5th floor, Abbasian Bld., Jomhoori Ave., Tehran, Iran; <i>and</i> No. 48, Abbasian Bld, Republic Street, Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 59421, 9/22/20.
	Ali Mehdipour Omrani.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 14796, 03/16/20.
	Ali Reza Seif, 34 Mansour Street, Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54503, 9/22/08.
	Amir Hosein Atabaki, 5 Yaas St, Unit 4, Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 74001, 12/5/08.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Anvik Technologies Sdn. Bhd., a.k.a., the following eight aliases:            -Anvik Technologies;            -Cason Technologies;            -Henan Electronics;            -Hixton Technologies;            -Hudson Technologies, Ltd.;            -Hudson Engineering (Hong Kong) Ltd.;            -Madison Engineering Ltd.; <i>and</i>            -Montana Advanced Engineering.</p> <p>F10, No. 21, 9<sup>th</sup> Alley, Vozara Ave., Tehran, Iran (See alternate addresses under China and Malaysia).</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 75463 12/12/13. 85 FR 83769, 12/23/20.
	Arash Dadgar, No. 10, 64 <sup>th</sup> St., Yousafabad, Tehran, Iran, 14638, and Unit 11, No. 35 South Iranshahr St, Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54506, 9/22/08. 75 FR 1701, 1/13/10.
	Arash Servatian, 12 Kandovan Alley Enghelab Ave., Opp. Villa (Ostad Nejatollahi) 1131834914 Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 22640, 4/23/15.
	Aref Bali Lashak.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 14796, 03/16/20.
	<p>Atomic Energy Organization of Iran (AEOI), a.k.a., the following two aliases:            -Sazeman-e Energy Atomi; <i>and</i>            -Sazeman-e Enerji-e Atomi.</p> <p>P.O. Box 14144-1339, End of North Karegar Avenue, Tehran, Iran; <i>and</i> P.O. Box 14155-4494, Tehran, Iran; <i>and</i> all locations in Iran.</p>	For all items subject to the EAR. (See §744.2 of the EAR).	Presumption of denial.	72 FR 38008, 07/12/07. 77 FR 24590, 4/25/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Babak Jafarpour, a.k.a., the following five aliases: -Bob Jefferson; -Peter Jay; -Sam Lee; -Samson Lee; <i>and</i> -David Lee.  F10, No. 21, 9 <sup>th</sup> Alley, Vozara Ave., Tehran, Iran (See alternate addresses under China and Malaysia).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 75463 12/12/13. 85 FR 83769, 12/23/20.
	Bahman Ghandi, a.k.a. Brian Ghandi, No. 14, Golkadeh St., Arashmehr St., Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54503, 9/22/08.
	Behnam Pouremadi, Tehran Hakimi Gelayol Alley Number 19 100 Tehran 1438371659 24 Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 59421, 9/22/20.
	Behnaz Moazen, No. 2, 5th floor, Abbasian Bld., Jomhoori Ave., Tehran, Iran; <i>and</i> No. 2, 5th floor, Abbasian Bld., Republic Street, Tehran, Iran; <i>and</i> No. 48, Abbasian Bld, Republic Street, Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 59421, 9/22/20.
	Blue Lines Company, Unit 3, 13 <sup>th</sup> Floor, Negar Tower, Vansk Square, Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 59421, 9/22/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Dart Aviation, a.k.a., the following four aliases:            -Dart Aviation Technics;            -Dart Aviation Marlbrine S.A.R.L.;            -MBP Trading Ltd.; <i>and</i>            -SARL IEAS.</p> <p>East Unit, 1<sup>st</sup> Floor – Building No. 1 Solhparvar Dead End – Bimeh 5<sup>th</sup>, Karaj Makhsous Avenue, Tehran, Iran.            (See alternate addresses under France, Senegal and the United Kingdom).</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	84 FR 61541, 11/13/19. 85 FR 14796, 03/16/20.
	Elaheh Siahpoush, 12 Kandovan Alley Enghelab Ave., Opp. Villa (Ostad Nejatollahi) 1131834914 Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 22640, 4/23/15.
	Elecomponents, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54503, 9/22/08.
	Fadjr Marine Industries, a.k.a., SADAF, 169 Malekloo Ave, Farjam Ave, Tehran Pars, Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 36519, 6/28/10.
	Faradis Production, No. 33, Second Floor, Amjad Electronic Center, Jomhuri Ave., Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54503, 9/22/08.
	Faratel Company, 12 Kandovan Alley Enghelab Ave., Opp. Villa (Ostad Nejatollahi) 1131834914 Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 22640, 4/23/15.
	Farhad Maani, 67, 1st Floor, No. 3, Ebn-E Sina St., Mr. ValiAsr Ave, W. of Beheshti, Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54503, 9/22/08.
	FARSCO Aviation MRO Centre, Sanaye Havapeymaei Blvd., Karaj Makhsous Road 13976-13511, Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 59421, 9/22/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	GBNTT, No. 34 Mansour Street, Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54503, 9/22/08.
	Golza Engineering Company, No. 80/1, Fourth Floor, North Sindokht St., Dr. Fatemi Ave., Tehran, 14118, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54503, 9/22/08.
	H. Farahani, Ground Floor - No. 31, Alborz Alley, EnghelabSt, Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 74001, 12/5/08.
	Hamid Reza Ansarian, P.O. Box 19575-354, Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54503, 9/22/08.
	Hamid Reza Simchi, P.O. Box 19575-354, Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 36519, 6/28/10.
	Hamid Sepehrian, Jaber Ibn Hayan Research Institute, AEOI, P.O. Box 11365/8486, Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 59421, 9/22/20.
	Hassan Seifi, Unit #23, Eighth Floor, No. 193 West Sarve Boulevard Kaj Square, Saadat Abad, 19987-14434, Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 37633, 6/28/11.
	Hossein Ahmad Larijani, No 3 Mirza Kochak Ave., Jomhori Street, Tehran, Iran; <i>and</i> No. 5 Mirzakuchanhan Street, Jomhori Ave., Tehran, Iran; <i>and</i> No. 5 Mirza Kochak Ave., Jomhori Street, Tehran, Iran; <i>and</i> No. 5, Near to Flower Shop Mirza Koochak- Khan Jangali St, 30-Tir Junction, Jomhori St, Tehran, Iran; <i>and</i> Unit 6, No. 37, Goharshad Alley After 30 Tir Jomhori Street, Tehran, Iran; <i>and</i> Forghani Passage, Before 30 Tir, After Havez, Jomhori Ave., Tehran, Iran (See alternate addresses under Singapore).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 67062, 10/31/11.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Iraj Najmi, No. 80/1, Fourth Floor, North Sindokht St., Dr. Fatemi Ave., Tehran, 14118, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54503, 9/22/08.
	Iran Air Iran Air Building, Mehrabad Airport P.O. Box 13185- 775, Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Case-by-Case review for licenses for the safety of civil aviation and the safe operation of aircraft; Presumption of Denial for all others.	85 FR 14796, 03/16/20.
	Kalaye Electric Company, a.k.a., the following four aliases: -Kala Electric Company; -Kalia; -Kala Electric; and -Kola Electric Company.  33 Fifteenth (15th) Street, Seyed-Jamal-Eddin-Assad Abadi Avenue, Tehran, Iran.	For all items subject to the EAR. (See §744.2 of the EAR).	Presumption of denial.	72 FR 38008, 07/12/07. 77 FR 24590, 4/25/12.
	Kamran Daneshjou.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 14796, 03/16/20.
	Kish Airlines, Headquarters, No. 21 Ekbatan Main Blvd., P.O. Box 19395/4639, Tehran, 13938, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 50410, 8/15/11.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Landa Ariya Electronic Co., a.k.a., the following three aliases:            -Landa Ariya Electronic Co. Ltd.;            -Landa Electronic; <i>and</i>            -Landa Electronics.</p> <p>No. 2, 5th floor, Abbasian Bld., Jomhoori Ave., Tehran, Iran; <i>and</i> No.2, 5th floor, Abbasian Bld., Republic Street, Tehran, Iran; <i>and</i> No. 48, Abbasian Bld, Republic Street, Tehran, Iran (see alternate addresses in China).</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 59421, 9/22/20.
	<p>Mahdi Electronics, a.k.a., the following alias:            -Mahdi Electronic Trading Co. Ltd.</p> <p>Ground Floor - No. 31 Alborz Alley, Enghelab St., Tehran, Iran.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 74001, 12/5/08. 77 FR 24590, 4/25/12.
	<p>Mahdi Keivan Bahari, a.k.a., the following three aliases:            -Mehdi Keivan;            -M. Aziz; <i>and</i>;            -Aziz Bahari.</p> <p>Unit 3, 13th Floor, Negar Tower, Vansk Square, Tehran, Iran.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 59421, 9/22/20.
	<p>Mahmood Akbari, a.k.a., the following alias:            -John Wassermann.</p> <p>No.34, Arash Blvd., Farid Afshar St., Zafar Ave., Tehran, Iran.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 14958, 3/21/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Mahsa Keivan Bahari, a.k.a., the following three aliases:            -Katrina Smich;            -Katrina Smitch; <i>and</i>            -K.A. Smich.</p> <p>Unit 3, 13th Floor, Negar Tower, Vansk Square, Tehran, Iran.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 59421, 9/22/20.
	<p>Maryan Jahanshahi,            34 Mansour St., Motahari-ValiAsr Street Junction,            Tehran, Iran.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54503, 9/22/08.
	<p>Mehdi Teranchi.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 14796, 03/16/20.
	<p>Mehrdad Ruen Foomanie, a.k.a., the following four aliases:            -Frank Foomanie;            -Mark Foomanie;            -Mark Averin; <i>and</i>            -Max Xian.</p> <p>No. 35 Abaas Abaad Street, Daryosh Street Andesheh 2 Street (Hamid Qods), Iran – Tehran; <i>and</i>            Sohriwardi Shomali Street, Andesheh 2 Street, after Daryoush Crossroad, No. 35, Floor 5, No. 8, Tehran, Iran.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 40178, 6/21/16.
	<p>Mesbah Energy Company (a.k.a. “MEC”),            77 Armaghan Gharbi Street, Valiasr Blve, Tehran, Iran.</p>	For all items subject to the EAR. (See §744.2 of the EAR).	Presumption of denial.	72 FR 38008, 07/12/07.
	<p>Mohammed Narjespour,            34 Mansour St., ValiAsr-Motahari Crossing, Tehran, Iran.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54503, 9/22/08.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Mohsen Asraftaba, No. 2, 5th floor, Abbasian Bld., Jomhoori Ave., Tehran, Iran; <i>and</i> No. 2, 5th floor, Abbasian Bld., Republic Street, Tehran, Iran; <i>and</i> No. 48, Abbasian Bld, Republic Street, Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 59421, 9/22/20.
	Mojtaba Farhadi Ganjeh, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 59421, 9/22/20.
	Morvarid Sanat Co. Ltd., Sohrivardi Shomah Street, Andesheh 2 Street, after Daryosh Crossroad, No. 35 Floor 5, No. 8 Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 40178, 6/21/16.
	Morvarid Shargh Co. Ltd., Sohrivardi Street No. 35, Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 40178, 6/21/16.
	Moslem Nasiri, 34 Mansour St., ValiAsr-Motahari Crossing, Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54503, 9/22/08.
	Mostafa Oveici, a.k.a., the following one alias: - Mosi Oveici.  Mehrabad Airport, Tehran, Iran, (See alternate address under Thailand).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 75463 12/12/13.
	M.R. Ahmadi, P.O.Box 19575/199, Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54503, 9/22/08.
	Naser Golshekan, Ground Floor - No. 31, Alborz Alley, EnghelabSt, Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 74001, 12/5/08.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	NBC Navegan Bar Co. Ltd., a.k.a., the following alias: -NBC Navegan Bar International Transport Co. Ltd.  #135 Khorramshahr Ave., Tehran 15338-64163, <i>and</i> 101, Kohrramshahr Ave., Tehran 1533864163.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54507, 9/22/08. 76 FR 21628, 4/18/11. 77 FR 24590, 4/25/12.
	Neda Industrial Group, No. 10 and 12, 64 <sup>th</sup> St. Jamalodin Asadabadi Avenue, Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54503, 9/22/08.
	Nedayeh Micron Electronics, No. 34 Mansour St., Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54503, 9/22/08.
	Niasan Century Industry, Unit 2, GF, No:1, Marzban Name Alley, Mofateh St., Motahari Ave., 1588875333, Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54503, 9/22/08.
	Nilco Group, a.k.a., the following one alias: -Nilfam Khazar Co.  Unit 6, No. 1, Mehr Alley, Gilan St., Boostan 2, Pasdaran Ave., Tehran, Iran (see alternate addresses under Belarus and Russia).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 48534, 9/26/18.
	Pakgostar Company, Appt 501 & 502, Borje Sefid Bldg, Pasdaran Avenue, Tehran 1946963651, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 74001, 12/5/08.
	Parto System Tehran, (a.k.a., Rayan Parto System Tehran and Rayane Parto System Tehran), Unit 7, Floor 4 No. 51 around Golestan Alley End of Shahaneghi Ave., Sheikh Bahae Str., Molasadra, Tehran, Iran; <i>and</i> No. 83 Around of Shanr Tash Ave. After Cross of ABAS ABAD North Sohrevadi Str., Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 67062, 10/31/11.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Paya Electronics Complex, (a.k.a., Paya Complex), No 3 Mirza Kochak Ave. Jomhori Street, Tehran, Iran; <i>and</i> No. 5 Mirzakuchanhan Street Jomhori Ave., Tehran, Iran; <i>and</i> No. 5 Mirza Kochak Ave. Jomhori Street, Tehran, Iran; <i>and</i> No. 5, Near to Flower Shop Mirza Koochak-Khan Jangali St, 30-Tir Junction, Jomhori St., Tehran, Iran; <i>and</i> Unit 6, No. 37 Goharshad Alley After 30 Tir Jomhori Street, Tehran, Iran; <i>and</i> Forghani Passage, Before 30 Tir, After Havez, Jomhori Ave., Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 67062, 10/31/11.
	Rad Tavan Afza Company, 3rd Floor, No. 210, W. Fatemi, Tehran, Iran, P.O. Box 14185-387; <i>and</i> 1st Pars Bldg., Beg. Pars Alley, Betw Khosh & Behboudi St., Azadi Ave., Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54507, 9/22/08. 77 FR 24590, 4/25/12.
	Raht Aseman Co. Ltd., No. 1.2, Mosque Alley, Mohammadi St., North Bahar Ave., Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 74001, 12/5/08. 77 FR 24590, 4/25/12.
	Reza Hajigholamali, No.34, Arash Blvd., Farid Afshar St., Zafar Ave., Tehran, Iran (See alternate addresses under U.A.E.).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 14958, 3/21/16.
	Reza Seifi, Unit #23, Eighth Floor, No. 193 West Sarve Boulevard Kaj Square, Saadat Abad, 19987-14434, Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 37633, 6/28/11.
	Reza Zahedi Pour, 5 Yaas St, Unit 4, Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 74001, 12/5/08. 77 FR 24590, 4/25/12.
	Rouhollah Abdollahi, Sanaye Havapeymaei Blvd. Karaj Makhsous Road 13976-13511, Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 59421, 9/22/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	S. M. Mirbagheri, Sanaye Havapeymaei Blvd. Karaj Makhsous Road 13976-13511, Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 59421, 9/22/20.
	Sabanican Company (a.k.a., Sabanican Pad Co.), Unit #23, Eighth Floor, No. 193 West Sarve Boulevard Kaj Square, Saadat Abad, 19987-14434, Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 37633, 6/28/11.
	Saeed Talebi, a.k.a., the following one alias: -Allen Talebi.  No. 27, Zarif Nia, Pesyan Valley, Tehran, Iran; <i>and</i> No. 3, West Saeb Tabrizi Lane, North Sheikh Bahae Street, Tehran, Iran (See alternate addresses under Canada and U.A.E.).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 75463, 12/12/13. 85 FR 52901, 8/27/20.
	Safir Electronics, Ground floor No. 31 Alborz Alley, EnghelabSt. Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 74001, 12/5/08.
	Sahab Phase, 5 Yaas St, Unit 4 Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 74001, 12/5/08.
	Sahand Airlines, Sahand Airport, Bonab/Sahand, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 50410, 8/15/11.
	Sanaye Electronic Arman Ertebat Nemad Company (SAEN CO.), 67, 1st Floor, No. 3, Ebn-E Sina St., Mr. ValiAsr Ave., W. of Beheshti, Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54503, 9/22/08.
	Satco, No. 3, West Saeb Tabrizi Lane, North Sheikh Bahae Street, Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 75463 12/12/13.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Sayyed Javad Ahmadi, Nuclear Science and Technology Research Institute, End of North Karegar Avenue, P.O. Box 1439951113, Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 59421, 9/22/20.
	Sayyed Mohammad Mehdi Hadavi.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 14796, 03/16/20.
	Sazgan Ertebat Co. Ltd., a.k.a., the following one alias: -Sazgan Ertebat Poya Co. Ltd.  No. 40-Hoveizeh St. Sohrevardi St., Tehran, Iran; <i>and</i> P.O. Box 16315-194 Zip: 1559934314.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 40178, 6/21/16.
	Seyed Mahdi Mousavi, BLK 6, No. 12 Beside Gilan Street, Rodstar Street, Under Hafez Bridge, Tehran, Iran; <i>and</i> No. 10-6th Floor Iranian Trade Center, Valiasr Square, Tehran, Iran (See alternate addresses under U.A.E.).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	77 FR 58006, 9/19/12.
	Seyed Mousavi Trading, a.k.a., the following two aliases: -Hitech Computer Peripherals; <i>and</i> -Hitech Corporation.  BLK 6, No. 12 Beside Gilan Street, Rodstar Street, Under Hafez Bridge, Tehran, Iran; <i>and</i> No. 10-6th Floor Iranian Trade Center, Valiasr Square, Tehran, Iran (See alternate addresses under U.A.E.).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	77 FR 58006, 9/19/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Shahid Bakeri Industrial Group, a.k.a., the following nine aliases:            -SBIG;            -Shahid Baheri Industries Group;            -Shahid Bagheri Industries Group;            -Shahid Bagheri Industrial Group;            -MEHR Trading Company;            -Department 140/14;            -Mahtab Technical Engineering Company;            -Composite Propellant Missile Industry; <i>and</i>            -Sanaye Sokhte Morakab (SSM).</p> <p>Pasdaran Ave., Tehran, Iran.</p>	For all items subject to the EAR. (See §744.3 of the EAR).	Presumption of denial.	72 FR 38008, 07/12/07. 77 FR 24590, 4/25/12.
	<p>Shahid Hemmat Industrial Group, a.k.a., the following six aliases:            -SHIG;            -Shahid Hemat Industrial Group;            -Chahid Hemmat Industrial Group;            -Shahid Hemmat Industrial Complex (SHIC);            -Shahid Hemmat Industrial Factories (SHIF); <i>and</i>            -Hemmat Missile Industries Factory.</p> <p>Damavand Tehran Highway, Tehran, Iran; Damavand Tehran Highway, Tehran, Iran; and Damavand Road 2, Abali Road, Tehran, Iran.</p>	For all items subject to the EAR. (See §744.3 of the EAR).	Presumption of denial.	72 FR 38008, 07/12/07. 77 FR 24590, 4/25/12.
	<p>Simin Neda Industrial and Electrical Parts, a.k.a., the following alias:            -TTSN.</p> <p>No. 22, Second Floor, Amjad Bldg., Jomhoori Ave., Tehran, Iran.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54507, 9/22/08. 77 FR 24590, 4/25/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Tadbir Sanaat Sharif Technology Development Center (TSS), First Floor, No. 25 Shahid Siadat Boulevard, North Zanjan Street, Yadegar Emam Highway, Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 36519, 6/28/10.
	Toos Electronics, 29, 1st Floor, Amjad Bldg., Jomhoori Ave., Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54503, 9/22/08.
	Ukraine Mediterranean Airlines, a.k.a., UM Airlines, UM Air, Building Negin Sai app. 105, Valiasr Str., Tehran, Iran (See alternate addresses under Ukraine and Syria).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 50410, 8/15/11.
	Vizneh Trading Company, 34 Mansour St., Motahari and ValiAsr Junction, Tehran, Iran, 1595747764.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54503, 9/22/08.
	Zagros Airlines, Abadan Airport, Abadan, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 50410, 8/15/11.
	ZTE Parsian, No. 100, Africa Ave., Mirdamad Entersection, Tehran, Iran.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 12006, 3/8/16.
<b>IRAQ</b>	Abd Al Hakim Luqman Jasim Muhammad, Al Faysaliyah, Mosul, Iraq.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 57451, 8/23/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Ag Yildiz Insaat Gayrimenkul Tasimacilik Pazarlama Ithalat Ihracat ve Ticaret Ltd. Sirketi, a.k.a. the following four aliases:            -Ag Yildiz Cargo;            -Ag Yildiz Gayrimenkul;            -Yildiz Company; <i>and</i>            -Yildiz Shipping Company.</p> <p>Irbil, Iraq; and Mosul, Iraq (See alternate addresses under Syria and Turkey).</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 57451, 8/23/16.
	<p>Sekirin Tekstil Ithalat Ihracat le ve Dis Ticaret Limited Sirketi, a.k.a., the following seven aliases:            -Sekirin Textiles Export Import Limited Company;            -Al Shakirin International Transport Company;            -Shakirin Company;            -Shakrin Company;            -Sekirin Ticaret;            -Al Shakirin Company; <i>and</i>            -Sekirin Company.</p> <p>Al Faysaliyah, Mosul, Iraq (See alternate addresses under Syria and Turkey).</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 57451, 8/23/16.
<b>IRELAND</b>	Mac Aviation Group, a.k.a. Mac Aviation Limited, Cloonmull House, Drumcliffe, County Sligo, Ireland.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	74 FR 35799, 7/21/09.
	Mac Aviation Nigeria, Cloonmull House, Drumcliffe, County Sligo, Ireland.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	74 FR 35799, 7/21/09.
	Sean Byrne, Cloonmull House, Drumcliffe, County Sligo, Ireland.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	74 FR 35799, 7/21/09.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Sean McGuinn, Cloonmull House, Drumcliffe, County Sligo, Ireland.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	74 FR 35799, 7/21/09.
	Thomas McGuinn a.k.a. Tom McGuinn, Cloonmull House, Drumcliffe, County Sligo, Ireland.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	74 FR 35799, 7/21/09.
<b>ISRAEL</b>	A. Leib Ltd.; HA' Assif 19, Binyamina, Israel.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 40178, 6/21/16.
	AVS (Armored Vehicle Spares), a.k.a., the following one alias: -Armored Vehicle Service.  42 Hamesilla Street, Binyamina, Israel.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 40178, 6/21/16.
	Eliyahu Cohen, a.k.a., the following six aliases: -Arie Cohen; -Eli Cohen; -Eliyahu Ari Cohen; -Eliyahu Arie Cohen; -Eric Cohen; <i>and</i> -Ari Kohan.  Binyamina, Israel.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 40178, 6/21/16.
	M&P Trading Inc., P.O. Box 161, Caesarea, Israel 3088903.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 40178, 6/21/16.
	Nuclear Research Center at Negev Dimona, Israel.	For all items subject to the EAR.	Case-by-case basis.	62 FR 35334, 6/30/97.
	P.AD Ltd., 42 Hamesilla Street, Binyamina, Israel.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 40178, 6/21/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>QPS Ltd., a.k.a., the following two aliases:            -Quality Parts and Spares; <i>and</i>            -Quality Parts and Services.</p> <p>5 Ner Halayla Street, Caesarea, Israel; <i>and</i>            42 Hamesilla Street, Railway Industrial Area,            Binyamina, Israel.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 40178, 6/21/16.
	<p>RSP Ltd., a.k.a., the following one alias:            -Rebuilt Spare Parts.</p> <p>HA'Assif 19, Binyamina, Israel 30550.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 40178, 6/21/16.
	Toga Networks, 4 Haharash St., Hod Hasharon, Israel.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	85 FR 51603, 8/20/20.
	Wheels Incorporated, HA'Assif 43, Binyamina, Israel 30551 (See alternate address under Panama).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 40178, 6/21/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
ITALY	Huawei Italia, Via Lorenteggio, 240, Tower A, 20147 Milan, Italy.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 43495, 8/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	Huawei Milan Research Institute, Milan, Italy.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 43495, 8/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	Zigma Aviation, a.k.a., the following one alias: -Zigma Aviation Services.  Viasalettuol, No. 12 Venezia Mestre, Italy.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
<b>JAMAICA</b>	Huawei Technologies Jamaica Company Limited, Kingston, Jamaica.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
<b>JAPAN</b>	Huawei Technologies Japan K.K., Japan.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
<b>JORDAN</b>	Huawei Technologies Investment Co. Ltd., Amman, Jordan.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	The Jordanian Lebanese Company for Laboratory Instruments S.A.L, Shmesani, Bldg. No 16 ground floor, Amman, 63, Jordan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	84 FR 61541, 11/13/19.
<b>KAZAKHSTAN</b>	Abtronics, 21 Solodovnikova Street, Almaty 50046, Kazakhstan (See alternate address under Russia).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 3580, 1/26/18.
	APEX Kazakhstan,  126 Jarokova Str, Almaty, Kazakhstan.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Huawei Technologies LLC Kazakhstan, 191 Zheltoksan St., 5th floor, 050013, Bostandyk, District of Almaty, Republic of Kazakhstan.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 43495, 8/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	Timofey Telegin, 21 Solodovnikova Street, Almaty 50046, Kazakhstan (See alternate address under Russia).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 3580, 1/26/18.
<b>LEBANON</b>	al Tawasul al Arabi Net Systems,  Beirut, Lebanon (See alternate addresses under U.A.E.).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 32445, 6/5/14.
	EDO-ELEMED, a.k.a., the following two aliases: -EDO ELEMED; <i>and</i> -EDO/ELEMED.  St. Nicolas Street, Bldg. #5 – Ba’abda, Beirut, Lebanon; <i>and</i> Ashrafiyeh, St. Louis Street, Abou Jawdeh Bldg. 2 Floor, Beirut, Lebanon. (See alternate addresses under Syria)	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	84 FR 61541, 11/13/19. 85 FR 14796, 03/16/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>EKT Electronics, a.k.a., the following four aliases:            -Katrangi Electronics;            -Katrangi Trading;            -Katrangi Labs; <i>and</i>            -Electronics Systems.</p> <p>1st floor, Hujij Building, Korniche Street, P.O. Box 817 No. 3, Beirut, Lebanon; P.O. Box: 8173, Beirut, Lebanon; <i>and</i>            #1 fl., Grand Hills Bldg., Said Khansa St., Jnah (BHV), Beirut, Lebanon. (See alternate addresses under Syria.)</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54507, 9/22/08. 77 FR 24590, 4/25/12.
	<p>Elemed Liban,            St. Nicolas Street, Bldg. #5 – Ba’abda, Beirut, Lebanon.            (See also addresses under Syria)</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	84 FR 61541, 11/13/19.
	<p>Huawei Technologies Lebanon,            Beirut, Lebanon.</p>	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	<p>Husayn Fa’ur, a.k.a., the following one alias:            -Hussein Faour.</p> <p>Beirut Hadath, Morjan Bldg near Sfeir Bridge, Lebanon            (See alternate address under U.A.E.).</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 32445, 6/5/14.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Micro Power Engineering Group, a.k.a., MPEG, Anwar Street, Abou Karam Building, 1st Floor, Jdeidet El Metn, Beirut, Lebanon.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 44261, 7/25/11.
	Mohammed Katranji, 1 <sup>st</sup> floor, Hujij Building, Korniche Street, P.O. Box 817 No. 3, Beirut, Lebanon (See alternate address under Syria).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54507, 9/22/08.
	Narinco Micro Sarl, Dedeyan Center, Dora Boulevard Street, Bauchrieh Metn, Lebanon.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR44261, 7/25/11.
	New Intelcom, Manchieh St, Garden Place Blvd, Hariet Hreik, Beirut, Lebanon; <i>and</i> Al-Hadath, Gallery Semann, Behind KFC, Jordan Bldg, 1 <sup>st</sup> Floor, Beirut, Lebanon.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 32445, 6/5/14.
	Power S.A.L., Al-Hadath, Gallery Semann, Behind KFC, Jordan Bldg, 1 <sup>st</sup> Floor, Beirut, Lebanon.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 32445, 6/5/14.
	Rahal Corporation for Technology and Medical Supplies, St. Nicolas Street, Bldg. #5 – Ba’abda, Beirut, Lebanon. (See also addresses under Syria)	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	84 FR 61541, 11/13/19.
	Rahal Establishment, St. Nicolas Street, Bldg. #5 – Ba’abda, Beirut, Lebanon. (See also addresses under Syria)	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	84 FR 61541, 11/13/19.
	Serop Elmayan and Sons Lebanon, Ground Floor, Aramouni Building, Property Number 1731, Fleuve Street, Mar Mekhael Sector, Beirut, Lebanon.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR44261, 7/25/11.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Serpico Offshore Sarl, Ground Floor, Aramouni Building, Property Number 1731, Fleuve Street, Mar Mekhael Sector, Beirut, Lebanon.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR44261, 7/25/11.
	Wave Tech, Riad El Sulh Square, Shaker & Oweini Bldg, 4 <sup>th</sup> Floor, Beirut, Lebanon.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 32445, 6/5/14.
	Zener Lebanon, Beirut Hadath, Morjan Bldg near Sfeir Bridge, Lebanon.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 32445, 6/5/14.
<b>LUXEMBOURG</b>	Maples SA, Boulevard Royal 25/B 2449, Luxembourg.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 80646, 12/28/15.
	Volga Group, a.k.a., the following three aliases: -Volga Group Investments, <i>and</i> -Volga Resources, <i>and</i> -Volga Resources Group.  3, rue de la Reine L-2418 Luxembourg (See alternate address under Russia).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 24561, 5/1/14.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
<b>MADAGASCAR</b>	Huawei Technologies Madagascar Sarl, Antananarivo, Madagascar.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
<b>MALAYSIA</b>	Ace Hub System, No. 15, Jalan PJS 11/16, Taman Bandar Sunway, 46150 Petaling Jaya, Selangor, Malaysia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54507, 9/22/08.
	Ahmad Rahzad, a.k.a., Saeb Karim, 27-06, Amcorp Bldg, Jalan 18, Persiaran Barat, Petaling Jaya, 46050 Selangor, Malaysia (See alternate address under Iran).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54508, 9/22/08.
	Albin Technologies Sdn Bhd., M-3-19 Plaza Damas, Sri Hartamas, Kuala Lumpur, Malaysia 50480; and P.O. Box 4, Level 13A, Menara Park, Block D, Megan Ave. II, No 12, Jalan Yap Kwan Seng, Kuala Lumpur, Malaysia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 75463 12/12/13.
	Alex Ramzi, Suite 33-01, Menara Keck Seng, 203 Jalan Bukit Bintang, Kuala Lumpur, Malaysia 55100.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 1701, 1/13/10.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Amir Ghasemi, Suite 33-01, Menara Keck Seng, 203 Jalan Bukit Bintang, Kuala Lumpur, Malaysia 55100.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 1701, 1/13/10.
	Analytical Solutions, #GB (Ground Floor), Pearl Tower, O.G. Heights, Jalan Awan Cina, 58200 Kuala Lumpur, Malaysia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54508, 9/22/08. 73 FR 74001, 12/5/08.
	Ann Teck Tong, 97C, Jalan Kenari 23, Puchong Jaya, Puchong, Selangor, Malaysia Suite D23, Tkt. 2, Plaza Pekeliling, Jalan Tun Razak, Kuala Lumpur, Wilayah, Persekutuan, Malaysia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54508, 9/22/08.
	Antcorp System, 5-02 Wisma Pantai, Jalan Wisma Pantai 12200 Butterworth, Penang, Malaysia; 27-G Lorong Kelasah 2, Tamen Kelasah 13700 Seberang Jaya, Penang, Malaysia; and No. 9 Jalan 3/4C Desa Melawati 53100 Kuala Lumpur, Malaysia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54508, 9/22/08. 74 FR 8184, 02/24/09.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Anvik Technologies Sdn. Bhd., a.k.a., the following eight aliases:            -Anvik Technologies;            -Cason Technologies,            -Henan Electronics;            -Hixton Technologies;            -Hudson Technologies, Ltd.;            -Hudson Engineering (Hong Kong) Ltd.;            -Madison Engineering Ltd.; <i>and</i>            -Montana Advanced Engineering.</p> <p>Level 36, Menara Citibank, 165 Jalan Ampang, Kuala Lumpur, Malaysia, 50450; <i>and</i> Level 20, Menara Standard Chartered, 30 Jalan Sultan Ismail, Kuala Lumpur, Malaysia, 50250 (See alternate addresses under China and Iran).</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 75463 12/12/13. 85 FR 83769, 12/23/20.
	Austral Aero-Marine Corp. Sdn Bhd, 10A Jalan 2/137B, Resource Industrial Centre Off Jalan Kelang Lama 58000, Kuala Lumpur, Malaysia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 36519, 6/28/10.
	Austral Aviation Corp., 10A Jalan 2/137B, Resource Industrial Centre Off Jalan Kelang Lama 58000, Kuala Lumpur, Malaysia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 36519, 6/28/10.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Babak Jafarpour, a.k.a., the following five aliases:            -Bob Jefferson;            -Peter Jay;            -Sam Lee;            -Samson Lee; <i>and</i>            -David Lee.</p> <p>Level 36, Menara Citibank, 165 Jalan Ampang, Kuala Lumpur, Malaysia, 50450; <i>and</i> Level 20, Menara Standard Chartered, 30 Jalan Sultan Ismail, Kuala Lumpur, Malaysia, 50250; <i>and</i> Level 26, Tower 2, Etiqa Twins 11, Jalan Pinang, Kuala Lumpur, Malaysia 50450; <i>and</i> M-3-19 Plaza Damas, Sri Hartamas, Kuala Lumpur, Malaysia 50480 (See alternate addresses under China and Iran).</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 75463 12/12/13. 85 FR 83769, 12/23/20.
	Brian Kaam, a.k.a., Kaam Chee Mun, No. 15, Jalan PJS 11/16, Taman Bandar Sunway, 46150 Petaling Jaya, Selangor, Malaysia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54508, 9/22/08.
	Donny Lee, 34 Sultan Ismael, Kuala Lumpur, Malaysia 50350.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.
	East Tech, Malaysia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54508, 9/22/08.
	Eco Biochem Sdn Bhd, No. 15, Jalan PJS 11/16, Taman Bandar Sunway, 46150 Petaling Jaya, Selangor D.E., Malaysia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54508, 9/22/08. 77 FR 58006, 9/19/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	EEZ SDN, a.k.a., the following one alias: -Electronic Engineering Zone SDN BHD.  33-88 Menara Keck Seng, 203 Jalan Bukit Bintang, Kuala Lumpur, Malaysia; <i>and</i> A-17-8 Tower A, Menara Atlas, Plaza Pantai 5, Jalan 4/83A, off Jalan Pantai Baru, Kuala Lumpur, Malaysia; <i>and</i> B-3A-7 Empire Subang, Jalan SS16/1, Subang Jaya, Malaysia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 14958, 3/21/16.
	Evertop Services Sdn Bhd, Suite 33-01, Menara Keck Seng, 203 Jalan Bukit Bintang, Kuala Lumpur, Malaysia 55100.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 1701, 1/13/10.
	Festsco Marketing Sdn Bhd, 97C, Jalan Kenari 23, Puchong Jaya, Puchong, Selangor, Malaysia; <i>and</i> Suite D23, Tkt. 2, Plaza Pekeliling, Jalan Tun Razak, Kuala Lumpur, Wilayah Persekkutuan, Malaysia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54508, 9/22/08. 77 FR 58006, 9/19/12.
	HAT Logistics SDN BHD, Lot F1-37, Block A, Klas Cargo Complex, Sepang, Sengalor, Malaysia; <i>and</i> No. 27A, Jalan PJS 10/24, Bandar Sri Subang, 46150 Petaling Jaya, Selangor, Malaysia.	For all items subject to the EAR. (See §744.11 of the EAR).	Case-by-case review	85 FR 52901, 8/27/20.
	Jimmy Tok, 10A Jalan 2/137B, Resource Industrial Centre Off Jalan Kelang Lama 58000, Kuala Lumpur, Malaysia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 36519, 6/28/10.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	John Tan, Menara City One Condominium, Jalan Munshi Abdullah, City Centre, 50100 Kuala Lumpur, Malaysia; <i>and</i> Level 5, Manara City One, Letter Box CP5-01, No. 3, Jalan Munshi Abdullah, 50100 Kuala Lumpur, Wilayah Persekutuan, Malaysia; <i>and</i> Lot Fl-37, Block A, Freight Forwarders Building Klas Cargo Complex, KLIA, 64000 Sepang, Selangor, Malaysia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.
	Majid Kakavand, Suite 33-01, Menara Keck Seng, 203 Jalan Bukit Bintang, Kuala Lumpur, Malaysia 55100.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 1701, 1/13/10.
	Majid Seif, a.k.a., Mark Ong and Matti Chong, 27-06 Amcorp Building, Jalan 18, Persiaran Barat 46050 Petaling Jaya, Selangor, Malaysia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54508, 9/22/08.
	Maxwell Prima-Ventures SDN BHD, No. 12-20, Level 12, Duple Office, Plaza Azalea, Persiaran Bandaraya, Seksyen 14, 40000 Shah Alam, Selangor, Malaysia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.
	MKB Pacific Air SDN BHD, No. 214, 2nd Floor, Wisma MPL, Jalan Raja Chulan, 50200, Kuala Lumpur, Malaysia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 59421, 9/22/20.
	Mohamad Sadeghi, 33-88 Menara Keck Seng, 203 Jalan Bukit Bintang, Kuala Lumpur, Malaysia; <i>and</i> A-17-8 Tower A, Menara Atlas, Plaza Pantai 5, Jalan 4/83A, off Jalan Pantai Baru, Kuala Lumpur, Malaysia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 14958, 3/21/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Mohd Ansari, 5-02 Wisma Pantai, Jalan Wisma Pantai 12200 Butterworth, Penang, Malaysia; 27-G Lorong Kelasah 2, Tamen Kelasah 13700 Seberang Jaya, Penang Malaysia; and No. 9 Jalan 3/4C Desa Melawati 53100 Kuala Lumpur Malaysia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54508, 9/22/08. 73 FR 74001, 12/5/08. 74 FR 8184, 02/24/09.
	Mohd Zamri bin Mazleh, No 55, Jalan USJ 11/4M UEP Subang Jaya 47620 Subang Jaya, Selangor, Malaysia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.
	Mohsen Torabi, a.k.a., the following one alias: -Moha Torab.  2nd Floor, Jalan 9A, Berangan, Kuala Lumpur, Malaysia; <i>and</i> 33-88 Menara Keck Seng, 203 Jalan Bukit Bintang, Kuala Lumpur, Malaysia; <i>and</i> A-17-8 Tower A, Menara Atlas, Plaza Pantai 5, Jalan 4/83A, off Jalan Pantai Baru, Kuala Lumpur, Malaysia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 14958, 3/21/16.
	Mok Chin Fan, a.k.a., Chong Chen Fah, 10A Jalan 2/137B, Resource Industrial Centre Off Jalan Kelang Lama 58000, Kuala Lumpur, Malaysia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 36519, 6/28/10.
	Montana Advanced Engineering Sdn Bhd., Level 26, Tower 2, Etiqa Twins 11, Jalan Pinang, Kuala Lumpur, Malaysia 50450; <i>and</i> Level 20, Menara Standard Chartered, 30 Jalan Sultan Ismail, Kuala Lumpur, Malaysia, 50250; <i>and</i> P.O. Box 4, Level 13A, Menara Park, Block D, Megan Ave. II, No 12, Jalan Yap Kwan Seng, Kuala Lumpur, Malaysia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 75463 12/12/13.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Muhamad Fazil bin Khalid, 33-88 Menara Keck Seng, 203 Jalan Bukit Bintang, Kuala Lumpur, Malaysia; <i>and</i> A-17-8 Tower A, Menara Atlas, Plaza Pantai 5, Jalan 4/83A, off Jalan Pantai Baru, Kuala Lumpur, Malaysia; <i>and</i> No. 2 Jalan 29C, Selayang Baru, Batu Caves, Selangor, Malaysia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 14958, 3/21/16.
	NBH Industries, No. 154, Persiaran Raja Muda, Klang Selangor, Malaysia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 44824, 9/4/18. 83 FR 44824, 9/4/18. 84 FR 40241, 8/14/19.
	Nexus Empire, a.k.a., Vast Solution 2706, Amcorp Bldg., Jalan Persiaran Barat, Petaling Jaya, Selangor, Malaysia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54508, 9/22/08.
	Nur Rochman Achmad, No. 12-20, Level 12, Duple Office, Plaza Azalea, Persiaran Bandaraya, Seksyen 14, 40000 Shah Alam, Selangor, Malaysia; <i>and</i> Lot 204 CSC Building, KLAS Cargo Complex, KLIA 64000 Sepang, Selangor Darul Ehsan Malaysia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.
	PNPI Group SDN BHD, Menara City One Condominium, Jalan Munshi Abdullah, City Centre, 50100 Kuala Lumpur, Malaysia; <i>and</i> Level 5, Manara City One, Letter Box CP5-01, No. 3, Jalan Munshi Abdullah, 50100 Kuala Lumpur, Wilayah Persekutuan, Malaysia; <i>and</i> Lot F1-37, Block A, Freight Forwarders Building Klas Cargo Complex, KLIA, 64000 Sepang, Selangor, Malaysia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Quantum Aviation and Supply SDN BHD, No. 12-20, Level 12, Duple Office, Plaza Azalea, Persiaran Bandaraya, Seksyen 14, 40000 Shah Alam, Selangor, Malaysia; <i>and</i> Lot 204 CSC building, KLAS Cargo complex, KLIA 64000 Sepang, Selangor Darul Ehsan, Malaysia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.
	Sam Johnson, Menara City One Condominium, Jalan Munshi Abdullah, City Centre, 50100 Kuala Lumpur, Malaysia; <i>and</i> Level 5, Manara City One, Letter Box CP5-01, No. 3, Jalan Munshi Abdullah, 50100 Kuala Lumpur, Wilayah Persekutuan, Malaysia; <i>and</i> Lot F1-37, Block A, Freight Forwarders Building Klas Cargo Complex, KLIA, 64000 Sepang, Selangor, Malaysia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.
	Sky Marine and Oil SDN BHD, a.k.a., the following three aliases: -Sky Marine & Oil SDN BHD; -Sky Marine and Oil; <i>and</i> -Sky Marine & Oil.  Lot 210, 2nd Floor CSC Building, Klas, Sepang, Selangor, Malaysia 64000; <i>and</i> 34 Sultan Ismael, Kuala Lumpur, Malaysia 50350; <i>and</i> Level 5, Manara City One, Letter Box CP5-01, No. 3, Jalan Munshi Abdullah, 50100 Kuala Lumpur, Wilayah Persekutuan, Malaysia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.
	Syarikat Penghantaran TWW Sdn Bhd, Lot C-7, Block C Mas Advance Cargo Centre KLIA Cargo Village Southern Support Zone 64000, Sepang Selangor Darul Ehsan, Malaysia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 14958, 3/21/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Vast Solution Sdn Bhd., 27-06 Amcorp Building, Jalan 18, Persiaran Barat, 46050 Petaling Jaya, Selangor, Malaysia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54508, 9/22/08.
	VTE Industrial Automation Sdn Bhd, 97C, Jalan Kenari 23, Puchong Jaya, Puchong, Selangor, Malaysia; <i>and</i> 45-02, Jalan Kenari 19A, Puchong Jaya, Puchong, Selangor, 47100 Malaysia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54508, 9/22/08. 76 FR 78146, 12/16/11. 77 FR 58006, 9/19/12.
	Zulkefli bin Yusuf, a.k.a., the following one alias: -Zulkefli Yusof.  No. 12-20, Level 12, Duple Office, Plaza Azalea, Persiaran Bandaraya, Seksyen 14, 40000 Shah Alam, Selangor, Malaysia; <i>and</i> Lot 204 CSC building, KLAS Cargo complex, KLIA 64000 Sepang, Selangor Darul Ehsan, Malaysia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.
<b>MALTA</b>	Feroz Ahmed Akbar, 116/8 San Juan St, Georges Road, ST. Julians, STJ 3203, Malta.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
	Sparx Air Ltd., 116/8 San Juan St Georges Road, ST. Julians, STJ 3203, Malta.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
MEXICO	Huawei Cloud Mexico, Mexico City, Mexico.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	85 FR 51603, 8/20/20.
	Huawei OpenLab Mexico City, a.k.a., the following one alias, -Huawei Mexico City OpenLab.  Mexico City, Mexico.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	85 FR 51603, 8/20/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Huawei Technologies De Mexico S.A., Avenida Santa Fé No. 440, Torre Century Plaza Piso 15, Colonia Santa Fe, Delegación Cuajimalpa de Morelos, C.P. 05348, Distrito Federal, CDMX, Mexico; <i>and</i> Laza Carso, Torre Falcón, Lago Zurich No. 245, Piso 18, Colonia Ampliacion Granda, Delegación Miguel Hidalgo, CDMX, Mexico.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 43495, 8/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
<b>MOROCCO</b>	Huawei Technologies Morocco, Immeuble High Tech, 4eme Etage, Plateaux N 11, 12 Et 13, Hay Riad – Rabat, Morocco.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	85 FR 51603, 8/20/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
NETHERLANDS	All Industrial International, Knobbelswaansingel 19, 2496 LN, The Hague, Netherlands; <i>and</i> Breukelensestraat 44, 2574 RC, The Hague, Netherlands.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 14958, 3/21/16.
	Huawei Cloud Netherlands, Amsterdam, Netherlands.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	85 FR 51603, 8/20/20.
	Huawei Technologies Coöperatief U.A., Netherlands.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Kapil Raj Arora, Breukelensestraat 44, 2574 RC, The Hague, Netherlands; <i>and</i> Knobbelswaansingel 19, 2496 LN, The Hague, Netherlands.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 14958, 3/21/16.
	Nicolas Kaiga, a.k.a., the following one alias: -Nicholas Kaiga.  32 Disneystrook, 2726CT Zoetemeer, Netherlands. (See alternate addresses under Belgium and United Kingdom).	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	84 FR 40241, 8/14/19.
<b>NEW ZEALAND</b>	Huawei Technologies (New Zealand) Company Limited, 80 Queen Street, Auckland Central, Auckland, 1010, New Zealand.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 43495, 8/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
<b>NORWAY</b>	Gunther Migeotte, Titangata 1, N-1630 Gamle, Fredrikstad, Norway; and H. Eyjes vei 8A, Gressvik, Norway; and Holsneset 19, 6030 Langevag, Norway; and Titangata 1, 1630 Fredrikstad, Norway (See alternate address under South Africa).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 36519, 6/28/10.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Icarus Design AS, Titangata 1 N-1630 Gamle, Fredrikstad, Norway.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 36519, 6/28/10.
<b>OMAN</b>	Airborne Logistics LLC, C.R. No 1/79103/6, 112 Ruwi, Sultanate of Oman.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 59421, 9/22/20.
	Hejaif Alhadeetha Trading Company, P.O. Box 997 PC512, Oman.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.
	Huawei Tech Investment Oman LLC, Muscat, Oman.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	Safe Technical Supply Co., LLC, a.k.a., the following three aliases: -Safe Technical Equipment Services LLC; -Safe Technical; <i>and</i> -SafeTech.  Way # 2926, Al Habib Building # 65, Rex Road RUWI, Sultanate of Oman; <i>and</i> P.O. Box: 926, PC 114, Jibroo, Oman. (See also addresses under Saudi Arabia and the United Arab Emirates).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	84 FR 61541, 11/13/19.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
<b>PAKISTAN</b>	<p>Abdul Qader Khan Research Laboratories (AQKRL), a.k.a., the following seven aliases:</p> <ul style="list-style-type: none"> <li>-Abdul Qadeer Khan Research Laboratories;</li> <li>-Dr. A.Q. Khan Research Laboratories;</li> <li>-Engineering Research Laboratories (ERL);-Institute of Industrial Control Systems (IICS);</li> <li>-Kahuta Nuclear Facility;</li> <li>-Kahuta Research Facility; <i>and</i></li> <li>-Khan Research Laboratories (KRL).</li> </ul> <p>Dhoke Nusah, Dakhli Gangal, Near Chatri Chowk, P.O. Box 1398, Rawalpindi 46000, Pakistan; <i>and</i> P.O. Box 852, Rawalpindi, Pakistan; <i>and</i> P.O. Box 502, Kahuta, Pakistan; <i>and</i> 24 Mauve Area G 9/1, GPO Box 2891, Islamabad.</p>	For all items subject to the EAR.	Case-by-case for all items listed on the CCL. Presumption of approval for EAR99 items.	63 FR 64322, 11/19/98. 65 FR 14444, 03/17/00. 66 FR 50090, 10/01/01. 77 FR 58006, 9/19/12.
	<p>Abdul Satar Ghoura, 127-128, Times Center, Saddar Road, Peshawar, Pakistan; <i>and</i> House Number 32, F-2, Khusal Khan Khattak Road, University Town, Peshawar, Pakistan. (See alternate addresses under Afghanistan).</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 71869, 11/21/11.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Advanced Engineering Research Organization (AERO), a.k.a., the following one alias: -Integrated Solutions.  Lub Thatoo Hazara Road, The Taxila District, Rawalpindi, Pakistan; <i>and</i> 53/2 26th Street, near Badara Commercial Area Phase 5 Extension, DHA Karachi, Pakistan; <i>and</i> House No. 334, Street No. 102, Sector I-8/4, near Pakeeza Market, Islamabad, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 56003, 9/18/14. 83 FR 3580, 1/26/18.
	Advance Multicom, F-1, 1 <sup>st</sup> Floor, Rizwan Arcade, 109-C Adamjee Road, Saddar, Rawalpindi, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	See §744.2(d) of the EAR.	85 FR 14796, 03/16/20.
	Affiliated Supply and Consultancy Services, Office 208, R.A. Bazar, Rawalpindi, Pakistan; <i>and</i> Office No. 210-A, R.A. Bazar, Rawalpindi, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 59421, 9/22/20.
	Ahad International, Suite #5-6, 2nd Floor, Empress Tower, Empress Road, Lahore-54000, Pakistan; <i>and</i> 11-12-13, 2nd Floor, Nomro Center, Badami Bagh, Lahore, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 90714, 12/15/16.
	Air Weapons Complex (AWC), AWC: E-5, Officers Colony, Wah Cantt, Punjab, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 90714, 12/15/16.
	Akhtar & Munir,  Hussain Plaza 60-B No. 3, Adamjee Road, Punjab 46000, Pakistan;	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 12479, 3/22/18.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Al Technique Corporation of Pakistan, Ltd. (ATCOP), 4th Floor, Dodhy Plaza, 52 Jinnah Avenue, P.O. Box 1878, Islamabad, Pakistan.	For all items subject to the EAR.	Case-by-case for all items listed on the CCL. Presumption of approval for EAR99 items.	63 FR 64322, 11/19/98. 65 FR 14444, 03/17/00. 66 FR 50090, 10/01/01. 77 FR 58006, 9/19/12.
	Allied Trading Co., a.k.a., the following alias: -UCB Arcade.  2, Wazir Mansion, main Aiwan-e-tijarat Road, Boulton Market, Karachi– 74000, Karachi, Pakistan (See alternate address under UCB Arcade in Uganda).	For all items subject to the EAR.	Case-by-case for all items listed on the CCL. Presumption of approval for EAR99 items.	63 FR 64322, 11/19/98. 65 FR 14444, 03/17/00. 66 FR 50090 10/01/01. 77 FR 58006, 9/19/12.
	ANZ Importers and Exporters, Islamabad.	For all items subject to the EAR.	Case-by-case for all items listed on the CCL. Presumption of approval for EAR99 items.	63 FR 64322, 11/19/98. 65 FR 14444, 03/17/00. 66 FR 50090, 10/01/01.
	Azad Motors Property Choice, a.k.a., the following four aliases: -Peshawar Master Azad Motors; -Peshawar Motors Complex; -Karakoram Azad Motors; <i>and</i> -Azad Cars.  Main GT Road, Hajji Camp, Peshawar, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 8527, 2/18/15.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Azam Electronics, a.k.a., the following two aliases: -Mohammad Azam Electronics, <i>and</i> -Akram Dish TV Satellite Center,  Chaman, Killa, Abdullah District, Baluchistan Province, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	77 FR 71098, 11/29/12.
	Blue Chip International, House No.19 Central Avenue,Fazaia Housing, Rawalpindi, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	See §744.2(d) of the EAR.	85 FR 52901, 8/27/20.
	Busan International, No. 2 2nd Floor Plaza 6, Upper Banl Al-Falah, DHA2, Commercial Sector E, Jinnah Boulevard, Islamabad, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	See §744.2(d) of the EAR.	85 FR 59421, 9/22/20.
	Business Empire International, a.k.a., the following one alias: -Drillage Trading FZE LLC.  H-9, Block-9, Sector-F , Business Bay, DHA-1, Islamabad, Pakistan; <i>and</i> No. 13, Second Floor, Rahmat Centre, Islamabad, 44000.	For all items subject to the EAR. (See §744.11 of the EAR).	See §744.2(d) of the EAR.	85 FR 59421, 9/22/20.
	Creative Dynamics Engineering, a.k.a., the following one alias: -Creative Dynamics.  66/1-M Block 6, PECHS, Karachi, Sindh 75400, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	82 FR 24245, 5/26/17.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Defense Science and Technology Organization (DESTO), a.k.a., the following two aliases:            -Defense Science and Technology Center; <i>and</i>            -Chaklala Defense Science and Technology Organization.</p> <p>182 Sir Syed Road, Chaklala Cantt, Rawalpindi 46200, Pakistan; <i>and</i> Headquarters, Chakklala Cantt, Rawalpindi, 46200, Pakistan.</p>	For all items subject to the EAR.	Case-by-case for all items listed on the CCL. Presumption of approval for EAR99 items.	63 FR 64322, 11/19/98. 65 FR 14444, 03/17/00. 66 FR 50090, 10/01/01. 77 FR 58006, 9/19/12.
	<p>Engineering and Commercial Services (ECS),</p> <p>204, 2nd Floor, Capital Business Center, F-10 Markaz, Islamabad, Pakistan.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 12479, 3/22/18.
	<p>Engineering Equipment (Private) Limited,</p> <p>26-D Kashmir Plaza, Jinnah Avenue, Islamabad, Pakistan.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	84 FR 61541, 11/13/19.
	<p>Engineering Solutions Pvt. Ltd.,</p> <p>726, G-11/2. Ibne-Sina Road, Islamabad, Pakistan.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 90714, 12/15/16.
	<p>Fabcon International,</p> <p>359 G-4, Johar Town, Lahore, Pakistan; <i>and</i> 227 Sunder Industrial Estate, Sunder-Raiwind Road, Lahore, Pakistan; <i>and</i> MZ-9, Central Plaza, Barkat Market, Lahore, Pakistan; <i>and</i> MZ-9, Central Plaza Barkat Market, Pakistan.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	84 FR 61541, 11/13/19.
	<p>FACO Trading,</p> <p>204, Bank &amp; Business Centre Near Duty Free Shop off Shahrah-e-Faisal, Karachi, Sindh, Pakistan.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	82 FR 24245, 5/26/17.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Farzad Fazil Karim, a.k.a., the following one alias: -Ahmad Farzad.  E3 Gul market Street 8, Hayatabad, Pakistan; and 122, First floor, Gul Haji Plaza, Peshawar, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 71869, 11/21/11.
	Fazal Rahim Farid, a.k.a., the following three aliases: -Fazel Rahim Farid; -Farid; <i>and</i> -Engineer Idris.  122, First Floor, Gul Haji Plaza, Peshawar, Pakistan; <i>and</i> House Number 32, F-2, Khusal Khan Khattak Road, University Town, Peshawar, Pakistan. (See alternate addresses under Afghanistan).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 71869, 11/21/11.
	Future Systems Pvt. Ltd., 10 Main Double Road F11/3, Islamabad, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 56003, 9/18/14.
	Geo Research, 136-B Faisal Town, Lahore, Pakistan; <i>and</i> 102-G Block Model Town, Lahore, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	See §744.2(d) of the EAR.	85 FR 83420, 12/22/20.
	Hakim Noor, a.k.a., the following one alias: -Hakim Nur.  Sarafa Shop #10, Noor Muhammad Market, Miram Shaw, Pakistan; <i>and</i> Mir Nasir Plaza, Sikandar Pura, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 8527, 2/18/15.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Hakim Nur Sarafa, a.k.a., the following two aliases:            -Noor Muhammad Market; <i>and</i>            -Haji Hakim Noor Saraf.</p> <p>Sarafa Shop #10, Noor Muhammad Market, Miram Shaw, Pakistan; <i>and</i>            Market Shop Number 10, Sarafa Bazar Miram Shaw, Pakistan.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 8527, 2/18/15.
	<p>High Technologies, Ltd. (HTL), a.k.a., the following alias:            -High Technology, Ltd.</p> <p>Islamabad.</p>	For all items subject to the EAR.	Case-by-case for all items listed on the CCL. Presumption of approval for EAR99 items.	63 FR 64322, 11/19/98. 65 FR 14444, 03/17/00. 66 FR 50090, 10/01/01. 77 FR 58006, 9/19/12.
	Huawei Technologies Pakistan (Private) Limited, Islamabad, Pakistan.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>IKAN Engineering Services, a.k.a., the following one alias: -IKAN Sourcing.</p> <p>34-KM Shamki Bhattian Multan Road, Lahore, Pakistan; <i>and</i> Plot 7, 1-11/3 Markaz, Islamabad, Pakistan; <i>and</i> Building #7, #9 Sanitary Market I-11/3 Islamabad, Pakistan; <i>and</i> House #B-4, Block-F Gulshane-Jamal, Karachi, Pakistan; <i>and</i> 84/L Shah Rukn-e-Alam Colony Multan, Pakistan.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 56003, 9/18/14. 82 FR 44516, 9/25/17.
	<p>Iman Group, a.k.a., the following one alias: -Pana Communication Inc.</p> <p>Plot No. 227, St. No. 7, Sector I-9/2, Industrial Area, Near Dry Port, Islamabad, Pakistan; <i>and</i> 70-East A.A. Plaza, Mezz. Floor Blue Area, Islamabad 44000, Capital, Pakistan.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	82 FR 24245, 5/26/17. 82 FR 44516, 9/25/17.
	<p>IMCO Technology and Services, a.k.a., including the following alias: -IMCO.</p> <p>No. 9, 2nd Floor, Royal Inn Plaza, Kohistan Road, F-8 Markaz, Islamabad, Pakistan.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	See §744.2(d) of the EAR.	85 FR 59421, 9/22/20.
	<p>IMPEX Trade &amp; Services,</p> <p>455/A Adamjee Road, Saddar, Rawalpindi, Pakistan.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	84 FR 21236, 5/14/19.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Interscan,  Sattar Villa B, 32/1-C-1 Block-6, P.E.C.H.S., Karachi 75400i, Sindh, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	82 FR 24245, 5/26/17. 82 FR 44516, 9/25/17.
	Iqbal Enterprises, 14 Nishter Road, Lahore, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	See §744.2(d) of the EAR.	85 FR 59421, 9/22/20.
	Irum Mehboob Raja, Pakistan Institute of Nuclear Science and Technology (PINSTECH), Nilore, Islamabad, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 56003, 9/18/14.
	Jalaluddin Haqqani, a.k.a., the following seven aliases: -General Jalaluddin; -Haqqani Sahib; -Maulama Jalaluddin; -Maulawi Haqqani; -Molvi Sahib; -Mulawi Jalaluddin; <i>and</i> -Mullah Jalaluddin.  Miram Shah, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	77 FR 25057, 4/27/12.
	Kepler Corporation, Office No. 13, 2 <sup>nd</sup> Floor, Jannat Arcade, G-11 Markaz, Islamabad, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 14796, 03/16/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Khalil Zadran, a.k.a., the following eight aliases:            -Samar Gul Khalil;            -Khalil Samar Gul;            -Samer Khalil;            -Samer Gul Khalil;            -Khlil Khalil;            -Kalil Khalil;            -Khalil Khualil; <i>and</i>            -Haji Khalil.</p> <p>House 14, Street 13, Sector F-7/2, Islamabad, Pakistan;  <i>and</i> House 20-B, Main College Road, Sector F-7/2, Islamabad, Pakistan (See alternate address in Afghanistan).</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	77 FR 25057, 4/27/12.
	<p>Khalil Zadran Company, a.k.a., the following alias:            -Khalil Construction.</p> <p>Pakistan (See alternate address in Afghanistan).</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	77 FR 25057, 4/27/12.
	<p>KK International Traders (KKIT),            House No. 19 Central Avenue, Fazaia Housing,            Rawalpindi, Pakistan.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	See §744.2(d) of the EAR.	85 FR 52901, 8/27/20.
	<p>KMA International Import and Export Co.,             Sector I-8/4, House No. 460, Street No. 105, Islamabad            44000, Pakistan.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	82 FR 24245, 5/26/17.
	<p>KTK Engineering (PVT) LTD,            29-M, Civic Centre, Model Town Ext., Lahore, Pakistan.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	See §744.2(d) of the EAR.	85 FR 59421, 9/22/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Kurshid Ghoura, a.k.a., the following two aliases:            -Kurshed Ghoura; and            -Kursheed Ghoura.</p> <p>127-128, Times Center, Saddar Road, Peshawar, Pakistan; <i>and</i> House Number 32, F-2, Khusal Khan Khattak Road, University Town, Peshawar, Pakistan.            (See alternate addresses under Afghanistan).</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 71869, 11/21/11.
	Lapcom Computer Stores, 122, First Floor, Gul Haji Plaza, Peshawar, Pakistan. (See alternate address under Afghanistan).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 71869, 11/21/11.
	Lastech Associates, Islamabad.	For all items subject to the EAR.	Case-by-case for all items listed on the CCL. Presumption of approval for EAR99 items.	63 FR 64322, 11/19/98. 65 FR 14444, 03/17/00. 66 FR 50090, 10/01/01.
	<p>Link Lines (Pvt.) Limited, a.k.a., the following one alias:            -Link Lines.</p> <p>1<sup>st</sup> Floor, Flat B, 11 Main Gulberg, Ghaus-Ul-Azam Road, Lahore, Pakistan; <i>and</i> VIP Square Plaza, 1<sup>st</sup> Floor, Office No. 3, 1-8 Markaz, Islamabad, Pakistan; <i>and</i> 1<sup>st</sup> Floor, 3-Sultana Arcade, Gulberg III, Lahore, Pakistan; <i>and</i> 17-Chaman Chambers, Nishter Road, Lahore, Pakistan.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	See §744.2(d) of the EAR.	85 FR 83420, 12/22/20.
	<p>LT Engineering and Trade Services (Pvt) Ltd. (LTE),            Lub Thatoo, Abbotabad Road, Hasan Abdal, Pakistan;  <i>and</i>            30 Nazimud din Road, F-10/4, Islamabad, Pakistan.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 56003, 9/18/14.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Machinery Master Enterprises Ltd. (MME), Islamabad.	For all items subject to the EAR.	Case-by-case for all items listed on the CCL. Presumption of approval for EAR99 items.	63 FR 64322, 11/19/98. 65 FR 14444, 03/17/00. 66 FR 50090, 10/01/01. 77 FR 58006, 9/19/12.
	Makkays Hi-Tech Systems, a.k.a., the following one alias: -Zaib Electronics.  Block 14 Civic Centre, G-6 Markaz, Islamabad, Pakistan; <i>and</i> Kulsum Plaza, 42 Jinnah Avenue, Islamabad, Pakistan; <i>and</i> Basement Khyber Plaza, Barma Town, near Barma Bridge, Lehtar Road, Islamabad, Pakistan; <i>and</i> House No. 675, Street No. 19, G-9/3, Islamabad, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	82 FR 24245, 5/26/17. 82 FR 44516, 9/25/17.
	Maple Engineering Pvt. Ltd. Consultants, Importers and Exporters, Islamabad.	For all items subject to the EAR.	Case-by-case for all items listed on the CCL. Presumption of approval for EAR99 items.	63 FR 64322, 11/19/98. 65 FR 14444, 03/17/00. 66 FR 50090, 10/01/01. 77 FR 58006, 9/19/12.
	Marine Systems Pvt. Ltd.,  2nd Floor, Kashmir Plaza, Blue Area, G-6/F-6 Islamabad, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 12479, 3/22/18.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Maritime Technology Complex (MTC), MTC: Plot 94, Karachi, Pakistan; <i>and</i> MTC: System Division, PN Dockyard, Karachi, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 90714, 12/15/16.
	Micado,  40-C, Block-6, P.E.C.H.S., Shahrah-e-Faisal, Karachi, Sindh, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	82 FR 24245, 5/26/17. 82 FR 44516, 9/25/17.
	Mohammad Azam, a.k.a, -Mohammad Akram,  Chaman, Killa, Abdullah District, Baluchistan Province, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	77 FR 71098, 11/29/12.
	MSN International,  Office No. 32/37, 1st Floor, Behind NBP, Aslam Market, Wah Cantt, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	82 FR 24245, 5/26/17.
	Muhammad Halim Ghoura, 127-128, Times Center, Saddar Road, Peshawar, Paki stan, and House Number 32, F-2, Khusal Khan Khattak Road, University Town, Peshawar, Pakistan. (See alternate addresses under Afghanistan).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 71869, 11/21/11.
	Muhandis Corporation No. 283, Kahuta Triangle Industrial Area, Islamabad 44000 Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	84 FR 61541, 11/13/19.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Mushko Electronics Pvt. Ltd., Safa House Address, Abdullah Haroon Road, Karachi Pakistan; <i>and</i> Victoria Chambers, Abdullah Haroon Road, Saddar Town, Karachi, Pakistan; <i>and</i> Office No. 3&8, First Floor, Center Point Plaza, Main Boulevard, Gullberg-III, Lahore, Pakistan; 26-D Kashmir Plaza East, Jinnah Avenue, Blue Area, Islamabad, Pakistan; <i>and</i> 68-W, Sama Plaza, Blue Area Sector G-7, Islamabad, Pakistan.	For all items on the Commerce Control List (CCL) only.	Presumption of denial.	83 FR 12479, 3/22/18. 84 FR 61541, 11/13/19.
	National Engineering and Scientific Commission (NESCOM), NESCOM Head Quarter, Plot #94, Sector H-11/4, Islamabad, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 90714, 12/15/16.
	National Engineering Service Trading and Consultancy Company, 3rd Floor, Suite 01, Khyber Plaza, Fazul-ul-Haq Road, Blue Area Islamabad, Pakistan 46000.	For all items subject to the EAR. (See §744.11 of the EAR).	See §744.2(d) of the EAR.	85 FR 14796, 03/16/20.
	Nazir and Sons International, 2 <sup>nd</sup> Floor, Pracha Plaza, Near Municipal Committee Office Road, Taxila, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 56003, 9/18/14.
	New Auto Engineering (NAE), NAE: 72, Industrial Area, Peshawar Road, Rawalpindi, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 90714, 12/15/16.
	Ologh Beg International Forwarders Ltd., 127-128, Times Center, Saddar Road, Peshawar, Pakistan; <i>and</i> House Number 32, F-2, Khusal Khan Khattak Road, University Town, Peshawar, Pakistan. (See alternate address under Afghanistan).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 71869, 11/21/11.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Oriental Engineers, a.k.a., the following four aliases:            -Oriental Engineers Pvt. Ltd.;            -Oriental Engineers Services;            -Advance Technologies; <i>and</i>            -Advanced Technologies.</p> <p>11-B Main Gulberg, Lahore, Pakistan; <i>and</i> 1<sup>st</sup> Floor, Flat B, 11 Main Gulberg, Ghaus-UI-Azam Road, Lahore, Pakistan; <i>and</i> 14 Nishter Road, Lahore, Pakistan; <i>and</i> LG-7 Eden Heights 3-A and 6-A, Main Jail Road, Gulberg, Lahore, Pakistan; <i>and</i> VIP Square Plaza, 1<sup>st</sup> Floor, Office No. 3, I-8 Markez, Islamabad, Pakistan; <i>and</i> 199-E, Officers Colony, Cavalry Ground, Lahore, Cantt, Pakistan; <i>and</i> Office 7, Lower Ground Floor, Eden Heights, Plaza, Jail Road, Gulberg, Lahore 54600, Pakistan.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	82 FR 24245, 5/26/17. 85 FR 83420, 12/22/20.
	Orient Importers and Exporters, Islamabad.	For all items subject to the EAR.	Case-by-case for all items listed on the CCL. Presumption of approval for EAR99 items.	63 FR 64322, 11/19/98. 65 FR 14444, 03/17/00. 66 FR 50090, 10/01/01.
	Orion Eleven Pvt. Ltd., Street 11 Valley Road, Westridge Rawalpindi, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 56003, 9/18/14.
	Paktech Engineers, Suite 8-A-2 2nd Floor Islam Plaza G-9 Merkaz, Islamabad, Pakistan 44000.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	84 FR 61541, 11/13/19.
	Pakistan Atomic Energy Commission (PAEC), a.k.a., the following one alias: -Power Plant Workshops,	For all items subject to the EAR.	Case-by-case for all items listed on the CCL. Presumption of approval for	63 FR 64322, 11/19/98. 65 FR 14444, 03/17/00.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>P.O. Box 1114, Islamabad;  <i>and</i> the following four subordinate entities:</p> <ul style="list-style-type: none"> <li>-National Development Complex (NDC), a.k.a., the following two aliases: <ul style="list-style-type: none"> <li>-National Development Centre; <i>and</i></li> <li>-National Defense Complex.</li> </ul> </li> </ul> <p>Fateh Jang, Punjab, Rawalpindi, Pakistan; <i>and</i> P.O. Box 2216, Islamabad, Pakistan;</p> <ul style="list-style-type: none"> <li>-Pakistan Institute for Nuclear Science and Technology (PINSTECH), Nilore, Islamabad;</li> </ul> <p>-Nuclear reactors (including power plants), fuel reprocessing and enrichment facilities, all uranium processing, conversion and enrichment facilities, heavy water production facilities and any collocated ammonia plants; <i>and</i></p> <ul style="list-style-type: none"> <li>-National Institute of Lasers and Optronics (NILOP), a.k.a., the following one alias: <ul style="list-style-type: none"> <li>-National Institute of Lasers.</li> </ul> </li> </ul> <p>Lethrar Road, Islamabad, 45650, Pakistan; <i>and</i> Lethrar Road, Nilore, 45650, Islamabad, Pakistan; <i>and</i> Hetrat Road, Nilore, 45650, Islamabad, Pakistan; <i>and</i> House #453 St., #16 Sector, Islamabad, Pakistan.</p>		EAR99 items.	66 FR 50090, 10/01/01. 77 FR 58006, 9/19/12. 79 FR 56003, 9/18/14.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	People's Steel Mills, Javedan Nagar, Manghopir Road, Karachi 75890, Pakistan.	For all items subject to the EAR.	Case-by-case for all items listed on the CCL. Presumption of approval for EAR99 items.	63 FR 64322, 11/19/98. 65 FR 14444, 03/17/00. 66 FR 50090, 10/01/01. 77 FR 58006, 9/19/12.
	Pervaiz Commercial Trading Co. (PCTC), PCTC House, 36-B Model Town, Lahore, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 12479, 3/22/18.
	Premier International, a.k.a., the following one alias: -Align Impex.  Suite E-2, E-Market, DHA EME Sector, Multan Road, Lahore-54500, Pakistan; <i>and</i> Suite 22 1st Floor Lodhi Arcade, 42 Ferozpur Road, Lahore, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	82 FR 24245, 5/26/17.
	Prime International.	For all items subject to the EAR.	Case-by-case for all items listed on the CCL. Presumption of approval for EAR99 items.	63 FR 64322, 11/19/98. 65 FR 14444, 03/17/00. 66 FR 50090, 10/01/01.
	Proficient Engineers,  Tariq Block, 437 New Garen Town, Lahore, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 12479, 3/22/18.
	QTech, West Land Trade Centre, Suite 615-B, 6th Floor C/5, Block 7 & 8, Commercial Area, KCHS, Shaheed-e- Millat Road, Karachi, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	See §744.2(d) of the EAR.	85 FR 52901, 8/27/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Rohtas Enterprises Flat No. 8, Third Floor, Green Valley Apartments, Behind Faiz ul Islam Complex, Faizabad-Rawalpindi, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	84 FR 61541, 11/13/19.
	Samina Pvt. Ltd., 203 Hotel Imperial Building, #2M.T. Kahn Road, Karachi, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 14796, 03/16/20.
	SANCO Pakistan, Office No. 11, First Floor, City Center Plaza, D-12 Markaz, Islamabad, Pakistan; <i>and</i> House #269, Street #17, Sector F-10/2, Islamabad, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 14796, 03/16/20.
	Sayyed Brothers Engineering Co. (SBEC), House No. 805, Street No. 80-C, I-8/4, Islamabad, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	See §744.2(d) of the EAR.	85 FR 52901, 8/27/20.
	Sci-Tech Global, House No. 533, Street 66, Pakistan Town Phase-I, Islamabad 45720, Pakistan; <i>and</i> 1 <sup>st</sup> Floor, The British School Building, 252-A, Pakistan Town Phase I, Korang Town Link Road, Islamabad, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	See §744.2(d) of the EAR.	85 FR 52901, 8/27/20.
	Sher Qadir, Darpa Khel Village, Mirim Shaw, Pakistan.	For all items subject to the EAR.	Presumption of denial.	80 FR 8527, 2/18/15.
	Skytech Global Pvt. Ltd., House No. 46A, Street 27, F-6/2, Islamabad, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 14796, 03/16/20.
	SNTS Tech, Plot # C-750, First Floor, Lane # 14, Lala Rukh, Wah Cantt, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 14796, 03/16/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Solutions Engineering Pvt. Ltd., a.k.a., the following two aliases:  - Solutronix Engineering Pvt. Ltd. <i>and</i>  - Solutronix Pvt. Ltd.</p> <p>95A Solutions Tower, DHA Phase 8 Commercial Broadway, Lahore, Pakistan; <i>and</i> 54-B PAF Colony, Zarar Shaheed, Lahore, Pakistan; <i>and</i> Ground Floor, Almas Tower, Begum Salma Tassadaq Road, Near E Plomer, Lahore, Pakistan; <i>and</i> Suite 1&amp;4, Hafeez Chamber 85 The Mall Lahore, Pakistan; <i>and</i> Gohawa Dak Dhana Bhatta Kohaar, Lahore, Pakistan; <i>and</i> Sehajpal Village, near New Airport Road, Lahore, Pakistan; <i>and</i>, Office #201, 2nd Floor, Capital Business Center, F-10 Markaz, Islamabad, Pakistan; <i>and</i> 156 The Mall, Rawalpindi, Pakistan.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 12479, 3/22/18.
	<p>Space and Upper Atmosphere Research Commission (SUPARCO), a.k.a., the following alias:   -Space and Upper Atmospheric Research Commission,   Sector 28, Gulzar-e-Hijiri, Off University Road, P.O. Box 8402, Karachi 75270.</p>	For all items subject to the EAR.	Case-by-case for all items listed on the CCL. Presumption of approval for EAR99 items.	63 FR 64322, 11/19/98. 65 FR 14444, 03/17/00. 66 FR 50090, 10/01/01. 77 FR 58006, 9/19/12.
	<p>Sumico Technologies,   185-J-1, Muhammad Ali Johar Town, Lahore, Pakistan; <i>and</i> House #307-B Upper Floor Main Margalla Road, F-11/3 Islamabad, Pakistan; <i>and</i> House #E-26 Block A Railway Society, Gulshan-E-Jamal, Karachi, Pakistan.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	82 FR 24245, 5/26/17.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Techlink Communications, 111B Block No.2, Mezzanine Floor, Khalid bin Waleed Road, P.E.C.H.S., Karachi, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 44824, 9/4/18. 84 FR 61541, 11/13/19.
	Techlinks, Suite 3, 2nd Floor, Kashmir Center, 632/G-1 Market Johar Town, Lahore, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 44824, 9/4/18. 84 FR 61541, 11/13/19.
	Technical Services, Islamabad.	For all items subject to the EAR.	Case-by-case for all items listed on the CCL. Presumption of approval for EAR99 items.	63 FR 64322, 11/19/98. 65 FR 14444, 03/17/00. 66 FR 50090, 10/01/01.
	The Tempest Trading Company, Islamabad.	For all items subject to the EAR.	Case-by-case for all items listed on the CCL. Presumption of approval for EAR99 items.	63 FR 64322, 11/19/98. 65 FR 14444, 03/17/00. 66 FR 50090, 10/01/01.
	Triton Educational Equipment & Consultancy Co., Number 9, 4th floor, Khyber Plaza, Fazal-ul-Haq Road, Blue Area, Islamabad, Pakistan 46000.	For all items subject to the EAR. (See §744.11 of the EAR).	See §744.2(d) of the EAR.	85 FR 14796, 03/16/20.
	UEC (Pvt.) Ltd., 29-M, Civic Centre, Model Town Ext. Lahore-43700, Pakistan; <i>and</i> Office No. 610, 6th Floor, Progressive Centre, 30-A, Block No. 6, P.E.C.H.S., Karachi, Pakistan (See alternate addresses under Saudi Arabia and U.A.E.).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 44824, 9/4/18.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Unique Technical Promoters.	For all items subject to the EAR.	Case-by-case for all items listed on the CCL. Presumption of approval for EAR99 items.	63 FR 64322, 11/19/98. 65 FR 14444, 03/17/00. 66 FR 50090, 10/01/01.
	United Engineering, Office No. 5, Royal Centre, Peshawar Road, Rawalpindi, Pakistan; <i>and</i> 183C Muslim Colony, Near Kala Pul, Off Korangi Road, Karachi, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 14796, 03/16/20.
	Universal Tooling Services, a.k.a., the following three aliases: -Forward Design and Manufacturing; -MSM Enterprises; <i>and</i> -Technopak Engineering. Deen Plaza, 68/62, Adamjee Road, Saddar P.O. Box 1640, GPO Rawalpindi, Pakistan; <i>and</i> G-7, Nimra Centre 7, Badami Bagh, Lahore, Pakistan; <i>and</i> 31/B Faisal Town, Lahore, Punjab, Pakistan; <i>and</i> Model Town, HMC Road, Taxila, Pakistan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 90714, 12/15/16.
	Veteran Avia LLC, a.k.a., the following one alias: -Veteran Airline.  Room No. 1, ALC Building, PIA Cargo Complex Jiap, Karachi, Pakistan (See also addresses under Armenia, Greece, and U.K.).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 56003, 9/18/14. 81 FR 8829, 2/23/16, 82 FR 2887, 1/10/17.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Wah Chemical Product Plant, a.k.a., the following alias: -Wah Nobel Chemicals Limited,  Wah Cantonment, Rawalpindi, Pakistan.	For all items subject to the EAR	Case-by-case for all items listed on the CCL. Presumption of approval for EAR99 items.	63 FR 64322, 11/19/98. 66 FR 50090, 10/01/01. 77 FR 58006, 9/19/12.
	Wah Munitions Plant, Wah Cantonment, Rawalpindi, Pakistan.	For all items subject to the EAR.	Case-by-case for all items listed on the CCL. Presumption of approval for EAR99 items.	63 FR 64322, 11/19/98. 65 FR 14444, 03/17/00. 66 FR 50090, 10/01/01. 77 FR 58006, 9/19/12.
<b>PANAMA</b>	Huawei Technologies Cr Panama S.A, Ave. Paseo del Mar, Costa del Este Torre MMG, Piso 17 Ciudad de Panamá, Panama.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 43495, 8/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	Lerma Trading S.A., Calle 53a, Este, Panama.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 80646, 12/28/15.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Wheels Incorporated, P.O. Box 6 – 2875, El Dorado, Panama (See alternate address under Israel).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 40178, 6/21/16.
<b>PARAGUAY</b>	Huawei Technologies Paraguay S.A., Asuncion, Paraguay.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
<b>PERU</b>	Huawei Cloud Peru, Lima, Peru.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	85 FR 51603, 8/20/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
<b>PHILIPPINES</b>	Warren Sumaylo, 053 E Luna Street, Bgry Sikatuna, Butuan City, Philippines.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 57451, 8/23/16.
<b>POLAND</b>	Doncoaltrade SP Z O O, Ul. Barbary 21, Katowice, woj. Slaskie, pow. M. Katowice 40-053, Poland.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 6952, 2/16/18.
<b>PORTUGAL</b>	Huawei Technology Portugal, Avenida Dom João II, 51B - 11°.A 1990-085 Lisboa, Portugal.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 43495, 8/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
<b>QATAR</b>	Huawei Tech Investment Limited, Doha, Qatar.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
<b>ROMANIA</b>	Huawei Technologies Romania Co., Ltd., Ion Mihalache Blvd, No. 15-17,1st District, 9th Floor of Bucharest Tower center, Bucharest, Romania.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 43495, 8/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Southeast Trading Oy, a.k.a., the following one alias: -Southeast Trading LTD.  Bucharest, Romania (See also addresses under Finland and Russia).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 52968, 9/2/15.
<b>RUSSIA</b>	27 <sup>th</sup> Scientific Center of the Russian Ministry of Defense, a.k.a., the following one alias: - 27 <sup>th</sup> NTs.  Birgadirskiy pereulok 13, 105005, Moscow, Russia.	All items subject to the EAR.	See §744.4(d) of this part.	86 FR 12531, 3/4/21
	33rd Scientific Research and Testing Institute, a.k.a., the following one alias: -33 <sup>rd</sup> TsNIII.  1 Ulitsa Krasnoznamennaya, Volsk-18/Shikhany, Saratov Oblast, Russia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.
	48th Central Scientific Research Institute, Kirov, a.k.a., the following three aliases: -48th TsNII Kirov; -Scientific Research Institute of Microbiology; <i>and</i> -Scientific Research Institute of Epidemiology and Hygiene.  119 Oktyabrsky Prospekt, Kirov, Kirov Oblast, Russia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>48th Central Scientific Research Institute, Sergiev Posad, a.k.a., the following four aliases:            -48th TsNII Sergiev Posad;            -Zargorsk Institute;            -Scientific Research Institute of Medicine; <i>and</i>            -The Virology Center.</p> <p>11 Ulitsa Oktyabrskaya, Sergiev Posad, Moscow Oblast, Russia.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.
	<p>48th Central Scientific Research Institute, Yekaterinburg, a.k.a., the following three aliases:            -48th TsNII Yekaterinburg;            -Military Technical Scientific Research Institute; <i>and</i>            -Center for Military Technical Problems of Biological Defense.</p> <p>1 Ulitsa Zvezdnaya, Yekaterinburg, Sverdlovsk Oblast, Russia.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.
	<p>Abris,            6 Aptekarskiy Prospekt, Office 710, St. Petersburg, Russia 197376; <i>and</i>            30 16<sup>th</sup> Parkovaya St, Office 319, Moscow, Russia 105484.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	<p>Abris-KEY,            6 Aptekarskiy Prospekt, Office 710, St. Petersburg, Russia 197376; <i>and</i>            30 16<sup>th</sup> Parkovaya St, Office 319, Moscow, Russia 105484.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Abris-Technology, 6 Aptekarskiy Prospekt, Office 710, St. Petersburg, Russia 197376; <i>and</i> 30 16 <sup>th</sup> Parkovaya St, Office 319, Moscow, Russia 105484.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Abtronics, 18, bld. 2, Frontovyyh Brigad Street, Yekaterinburg 620017, Russia; <i>and</i> 15 A Kulakova Prospekt, Office 307, Stavropol 355044, Russia; <i>and</i> 12/11 Bld 12, 1-st Bukhvostova Street, Moscow 107076, Russia (See alternate address under Kazakhstan).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 3580, 1/26/18.
	Achim Development, OOO, a.k.a., the following two aliases: -Achim Development; <i>and</i> -Obshchestvo S Ogranichennoi Otvetstvennostyu 'Achim Development'.  d.7 ul.Promyshlennaya, Novy Urengoi, Yamalo-Nenetski a.o. 629306, Russia.	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	81 FR 61601, 9/7/16.
	AeroComposit,  Antonova Prospekt 1, Zavolzhsky District, Ulyanovsk, 432072, Russia.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	83 FR 48534, 9/26/18.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Aleksander Cheremshin,            Ulitsa Mitinskaya 36/1, Moscow, Russia 125430; <i>and</i>            Ordzhonikidze 10, Moscow, Russia 119071; <i>and</i>            10 Ordjonikidze Street, Moscow, Russia 119071; <i>and</i>            Ulitsa Polyany 9/6, Moscow, Russia 117042; <i>and</i>            Poljani str., 9-6, 117042, Moscow, Russia; <i>and</i>            9 Polyany Street, Suite 6, Moscow, Russia 117042; <i>and</i>            33 Ulitsa Marshala Tukhachevskogo, Suite 231,            Moscow, Russia 123154; <i>and</i>            Bolshaya Semenovskaya, 40/505, Moscow, Russia            107023; <i>and</i>            Ulitsa Metallurgov, 29, Str. 1, Komnata Pravleni,            Moscow, Russia 111401.</p>	<p>For all items subject to the EAR.            (See §744.11 of the EAR.)</p>	<p>Presumption of            denial.</p>	<p>77 FR 61256,            10/9/12.</p>
	<p>Aleksander Kuznetsov, a.k.a., the following one alias:            -Alexander Kuznetsov,              Ordzhonikidze 10, Moscow, Russia 119071; <i>and</i>            10 Ordjonikidze Street, Moscow, Russia 119071; <i>and</i>            Ulitsa Polyany 9/6, Moscow, Russia 117042; <i>and</i>            Poljani str., 9-6, 117042, Moscow, Russia; <i>and</i>            9 Polyany Street, Suite 6, Moscow, Russia 117042; <i>and</i>            33 Ulitsa Marshala Tukhachevskogo, Suite 231,            Moscow, Russia 123154; <i>and</i>            Bolshaya Semenovskaya, 40/505, Moscow, Russia            107023; <i>and</i>            Ulitsa Metallurgov, 29, Str. 1, Komnata Pravleni,            Moscow, Russia 111401.</p>	<p>For all items subject to the EAR.            (See §744.11 of the EAR.)</p>	<p>Presumption of            denial.</p>	<p>77 FR 61256,            10/9/12.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Aleksey Markov, 5A North Street, Saransk, Republic of Mordovia, Russia 43006; <i>and</i> 53 Sherbakovskaya Street, Building 3, Office 509, 105318 Moscow, Russia; <i>and</i> 26 General Belov St Office 415, Moscow, Russia 115583; <i>and</i> 26 Generala Belova Street, Office 415, Moscow, Russia 115583; <i>and</i> 60 Bolshevistskaya St., Office 905, Saransk, Republic of Mordovia, Russia; <i>and</i> 60 Bolshevistskaya St., Office 910, Saransk, Republic of Mordovia, Russia; <i>and</i> 5a Severnaya Street, Saransk, Republic of Mordovia, Russia.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	<p>Alex Pikhtin, a.k.a., the following one alias: -Alexander Pikhtin,  Pr. Yuria Gagarina 2, St. Petersburg, Russia 196105.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	<p>Alexander Georgievich Mallabiu,  25 Red Cadets Street Letter H, Office Block 2, St. Petersburg, Russia 99034; <i>and</i> 130-17 Nevskiy Ave., Saint Petersburg, Russia 191036; <i>and</i> 16 Linia V.O., 7 Office 43, St. Petersburg, Russia 99034; <i>and</i> Krestovski River Quay 3, Suite 42, St. Petersburg, Russia 197376.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	<p>Alexander Kuznetsov, Ulitsa Artyukhina 6B, 106, Moscow, Russia.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Alexander V. Brindyuk, a.k.a., the following one alias: -Aleksander Brendyuk,  Pr. Yuria Gagarina 2, Office 801, St. Petersburg, Russia 196105.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Alexander Vedyashkin,  5A North Street, Saransk, Republic of Mordovia, Russia 43006; <i>and</i> 53 Sherbakovskaya Street, Building 3, Office 509, 105318 Moscow, Russia; <i>and</i> 26 General Belov St Office 415, Moscow, Russia 115583; <i>and</i> 26 Generala Belova Street, Office 415, Moscow, Russia 115583; <i>and</i> 60 Bolshevistskaya St., Office 905, Saransk, Republic of Mordovia, Russia; <i>and</i> 60 Bolshevistskaya St., Office 910, Saransk, Republic of Mordovia, Russia; <i>and</i> 5a Severnaya Street, Saransk, Republic of Mordovia, Russia.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Alexey Ivanov Zhuravlev, a.k.a., the following one alias: -Alexy Ivanov,  Pr. Yuria Gagarina 2, Office 801, St. Petersburg, Russia 196105; <i>and</i> Pr. Yuria Gagarina 1, Office 230, St. Petersburg, Russia 196105; <i>and</i> Pr. Yuri Gagarin 1, Office 230, St. Petersburg, Russia 196105.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Alexey Kulakov,  Naberezhnaya Chernoi Rechki 61-1, St. Petersburg, Russia 197342; <i>and</i> Naberegnaja Chernoj Rechki 61-1, 197342, Saint Petersburg, Russia.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Alexey Polynkov, 471-4-98 Shosse Entuziastov, Moscow, Russia.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	All-Russian Scientific Research Institute of Technical Physics (VNIITF), a.k.a., the following eight aliases:  -Vserossiyskiy Nauchno-Issledovatel'skiy Institut Tekhnicheskoy Fiziki; -Russian Federal Nuclear Center-VNIITF (RFNC-VNIITF); -Kasli Nuclear Weapons Development Center; -Institute of Technical Physics; -Zababakhin Institute; -ARITP (All Russian Institute for Technical Physics); -Federal State Unitary Enterprise Russian Federal Nuclear Center - Academician E.I. Zababkhin All-Russian Scientific Research Institute of Technical Physics (FGUPRFYaTs-VNIITF) -Chelyabinsk-70, (Address: P.O. Box 245, 456770, Snezhinsk, Chelyabinsk Region Russia); <i>and</i> any nuclear-related entities, institutes, or centers located in Snezhinsk.	For all items subject to the EAR.	Case-by-case basis.	62 FR 35334, 6/30/97. 66 FR 24267, 5/14/01. 75 FR 78883, 12/17/10. 76 FR 30000, 05/24/11.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>All-Russian Scientific Research Institute of Experimental Physics (VNIIEF), a.k.a., the following nine aliases:</p> <ul style="list-style-type: none"> <li>-Vserossiyskiy Nauchno-Issledovatel'skiy Institut Eksperimental'noy Fiziki;</li> <li>-Russian Federal Nuclear Center-VNIIEF (RFNC-VNIIEF);</li> <li>-Institute of Experimental Physics;</li> <li>-ARIEP (All Russian Institute for Experimental Physics);</li> <li>-Khariton Institute;</li> <li>-Sarov Nuclear Weapons Plant;</li> <li>-Avangard Electromechanical Plant;</li> <li>-Federal State Unitary Enterprise Russian Federal Nuclear Center - All Russian Scientific Research Institute of Experimental Physics (FGUPRFNCs VNIIEF)</li> <li>-Arzamas-16, (Address: 37 Mira Ave. Sarov, Nizhny Novgorod Region, 607188 Russia); <i>and</i> any nuclear-related entities, institutes or centers located in Sarov (Kremlev).</li> </ul>	For all items subject to the EAR.	Case-by-case basis.	62 FR 35334, 6/30/97. 66 FR 24267 5/14/01. 75 FR 78883, 12/17/10. 76 FR 30000, 5/24/11.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Almaz-Antey Air Defense Concern Main System Design Bureau, JSC (a.k.a., A.A. Raspletin Main System Design Bureau; a.k.a. Almaz-Antey GSKB; a.k.a. Almaz-Antey GSKB Imeni Academician A.A. Raspletin; a.k.a. Almaz-Antey MSDB; a.k.a. Almaz-Antey PVO 'Air Defense' Concern Lead Systems Design Bureau OAO 'Open Joint-Stock Company' Imeni Academician A.A. Raspletin; a.k.a. Golovnoye Sistemnoye Konstruktorskoye Byuro Open Joint-Stock Company of Almaz-Antey PVO Concern Imeni Academician A.A. Raspletin; a.k.a. Joint Stock Company Almaz-Antey Air Defense Concern Main System Design Bureau, Named by Academician A.A. Raspletin; a.k.a. Joint Stock Company Almaz-Antey Air Defense Concern Main System Design Bureau; a.k.a. Almaz-Antey; a.k.a. JSC 'Almaz-Antey' MSDB, f.k.a., Otkrytoe Aktsionerное Obshchestvo Nauchno Proizvodstvennoe Obedinenie Almaz Imeni Akademika A.A. Raspletina; a.k.a. GSKB)</p> <p>Address: 16-80, Leningradsky Prospect, Moscow 125190, Russia.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 55608, 9/17/14.
	<p>Anastasya Arkhipova, a.k.a., the following one alias: -Anatasiya Arkhipova,</p> <p>26 General Belov St, Office 415, Moscow, Russia 115583; <i>and</i> 26 Generala Belova Street, Office 415, Moscow, Russia 115583; <i>and</i> 53 Sherbakovskaya Street, Building 3, Office 509, 105318 Moscow, Russia.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Andrey Gruzdev, 25 Red Cadets Street Letter H, Office Block 2, St. Petersburg, Russia 99034; <i>and</i> 130-17 Nevskiy Ave., Saint Petersburg, Russia 191036; <i>and</i> 16 Linia V.O., 7 Office 43, St. Petersburg, Russia 99034; <i>and</i> Krestovski River Quay 3, Suite 42, St. Petersburg, Russia 197376.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR.)</p>	<p>Presumption of denial.</p>	<p>77 FR 61256, 10/9/12.</p>
	<p>Andrey V Gromadskih, 32 Korablestroiteley St., building #1, Apt #119, St. Petersburg, Russia 199397; <i>and</i> Zastavskaya St. 32A, St. Petersburg, Russia 196084; <i>and</i> Zastavskaya St. 15-B, St. Petersburg, Russia 196084; <i>and</i> Raketnyy Bul'var 15, Moscow, Russia 129164; <i>and</i> 16 Raketnyy Bul'var, Moscow, Russia 129164.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR.)</p>	<p>Presumption of denial.</p>	<p>77 FR 61256, 10/9/12.</p>
	<p>Andrey Vladimirovich Saponchik, 6 Aptekarskiy Prospekt, Office 710, St. Petersburg, Russia 197376; <i>and</i> Naberezhnaya Chernoi Rechki 61-1, St. Petersburg, Russia 197342; <i>and</i> 7 Belovodskiy Ln, St. Petersburg, Russia 194044; <i>and</i> Belovodskiy Per, 7, St. Petersburg, Russia 194044; <i>and</i> Naberegnaja Chernoj Rechki 61-1, 197342, Saint Petersburg, Russia; <i>and</i> 16 Parkovaya 30, Office 319, Moscow, Russia 105484.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR.)</p>	<p>Presumption of denial.</p>	<p>77 FR 61256, 10/9/12.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Angstrem-M, Dom 4, Stroennie 3, Proezd 4806, Zelenograd, Russia 124460.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 61601, 9/7/16.
	Anna V Libets,  Zastavskaya St. 32A, St. Petersburg, Russia 196084; <i>and</i> Zastavskaya St. 15-B, St. Petersburg, Russia 196084; <i>and</i> Raketnyy Bul'var 15, Moscow, Russia 129164; <i>and</i> 16 Raketnyy Bul'var, Moscow, Russia 129164.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Anton Khramov, 86 N Prospect Obukhovskoy Oborony, St. Petersburg, Russia 190000.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Anton Lebedev,  Pr. Yuria Gagarina 2, Office 801, St. Petersburg, Russia 196105; <i>and</i> Pr. Yuria Gagarina 1, Office 230, St. Petersburg, Russia 196105; <i>and</i> Pr. Yuri Gagarin 1, Office 230, St. Petersburg, Russia 196105.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Anton Yurevich Alekseyev, Ulitsa Mitinskaya 30/4, Moscow, Russia 123430.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	AO 'Institute Giprostroymost—Saint-Petersburg' (f.k.a., Institut Giprostroimost-Sankt-Peterburg, ZAO; <i>and</i> ZAO 'Institute Giprostroymost Saint-Petersburg'), a.k.a., the following three aliases: -AO 'Institute Giprostroymost - Sankt-Peterburg'; -JSC 'Institute Giprostroymost - Saint-Petersburg'; <i>and</i> -JSC 'Institute Giprostroymost - Sankt-Peterburg'.  7 Yablochkova Street, St. Petersburg 197198, Russia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 61601, 9/7/16.
	APEX, a.k.a., the following four aliases: -APEKS; -APEX Systems; OOO APEX; <i>and</i> -APEX Ltd.,  26 General Belov St Office 415, Moscow, Russia 115583; <i>and</i> 26 Generala Belova Street, Office 415, Moscow, Russia 115583; <i>and</i> 53 Sherbakovskaya Street, Building 3, Office 509, Moscow, Russia 105318.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	APEX St. Petersburg, 140 Leninsky Prospekt, Office 57, St. Petersburg, Russia.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	APEX Yekaterinburg,  106 Kuybyshev Str, Office 68, Yekaterinburg, Russia; <i>and</i> Ulitsa 9 March, D. 120B, Office 312 620100, Yekaterinburg, Russia; <i>and</i> 106 K 68 ul Kuibysheva, 620100, Yekaterinburg, Russia.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Aquanika, a.k.a., the following five aliases:            -Aquanika LLC, <i>and</i>            -LLC Russkoye Vremya, <i>and</i>            -Obshchestvo S Organichennoi Otvetstvennostyu 'Russkoe Vremya', <i>and</i>            -Russkoe Vremya OOO, <i>and</i>            -Russkoye Vremya LLC.</p> <p>47A Sevastopolski Ave., of. 304, Moscow 117186, Russia; <i>and</i>            1/2 Rodnikovaya ul., Savasleika s., Kulebaski raion, Nizhegorodskaya oblast 607007, Russia.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 24561, 5/1/14.
	<p>Arsenal,            26 General Belov St, Office 19, Moscow, Russia 115583; <i>and</i>            26 Generala Belova Street, Office 19, Moscow, Russia 115583.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	<p>Atrilor, Ltd, a.k.a., the following two aliases:            -Atrilor LLC; <i>and</i>            -OOO Atrilor,</p> <p>36 Mitinskaya St, Building 1, Office 406, Moscow, Russia 125430; <i>and</i>            53 Shcherbakovskaya Street, Moscow 105187.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Autonomous Noncommercial Organization Professional Association of Designers of Data Processing Systems, a.k.a., the following one alias: -ANO PO KSI.  Prospekt Mira D 68, Str 1A, Moscow 129110, Russia; <i>and</i> Dom 3, Lazurnaya Ulitsa, Solnechnogorskiy Raion, Andreyevka, Moscow Region 141551, Russia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	82 FR 724, 1/4/17.
	Avia Group LLC, a.k.a., the following one alias: -Avia Group Ltd.  Terminal Aeroport Sheremetyevo Khimki, 141400 Moskovskaya obl., Russia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 24561, 5/1/14.
	Avia Group Nord LLC, 17 A, Startovaya St., Saint Petersburg, Russia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 24561, 5/1/14.
	Avia Group Terminal Limited Liability Company, a.k.a., the following three aliases: -AG Terminal OOO; -LLC AG Terminal; <i>and</i> -Obshchestvo S Ogranichennoi Otvetstvennostyu Avia Grupp Terminal, Ter.  Aeroport Sheremetyevo, Khimki, Moscovskaya Oblast 141400, Russia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 80646, 12/28/15.
	Avilon Ltd., 9/1-417, Montazhnaya St., Moscow, Russia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 14796, 03/16/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Aviton, a.k.a., the following three aliases:            -Aviton company;            -For Salmi; <i>and</i>            -Salmi LLC,</p> <p>Naberezhnaya Chernoi Rechki 61-1, St. Petersburg, Russia 197342; <i>and</i>            6 Aptekarskiy Prospect, Office 710, St. Petersburg, Russia 197376; <i>and</i>            7 Belovodskiy Ln, St. Petersburg, Russia 194044; <i>and</i>            Belovodskiy Per, 7, St. Petersburg, Russia 194044; <i>and</i>            Naberegnaja Chernoj Rechki 61-1, 197342, Saint Petersburg, Russia; <i>and</i>            16 Parkovaya 30, Office 319, Moscow, Russia 105484.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Best Komp Group, P.O. Box 242, St. Petersburg, Russia 196240.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	<p>Bike Center, a.k.a., the following three aliases:            -Baik. V. Tsentri;            -Baik. V. Tsentri, OOO; <i>and</i>            -Bike V. Center.</p> <p>Nizhnije Mnevniky, 110, Moscow, Russia; <i>and</i> UL. Nikitskaya B. D.11/4, Korp .3, Moscow 103009, Russia; <i>and</i> 1 1/4, str.3 ul. Nikitskaya B., Moscow 103009, Russia.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	82 FR 28408, 6/22/17.
	<p>Bitreit, a.k.a., the following one alias:            -OOO Betreit,</p> <p>Neglinnaya Str., 18/1, emb.1 “A”, Moscow, Russia.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Chimmed Group, a.k.a., the following six aliases:            -OOO Khimmed;            -Chimmed;            -TD Chimmed;            -TD Khimmed;            -Khimmed; <i>and</i>            -SPK Khimmed.</p> <p>9/3 Kashirskoe Highway, Moscow, Russia 115230; <i>and</i>            Runovskiy, D 11/13, Korp 2, Moscow, Russia; <i>and</i>            Kashirskoe, D 9, Korp 3, Moscow, Russia.</p>	For all items subject to the EAR.	See §§ 744.2(d), 744.3(d), and 744.4(d) of this part.	86 FR 12531, 3/4/21.
	<p>CJSC Sovmortrans, a.k.a., the following one alias:            -Sovmortrans CJSC.</p> <p>Rakhmanovskiy lane, 4, bld.1, Morskoy House, Moscow 127994, Russia.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 61601, 9/7/16.
	<p>CJSC VANKORNEFT, a.k.a., the following two aliases:            -Vankorneft; <i>and</i>            -ZAO Vankorneft.</p> <p>Dobrovolcheskoy Brigady St., 15, Krasnoyarsk Territory 660077, Russia.</p>	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	80 FR 52968, 9/2/15.
	<p>CJSC Zest, a.k.a., the following one alias:            -Zest Leasing.</p> <p>pr. Medikov 5, of. 301, St. Petersburg, Russia; <i>and</i>            2 Liter a Pl. Rastrelli, St. Petersburg, 191124 Russia.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 24561, 5/1/14.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Concord Catering,  Nab. Lieutenant Schmidt D. 7, von Keyserling Mansion, St. Petersburg 119034, Russia; <i>and</i> Ulitsa Volkhonka Dom 9, Moscow 119019, Russia.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	82 FR 28408, 6/22/17.
	Cosmos Complect, a.k.a., the following three aliases: -Kosmos Komplekt; -Cosmos Complect Ltd.; <i>and</i> -COSMOS.  Sokolovo-Meshcherskaya Street, Building 14, Office 9, 125466 Moscow, Russia; <i>and</i> Pyatnitskaya 39, building 2, Moscow, 119017, Russia.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
	Daltransgaz, OAO, a.k.a., the following two aliases: -Daltransgaz; <i>and</i> -Otkrytoe Aktsionernoe Obshchestvo ‘Daltransgaz’.  d. 1 ul.Solnechnaya S. Ilinka, Khabarovski Raion Khabarovski krai 680509, Russia.	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	81 FR 61601, 9/7/16.
	Denis A Kizha,  Pulkovskoe Shosse, 20-4 #159, St. Petersburg, Russia 196158; <i>and</i> Zastavskaya St. 32A, St. Petersburg, Russia 196084; <i>and</i> Zastavskaya St. 15-B, St. Petersburg, Russia 196084; <i>and</i> Raketnyy Bul’var 15, Moscow, Russia 129164; <i>and</i> 16 Raketnyy Bul’var, Moscow, Russia 129164.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Divetechnoservices, a.k.a., the following five aliases: -OOO Divetechnoservice; -OOO Daivtekhnoservis; -OOO Dayvtekhnoservis; -OOO NPP DTS; <i>and</i> -OOO DTS.  Ulitsa Zheleznovodskaya, 18 / 2 Litera A, Saint Petersburg, 199155, Russia.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	83 FR 48534, 9/26/18.
	DJSC Factory Krasnoe Znamya, a.k.a., the following five aliases: -OJSC Factory Krasnoe Znamya; -OAO Zavod Krasnoe Znamya; -AO Krasnoye Znamya; -Krasnoye Znamya Plant OAO; <i>and</i> -Krasnoye Znamya Plant JSC.  Shabulina Travel 2a, Ryazan, 390043, Russia.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	81 FR 94968, 12/27/16.
	DM Link, P.O. Box 242, St. Petersburg, Russia 196240.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Dmitri Ezhov, 53 Sherbakovskaya Street, Building 3, Office 509, 105318 Moscow, Russia; <i>and</i> 26 General Belov Str, Office 1010, Moscow, Russia 115583; <i>and</i> 26 Generala Belova Street, Office 1010, Moscow, Russia 115583; <i>and</i> 26 General Belov St Office 415, Moscow, Russia 115583; <i>and</i> 26 Generala Belova Street, Office 415, Moscow, Russia 115583.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Dmitriy Averichev, Naberezhnaya Chernoi Rechki 61-1, St. Petersburg, Russia 197342; <i>and</i> Naberegnaja Chernoj Rechki 61-1, 197342, Saint Petersburg, Russia.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Dmitriy Moroz, Pr. Yuria Gagarina 2, Office 801, St. Petersburg, Russia 196105.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Dmitriy Rakhimov,  26 General Belov Str Office 1010, Moscow, Russia 115583; <i>and</i> 26 Generala Belova Street, Office 1010, Moscow, Russia 115583.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Dmitriy V Lukhanin,  25 Red Cadets Street Letter H, Office Block 2, St. Petersburg, Russia 99034; <i>and</i> 130-17 Nevskiy Ave., Saint Petersburg, Russia 191036; <i>and</i> 16 Linia V.O., 7 Office 43, St. Petersburg, Russia 99034; <i>and</i> Krestovski River Quay 3, Suite 42, St. Petersburg, Russia 197376.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Dmitry Andreev, 4 Savelkinskiy Dr., Suite 511-512, Zelenograd, Russia 124482.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Dmitry Kochanov, 4 Pokhodnyy Dr, Bldg 1, 4th Floor, Room 417, Moscow, Russia 125373.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Dmitry M Rodov,  Zastavskaya St. 32A, St. Petersburg, Russia 196084; <i>and</i> Zastavskaya St. 15-B, St. Petersburg, Russia 196084; <i>and</i> Raketnyy Bul'var 15, Moscow, Russia 129164; <i>and</i> 16 Raketnyy Bul'var, Moscow, Russia 129164.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Dmitry Shegurov, a.k.a., the following one alias: -Dmitriy Shegurov,  53 Sherbakovskaya Street, Building 3, Office 509, 105318 Moscow, Russia; <i>and</i> 26 General Belov Str, Office 1010, Moscow, Russia 115583; <i>and</i> 26 Generala Belova Street, Office 1010, Moscow, Russia 115583; <i>and</i> 26 General Belov St Office 415, Moscow, Russia 115583; <i>and</i> 26 Generala Belova Street, Office 415, Moscow, Russia 115583; <i>and</i> 26 General Belov Str, Office 19, Moscow, Russia 115583; <i>and</i> 26 Generala Belova Street, Office 19, Moscow, Russia 115583.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Dolgoprudny Research Production Enterprise, OAO (a.k.a. olgoprudnenskoye NPP OAO; a.k.a. Dolgoprudny; a.k.a. Dolgoprudny Research Production Enterprise; a.k.a. Otkrytoe Aktsionernoe Obshchestvo Doigoprudnskoe Nauchno Proizvodstvennoe Predpriyatie; a.k.a. OAO ‘Dolgoprudny Research Production Enterprise’)</p> <p>Address: 1 Pl. Sobina, Dolgoprudny, Moskovskaya obl. 141700 , Russia</p> <p>Alt Address: Proshchad Sobina 1, Dolgoprudny 141700, Russi.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 55608, 9/17/14.
	<p>Druzhba, AO, a.k.a., the following two aliases: -Aktsionernoe Obshchestvo ‘Druzhba’; <i>and</i> -Druzhba.</p> <p>Rogozinino, Moscow 143397, Russia.</p>	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	81 FR 61601, 9/7/16.
	<p>Ekran Scientific Research Institute, FSUE, a.k.a., the following one alias: -FGUP Ekran.</p> <p>Kirov Avenue 24, Samara 443022, Russia; <i>and</i> Krzhizhanovskogo Street 20/30, Moscow, 117218, Russia.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 94968, 12/27/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Electrotekhnika LLC, 4 Savelkinskiy Dr., Suite 511-512, Zelenograd, Russia 124482; <i>and</i> 4 Yunost Square, NPZ, Suite 1-7, Zelenograd, Russia 124482; <i>and</i> 4 Yunost Square, NPZ, Apt. 1-7, Zelenograd, Russia 124482.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Elena Kuznetsova, a.k.a., the following one alias: -Yelena Vladimirovna Kuznetsova,  9 Lipovaya alleya, St. Petersburg, Russia 197183.; <i>and</i>  Zastavskaya St. 32A, St. Petersburg, Russia 196084; <i>and</i> Zastavskaya St. 15-B, St. Petersburg, Russia 196084; <i>and</i> Raketnyy Bul'var 15, Moscow, Russia 129164; <i>and</i> 16 Raketnyy Bul'var, Moscow, Russia 129164.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Elizaveta Krapivina, a.k.a., the following one alias: -Yelizaveta Krapivina,  Pr. Yuria Gagarina 2, Office 801, St. Petersburg, Russia 196105.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	EITom Research and Production Company, a.k.a., the following one alias: -NPP EITom.  Garshin Street 11, Tomilino, Lyuberetsky, Moscow, 140070, Russia.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	81 FR 94968, 12/27/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Evgeni Viktorovich Egorov, 4 Savelkinskiy Dr., Suite 511-512, Zelenograd, Russia 124482.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Evro Polis Ltd., a.k.a., the following two aliases: -Evro Polis, OOO; <i>and</i> -Obshchestvo S Ogranichennoi Otvetstvennostyu Evro Polis.  d. 1A pom. 9.1A, Shosse Ilinskoe, Krasnogorsk, Krasnogorski Raion, Moskovskaya Obl. 143409, Russia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 6952, 2/16/18.
	FAU ‘Glavosekspertiza Rossii’, a.k.a., the following three aliases: -Federal Autonomous Institution ‘Main Directorate of State Examination’; -General Board of State Expert Review; <i>and</i> -Glavosekspertiza.  Furkasovskiy Lane, building 6, Moscow 101000, Russia (See alternate address under Crimea region of Ukraine).	For all items subject to the EAR (see §744.11 of the EAR), apart from items that are related to transactions that are authorized by the Department of the Treasury’s Office of Foreign Assets Control pursuant to General License No. 11 of December 20, 2016. Russia does not include the “Crimea region of Ukraine,” as that term is defined in section 8(d) of E.O. 13685.	Presumption of denial.	81 FR 61601, 9/7/16, 82 FR 2887, 1/10/17.
	Federal State Unitary Enterprise Scientific Production Enterprise “GAMMA”,  Ul. Profsoyuznaya d. 78 str. 4, Moscow, 117393, Russia.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	83 FR 48534, 9/26/18.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Federal Security Service (FSB), a.k.a., the following one alias:            -Federalnaya Sluzhba Bezopasnosti.</p> <p>Ulitsa Kuznetskiy Most, Dom 22, Moscow 107031, Russia; <i>and</i> Lubyanskaya Ploschad, Dom 2, Moscow 107031, Russia</p>	<p>For all items subject to the EAR (see §744.11 of the EAR), apart from items that are related to transactions that are authorized by the Department of the Treasury's Office of Foreign Assets Control pursuant to General License No. 1 of February 2, 2017.</p>	<p>Presumption of denial.</p>	<p>82 FR 724, 1/4/17.            82 FR 18219, 4/18/17.</p>
	<p>Federal State Unitary Enterprise State Research and Production Enterprise Bazalt, a.k.a., the following three aliases:            -Federal State Unitary Enterprise, State Research and Production Enterprise Bazalt; <i>and</i>            -Fsue Srpe Bazalt; <i>and</i>            -State Research and Production Enterprise Bazalt.</p> <p>32 Velyaminovskaya, Moscow 105318, Russia.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Presumption of denial.</p>	<p>79 FR 42455, 7/22/14</p>
	<p>Femteco,            13 3-ya Khoroshevskaya Street, Moscow, Russia 123298; <i>and</i> 3298 G. Moskva, Ul. 3-ya Khoroshevskaya, D. 13, K. Russia.</p>	<p>For all items subject to the EAR.</p>	<p>See §§ 744.2(d), 744.3(d), and 744.4(d) of this part.</p>	<p>86 FR 12531, 3/14/2021.</p>
	<p>FKU Uprdor 'Taman', a.k.a., the following one alias:            -Federal State Institution Management of Federal Roads 'Taman'.</p> <p>3 Revolution Avenue, Anapa, Krasnodar 353440, Russia.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Presumption of denial.</p>	<p>81 FR 61601, 9/7/16.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Forward Electronics, LLC, 86 N Prospect Obukhovskoy Oborony, St. Petersburg, Russia 190000; <i>and</i> Kolomyazhsky Prospect 18, Office 4085 BC “North House,” St. Petersburg, Russia 197348.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	FSUE FNPC Nizhegorodsky Scientific Research Institute of Radiotechnics (NNIIRT), Shaposhnikov Street 5, Nizhny Novgorod, 603950, Russia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 94968, 12/27/16.
	Gaz-Oil, OOO (f.k.a., Zakrytoe Aktsionerное Obshchestvo Gaz Oil), a.k.a., the following two aliases: -Gaz-Oil; <i>and</i> -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Gaz-Oil’.  d.10 B ul.Nametkina, Moscow 117420, Russia.	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	81 FR 61601, 9/7/16.
	Gazmash, AO (f.k.a., Dochernee Otkrytoe Aktsionerное Obshchestvo Gazmash Otkrytogo Aktsionernogo Obshchestva Gazprom), a.k.a., the following two aliases: -Aktsionerное Obshchestvo ‘Gazmash’; <i>and</i> -Gazmash.  d. 54 korp. 1 litera A pomeschch prospekt Primorski, St. Petersburg 197374, Russia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 61601, 9/7/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Gazprom Dobycha Irkutsk, OOO (f.k.a., Otkrytoe Aktsionernoe Obshchestvo Irkutskgazprom), a.k.a., the following two aliases:            -Gazprom Dobycha Irkutsk; <i>and</i>            -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Gazprom Dobycha Irkutsk’.</p> <p>d.14 ul.Nizhnyaya Naberezhnaya, Irkutsk, Irkutskaya obl 664011, Russia.</p>	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	81 FR 61601, 9/7/16.
	<p>Gazprom Dobycha Krasnodar, OOO, a.k.a., the following two aliases:            -Gazprom Dobycha Krasnodar; <i>and</i>            -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Gazprom Dobycha Krasnodar’.</p> <p>d.53 ul.Shosse Neftyanikov, Krasnodar, Krasnodarski krai 350051, Russia.</p>	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	81 FR 61601, 9/7/16.
	<p>Gazprom Dobycha Kuznetsk, OOO, a.k.a., the following two aliases:            -Gazprom Dobycha Kuznetsk; <i>and</i>            -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Gazprom Dobycha Kuznetsk’.</p> <p>d.4 prospekt Oktyabrski, Kemerovo, Kemerovskaya obl 650066, Russia.</p>	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	81 FR 61601, 9/7/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Gazprom Dobycha Nadym, OOO, a.k.a., the following two aliases: -Gazprom Dobycha Nadym; <i>and</i> -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Gazprom Dobycha Nadym’.  d.1 ul.Zvereva, Nadym, Yamalo-Nenetski a.o. 629730, Russia.	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	81 FR 61601, 9/7/16.
	Gazprom Dobycha Noyabrsk, OOO, a.k.a., the following two aliases: -Gazprom Dobycha Noyabrsk; <i>and</i> -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Gazprom Dobycha Noyabrsk’.  d.20 ul. Respubliki, Noyabrsk, Yamalo-Nenetski a.o. 629802, Russia.	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	81 FR 61601, 9/7/16.
	Gazprom Dobycha Urengoi, OOO, a.k.a., the following two aliases: -Gazprom Dobycha Urengoy; <i>and</i> -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Gazprom Dobycha Urengoi’.  d.8 ul.Zheleznodorozhnaya, Novy Urengoi, Yamalo-Nenetski a.o. 629307, Russia.	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	81 FR 61601, 9/7/16.
	Gazprom Dobycha Yamburg, OOO, a.k.a., the following two aliases: -Gazprom Dobycha Yamburg; <i>and</i> -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Gazprom Dobycha Yamburg’.  d.9 ul. Geologorazvedchikov, Novy Urengoi, Yamalo-Nenetski a.o 629306, Russia.	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	81 FR 61601, 9/7/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Gazprom Energo, OOO, a.k.a., the following two aliases: -Gazprom Energo; <i>and</i> -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Gazprom Energo’.  8 Korp. 1 ul.Stroitelei, Moscow 117939, Russia.	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	81 FR 61601, 9/7/16.
	Gazprom Flot, OOO (f.k.a., Obshchestvo S Ogranichennoi Otvetstvennostyu Gazflot), a.k.a., the following two aliases: -Gazprom Flot; <i>and</i> -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Gazprom Flot’.  d. 12 A ul.Nametkina, Moscow 117420, Russia.	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	81 FR 61601, 9/7/16.
	Gazprom Gaznadzor, OOO, a.k.a., the following two aliases: -Gazprom Gaznadzor; <i>and</i> -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Gazprom Gaznadzor’.  41 str. 1 prospekt Vernadskogo, Moscow 119415, Russia.	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	81 FR 61601, 9/7/16.
	Gazprom Gazobezopasnost, OOO, a.k.a., the following two aliases: -Gazprom Gazobezopasnost; <i>and</i> -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Gazprom Gazobezopasnost’.  d. 8 korp. 1 ul.Stroitelei, Moscow 119311, Russia.	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	81 FR 61601, 9/7/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Gazprom Geologorazvedka, OOO (f.k.a., Obshchestvo S Ogranichennoi Otvetstvennostyu Gazprom Dobycha Krasnoyarsk), a.k.a., the following two aliases: -Gazprom Geologorazvedka; <i>and</i> -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Gazprom Geologorazvedka’.  d.70 ul.Gertsena, Tyumen, Tyumenskaya obl. 625000, Russia.	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	81 FR 61601, 9/7/16.
	Gazprom Inform, OOO (f.k.a., Zakrytoe Aktsionerное Obshchestvo Informgazinvest), a.k.a., the following two aliases: -Gazprom Inform; <i>and</i> -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Gazprom Inform’.  d. 13 str. 3 ul.Bolshaya Cheremushkinskaya, Moscow 117447, Russia.	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	81 FR 61601, 9/7/16.
	Gazprom Invest, OOO, a.k.a., the following two aliases: -Gazprom Invest; <i>and</i> -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Gazprom Invest’.  d. 6 litera D ul.Startovaya, St. Petersburg 196210, Russia.	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	81 FR 61601, 9/7/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Gazprom Kapital, OOO (f.k.a., Obshchestvo S Ogranichennoi Otvetstvennostyu Kap Infin), a.k.a., the following two aliases:            -Gazprom Kapital; <i>and</i>            -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Gazprom Kapital’.</p> <p>Sosenskoe Pos, Pos. Gazoprovod, D. 101 Korp. 9, Moscow 142770, Russia.</p>	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	81 FR 61601, 9/7/16.
	<p>Gazprom Komplektatsiya, OOO, a.k.a., the following two aliases:            - Gazprom Komplektatsiya; <i>and</i>            -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Gazprom Komplektatsiya’.</p> <p>8 Korp. 1 ul.Stroitelei, Moscow 119991, Russia.</p>	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	81 FR 61601, 9/7/16.
	<p>Gazprom Mezhregiongaz, OOO, a.k.a., the following two aliases:            -Gazprom Mezhregiongaz; <i>and</i>            -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Gazprom Mezhregiongaz’.</p> <p>d. Dom 24 korp. Liter A nab.Admirala Lazareva, St. Petersburg 197110, Russia.</p>	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	81 FR 61601, 9/7/16.
	<p>Gazprom, OAO (a.k.a. Open Joint Stock Company Gazprom; a.k.a. OAO Gazprom; a.k.a. Gazprom)</p> <p>Address: 16 Nametkina St., Moscow, Russia GSP-7, 117997, Russia</p> <p>Alt Address:            16 Nametkina ul., Moscow 117991, Russia.</p>	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	79 FR 55608, 9/17/14.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Gazprom Neft (a.k.a. Gazprom Neft OAO; a.k.a. JSC Gazprom Neft; a.k.a. Open Joint-Stock Company Gazprom Neft; f.k.a. Sibirskaya Neftyanaya Kompaniya OAO)</p> <p>Address: Let. A. Galernaya, 5, ul, St. Petersburg 190000, Russia</p> <p>Alt Address: Ul. Pochtamtskaya, 3-5, St. Petersburg 190000, Russia</p> <p>Alt Address: 3-5 Pochtamtskaya St., St. Petersburg 190000, Russia</p> <p>Alt Address: 125 A. Profsoyuznaya Street, Moscow 117647, Russia.</p>	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	79 FR 55608, 9/17/14.
	<p>Gazprom Pererabotka, OOO, a.k.a., the following two aliases: -Gazprom Pererabotka; <i>and</i> -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Gazprom Pererabotka’.</p> <p>d.16 ul.Ostrovskogo, Surgut, Khanty-Mansiski Avtonomny okrug - Yugra a.o. 628417, Russia.</p>	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	81 FR 61601, 9/7/16.
	<p>Gazprom Personal, OOO, a.k.a., the following two aliases: -Gazprom Personal; <i>and</i> -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Gazprom Personal’.</p> <p>16, Gsp-7 ul.Nametkina, Moscow 117997, Russia.</p>	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	81 FR 61601, 9/7/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Gazprom Promgaz, AO (f.k.a., Otkrytoe Aktsionernoe Obshchestvo Gazprom Promgaz), a.k.a., the following two aliases: -Aktsionernoe Obshchestvo ‘Gazprom Promgaz’ <i>and</i> -Gazprom Promgaz.  d. 6 ul.Nametkina, Moscow 117420, Russia.	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	81 FR 61601, 9/7/16.
	Gazprom Russkaya, OOO (f.k.a., Obshchestvo S Ogranichennoi Otvetstvennostyu Kovykneftegaz), a.k.a., the following two aliases: -Gazprom Russkaya; <i>and</i> -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Gazprom Russkaya’.  3 korp.2 ul.Varshavskaya, St. Petersburg 196128, Russia.	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	81 FR 61601, 9/7/16.
	Gazprom Sotsinvest, OOO (f.k.a., Gazprominvestarena OOO), a.k.a., the following two aliases: -Gazprom Sotsinvest; <i>and</i> -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Gazprom Sotsinvest’.  d. 20 litera A nab.Aptekarskaya, St. Petersburg 197022, Russia.	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	81 FR 61601, 9/7/16.
	Gazprom Svyaz, OOO, a.k.a., the following two aliases: -Gazprom Svyaz; <i>and</i> Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Gazprom Svyaz’.  d.16 ul.Nametkina, Moscow 117997, Russia.	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	81 FR 61601, 9/7/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Gazprom Telekom, OOO (f.k.a., Zakrytoe Aktsionerное Obshchestvo Gaztelekom), a.k.a., the following two aliases:            -Gazprom Telecom; <i>and</i>            -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Gazprom Telekom’.</p> <p>d. 62 str. 2 shosse Starokaluzhskoe, Moscow 117630, Russia.</p>	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	81 FR 61601, 9/7/16.
	<p>Gazprom Transgaz Kazan, OOO, a.k.a., the following two aliases:            -Gazprom Transgaz Kazan; <i>and</i>            -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Gazprom Transgaz Kazan’.</p> <p>d.41 ul.Adelya Kutuya, Kazan, Tatarstan resp 420073, Russia.</p>	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	81 FR 61601, 9/7/16.
	<p>Gazprom Transgaz Krasnodar, OOO, a.k.a., the following two aliases:            -Gazprom Transgaz Krasnodar; <i>and</i>            -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Gazprom Transgaz Krasnodar’.</p> <p>d.36 ul.Im Dzerzhinskogo, Krasnodar, Krasnodarski krai 350051, Russia.</p>	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	81 FR 61601, 9/7/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Gazprom Transgaz Makhachkala, OOO (f.k.a., Obshchestvo S Ogranichennoi Otvetstvennostyu Gazprom Transgaz Makhachkala), a.k.a., the following two aliases:            -Gazprom Transgaz Makhachkala; <i>and</i>            -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Gazprom Transgaz Makhachkala’.</p> <p>ul.O.Bulacha, Makhachkala, Dagestan resp. 367030, Russia.</p>	<p>For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.</p>	<p>See § 746.5(b) of the EAR.</p>	<p>81 FR 61601, 9/7/16.</p>
	<p>Gazprom Transgaz Nizhni Novgorod, OOO, a.k.a., the following two aliases:            -Gazprom Transgaz Nizhny Novgorod; <i>and</i>            -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Gazprom Transgaz Nizhni Novgorod’.</p> <p>d.11 ul.Zvezdinka, Nizhni Novgorod, Nizhegorodskaya obl. 603950, Russia.</p>	<p>For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.</p>	<p>See § 746.5(b) of the EAR.</p>	<p>81 FR 61601, 9/7/16.</p>
	<p>Gazprom Transgaz Samara, OOO, a.k.a., the following two aliases:            -Gazprom Transgaz Samara; <i>and</i>            -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Gazprom Transgaz Samara’.</p> <p>d. 106 A str. 1 ul.Novo-Sadovaya, Samara, Samarskaya obl. 443068, Russia.</p>	<p>For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.</p>	<p>See § 746.5(b) of the EAR.</p>	<p>81 FR 61601, 9/7/16.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Gazprom Transgaz Sankt-Peterburg, OOO, a.k.a., the following two aliases:            -Gazprom Transgaz Saint Petersburg; <i>and</i>            -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Gazprom Transgaz Sankt-Peterburg’.</p> <p>3 korp.2 ul.Varshavskaya, St. Petersburg 196128, Russia.</p>	<p>For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.</p>	<p>See § 746.5(b) of the EAR.</p>	<p>81 FR 61601, 9/7/16.</p>
	<p>Gazprom Transgaz Saratov, OOO, a.k.a., the following two aliases:            -Gazprom Transgaz Saratov; <i>and</i>            -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Gazprom Transgaz Saratov’.</p> <p>d.118 A prospekt Im 50 Let Oktyabrya, Saratov, Saratovskaya obl. 410052, Russia.</p>	<p>For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.</p>	<p>See § 746.5(b) of the EAR.</p>	<p>81 FR 61601, 9/7/16.</p>
	<p>Gazprom Transgaz Stavropol, OOO, a.k.a., the following two aliases:            -Gazprom Transgaz Stavropol; <i>and</i>            -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Gazprom Transgaz Stavropol’.</p> <p>d.6 prospekt Oktyabrskoi Revolyutsii, Stavropol, Stavropolski krai 355000, Russia.</p>	<p>For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.</p>	<p>See § 746.5(b) of the EAR.</p>	<p>81 FR 61601, 9/7/16.</p>
	<p>Gazprom Transgaz Surgut, OOO, a.k.a., the following two aliases:            -Gazprom Transgaz Surgut; <i>and</i>            -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Gazprom Transgaz Surgut’.</p> <p>d.1 ul.Universitetskaya, Surgut, Khanty-Mansiski Avtonomny okrug - Yugra a.o. 628406, Russia.</p>	<p>For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.</p>	<p>See § 746.5(b) of the EAR.</p>	<p>81 FR 61601, 9/7/16.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Gazprom Transgaz Tomsk, OOO, a.k.a., the following two aliases:            -Gazprom Transgaz Tomsk; <i>and</i>            -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Gazprom Transgaz Tomsk’.</p> <p>d.9 prospekt Frunze, Tomsk, Tomskaya obl. 634029, Russia.</p>	<p>For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.</p>	<p>See § 746.5(b) of the EAR.</p>	<p>81 FR 61601, 9/7/16.</p>
	<p>Gazprom Transgaz Ufa, OOO (f.k.a., Obshchestvo S Ogranichennoi Otvetstvennostyu Bashtransgaz Otkrytogo Aktsionernogo Obshchestva Gazprom), a.k.a., the following two aliases:            -Gazprom Transgaz Ufa; <i>and</i>            -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Gazprom Transgaz Ufa’.</p> <p>59 ul.Rikharda Zorge, Ufa, Bashkortostan resp. 450054, Russia.</p>	<p>For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.</p>	<p>See § 746.5(b) of the EAR.</p>	<p>81 FR 61601, 9/7/16.</p>
	<p>Gazprom Transgaz Ukhta, OOO, a.k.a., the following two aliases:            -Gazprom Transgaz Ukhta; <i>and</i>            -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Gazprom Transgaz Ukhta’.</p> <p>d.39/2 prospekt Lenina, Ukhta, Komi resp 169312, Russia.</p>	<p>For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.</p>	<p>See § 746.5(b) of the EAR.</p>	<p>81 FR 61601, 9/7/16.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Gazprom Transgaz Volgograd, OOO, a.k.a., the following two aliases:            -Gazprom Transgaz Volgograd; <i>and</i>            -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Gazprom Transgaz Volgograd’.</p> <p>58 ul.Raboche-Krestyanskaya, Volgograd, Volgogradskaya obl. 400074, Russia.</p>	<p>For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.</p>	<p>See § 746.5(b) of the EAR.</p>	<p>81 FR 61601, 9/7/16.</p>
	<p>Gazprom Transgaz Yugorsk, OOO (f.k.a., Obshchestvo S Ogranichennoi Otvetstvennostyu Tyumentransgaz), a.k.a., the following two aliases:            -Gazprom Transgaz Yugorsk; <i>and</i>            -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Gazprom Transgaz Yugorsk’.</p> <p>d.15 ul.Mira, Yugorsk, Khanty-Mansiski Avtonomny okrug, Yugra a.o. 628260, Russia.</p>	<p>For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.</p>	<p>See § 746.5(b) of the EAR.</p>	<p>81 FR 61601, 9/7/16.</p>
	<p>Gazprom Tsentrremont, OOO, a.k.a., the following two aliases:            -Gazprom Tsentrremont; <i>and</i>            -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Gazprom Tsentrremont’.</p> <p>d.1 ul.Moskovskaya, Shchelkovo, Moskovskaya obl 141112, Russia.</p>	<p>For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.</p>	<p>See § 746.5(b) of the EAR.</p>	<p>81 FR 61601, 9/7/16.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Gazprom Vniigaz, OOO, a.k.a., the following two aliases:            -Gazprom Vniigaz; <i>and</i>            -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Nauchno-Issledovatel’ski Institut Prirodnikh Gazov I Gazovykh Tekhnologii - Gazprom Vniigaz’.</p> <p>P Razvilka, Leninski Raion, Moskovskaya obl. 142717, Russia.</p>	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	81 FR 61601, 9/7/16.
	<p>Hermann Derkach,            Pr. Yuria Gagarina 2, Office 801, St. Petersburg, Russia 196105.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	<p>Huawei Cloud Russia,            Moscow, Russia.</p>	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	85 FR 51603, 8/20/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Huawei OpenLab Moscow, a.k.a., the following one alias, -Huawei Moscow OpenLab.  Moscow, Russia.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	85 FR 51603, 8/20/20.
	Huawei Russia, Business-Park “Krylatsky Hills”, 17 bldg. 2, Krylatskaya Str., Moscow 121614, Russia.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 43495, 8/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	IFDK, ZAO, a.k.a., the following six aliases: -Closed Joint Stock Company 'IFD Kapital'; -IFD Kapital; -IFD Kapital Group; -IFD-Capital; -IFD-Kapital; <i>and</i> -Zakrytoe Aktsionernoe Obshchestvo 'IFD Kapital' (f.k.a., Zakrytoe Aktsionernoe Obshchestvo IFD Karital).  6 naberezhnaya, Krasnopresnenskaya, Moscow 123100, Russia.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	82 FR 28408, 6/22/17.
	Igor Samusev,  Ulitsa Artyukhina 6B, 106, Moscow, Russia.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Ilias Kharesovich Sabirov, Solovjinaya Roscha Str 9-1-86, Moscow, Russia.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
	Incorporated Electronics Systems,  9 Lipovaya alleya, St. Petersburg, Russia 197183; <i>and</i> 9A Lipovaya alleya, St. Petersburg, Russia 197183.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Instar Lodzhistiks, OOO, a.k.a., the following one alias: -Instar Logistics.  d. 20 str., 7 ofis 102V, ul. Elektrozavodskaya, Moscow 1072023, Russia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 6952, 2/16/18.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Institut Stroiproekt, AO, a.k.a., the following six aliases: -Aktionernoe Obshchestvo Institut Stroiproekt; -AO Institut Stroiproekt; -AO Institute Stroyproekt (f.k.a., Institut Stroiproekt Zakrytoe Aktsionernoe Obshchestvo); -Institute Stroyproekt; -Stroyproekt; <i>and</i> -Stroyproekt Engineering Group.  D. 13 Korp. 2 LiteraA Prospekt Dunaiski, St. Petersburg 196158, Russia; <i>and</i> 13/2 Dunaisky Prospekt, St. Petersburg 196158, Russia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 94968, 12/27/16.
	Interlab, a.k.a., the following one alias: -OOO Interlab.  Tikhvinsky Per., 11, Building 2, 127055, Moscow, Russia.	For all items subject to the EAR.	See §§ 744.2(d), 744.3(d), and 744.4(d) of this part.	86 FR 12531, 3/4/2021.
	Ivan Komarov,  Pr. Yuria Gagarina 2, Office 801, St. Petersburg, Russia 196105.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Izhevsky Mekhanichesky Zavod JSC, a.k.a., the following one alias: -Baikal.  8 Promyshlennaya Str., Izhevsk 426063, Russia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 52968, 9/2/15.
	Ivan Zubarev,  4 Savelkinskiy Dr., Suite 511-512, Zelenograd, Russia 124482.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Joint Stock Company Angstrom, Angstrom-M, Dom 4, Stroennie 3, Proezd 4806, Zelenograd, Russia 124460.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 61601, 9/7/16.
	Joint Stock Company Angstrom-T, Dom 7, Georgievskiy Prospekt, Zelenograd, Russia 124460.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 61601, 9/7/16.
	Joint-Stock Company Concern Almaz-Antey, a.k.a., the following four aliases: -Almaz-Antey Corp; <i>and</i> -Almaz-Antey Defense Corporation; <i>and</i> -Almaz-Antey JSC; <i>and</i> -Otkrytoe Aktsionernoe Obshchestvo Kontsern PVO Almaz Antei.  41 ul. Vereiskaya, Moscow, 121471, Russia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 42455, 7/22/14.
	Joint-Stock Company Concern Radio-Electronic Technologies, a.k.a., the following three aliases: -Concern Radio-Electronic Technologies; <i>and</i> -JSC Concern Radio-Electronic Technologies; <i>and</i> -Kret.  20/1 Korp. 1 ul. Goncharnaya, Moscow 109240, Russia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 42455, 7/22/14.
	Joint Stock Company Concern Sozvezdie, a.k.a., the following one alias: -JSC Concern Sozvezdie.  14 Plekhanovskaya Street, Voronezh, Russia; <i>and</i> 14 ul. Plekhanovskaya, Voronezh, Voronezhskaya obl. 394018, Russia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 42455, 7/22/14.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Joint Stock Company Experimental Design Bureau Novator, a.k.a., the following two aliases: -Novator Design Bureau; <i>and</i> -JSC OKB Novator.  18 Prospekt Kosmonavtov, 620017 Yekaterinburg, Russia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	82 FR 60305, 12/20/17.
	Joint Stock Company Federal Scientific and Production Center Titan-Barrikady, a.k.a., the following three aliases: -Federal Research and Production Center Titan Barrikady JSC; -Titan Design Bureau; <i>and</i> -JSC FNPTS Titan-Barrikady.  Prospekt Imeni V.I. Lenina, b/n 400071, Volgograd, Russia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	82 FR 60305, 12/20/17.
	Joint Stock Company Foreign Economic Association (FEA) Radioexport, 8 Ukrainsi Boulevard, Moscow, Russia, 121059.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 61601, 9/7/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Joint Stock Company Military-Industrial Corporation NPO Mashinostroyenia, a.k.a., the following eight aliases:            - Joint Stock Company Military Industrial Consortium NPO Mashinostroyenia; <i>and</i>            -JSC MIC NPO Mashinostroyenia; <i>and</i>            -MIC NPO Mashinostroyenia JSC; <i>and</i>            -MIC NPO Mashinostroyeniya JSC; <i>and</i>            -Military Industrial Corporation NPO Mashinostroenia OAO; <i>and</i>            -Open Joint Stock Company Military Industrial Corporation Scientific and Production Machine Building Association; <i>and</i>            -Voenno-Promyshlennaya Korporatsiya Nauchno-Proizvodstvennoe Obedinenie Mashinostroeniya OAO; <i>and</i>            -VPK NPO Mashinostroeniya.</p> <p>33, Gagarina St., Reutov-town, Moscow Region 143966, Russia; <i>and</i>            33 Gagarin Street, Reutov, Moscow Region, 143966, Russia; <i>and</i>            33 Gagarina ul., Reutov, Moskovskaya obl 143966.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 42455, 7/22/14.
	<p>Joint Stock Company (JSC) NIIME, a.k.a., the following two aliases:            -Aktzionernoe Obshchestvo (AO) Nauchnoisledovatel'skiy Institut Molekulyarnoy Elektroniki (NIIME); <i>and</i>            - Molecular Electronics Research Institute (MERI).</p> <p>1st Zapadnyy Proezd 12/1, Zelenograd, Russia, 124460.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 44824, 9/4/18.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Joint Stock Company Kaluga Scientific Research Institute of Radio Engineering (KNIRTI), 2 Lenina Street, Zhukov, Zhukovski Region, Kaluzhskaya Oblast, Russian Federation, 249190.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	84 FR 40241, 8/14/19.
	Joint Stock Company Perm Scientific Industrial Instrument-Making Company (PNPPK), 25th of October Street, Number 106, Perm, Russia 614990.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	81 FR 61601, 9/7/16.
	Joint Stock Company Research and Production Company Micran, 51d Kirova Street, Tomsk, Russia 634041; and 2/5/4 Building 3 Slavyanskaya Square, Moscow, Russia 109074.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	81 FR 61601, 9/7/16.
	Joint Stock Company Scientific-Research Institute “Vektor”,  Ul. Akademika Pavlova, d. 14-A, Saint Petersburg, 197376, Russia.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	83 FR 48534, 9/26/18.
	JSC GOZ Obukhov Plant, a.k.a., the following one alias: -GOZ Obukhov Plant.  Prospekt Obukhovskoi Oboroni 120, Saint Petersburg, 192012, Russia.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	81 FR 94968, 12/27/16.
	JSC Institute of Instrumentation - Novosibirsk Plant Comintern (NPO NIIP-NZIK), Planetnaya Street 32, Novosibirsk, 630015, Russia.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	81 FR 94968, 12/27/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>JSC Scientific Research Institute of Aircraft Equipment (NIIAO), a.k.a., the following three aliases:            -SRIAE;            -NIIAO; <i>and</i>            -Aviation Instrument Scientific Research Institute.</p> <p>Tupoleva 18, Zhukovsky, Moscow, 140182, Russia.</p>	<p>For all items subject to the EAR.            (See §744.11 of the EAR).</p>	<p>Presumption of denial.</p>	<p>81 FR 94968,            12/27/16.</p>
	<p>Kalashnikov Concern, a.k.a., the following eight aliases:            - Concern Kalashnikov; <i>and</i>            -Izhevskiy Mashinostroitel'nyi Zavod OAO; <i>and</i>            -Izhmash R&amp;D Center; <i>and</i>            -JSC NPO Izhmash; <i>and</i>            -NPO Izhmash OAO; <i>and</i>            -OJSC Concern Kalashnikov; <i>and</i>            -OJSC Izhmash; <i>and</i>            -Scientific Production Association Izhmash Joint Stock Company.</p> <p>3, Derjabin Pr., Izhevsk, Udmurt Republic, 426006, Russia.</p>	<p>For all items subject to the EAR.            (See §744.11 of the EAR).</p>	<p>Presumption of denial.</p>	<p>79 FR 42455,            7/22/14.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Kalinin Machine Plant, JSC (a.k.a., Kalinin Machine-Building Plant Open Joint-Stock Company; a.k.a. Kalinin Machinery Plant-BRD; a.k.a. Mashinostroitel'NYI Zavod IM. M.I. Kalinina, G. Yekaterinburg OAO; a.k.a. Mzik OAO; a.k.a. Open-End Joint-Stock Company 'Kalinin Machinery Plant. YEKATERINBURG'; a.k.a. Otkrytoe Aktsionernoe Obshchestvo Mashinostroitelny Zavod IM.M.I.Kalinina, G.Ekaterinburg)</p> <p>Address: 18 prospekt Kosmonavtov, Ekaterinburg 620017, Sverdlovskaya obl., Russia.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 55608, 9/17/14.
	<p>Kaliningradnefteprodukt OOO, a.k.a., the following three aliases:            -Kaliningradnefteprodukt LLC;            -Limited Liability Company Kaliningradnefteproduct;  <i>and</i>            -LLC Kaliningradnefteproduct.</p> <p>22-b Komsomolskaya Ulitsa, Central District, Kaliningrad, Russia.</p>	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	Presumption of denial.	83 FR 6952, 2/16/18. 83 FR 12479, 3/22/18.
	<p>Kaluga Scientific Research Radio Technology Institute (KRRTI), a.k.a., the following two aliases:            -KNIRTI; <i>and</i>            -KRRTI.</p> <p>Lenin Street 2, Zhukov, Kaluga Oblast, 249192, Russia.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 94968, 12/27/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Kamchatgazprom, OAO, a.k.a., the following two aliases:            -Kamchatgazprom; <i>and</i>            -Otkrytoe Aktsionernoje Obshchestvo ‘Kamchatgazprom’.</p> <p>d.19 ul.Pogranichnaya, Petropavlovsk-Kamchatski, Kamchatski krai 683032, Russia.</p>	<p>For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.</p>	<p>See § 746.5(b) of the EAR.</p>	<p>81 FR 61601, 9/7/16.</p>
	<p>Karst, OOO, a.k.a., the following four aliases:            -Construction Holding Company Old City – Karst;            -Karst Ltd.;            -LLC Karst; <i>and</i>            -Obshchestvo S Ogranichennoi Otvetstvennostyu Karst.</p> <p>D. 4 Litera A Pomeschenie 69 ul. Kapitanskaya, St. Petersburg 199397, Russia; <i>and</i> 4 Kapitanskaya Street, Unit A, Office 69-N, St. Petersburg 199397, Russia.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Presumption of denial.</p>	<p>81 FR 94968, 12/27/16.</p>
	<p>Kinef OOO, a.k.a., the following three aliases:            -Kinef, LLC;            -Limited Liability Company Production Association Kirishinefteorgsintez; <i>and</i>            -LLC Kinef.</p> <p>d. 1 Shosse Entuziastov, Kirishi, Leningradskaya Oblast 187110, Russia.</p>	<p>For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.</p>	<p>Presumption of denial.</p>	<p>83 FR 6952, 2/16/18.            83 FR 12479, 3/22/18.</p>
	<p>Kirill A Stekhovskiy,</p> <p>Zastavskaya St. 32A, St. Petersburg, Russia 196084; <i>and</i>            Zastavskaya St. 15-B, St. Petersburg, Russia 196084;  <i>and</i>            Raketnyy Bul’var 15, Moscow, Russia 129164; <i>and</i>            16 Raketnyy Bul’var, Moscow, Russia 129164.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR.)</p>	<p>Presumption of denial.</p>	<p>77 FR 61256, 10/9/12.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Kirill Drozdov, 86 N Prospect Obukhovskoy Oborony, St. Petersburg, Russia 190000.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Kirill Pechorin Starodvorsky, 25 Red Cadets Street Letter H, Office Block 2, St. Petersburg, Russia 99034; <i>and</i> 130-17 Nevskiy Ave., Saint Petersburg, Russia 191036; <i>and</i> 16 Linia V.O., 7 Office 43, St. Petersburg, Russia 99034; <i>and</i> Krestovski River Quay 3, Suite 42, St. Petersburg, Russia 197376.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Kirishiavtoservis OOO, a.k.a., the following two aliases: -Limited Liability Company Kirishiavtoservis; <i>and</i> -LLC Kirishiavtoservis.  lit A, 12 Smolenskaya Ulitsa, St. Petersburg 196084.	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	Presumption of denial.	83 FR 6952, 2/16/18. 83 FR 12479, 3/22/18.
	Kompaniya Gaz-Alyans, OOO, a.k.a., the following three aliases: -Company Gaz-Alliance LLC; -Kompaniya Gaz-Alyans, OOO; <i>and</i> -Obshchestvo S Ogranichennoi Otvetstvennostyu Kompaniya Gaz-Alyans.  15 Ul., Svobody, Nizhni Novgorod, Nizhegorodskaya Obl. 603003, Russia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 6952, 2/16/18.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Konstruktorskoe Byuro Priborostroeniya Otkrytoe Aktsionerное Obshchestvo, a.k.a., the following five aliases:            -Instrument Design Bureau; <i>and</i>            -JSC KBP Instrument Design Bureau; <i>and</i>            -KBP Instrument Design Bureau; <i>and</i>            -KBP Instrument Design Bureau Joint Stock Company; <i>and</i>            -KBP OAO.</p> <p>59 Shcheglovskaya Zaseka ul., Tula 300001, Russia.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 42455, 7/22/14.
	<p>Krasnoyarskgazprom, PAO, a.k.a., the following two aliases:            -Krasnoyarskgazprom; <i>and</i>            -Publichnoe Aktsionerное Obshchestvo ‘Krasnoyarskgazprom.            d.1 pl.Akademika Kurchatova, Moscow 123182, Russia.</p>	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	81 FR 61601, 9/7/16.
	<p>LabInvest,            Remenskoe, Street 100-Y, Svirskoy Division, D 52,            140104, Moscow Oblast, Russia.</p>	For all items subject to the EAR.	See §§ 744.2(d), 744.3(d), and 744.4(d) of this part.	86 FR 12531, 3/4/2021.
	<p>Lazurnaya, OOO, a.k.a., the following two aliases:            -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Lazurnaya’; <i>and</i>            -“Lazurnaya”.</p> <p>d.103 prospekt Kurortny, Sochi, Krasnodarski krai 354024, Russia.</p>	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	81 FR 61601, 9/7/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>LLC Koksokhimtrans, a.k.a., the following one alias: -Koksokhimtrans Ltd.</p> <p>Rakhmanovskiy lane, 4, bld.1, Morskoy House, Moscow 127994, Russia.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 61601, 9/7/16.
	<p>LLC Ruschemtrade, St. Mashinostroitelnyj, 3, Rostov-on-Don 344090, Russia; <i>and</i> 86/1, Temryuk, Krasnodar 353500, Russia.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 94968, 12/27/16.
	<p>Lengiproneftekhim OOO, a.k.a., the following three aliases: -Institut Po Proektirovaniyu Predpriyaty Neftepererabatyvayuschey I Neftekhimicheskoy Promyshlennosti, Limited Liability Company; -Limited Liability Company Oil Refining and Petrochemical Facilities Design Institute; <i>and</i> -LLC Lengiproneftekhim.</p> <p>d. 94, Obvodnogo Kanala, nab, St. Petersburg 196084, Russia.</p>	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	Presumption of denial.	83 FR 6952, 2/16/18. 83 FR 12479, 3/22/18.
	<p>Limited Liability Company Concord Management and Consulting, a.k.a. the following three aliases: -Konkord Menedzhment I Konsalting, OOO; -LLC Concord Management and Consulting; <i>and</i> -Obshchestvo S Ogrannichennoi Otvetstvennostyu Konkord Menedzhment I Konsalting.</p> <p>d. 13 Litera A, Pom. 2-N N4, Naberezhnaya Reki Fontanki, St. Petersburg 191011, Russia.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	82 FR 28408, 6/22/17. 84 FR 40241, 8/14/19.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Limited Liability Company Foreign Economic Association Technopromexport, a.k.a., the following three aliases:            -Obschestvo S Ogranichennoi Otvestvennostyu Vneshneekonomicheskoe Obedinenie Tekhnopromeksport;            -OOO VO Technopromexport; <i>and</i>            -OOO VO TPE.</p> <p>Novyi Arbat Str. 15, Building 2, Moscow 119019, Russia.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 6952, 2/16/18.
	<p>Lukoil, OAO            (a.k.a. Lukoil; a.k.a. Lukoil Oil Company; a.k.a. Neftyanaya Kompaniya Lukoil OOO; a.k.a. NK Lukoil OAO),</p> <p>Address:            11 Sretenski boulevard, Moscow 101000, Russia.</p>	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	79 FR 55608, 9/17/14.
	<p>Lyudmila V Talyanova,</p> <p>Zastavskaya St. 32A, St. Petersburg, Russia 196084; <i>and</i>            Zastavskaya St. 15-B, St. Petersburg, Russia; <i>and</i>            Raketnyy Bul'var 15, Moscow, Russia 129164; <i>and</i>            Krestovski River Quay 3, Suite 42, St. Petersburg, Russia 197376.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	<p>Magnetar,</p> <p>Pr. Yuria Gagarina 2, Office 801, St. Petersburg, Russia 196105.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Main Intelligence Directorate, a.k.a., the following three aliases -Glavnoe Razvedyvatel'noe Upravlenie; -GRU; <i>and</i> -Main Intelligence Department.  Khoroshevskoye Shosse 76, Khodinka, Moscow, Russia; <i>and</i> Ministry of Defence of the Russian Federation, Frunzenskaya nab., 22/2, Moscow 119160, Russia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	82 FR 724, 1/4/17.
	Mariya Lomova,  9 Lipovaya alleya, St. Petersburg, Russia 197183.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Mark Gofman,  P.O. Box 242, St. Petersburg, Russia 196240.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Maxim Yevgenevich Ivakin,  106 Kuybyshev Str, Office 68, Yekaterinburg, Russia.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	MaxiTechGroup, a.k.a., the following two aliases: -MaksiTekhGrup; <i>and</i> -JSC MaksiTekhGrup,  4 Pokhodnyy Dr, Bldg 1, 4th floor, Room 417, Moscow, Russia 125373; <i>and</i> 46 Chkalova St., Zhukovskiy, Moscow Region, 140180.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Media-Invest OOO, a.k.a., the following two aliases: -Limited Liability Company Media-Invest; <i>and</i> -LLC Media-Invest.  17 Bld 1 Zubovsky Blvd, Moscow 119847, Russia.	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	Presumption of denial.	83 FR 6952, 2/16/18. 83 FR 12479, 3/22/18.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Megel, 26 General Belov St, Office 1010, Moscow, Russia 115583; <i>and</i> 26 Generala Belova Street, Office 1010, Moscow, Russia 115583.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Mekom, a.k.a., the following one alias: -Mecom,  Ulitsa Mitinskaya 36/1, Moscow, Russia 125430.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Melkom, a.k.a., the following two aliases: -Melcom; <i>and</i> -Melkom JSC,  Ulitsa Ordzhonikidze 10, Moscow, Russia 119071; <i>and</i> 10 Ordjonikidze Street, Moscow, Russia 119071; <i>and</i> Ulitsa Polyany 9/6, Moscow, Russia 117042; <i>and</i> Polijani str., 9-6, 117042, Moscow, Russia; <i>and</i> 33 Ulitsa Marshala Tukhachevskogo, Suite 231, Moscow, Russia 123154; <i>and</i> Bolshaya Semenovskaya, 40/505, Moscow, Russia 107023; <i>and</i> Ulitsa Metallurgov, 29, Str. 1, Komnata Pravleni, Moscow, Russia 111401.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	MicroComponent LLC,  2/1, 4th Zapadny proezd, Zelenograd, Russia 124460; <i>and</i> 4 Yunost Square, NPZ, Suite 1-7, Zelenograd, Russia 124482; <i>and</i> 4 <sup>th</sup> West Passage Dr., Building 2, 124460, Zelenograd, Russia.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	MIG Engineering, a.k.a., the following one alias: -MIG Electronics,  26 General Belov Str, Office 1010, Moscow, Russia 115583; <i>and</i> 26 Generala Belova Street, Office 1010, Moscow, Russia 115583; <i>and</i> 53 Scherbakovskaya St, Bldg 3, Moscow, Russia 105187.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Mikhail Davidovich, a.k.a., the following one alias: -Mike Davidovich,  P.O. Box 242, St. Petersburg, Russia 196240.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Mikhail Karpushin,  5A North Street, Saransk, Republic of Mordovia, Russia 43006; <i>and</i> 53 Sherbakovskaya Street, Building 3, Office 509, 105318 Moscow, Russia; <i>and</i> 26 General Belov St Office 415, Moscow, Russia 115583; <i>and</i> 26 Generala Belova Street, Office 415, Moscow, Russia 115583; <i>and</i> 60 Bolshevistskaya St., Office 905, Saransk, Republic of Mordovia, Russia; <i>and</i> 60 Bolshevistskaya St., Office 910, Saransk, Republic of Mordovia, Russia; <i>and</i> 5a Severnaya Street, Saransk, Republic of Mordovia, Russia.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Mikhail Vinogradov, 4 Pokhodnyy Dr, Bldg 1, 4th Floor, Room 417, Moscow, Russia 125373.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Molot-Oruzhie, OOO, a.k.a., the following one alias: -Obshchestvo S Ogranichennoi Otvetstvennostyu 'Molot-Oruzhie' (f.k.a., Obshchestvo S Ogranichennoi Otvetstvennostyu Proizvodstvenno Instrument Kachestvo).  135 ul. Lenina, Vyatskie Polyany, Kirov Obl. 612960, Russia.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	82 FR 28408, 6/22/17.
	Mytishchinski Mashinostroitelny Zavod, OAO (a.k.a., JSC Mytishchinski Machine-Building Plant; a.k.a. Otkrytoe Aktsionernoe Obshchestvo 'Mytishchinski Mashinostroitelny ZAVOD')  Address: 4 ul. Kolontsova Mytishchi, Mytishchinski Raion, Moskovskayaobl 141009, Russia  Alt. Address: UL Koloncova, d.4, Mytishi, Moscow region 141009, Russia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 55608, 9/17/14.
	Neft-Aktiv LLC, a.k.a., the following two aliases: -OOO Neft -Aktiv; <i>and</i> -RN-Aktiv OOO.  Ulica Kaluzhskaya M., d., 15, str. 28, Moscow 119071, Russia.	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	80 FR 52968, 9/2/15.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Neva Electronica, a.k.a., the following one alias: -Neva Elektronika,</p> <p>Pr. Yuria Gagarina 2, Office 801, St. Petersburg, Russia 196105; <i>and</i> 5 Professora Popova St., Saint Petersburg, 197022.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR.)</p>	<p>Presumption of denial.</p>	<p>77 FR 61256, 10/9/12.</p>
	<p>Niigazekonomika, OOO, a.k.a., the following two aliases: -Niigazekonomika; <i>and</i> -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Nauchnoissledovatel’ski Institut Ekonomiki I Organizatsii Upravleniya V Gazovoipromyshlennosti’.</p> <p>d. 20 korp. 8 ul. Staraya Basmannaya, Moscow 107066, Russia.</p>	<p>For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.</p>	<p>See § 746.5(b) of the EAR.</p>	<p>81 FR 61601, 9/7/16.</p>
	<p>Nikolai Bragin,</p> <p>2A Chernyshevskogo St., St. Petersburg, Russia 191123; <i>and</i> Zastavskaya St. 32A, St. Petersburg, Russia 196084; <i>and</i> Zastavskaya st. 15-B, St. Petersburg, Russia 196084; <i>and</i> Raketnyy Bul’var 15, Moscow, Russia 129164; <i>and</i> 16 Raketnyy Bul’var, Moscow, Russia 129164.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR.)</p>	<p>Presumption of denial.</p>	<p>77 FR 61256, 10/9/12.</p>
	<p>Nilco Group, a.k.a., the following one alias: -Nilfam Khazar Co.</p> <p>Unit 439, 2 Mozhayskoe Road, Moscow, Russia (see alternate addresses under Belarus and Iran).</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR.)</p>	<p>Presumption of denial.</p>	<p>83 FR 48534, 9/26/18.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Nova Technologies, a.k.a., the following five aliases:            -Novie Technologies; <i>and</i>            -Nova SPB; <i>and</i>            -New Technology; <i>and</i>            -Nova Technologies Co., Ltd.; <i>and</i>            -Novyye Tekhnologii, LLC,</p> <p>25 Red Cadets Street Letter H, Office Block 2, St. Petersburg, Russia 99034; <i>and</i>            130-17 Nevskiy Ave., Saint Petersburg, Russia 191036;  <i>and</i>            16 Linia V.O., 7 Office 43, St. Petersburg, Russia 99034;  <i>and</i>            Krestovski River Quay 3, Suite 42, St. Petersburg, Russia 197376.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	<p>Novgorodnefteprodukt OOO, a.k.a., the following three aliases:            -Limited Liability Company Novgorodnefteprodukt;            -LLC Novgorodnefteprodukt; <i>and</i>            -Novgorodnefteprodukt LLC.</p> <p>d. 20 Germana Ulitsa, Veliky Novgorod, Novgorodskaya Oblast 173002, Russia.</p>	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	Presumption of denial.	83 FR 6952, 2/16/18. 83 FR 12479, 3/22/18.
	NPC Granat, 22 Polytechnicheskaya Street, Saint Petersburg, Russia 194021.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 61601, 9/7/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>           OAO All-Russia Research Institute of Radio Equipment (JSC VNIIRA), a.k.a., the following three aliases:            -OJSC VNIIRA;            -OAO All-Russia Research Institute of Radio Technology; <i>and</i>            All-Russian Scientific Research Institute of Radio Equipment.             Shkipersky Protok 19, V.I. St. Petersburg, 199106, Russia.         </p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Presumption of denial.</p>	<p>81 FR 94968, 12/27/16.</p>
	<p>           OAO Ship Repair Center ‘Zvezdochka’, a.k.a., the following four aliases:            -‘Zvezdochka’ Shipyard;            -AO Ship Repair Center ‘Zvezdochka’;            -Joint Stock Company Ship Repair Center ‘Zvezdochka’; <i>and</i>            -Ship Repair Center Zvezdochka.             12, proyezd Mashinostroiteley, Severodvinsk, Arkhangelskaya Oblast 164509, Russia (See alternate address in Crimea region of Ukraine).         </p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Presumption of denial.</p>	<p>81 FR 61601, 9/7/16.</p>
	<p>           OAO Volgogradneftemash (f.k.a. Dochernee Aktsionernoe Obshchestvo Otkrytogo Tipa Volgogradneftemash Rossiiskogo Aktsionernogo Obshchestva Gazprom), a.k.a., the following two aliases:            -JSC Volgogradneftemash; <i>and</i>            -Otkrytoe Aktsionernoe Obshchestvo Volgogradneftemash.             45 Ulitsa Elektrolesovskaya, Volgograd, Volgogradskaya Oblast 400011, Russia.         </p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Presumption of denial.</p>	<p>80 FR 80646, 12/28/15.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Obninsk Research and Production Enterprise (ORPE), a.k.a., the following three aliases:            -ORPE Technologiya;            -ONPP Technologiya; <i>and</i>            -Obninsk Composite Materials Plant</p> <p>Kievskoe Shosse 15, Obninsk, 249031, Russia.</p>	<p>For all items subject to the EAR.            (See §744.11 of the EAR.)</p>	<p>Presumption of denial.</p>	<p>83 FR 48534,            9/26/18.            84 FR 40241,            8/14/19.</p>
	<p>Oboronlogistika, OOO, a.k.a., the following four aliases:            -Oboronlogistics Limited Liability Company;            -Oboronlogistics LLC;            -Oboronlogistika LLC; <i>and</i>            -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘Oboronlogistika’.</p> <p>d. 18 str. 3 prospekt Komsomolski, Moscow 119021, Russia; <i>and</i> ul. Goncharnaya, house 28, building 2, Moscow 115172, Russia.</p>	<p>For all items subject to the EAR.            (See §744.11 of the EAR.)</p>	<p>Presumption of denial.</p>	<p>82 FR 28408,            6/22/17.</p>
	<p>Oceanos,            19/2 Esenina Street, Saint Petersburg, 194295, Russia;  <i>and</i> 16/2 A-H Engelsa Prospekt, Saint Petersburg, 195156, Russia.</p>	<p>For all items subject to the EAR.            (See §744.11 of the EAR.)</p>	<p>Presumption of denial.</p>	<p>83 FR 48534,            9/26/18.</p>
	<p>OJSC Achinsk Refinery, a.k.a., the following two aliases:            -Achinsk Refinery; <i>and</i>            -OAO Achinsk Oil Refinery VNK.</p> <p>Achinsk Refinery industrial area, Bolsheuluisky district, Krasnoyarsk territory 662110, Russia.</p>	<p>For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.</p>	<p>See § 746.5(b) of the EAR.</p>	<p>80 FR 52968,            9/2/15.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	OJSC Angarsk Petrochemical Company, a.k.a., the following one alias: -Angarsk Refinery.  Angarsk, Irkutsk region 665830, Russia; <i>and</i> 6 ul. K. Marksa, Angarsk 665830, Russia.	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	80 FR 52968, 9/2/15.
	OJSC Kuybyshev Refinery, a.k.a., the following two aliases: -Kuibyshev Refinery; <i>and</i> -OJSC Kuibyshev Refinery.  25 Groznenskaya st., Samara 443004, Russia.	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	80 FR 52968, 9/2/15.
	OJSC Novokuybyshev Refinery, a.k.a., the following one alias: -Novokuibyshevsk Refinery.  Novokuibyshevsk, Samara region 446207, Russia.	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	80 FR 52968, 9/2/15.
	OJSC Orenburgneft, a.k.a., the following two aliases: -OAO JSC Orenburgneft; <i>and</i> -Orenburgneft.  Magistralnaya St., 2, Buzuluk, the Orenburg Region 461040, Russia; <i>and</i> st. Magistralynaya 2, Buzuluk 461040, Russia.	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	80 FR 52968, 9/2/15.
	OJSC RN Holding, a.k.a., the following one alias: -RN Holding OAO.  60 Oktyabrskaya ul., Uvat 626170, Russia.	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	80 FR 52968, 9/2/15.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>OJSC Samotlorneftegaz, a.k.a., the following two aliases:            -Samotlorneftegaz; <i>and</i>            -Samotlorneftegaz JSC.</p> <p>Lenina St. 4, the Tyumen Region, Khanty-Mansiysk, Autonomous District, Nizhnevartovsk 628606, Russia.</p>	<p>For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.</p>	<p>See § 746.5(b) of the EAR.</p>	<p>80 FR 52968, 9/2/15.</p>
	<p>OJSC Sovfracht, a.k.a., the following three aliases:            -PJSC ‘Sovfracht’;            -Sovfracht JSC; <i>and</i>            -Sovfrakht.</p> <p>Rakhmanovskiy lane, 4, bld.1, Morskoy House, Moscow 127994, Russia.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Presumption of denial.</p>	<p>81 FR 61601, 9/7/16.</p>
	<p>OJSC Syzran Refinery, a.k.a., the following two aliases:            -Open Joint-Stock Oil and Gas Company Syzran; <i>and</i>            -Syzran Refinery.</p> <p>1 Astrakhanskaya st., Syzran, Samara region 446009, Russia; <i>and</i> Moskvorechje street 105, Building 8, Moscow 115523, Russia.</p>	<p>For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.</p>	<p>See § 746.5(b) of the EAR.</p>	<p>80 FR 52968, 9/2/15.</p>
	<p>OJSC Ural Production Company Vector (UPP Vector), a.k.a., the following two aliases:            -JSC ‘SCP’ Vector; <i>and</i>            -JSC PPM Vector.</p> <p>Gagarin Street 28, Ekaterinburg, 620078, Russia.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Presumption of denial.</p>	<p>81 FR 94968, 12/27/16.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	OOO Analit Products, 26 <sup>th</sup> -line V.O., dom. 15/2 lit. A, office 9.06, St. Petersburg, Russia 199106.	For all items subject to the EAR.	See §§ 744.2(d), 744.3(d), and 744.4(d) of this part.	86 FR 12531, 3/4/2021.
	OOO Intertech Instruments, a.k.a., the following one alias: -Intertek Instruments.  3/2 Novopeschanaya Street, Moscow, Russia 125057.	For all items subject to the EAR.	See §§ 744.2(d), 744.3(d), and 744.4(d) of this part.	86 FR 12531, 3/4/2021.
	OOO Sovtest Comp, a.k.a., the following one alias: -SOVTEST.  Sokolovo-Meshcherskaya Street, Building 14, Office 9, 125466 Moscow, Russia.	All items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
	Open Joint Stock Company Aviadvigatel, a.k.a., the following one alias: -AVI.  Komsomolsky Prospekt 93, Perm, 614990, Russia.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	83 FR 48534, 9/26/18.
	Open Joint Stock Company Information Technology and Communication Systems, a.k.a., the following two aliases: - OJSC Infoteks; <i>and</i> - OJSC Infotecs.  Proezd Petrovsko-Razumovski Star, d. 1/23 str. 1 Business Center “Vympel,” Moscow, 127287, Russia.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	83 FR 48534, 9/26/18.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Open Joint Stock Company Kontsern Izhmash, a.k.a., the following one alias: -OJSC Kontsern Izhmash.</p> <p>3 Deryabin Proezd, Izhevsk, Udmurt Republic 426006, Russia.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Presumption of denial.</p>	<p>80 FR 52968, 9/2/15.</p>
	<p>Open Joint Stock Company Scientific and Production Corporation of Precision Instruments Engineering (NPK-SPP), a.k.a., the following one alias: -OJC RPC PSI.</p> <p>Aviamotornaya Ulitsa 53, Moscow, 111024, Russia.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR.)</p>	<p>Presumption of denial.</p>	<p>83 FR 48534, 9/26/18.</p>
	<p>Oksana Timohina,</p> <p>6 Aptekarskiy Prospekt, Office 710, St. Petersburg, Russia 197376; <i>and</i> Naberezhnaya Chernoi Rechki 61-1, St. Petersburg, Russia 197342; <i>and</i> 7 Belovodskiy Ln, St. Petersburg, Russia 194044; <i>and</i> Belovodskiy Per, 7, St. Petersburg, Russia 194044; <i>and</i> Naberegnaja Chernoj Rechki 61-1, 197342, Saint Petersburg, Russia; <i>and</i> 16 Parkovaya 30, Office 319, Moscow, Russia 105484.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR.)</p>	<p>Presumption of denial.</p>	<p>77 FR 61256, 10/9/12.</p>
	<p>Oleg Koshkin,</p> <p>26 General Belov St Office 415, Moscow, Russia 115583; <i>and</i> 26 Generala Belova St Office 415, Moscow, Russia 115583; <i>and</i> 53 Sherbakovskaya Street, Building 3, Office 509, 105318 Moscow, Russia.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR.)</p>	<p>Presumption of denial.</p>	<p>77 FR 61256, 10/9/12.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Oleg Kunilov, 4 Savelkinskiy Dr., Suite 511-512, Zelenograd, Russia 124482.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Olga Naumova, 53 Sherbakovskaya St, Bldg 3, Moscow, Russia 105187; <i>and</i> 26 General Belov Str, Office 1010, Moscow, Russia 115583; <i>and</i> 26 Generala Belova Street, Office 1010, Moscow, Russia 115583.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Olga Pakhmutova, 53 Sherbakovskaya Street, Building 3, Office 509, 105318 Moscow, Russia; <i>and</i> 26 General Belov Str, Office 1010, Moscow, Russia 115583; <i>and</i> 26 Generala Belova Street, Office 1010, Moscow, Russia 115583; <i>and</i> 26 General Belov St Office 415, Moscow, Russia 115583; <i>and</i> 26 Generala Belova Street, Office 415, Moscow, Russia 115583.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Olga Petrovna Kuznetsova,            33 Ulitsa Marshala Tukhachevskogo, Suite 231 Moscow, Russia 123154; <i>and</i>            Ordzhonikidze 10, Moscow, Russia 119071; <i>and</i>            10 Ordjonikidze Street, Moscow, Russia 119071; <i>and</i>            Ulitsa Polyany 9/6, Moscow, Russia 117042; <i>and</i>            Poljani str., 9-6, 117042 Moscow, Russia; <i>and</i>            9 Polyany Street, Suite 6, Moscow, Russia 117042; <i>and</i>            Bolshaya Semenovskaya, 40/505, Moscow, Russia 107023; <i>and</i>            Ulitsa Metallurgov, 29, Str. 1, Komnata Pravleni, Moscow, Russia 111401.</p>	<p>For all items subject to the EAR.            (See §744.11 of the EAR.)</p>	<p>Presumption of denial.</p>	<p>77 FR 61256, 10/9/12.</p>
	<p>Olga Ruzmanova,            53 Sherbakovskaya Street, Building 3, Office 509, 105318 Moscow, Russia; <i>and</i>            26 General Belov St Office 415, Moscow, Russia 115583; <i>and</i>            26 Generala Belova Street, Office 415, Moscow, Russia 115583; <i>and</i>            26 General Belov Str, Office 19, Moscow, Russia 115583; <i>and</i>            26 Generala Belova Street, Office 19, Moscow, Russia 115583.</p>	<p>For all items subject to the EAR.            (See §744.11 of the EAR.)</p>	<p>Presumption of denial.</p>	<p>77 FR 61256, 10/9/12.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Olga V Bobrikova, 8 Pushkinskaya St., Apt. #47, St. Petersburg, Russia 196607; <i>and</i> Zastavskaya St 32A, St. Petersburg, Russia 196084; <i>and</i> Zastavskaya St. 15-B, St. Petersburg, Russia 196084; <i>and</i> Raketnyy Bul'var 15, Moscow, Russia 129164; <i>and</i> 16 Raketnyy Bul'var, Moscow, Russia 129164.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Olid Ltd., a.k.a., the following one alias: -OOO Solid.  ul Mira 4, Novorossiysk, Krasnodarskiy kray 630024, Russia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 94968, 12/27/16.
	OOO 'DSK', a.k.a., the following one alias: -OOO 'Dorozhnaya Stroitel'naya Kompania'.  Stroitel'naya Street, 34, village of Kesova Gora, Tver Oblast 171470, Russia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 61601, 9/7/16.
	OOO 'STG-EKO', a.k.a., the following one alias: -'STG-EKO' LLC.  Street Zastavskaya Building 22, Part A, Saint Petersburg 196084, Russia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 61601, 9/7/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Otkrytoe Aktsionernoe Obshchestvo Vneshneekonomicheskoe Obedinenie Tekhnopromeksport, a.k.a., the following seven aliases:            -Joint Stock Company Foreign Economic Association Tekhnopromexport;            -JSC Tekhnopromexport;            -JSC Vo Tekhnopromexport;            -OJSC Technopromexport;            -Open Joint Stock Company Foreign Economic Association Tekhnopromexport;            -VO Tekhnopromeksport, OAO; <i>and</i>            -“JSC TPE.”</p> <p>d. 15 str. 2 ul. Novy Arbat, Moscow 119019, Russia.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 80646, 12/28/15.
	<p>Pavel Grishanovich,            9 Lipovaya alleya, St. Petersburg, Russia 197183.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	<p>Petersburg Electronic Company (PEC), LLC, a.k.a., the following one alias:            -Petersburg Electron-Komplekt Ltd.,            Zastavskaya St 32A, St. Petersburg, Russia 196084; <i>and</i>            Zastavskaya St. 15-B, St. Petersburg, Russia 196084;  <i>and</i>            Raketnyy Bul’var 15, Moscow, Russia 129164; <i>and</i>            16 Raketnyy Bul’var, Moscow, Russia 129164.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	<p>Petersburg Electronic Company Warehouse,            Zastavskaya St. 15-B, St. Petersburg, Russia 196084.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	PJSC Mikron, 1st Zapadny Proezd 12/1, Zelenograd, Russia, 124460.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 61601, 9/7/16. 83 FR 44824, 9/4/18.
	PJSC Mostotrest, a.k.a., the following four aliases: -Mostotrest; -Mostotrest, PAO; -Open Joint Stock Company ‘Mostotrest’; <i>and</i> -Public Joint Stock Company Mostotrest.  6 Barklaya str., bld. 5, Moscow 121087, Russia; <i>and</i> d. 6 str. 5, ul. Barklaya, Moscow 121087, Russia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 61601, 9/7/16.
	PJSC Power Machines, a.k.a., the following three aliases: -Open Joint Stock Company Power Machines - ZTL, LMZ, Electrosila, Energomachexport; -Publichnoe Aktsionernoe Obshchestvo Silovye Mashiny - ZTL, LMZ, Elektrosila, Energomashekport; <i>and</i> -Silovye Mashiny, PAO.  3A Vatutina St., St. Petersburg 195009, Russia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 6952, 2/16/18.
	PJSC Verkhnechonskneftegaz, a.k.a., the following two aliases: -OJSC Verkhnechonskneftegaz; <i>and</i> -Verkhnechonskneftegaz.  Baikalskaya St., 295 B, Irkutsk 664050, Russia.	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	80 FR 52968, 9/2/15.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Pharmcontract GC, a.k.a., the following one alias: -Farmkontract GC.  Dubininskaya Street, 57/2, Office 306, 115054, Moscow, Russia.	For all items subject to the EAR.	See §§ 744.2(d), 744.3(d), and 744.4(d) of this part.	86 FR 12531, 3/4/2021.
	Private Military Company ‘Wagner’, a.k.a., the following three aliases: -Chastnaya Voennaya Kompaniya ‘Vagner’; -Chvk Vagner; <i>and</i> -PMC Wagner).  Russia.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	82 FR 28408, 6/22/17.
	ProExCom,  Ulitsa Artyukhina 6B, 106, Moscow, Russia.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Pskovnefteprodukt OOO, a.k.a., the following two aliases: -Limited Liability Company Marketing Association Pskovnefteproduct; <i>and</i> -LLC Pskovnefteproduct.  4 Oktyabrsky Prospekt, Pskov 180000, Russia.	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	Presumption of denial.	83 FR 6952, 2/16/18. 83 FR 12479, 3/22/18.
	Radel Ltd., a.k.a., the following one alias: -Firm Radel Ltd.,  20 Novaya Basmannaya St., Moscow, Russia.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Ramil Yarulloovich Magzhanov,  Zastavskaya St 32A, St. Petersburg, Russia 196084; <i>and</i> Zastavskaya St. 15-B, St. Petersburg, Russia 196084; <i>and</i> Raketnyy Bul'var 15, Moscow, Russia 129164; <i>and</i> 16 Raketnyy Bul'var, Moscow, Russia 129164.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Rau Farm, a.k.a., the following three aliases: -Raw Farm; -Rau Pharm; <i>and</i> -Raw Pharm.  Petro-Razumovskaya Alley 18, Moscow, Russia; <i>and</i> Ul. Mnevniki 3/1, Moscow, Russia; <i>and</i> Denisovsky Pereulok, Bldg 8/14, Moscow, Russia.	For all items subject to the EAR.	See §§ 744.2(d), 744.3(d), and 744.4(d) of this part.	86 FR 12531, 3/4/2021.
	Ravil Mukminovich Bagautdinov,  53 Sherbakovskaya Street, Building 3, Office 509, 105318 Moscow, Russia; <i>and</i> 26 General Belov Str, Office 1010, Moscow, Russia 115583; <i>and</i> 26 Generala Belova Street, Office 1010, Moscow, Russia 115583; <i>and</i> 26 General Belov St Office 415, Moscow, Russia 115583; <i>and</i> 26 Generala Belova Street, Office 415, Moscow, Russia 115583.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	RCM Group, 6 Aptekarskiy Prospekt, Office 700, St. Petersburg, Russia 197376; <i>and</i> 30 16th Parkovaya St, Office 319, Moscow, Russia 105484; <i>and</i> 16-aya Parkovaya Str., 30, Office 319, Moscow, Russia 105484.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Regionsnab, 129327 ul. Lenskaya 2/21, Suite III, Moscow, Russia.	For all items subject to the EAR.	See §§ 744.2(d), 744.3(d), and 744.4(d) of this part.	86 FR 12531, 3/4/2021.
	Research and Production Association KVANT, a.k.a., the following one alias: -NPO Kvant.  Bolshaya Saint Petersburg 73, Velikii-Novgorod 173003, Russia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 94968, 12/27/16.
	Research and Production Association M.V. Frunze, a.k.a., the following two aliases: -NNPO Frunze; <i>and</i> -NZIF.  Gagarin Prospect 174, Nizhny Novgorod, 606950, Russia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 94968, 12/27/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	RN-Komsomolsky Refinery LLC, a.k.a., the following three aliases: -Komsomolsk Refinery; -LLC RN-Komsomolsk Refinery; <i>and</i> -RN-Komsomolski NPZ OOO.  115 Leningradskaya st., Komsomolsk-on-Amur, Khabarovsk region 681007, Russia.	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	80 FR 52968, 9/2/15.
	RN-Yuganskneftegaz LLC, a.k.a., the following two aliases: -RN- Yuganskneftegaz OOO; <i>and</i> -Yuganskneftegaz.  Lenina St., 26, Nefteyugansk, Tyumen Region, 628309, Russia.	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	80 FR 52968, 9/2/15.
	Roman Eliseev, a.k.a., the following one alias: -Roman Yeliseyev,  26 General Belov Str Office 19, Moscow, Russia 115583; <i>and</i> 26 Generala Belova Street, Office 19, Moscow, Russia 115583; <i>and</i> 53 Sherbakovskaya Street, Building 3, Office 509, 105318 Moscow, Russia; <i>and</i> 26 General Belov Str, Office 1010, Moscow, Russia 115583; <i>and</i> 26 Generala Belova Street, Office 1010, Moscow, Russia 115583; <i>and</i> 26 General Belov St Office 415, Moscow, Russia 115583; <i>and</i> 26 Generala Belova Street, Office 415, Moscow, Russia 115583.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Rosneft (a.k.a. Open Joint-Stock Company Rosneft Oil Company; a.k.a. OAO Rosneft Oil Company; a.k.a. Oil Company Rosneft; a.k.a. OJSC Rosneft Oil Company; a.k.a. Rosneft Oil Company)</p> <p>Address: 26/1, Sofiyskaya Embankment, 117997, Moscow, Russia.</p>	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	79 FR 55608, 9/17/14.
	<p>Ryazan State Instrument Enterprise (RSIE), a.k.a., the following two aliases: -RSIE; <i>and</i> -GRPZ.</p> <p>Seminarskaya Street 32, Ryazan, 390000, Russia.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 94968, 12/27/16.
	<p>Sakhatrans LLC, a.k.a., the following two aliases: -Obshchestvo S Organichennoi Otvetstvennostyu'sakha (Yakutskaya) Transportnaya Kompaniya, <i>and</i> -Sakhatrans OOO.</p> <p>14 ul. Molodezhnaya Rabochi Pos. Vanino, 682860 Vaninski, Raion Khabarovski Krai, Russia.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 24561, 5/1/14.
	<p>Salvation Committee of Ukraine, a.k.a., the following three aliases: -Committee for the Rescue of Ukraine; -Savior of Ukraine Committee; <i>and</i> -Ukraine Salvation Committee.</p> <p>Russia.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 61601, 9/7/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Saransk Electronic Company, a.k.a., the following one alias:  -APEX Saransk,</p> <p>5A North Street, Saransk, Republic of Mordovia, Russia 43006; <i>and</i>  60 Bolshevistskaya St., Office 905, Saransk, Republic of Mordovia, Russia; <i>and</i>  60 Bolshevistskaya St., Office 910, Saransk, Republic of Mordovia, Russia; <i>and</i>  5a Severnaya Street, Saransk, Republic of Mordovia, Russia.</p>	<p>For all items subject to the EAR.  (See §744.11 of the EAR.)</p>	<p>Presumption of denial.</p>	<p>77 FR 61256, 10/9/12.</p>
	<p>Scientific and Production Association “Lianozovo Electromechanical Plant” (NPO LEMZ), a.k.a., the following four aliases:  -JSC LEMZ R&amp;P Corporation;  -OAO Design Bureau Lianozovsky Radars Moscow;  -Lianozovsky Electromechanical factory; <i>and</i>  -OAO Design Bureau Lianozovsky Radars Moscow.</p> <p>Dmitrovskoye Shosse 110, Moscow, 127411, Russia.</p>	<p>For all items subject to the EAR.  (See §744.11 of the EAR).</p>	<p>Presumption of denial.</p>	<p>81 FR 94968, 12/27/16.</p>
	<p>SCTB Engineering,</p> <p>Pr. Yuria Gagarina 1, Office 230, St. Petersburg, Russia 196105; <i>and</i>  Pr. Yuri Gagarin 1, Office 230, St. Petersburg, Russia 196105.</p>	<p>For all items subject to the EAR.  (See §744.11 of the EAR.)</p>	<p>Presumption of denial.</p>	<p>77 FR 61256, 10/9/12.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Sergei Evgenevich Klinov, a.k.a., the following one alias: -Sergey Yevgenyevich Klinov,</p> <p>26 General Belov St Office 415, Moscow, Russia 115583; <i>and</i> 26 Generala Belova Street, Office 415, Moscow, Russia 115583; <i>and</i> 53 Sherbakovskaya Street, Building 3, Office 509, 105318 Moscow, Russia; <i>and</i> 26 General Belov St Office 1010, Moscow, Russia 115583; <i>and</i> 26 Generala Belova St Office 1010, Moscow, Russia 115583.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	<p>Sergei G Yuropov,</p> <p>Zastavskaya St 32A, St. Petersburg, Russia 196084; <i>and</i> Zastavskaya St. 15-B, St. Petersburg, Russia 196084; <i>and</i> Raketnyy Bul'var 15, Moscow, Russia 129164; <i>and</i> 16 Raketnyy Bul'var, Moscow, Russia 129164.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	<p>Sergey Koynov, a.k.a., the following one alias: -Sergey V. Coyne.</p> <p>106 Kuybyshev Str, Office 68, Yekaterinburg, Russia (see alternate address in China).</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12. 85 FR 83769, 12/23/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Sergey Nikolayevich Sanaev, a.k.a., the following one alias:            -Sergei Nikoleivich Sanev,</p> <p>5A North Street, Saransk, Republic of Mordovia, Russia 43006; <i>and</i>            53 Sherbakovskaya Street, Building 3, Office 509, 105318 Moscow, Russia; <i>and</i>            26 General Belov St Office 415, Moscow, Russia 115583; <i>and</i>            26 Generala Belova Street, Office 415, Moscow, Russia 115583; <i>and</i>            60 Bolshevistskaya St., Office 905, Saransk, Republic of Mordovia, Russia; <i>and</i>            60 Bolshevistskaya St., Office 910, Saransk, Republic of Mordovia, Russia; <i>and</i>            5a Severnaya Street, Saransk, Republic of Mordovia, Russia.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	<p>SGM Most OOO (f.k.a., Obshchestvo S Ogranichennoi Otvetstvennostyu SGM Most), a.k.a., the following three aliases:            -Obshchestvo S Ogranichennoi Otvetstvennostyu ‘SGM-Most’;            -SGM-Bridge; <i>and</i>            -SGM-Most, LLC.</p> <p>d. 10 korp. 3 ul. Neverovskogo, Moscow 121170, Russia.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 61601, 9/7/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>SMT-K, a.k.a., the following six aliases:            -KRYM SMT OOO LLC;            -LLC CMT Crimea;            -OOO ‘CMT-K’;            -OOO ‘SMT-K’;            -SMT-Crimea; <i>and</i>            -Sovmortrans-Crimea.</p> <p>Anapskoye Highway 1, Temryuk, Russia (See alternate address under Crimea region of Ukraine).</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 61601, 9/7/16.
	<p>SNGB AO, a.k.a., the following three aliases:            -Closed Joint Stock Company Surgutneftegasbank (ZAO SNGB);            -Joint Stock Company Surgutneftegasbank; <i>and</i>            -JSC BANK SNGB.</p> <p>19 Kukuyvitskogo Street, Surgut 628400, Russia.</p>	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	Presumption of denial.	83 FR 6952, 2/16/18. 83 FR 12479, 3/22/18.
	<p>SO Tvernefteprodukt OOO, a.k.a., the following two aliases:            -Limited Liability Company Marketing Association Tvernefteprodukt; <i>and</i>            -LLC MA Tvernefteprodukt.</p> <p>6 Novotorzhskaya Ulitsa, Tver, Russia.</p>	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	Presumption of denial.	83 FR 6952, 2/16/18. 83 FR 12479, 3/22/18.
	<p>Southeast Trading Oy, a.k.a., the following one alias:            -Southeast Trading LTD.</p> <p>St. Petersburg, Russia (See also addresses under Finland and Romania).</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 52968, 9/2/15.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Sovkhoz Chervishevski PAO, a.k.a., the following three aliases: -OJSC Sovkhoz Chervishevsky; -Open Joint Stock Company Sovkhoz Chervishevsky; <i>and</i> -Sovkhoz Chervishevsky, JSC.  d. 81 Sovetskaya Ulitsa, S. Chervichevsky, Tyumensky Rayon, Tyumensky Oblast 625519, Russia.	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	Presumption of denial.	83 FR 6952, 2/16/18. 83 FR 12479, 3/22/18.
	Sovfracht Managing Company, LLC, a.k.a., the following four aliases: -LLC Sovfracht Management Company; -Management Company Sovfrakht Ltd.; -Sovfracht Management Company; <i>and</i> -Sovfracht Management Company, LLC.  Dobroslobodskaya, 3 BC Basmanov, Moscow 105066, Russia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 61601, 9/7/16.
	Sovfracht-Sovmortrans Group, a.k.a., the following two aliases: -Sovfracht-Sovmortrans; <i>and</i> -Sovfrakht-Sovmortrans.  Rakhmanovskiy lane, 4, bld.1, Morskoy House, Moscow 127994, Russia; <i>and</i> Dobroslobodskaya, 3 BC Basmanov, Moscow 105066, Russia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 61601, 9/7/16.
	Specelkom, a.k.a., the following one alias: -Special Electronic Components,  Ulitsa Mitinskaya 30/4, Moscow, Russia 123430.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Special Technology Center, a.k.a., the following one alias: -STC, Ltd.  Gzhatskaya 21 k2, St. Petersburg, Russia; <i>and</i> 21-2 Gzhatskaya Street, St. Petersburg, Russia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	82 FR 724, 1/4/17.
	SpekElectronGroup,  72 Lenigradsky Avenue, Bldg 4, Moscow, Russia 125315.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Stanislav Berezovets,  Ulitsa Polyany 9/6, Moscow, Russia 117042.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Stanislav Bolt,  9 Lipovaya alleya, St. Petersburg, Russia 197183.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Stanislav Orelesky,  6 Aptekarskiy Prospekt, Office 710, St. Petersburg, Russia 197376; <i>and</i> Naberezhnaya Chernoi Rechki 61-1, St. Petersburg, Russia 197342; <i>and</i> 7 Belovodskiy Ln, St. Petersburg, Russia 194044; <i>and</i> Belovodskiy Per, 7, St. Petersburg, Russia 194044; <i>and</i> Naberegnaja Chernoj Rechki 61-1, 197342, Saint Petersburg, Russia; <i>and</i> 16 Parkovaya 30, Office 319, Moscow, Russia 105484.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>State Scientific Research Institute of Organic Chemistry and Technology, a.k.a., the following one alias: -GosNIIOKhT.</p> <p>Shosse Entuziastov 23, Moscow, Moscow Oblast, Russia.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.
	<p>Strakhovove Obshchestvo Surgutneftegaz OOO, a.k.a., the following three aliases: -Insurance Company Surgutneftegas, LLC; -Limited Liability Company Insurance Company Surgutneftegas; <i>and</i> -LLC Insurance Company Surgutneftegas.</p> <p>9/1 Lermontova Ulitsa, Surgut 628418, Russia.</p>	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	Presumption of denial.	83 FR 6952, 2/16/18. 83 FR 12479, 3/22/18.
	<p>Stroytransgaz Group, a.k.a., the following two aliases: -STG Group, <i>and</i> -Stroytransgaz.</p> <p>3 Begovaya Street, Building # 1, Moscow, 125284, Russia.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 24561, 5/1/14.
	<p>Stroytransgaz LLC, a.k.a., the following one alias: -OOO Stroytransgaz.</p> <p>House 65, Novocheremushkinskaya St., Moscow 117418, Russia.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 24561, 5/1/14.
	<p>Stroytransgaz OJSC, a.k.a., the following one alias: -OAO Stroytransgaz.</p> <p>House 58, Novocheremushkinskaya St., Moscow 117418, Russia.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 24561, 5/1/14.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Stroytransgaz-M LLC,  Novy Urengoy City, 26th Meeting of the Communist Party Street, House 2V, Tyumenskaya Oblast, Yamalo-Nenetsky Autonomous Region 629305, Russia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 24561, 5/1/14.
	Stroygazmontazh, a.k.a., the following three aliases: -Limited Liability Company Stroygazmontazh, <i>and</i> -SGM, <i>and</i> -Stroygazmontazh Corporation.  53 prospekt Vernadskogo, Moscow, 119415, Russia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 24561, 5/1/14.
	Surgutmebel OOO, a.k.a., the following four aliases: -Limited Liability Company Syrgutmebel; -LLC Surgutmebel; -LLC Syrgutmebel; <i>and</i> -Surgutmebel, LLC.  Vostochnaya Industrial 1 Territory 2, Poselok Barsovo, Surgutsky District, Yugra, Khanty-Mansiysky Autonomos Okrug, Russia.	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	Presumption of denial.	83 FR 6952, 2/16/18. 83 FR 12479, 3/22/18.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Surgutneftegas (a.k.a. Open Joint Stock Company Surgutneftegas; a.k.a. Otkrytoe Aktsionernoe Obshchestvo Surgutneftegaz; a.k.a. Surgutneftegas OAO; a.k.a. Surgutneftegas OJSC; a.k.a. Surgutneftegaz OAO)</p> <p>Address: ul. Grigoriya Kukuyevitskogo, 1, bld. 1, Khanty-Mansiysky Autonomous Okrug - Yugra, the city of Surgut, Tyumenskaya Oblast 628415, Russia;</p> <p>Alt Address: korp. 1 1 Grigoriya Kukuevitskogo ul., Surgut, Tyumenskaya oblast 628404, Russia;</p> <p>Alt Address: Street Kukuevitskogo 1, Surgut, Tyumen Region 628415, Russia.</p>	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	79 FR 55608, 9/17/14.
	<p>Syrus Systems, 3-Y Novyy Pereulok, 5, Moscow, 107140, Russia.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	83 FR 48534, 9/26/18.
	<p>Svyaz Design Bureau, OJSC, a.k.a., the following one alias: -KB Svyaz. Prospect Sokolova 96, Rostov-on-Don 344010, Russia.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 94968, 12/27/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Systema VP, a.k.a., the following one alias: -Sistema VP,</p> <p>4 Savelkinskiy Dr., Suite 511-512, Zelenograd, Russia 124482; <i>and</i> Savelkinsky Pr 4, Office 512, Zelenograd, Russia 124482; <i>and</i> Savelkinskiy Proyedz 4, Office 512, Zelenograd, Russia 124482; <i>and</i> 4 Yunost Square, NPZ, Suite 1-7, Zelenograd, Russia 124482; <i>and</i> Ofis 511, Prospekt Savelinski, Moscow, Russia 124482; <i>and</i> 4 Yunost Plaza NPZ, rooms 1-7, Zelenograd, Moscow 124482.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	<p>Technomar, a.k.a., the following one alias: -Tehnomar.</p> <p>14-60 Vorotynskaya, Moscow, Russia; <i>and</i> 29 Entuziastov Highway Floor 11, Moscow, Russia; <i>and</i> 12 Aviamotornaya Street, Moscow, Russia.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 14796, 03/16/20.
	<p>Technopole Company, 5-183 Entuziastov Street, Dubna, Moscow Region, Russia 141980; <i>and</i> 12 Aviamotornaya Street, Moscow, Russia 111024.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 61601, 9/7/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Tikhomirov Scientific Research Institute of Instrument Design, JSC (a.k.a., JSC NIIP, f.k.a., Otkrytoe Aktsionernoe Obshchestvo Nauchno Issledovatel'skiy Institut Priborostroeniya Imeni V.V. Tikhomirova; a.k.a. Scientific Research Institute of Instrument Design; a.k.a. JSC V. Tikhomirov Scientific Research Institute of Instrument Design.)</p> <p>Address: 3 Ul. Gagarina, Zhukovski, Moskovskaya Obl 140180, Russia  Alt. Address: Gagarin Str, 3, Zhukovsky 140180, Russia.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 55608, 9/17/14.
	<p>Timofey Telegin,  18, bld. 2, Frontovyyh Brigad Street, Yekaterinburg 620017, Russia; <i>and</i> 15 A Kulakova Prospect, Office 307, Stavropol 355044, Russia; <i>and</i> 12/11 Bld 12, 1-st Bukhvostova Street, Moscow 107076, Russia (See alternate address under Kazakhstan).</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 3580, 1/26/18.
	<p>Timur Nikoleavich Edigeev, a.k.a., the following one alias:  -Timur Yedigeyev,</p> <p>53 Sherbakovskaya Street, Building 3, Office 509, 105318 Moscow, Russia; <i>and</i>  26 General Belov Str, Office 1010, Moscow, Russia 115583; <i>and</i>  26 Generala Belova Street, Office 1010, Moscow, Russia 115583; <i>and</i>  26 General Belov St Office 415, Moscow, Russia 115583; <i>and</i>  26 Generala Belova Street, Office 415, Moscow, Russia 115583.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Trans-Flot JSC, a.k.a., the following one alias: -JSC Trans-Flot.  ul Ventseka 1/97, Samara 443099, Russia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 94968, 12/27/16.
	Transoil, a.k.a., the following four aliases: -Limited Liability Company Transoil, <i>and</i> -Transoil LLC, <i>and</i> -Transoil SNG Ltd., <i>and</i> -Obshchestvo S Ogranichennoi Otvetstvennostyu Transoil.  18A Petrogradskaya nab., St. Petersburg, Russia, 197046.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 24561, 5/1/14.
	Transpetrochart Co. Ltd., Prospekt Engelsa 30, St. Petersburg 194156, Russia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 94968, 12/27/16.
	Transservice LLC, a.k.a., the following three aliases: -Limited Liability Company Transservis; -Obschestvo S Ogranichennoi Otvetstvennostyu Transservis; <i>and</i> -OOO Transservis.  35 Prospekt Gubkina, Omsk, Omskaya Oblast 664035, Russia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 80646, 12/28/15.
	Ugolnye Tekhnologii, OOO, a.k.a., the following two aliases: -Coal Technologies; <i>and</i> -Obshchestvo S Ogranichennoi Otvetstvennostyu “Ugolnye Tekhnologii”.  d. 25 ofis 13, 14, per. Avtomobilny, Rostov-on-Don, Rostovskaya Oblast 344038, Russia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 6952, 2/16/18.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>United Shipbuilding Corporation, a.k.a., the following four aliases:            -Obedinennaya Sudostroitel'naya Korporatsiya OAO; <i>and</i>            -OJSC United Shipbuilding Corporation; <i>and</i> -            United Shipbuilding Corporation Joint Stock Company;  <i>and</i>            -OSK OAO.</p> <p>90, Marata ul., St. Petersburg 191119, Russia; <i>and</i>            11, Sadovaya-Kudrinskaya str., Moscow 123242, Russia.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 45679 8/6/14.
	<p>Uralvagonzavod, a.k.a., the following eight aliases:            -Nauchno-Proizvodstvennaya Korporatsiya Uralvagonzavod OAO; <i>and</i>            -NPK Uralvagonzavod; <i>and</i>            -NPK Uralvagonzavod OAO; <i>and</i>            -OJSC Research and Production Corporation Uralvagonzavod; <i>and</i>            -Research and Production Corporation Uralvagonzavod; <i>and</i>            -Research and Production Corporation Uralvagonzavod OAO; <i>and</i>            -Uralvagonzavod Corporation; <i>and</i>            -UVZ.</p> <p>28, Vostochnoye shosse, Nizhni Tagil, Sverdlovsk region 622007, Russia; <i>and</i>            28 Vostochnoe shosse, Nizhni Tagil, Sverdlovskaya oblast 622007, Russia; <i>and</i>            40, Bolshaya Yakimanka Street, Moscow 119049, Russia.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 42455, 7/22/14.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>VAD, AO, a.k.a, the following seven aliases:            -Aksionernoe Obshchestvo VAD;            -AO, VAD;            -CJSC VAD;            -Joint Stock Company VAD;            -JSC VAD;            -ZAO VAD; <i>and</i>            -High-Quality Highways.</p> <p>133, ul. Chernyshevskogo, Vologda, Vologodskaya Obl 160019, Russia; <i>and</i> 122 Grazhdanskiy Prospect, Suite 5, Liter A, St. Petersburg 195267, Russia</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 6952, 2/16/18.
	<p>Vadim Shuletskiy,</p> <p>6 Aptekarskiy Prospekt, Office 710, St. Petersburg, Russia 197376; <i>and</i>            7 Belovodskiy Ln, St. Petersburg, Russia 194044; <i>and</i>            Belovodskiy Per, 7, St. Petersburg, Russia 194044, <i>and</i>            Naberegnaja Chernoj Rechki 61-1, 197342, Saint Petersburg, Russia; <i>and</i>            16 Parkovaya 30, Office 319, Moscow, Russia 105484.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	<p>Valentina Mazalova,</p> <p>6 Aptekarskiy Prospekt, Office 710, St. Petersburg, Russia 197376; <i>and</i>            Naberezhnaya Chernoi Rechki 61-1, St. Petersburg, Russia 197342; <i>and</i>            7 Belovodskiy Ln, St. Petersburg, Russia 194044; <i>and</i>            Belovodskiy Per, 7, St. Petersburg, Russia 194044; <i>and</i>            Naberegnaja Chernoj Rechki 61-1, 197342, Saint Petersburg, Russia; <i>and</i>            16 Parkovaya 30, Office 319, Moscow, Russia 105484.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Video Logic, 4 Yunost Square, NPZ, Suite 1-7, Zelenograd, Russia 124482.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Viktor Bokovoi, Ulitsa Polyany 9/6, Moscow, Russia 117042.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Vitaliy Nagorniy, Ulitsa Polyany 9/6, Moscow, Russia 117042.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Vladimir Davidenko, 20 Novaya Basmannaya St., Moscow, Russia.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Vladimir Safraonov, 25 Red Cadets Street Letter H, Office Block 2, St. Petersburg, Russia 99034; <i>and</i> 130-17 Nevskiy Ave., Saint Petersburg, Russia 191036; <i>and</i> 16 Linia V.O., 7 Office 43, St. Petersburg, Russia 99034; <i>and</i> Krestovski River Quay 3, Suite 42, St. Petersburg, Russia 197376.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Vladimir Viktorovich Lavrov, Vavilovykh Street 4-2 #267, St. Petersburg, Russia 195257; <i>and</i> Zastavskaya St. 32A, St. Petersburg, Russia 196084; <i>and</i> Zastavskaya St. 15-B, St. Petersburg, Russia 196084; <i>and</i> Raketnyy Bul'var 15, Moscow, Russia 129164; <i>and</i> 16 Raketnyy Bul'var, Moscow, Russia 129164.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Vladislav A. Sokolov, 6 Aptekarskiy Prospekt, Office 710, St. Petersburg, Russia 197376; <i>and</i> Naberezhnaya Chernoi Rechki 61-1, St. Petersburg, Russia 197342; <i>and</i> Belovodskiy Ln, St. Petersburg, Russia 194044; <i>and</i> Belovodskiy Per, 7, St. Petersburg, Russia 194044; <i>and</i> Naberegnaja Chernoj Rechki 61-1, 197342, Saint Petersburg, Russia; <i>and</i> 16 Parkovaya 30, Office 319, Moscow, Russia 105484.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Volga Group, a.k.a., the following three aliases: -Volga Group Investments, <i>and</i> -Volga Resources, <i>and</i> -Volga Resources Group.  Russia (see alternate address under Luxembourg).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 24561, 5/1/14.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Voronezh Scientific Research Institute “Vega”, a.k.a., the following two aliases: -Voronezhskiy Nauchno-Issledovatel'skiy Institut “Vega”; <i>and</i> -VNII Vega.  Moskovskiy Prospekt 7B, Voronezh, 394026, Russia.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	83 FR 48534, 9/26/18.
	Vostokgazprom, OAO, a.k.a., the following two aliases: -Otkrytoe Aktsionernoe Obschestvo ‘Vostokgazprom’; <i>and</i> -Vostokgazprom.  d.73 ul.Bolshaya Podgornaya, Tomsk, Tomskaya obl. 634009, Russia.	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	81 FR 61601, 9/7/16.
	Vyacheslav Y Shillin,  Zastavskaya St. 32A, St. Petersburg, Russia 196084; <i>and</i> Zastavskaya St. 15-B, St. Petersburg, Russia 196084; <i>and</i> Raketnyy Bul'var 15, Moscow, Russia 129164; <i>and</i> 16 Raketnyy Bul'var, Moscow, Russia 129164.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	‘Wolf’ Holding of Security Structures, a.k.a., the following four aliases: -Defense Holding Structure “Wolf”; -Holding Security Structure Wolf; -Kholding Okhrannykh Struktur Volk; <i>and</i> -Wolf Holding Company.  ul. Panferova d. 18, Moscow 119261, Russia; <i>and</i> Nizhniye Mnevniky, 110, Moscow, Russia.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	82 FR 28408, 6/22/17.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Yamalgazinvest, ZAO, a.k.a., the following two aliases: -Yamalgazinvest; <i>and</i> -Zakrytoe Aktsionernoe Obschestvo ‘Yamalgazinvest’.  d. 41 korp. 1 prospekt Vernadskogo, Moscow 117415, Russia.	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	81 FR 61601, 9/7/16.
	Yekaterina Parfenova,  4 Savelkinskiy Dr., Suite 511-512, Zelenograd, Russia 124482.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Yevgeniy L Biryukov,  Pr. Yuria Gagarina 2, Office 801, St. Petersburg, Russia 196105.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Yuliya L. Molkova-Poluh, a.k.a., the following three aliases: -Yuliya Molkova-Polukh; <i>and</i> -Yuliya Leonidovna; Molkova-Polyukh; <i>and</i> -Yuliya Molkova-Polah,  Zastavskaya St. 32A, St. Petersburg, Russia 196084; <i>and</i> Zastavskaya St. 15-B, St. Petersburg, Russia 196084; <i>and</i> Raketnyy Bul'var 15, Moscow, Russia 129164; <i>and</i> 16 Raketnyy Bul'var, Moscow, Russia 129164.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Yuri A. Krashennnikov,  9 Lipovaya alleya, St. Petersburg, Russia 197183.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Yuri Savin, 39 Dnepropetrovskaya Str., Build 1, Apt.287, Moscow, Russia; <i>and</i> 36 Mitinskaya St, Building 1, Office 406, Moscow, Russia 125430; <i>and</i> 53 Shcherbakovskaya Street, Moscow 105187; <i>and</i> 72 Lenigradsky Avenue, Bldg 4, Moscow, Russia 125315.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Yuriy Vasilyevich Kuzminov, a.k.a., the following one alias: -Yuri Kuzminov, 53 Sherbakovskaya Street, Building 3, Office 509, 105318 Moscow, Russia; <i>and</i> 26 General Belov Str, Office 19, Moscow, Russia 115583; <i>and</i> 26 Generala Belova Street, Office 19, Moscow, Russia 115583.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Yuzhno-Kirinskoye Field, in the Sea of Okhotsk.	For all items subject to the EAR. (See §746.5 of the EAR).	Presumption of denial.	80 FR 47404, 8/7/15.
	Zorsecurity Center (f.k.a., Esage Lab), a.k.a., the following one alias: -TSOR Security. Luzhnetskaya Embankment 2/4, Building 17, Office 444, Moscow 119270, Russia.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	82 FR 724, 1/4/17.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
<b>SAUDI ARABIA</b>	Safe Technical Supply Co., LLC, a.k.a., the following three aliases: -Safe Technical Equipment Services LLC; -Safe Technical; <i>and</i> -SafeTech.  Ad Dakhil Mahdud Subdivision, PO Box 30305, Jubail 31951, Saudi Arabia. (See also addresses under Oman and the United Arab Emirates).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	84 FR 61541, 11/13/19.
	UEC (Pvt.) Ltd., P.O. Box 245221, Riyadh 11312, Kingdom of Saudi Arabia (See alternate addresses under Pakistan and U.A.E.).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 44824, 9/4/18.
<b>SENEGAL</b>	Dart Aviation, a.k.a., the following four aliases: -Dart Aviation Technics; -Dart Aviation Marlbrine S.A.R.L.; -MBP Trading Ltd.; <i>and</i> -SARL IEAS.  CID Aéroport International Léopold Sedar Senghor Dakar Yoff Senegal. (See also addresses under France, Iran and the United Kingdom).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	84 FR 61541, 11/13/19.
<b>SINGAPORE</b>	Action Global, a.k.a., the following one alias: -Action Global Co., Limited.  520 Sims Avenue, #02-04, Singapore 387580 (See alternate addresses under China).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 67062, 10/31/11. 85 FR 83769, 12/23/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Amaze International, Block 1057 Eunos Avenue 3, #02-85, Singapore 409848 (See alternate address under China).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 67062, 10/31/11. 85 FR 83769, 12/23/20.
	Brian Douglas Woodford, 1 Scotts Road, Suite 25-06 Shaw Centre, Singapore 228208 (See alternate address under the United Kingdom).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 74001, 12/5/08.
	Corezing International, a.k.a., the following five aliases: -CoreZing Electronics; -Corezing International Group Company; -Corezing International Pte Ltd; -Corezing Technology Pte Ltd; <i>and</i> -Core Zing.  2021 Bukit Batok Street 23, #02-212, Singapore 659626; <i>and</i> 111 North Bridge Road, #27-01 Peninsula Plaza, Singapore 179098; <i>and</i> 50 East Coast Road, #2-70 Roxy Square, Singapore 428769; <i>and</i> Block 1057 Eunos Avenue 3, #2-85, Singapore 409848 (See alternate address under China).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 67062, 10/31/11. 85 FR 83769, 12/23/20.
	Cyberinn PTE LTD, a.k.a., the following alias: -Index Consultancy & Services PTE LTD.,  1 Rochor Canal Road, #06-07 Sim Lim Square, 188504, Singapore.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54508, 9/22/08. 77 FR 58006, 9/19/12.
	Gryphon Aerospace, 36 Lorong N Telok Kurau Unit #03-03, Singapore 425160.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 74001, 12/5/08.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Hia Soo Gan Benson, a.k.a., the following three aliases:            -Benson Hia;            -Soo Gan Benson Hia; <i>and</i>            -Thomas Yan.</p> <p>Blk 8 Empress Road, #0705, Singapore 260008; <i>and</i>            2021 Bukit Batok Street 23, #02-212, Singapore 659626;  <i>and</i> 111 North Bridge Road, #27-01 Peninsula Plaza,            Singapore 179098; <i>and</i> 50 East Coast Road, #2-70 Roxy            Square, Singapore 428769; <i>and</i> Block 1057 Eunos            Avenue 3, #02-85, Singapore 409848.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 67062, 10/31/11. 85 FR 14796, 03/16/20.
	Hossein Ahmad Larijani, 24 Semei Street 1, #06-08, Singapore 52996; <i>and</i> 10 Jalan Besar, #11-08 Sim Lim Tower, Singapore 208787 (See alternate addresses under Iran).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 67062, 10/31/11.
	Huawei Cloud Singapore, Singapore, Singapore.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	85 FR 51603, 8/20/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Huawei International Pte. Ltd., Singapore.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	Huawei OpenLab Singapore, a.k.a., the following one alias, -Huawei Singapore OpenLab.  Singapore, Singapore.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	85 FR 51603, 8/20/20.
	Izix Group Pte Ltd., Number 26 Defu Lane 9, Singapore 539267; and 50 Bukit Batok Street, 23 #07-08 Midview Building, Singapore 659578.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 56003, 9/18/14.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Lim Kow Seng, a.k.a., the following five aliases:            -Alvin Stanley;            -Eric Lim;            -James Wong;            -Mike Knight; <i>and</i>            -Seng Lim Kow.</p> <p>Blk 751 Woodlands Circle, #10-592, Singapore 730751; <i>and</i> 520 Sims Avenue, #02-04, Singapore 387580; <i>and</i> 2021 Bukit Batok Street 23, #02-212 Singapore 659626; <i>and</i> 111 North Bridge Road, #27-01 Peninsula Plaza, Singapore 179098; <i>and</i> 50 East Coast Road, #2-70 Roxy Square, Singapore 428769; <i>and</i> Block 1057 Eunos Avenue 3, #02-85, Singapore 409848 (See alternate addresses under China).</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 67062, 10/31/11. 85 FR 83769, 12/23/20.
	<p>Lim Yong Nam, (a.k.a., Lin Rongnan, Steven Lim and Yong Nam Lim),            170 Bukit Batok, West Avenue 8, #13-369, Singapore 650170; <i>and</i> 158 Kallang Way, #02-505 Kallang Basin, Singapore 349245; <i>and</i> 158 Kallang Way #03-511, Singapore 349245; <i>and</i> Blk 1001 Tai Seng Ave. #01-2522, Singapore 534411 (See alternate addresses under China).</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 67062, 10/31/11.
	<p>Microsun Electronics Pte., Ltd,            Sim Lim Tower, 10 Jalan Besar, Singapore 208787.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 1701, 1/13/10.
	<p>Monarch Aviation,            1 Scotts Road, Suite 25-06 Shaw Centre, Singapore 228208.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 74001, 12/5/08.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Mushko Logistics Pte. Ltd.,  Unit 04-01, Lip Hing Industrial Building, 3 Pemimpin Drive, Singapore; <i>and</i> 37 Pemimpin Drive, #06-12 MAPEX, Singapore; <i>and</i> Unit 04-01/03, Pandan Logistics Hub, 49 Pandan Road, Singapore; <i>and</i> 54 Lakeside Drive, #01-22 Caspian, Singapore.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 12479, 3/22/18.
	NEL Electronics, (a.k.a., NEL Electronics Pte Ltd), 158 Kallang Way, #02-505 Kallang Basin, Singapore 349245; <i>and</i> 158 Kallang Way, #03-511, Singapore 349245; <i>and</i> Blk 1001 Tai Seng Ave. #01-2522, Singapore 534411(See alternate addresses under China).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 67062, 10/31/11.
	Opto Electronics Pte. Ltd, Suite 11-08, Sim Lim Tower, 10 Jalan Besar, Singapore 208787.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 1701, 1/13/10.
	Surftech Electronics, Block 1057 Eunos Avenue 3, #02-85 Singapore 409848.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 67062, 10/31/11.
	Wong Yuh Lan, (a.k.a., Huang Yulan, Jancy Wong and Yuh Lan Wong), Blk 109B Edgedale Plains, #14115, Singapore 822109; <i>and</i> 10 Jalan Besar, #11-08 Sim Lim Tower, Singapore 208787.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 67062, 10/31/11.
	Yip Kum Kuan, 36 Lorong N Telok Kurau, Unit #03-03, Singapore 425160.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 74001, 12/5/08.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
SOUTH AFRICA	Gunther Migeotte, 1 River Street, Rosebank, Cape Town, 7700, South Africa; <i>and</i> P.O. Box 36623, Menlo Park, 0102, South Africa; <i>and</i> 16 Manu Rua, 262 Sprite Avenue, Faerie Glen, 0081, South Africa; <i>and</i> Suite 17-106, The Waverley Business Park, Wyecroft Rd., Mowbray, Cape Town, 7925, South Africa (See alternate address under Norway).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 36516, 6/28/10. 77 FR 58006, 9/19/12.
	Huawei Cloud South Africa, Johannesburg, South Africa.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	85 FR 51603, 8/20/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Huawei OpenLab Johannesburg, a.k.a., the following one alias, -Huawei Johannesburg OpenLab.  Johannesburg, South Africa.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	85 FR 51603, 8/20/20.
	Huawei Technologies South Africa Pty Ltd., 128 Peter St Block 7 Grayston Office Park, Sandton, Gauteng, 1682, South Africa.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 43495, 8/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	Icarus Marine (Pty) Ltd., 1 River Street, Rosebank, Cape Town, South Africa; <i>and</i> Suite 17-106, The Waverley Business Park, Wycroft Rd., Mowbray, Cape Town, 7925, South Africa.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 36516, 6/28/10. 77 FR 58006, 9/19/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Ralph Brucher, P.O. Box 9523, Centurion 0046, South Africa; <i>and</i> Unit 4, Techni Park East, Alwyn Street, Meyerspark Silverton, Pretoria, Gauteng, South Africa; <i>and</i> Batter St, Techniec Park East, Silverton, Pretoria, 0184, South Africa; <i>and</i> 26 Jakaranda St, Centurion, Gauteng 0157, South Africa; <i>and</i> Jacaranda St, Hennospark Ext 7, Centurion, South Africa.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 36516, 6/28/10. 77 FR 58006, 9/19/12.
	Scavenger Manufacturing (Pty) Ltd., P.O. Box 288, Silverton, Pretoria 0127, South Africa; <i>and</i> Unit 4, Techni Park East, Alwyn Street, Meyerspark Silverton, Pretoria, Gauteng, South Africa; <i>and</i> Batter St, Techniec Park East, Silverton, Pretoria, 0184, South Africa; <i>and</i> 26 Jakaranda St, Centurion, Gauteng 0157, South Africa; <i>and</i> Jacaranda St, Hennospark Ext 7, Centurion, South Africa; <i>and</i> P.O. Box 9523, Centurion 0046, South Africa.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 36516, 6/28/10. 77 FR 58006, 9/19/12.
	Shawn Hugo De Villiers, 1 River Street, Rosebank, Cape Town 7700, South Africa; <i>and</i> Myburgii Street, Somerset West, Cape Town, South Africa; <i>and</i> Suite 17-106, The Waverley Business Park, Wycroft Rd., Mowbray, Cape Town, 7925, South Africa.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 36516, 6/28/10. 77 FR 58006, 9/19/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
<b>SOUTH KOREA</b>	Korea Automation Industry (KAI), D-304, Songdo BRC Smart Valley 30 Songdomirae-ro Yeonsu-gu, Incheon, South Korea 406-840; <i>and</i> 4F Miejeong B/D, 405-216, MOK 1-Dong, Yangcheon-Ku, Seoul, South Korea; <i>and</i> Number 102-704, Daewoo 2 <sup>nd</sup> , 925-7 Dongchundong, Yeonsu-Ku, Incheon, South Korea.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 44849, 7/28/15.
	Joseph Choi, aka Yo-so'p Ch'oe, D-304, Songdo BRC Smart Valley 30 Songdomirae-ro Yeonsu-gu, Incheon, South Korea 406-840; <i>and</i> 4F Miejeong B/D, 405-216, MOK 1-Dong, Yangcheon-Ku, Seoul, South Korea.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 44849, 7/28/15.
<b>SOUTH SUDAN</b>	Ascom Sudd Operating Company, a.k.a., the following one alias: -ASOC.  South Sudan.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	83 FR 12479, 3/22/18.
	Dar Petroleum Operating Company, a.k.a., the following one alias: -DPOC.  Zhongnan Hotel, on UNMISS Road, South Sudan.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	83 FR 12479, 3/22/18.
	DietsmannNile,  Tomping District opposite Arkel Restaurant, two blocks north of Airport Road, Juba, South Sudan.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	83 FR 12479, 3/22/18.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Greater Pioneer Operating Co. Ltd, a.k.a., the following one alias: -GPOC.  South Sudan.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	83 FR 12479, 3/22/18.
	Juba Petrotech Technical Services Ltd.  South Sudan.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	83 FR 12479, 3/22/18.
	Nile Delta Petroleum Company,  Hai Malakai neighborhood, Juba, South Sudan.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	83 FR 12479, 3/22/18.
	Nile Drilling and Services Company,  Hai Amarat, Airport Road, West Yat Building, Third Floor, Juba, South Sudan.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	83 FR 12479, 3/22/18.
	Nile Petroleum Corporation, a.k.a., the following one alias: -Nilepet.  Tomping District opposite Arkel Restaurant, two blocks north of Airport Road, Juba, South Sudan.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	83 FR 12479, 3/22/18.
	Nyakek and Sons, Jubatown District near the Ivory Bank, Juba, South Sudan.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	83 FR 12479, 3/22/18.
	Oranto Petroleum,  Referendum Road, Juba, South Sudan.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	83 FR 12479, 3/22/18.
	Safinat Group.  South Sudan.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	83 FR 12479, 3/22/18.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	SIPET Engineering and Consultancy Services, a.k.a., the following one alias: -SPECS.  Tompson District opposite Arkel Restaurant, two blocks north of Airport Road, Juba, South Sudan.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	83 FR 12479, 3/22/18.
	South Sudan Ministry of Mining,  Nimra Talata, P.O. Box 376, Juba, South Sudan.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	83 FR 12479, 3/22/18.
	South Sudan Ministry of Petroleum,  Ministries Road, Opposite the Presidential Palace, P.O. Box 376, Juba, South Sudan.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	83 FR 12479, 3/22/18.
	Sudd Petroleum Operating Co., a.k.a., the following one alias: -SPOC.  Tharjath, Unity State, South Sudan.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	83 FR 12479, 3/22/18.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
<b>SRI LANKA</b>	Huawei Technologies Lanka Company (Private) Limited, Colombo, Sri Lanka.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
<b>SWEDEN</b>	Catomi Consulting AB, Grev Turegatan 14, 11446 Stockholm, Sweden.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Huawei Sweden, Skalholtsgatan 9-11 Kista, 164 40 Stockholm, Sweden.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 43495, 8/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
SWITZERLAND	Airfix Aviation Oy, Chemin des Papillons 4, Geneva/Cointrin 1216 Switzerland (See also address under Finland).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 52968, 9/2/15.
	Chimconnect AG, Langaulistrasse 17, CH-9470 Buschs/SG, Switzerland.	For all items subject to the EAR.	See §§ 744.2(d), 744.3(d), and 744.4(d) of this part.	86 FR 12531, 3/4/2021.
	Huawei Cloud Switzerland, Bern, Switzerland.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	85 FR 51603, 8/20/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Huawei Technologies Switzerland AG, Liebefeld, Bern, Switzerland.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	LTS Holding Limited (f.k.a. IPP-International Petroleum Products Ltd.), Rue du Conseil-General 20, Geneva 1204, Switzerland. (See alternate address under United Kingdom).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 80646, 12/28/15.
	Phillip Zurcher, P.O. Box 117, CH-9242 Oberuzwil, Switzerland.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.
	Rosneft Trading S.A., 2, Rue Place du Lac, 1204, Geneva, Switzerland.	For all items subject to the EAR when used in projects specified in § 746.5 of the EAR.	See § 746.5(b) of the EAR.	80 FR 52968, 9/2/15.
	Travcon Aviation Group, P.O. Box 117, CH-9242 Oberuzwil, Switzerland.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.
<b>SYRIA</b>	Adib Zeno, Damascus International Airport, Damascus Airport Motorway, Damascus, Syria.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 3580, 1/26/18.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Ag Yildiz Insaat Gayrimenkul Tasimacilik Pazarlama İthalat İhracat ve Ticaret Ltd. Sirketi, a.k.a., the following four aliases:            -Ag Yildiz Cargo;            -Ag Yildiz Gayrimenkul;            -Yildiz Company; <i>and</i>            -Yildiz Shipping Company.</p> <p>Al Bab, Syria (See alternate addresses under Iraq and Turkey).</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 57451, 8/23/16.
	Cham Wings Airlines, Al-Fardous Street, Damascus, Syria.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 50410, 8/15/11.
	<p>EDO-ELEMED, a.k.a., the following two aliases:            -EDO ELEMED; <i>and</i>            -EDO/ELEMED.</p> <p>16 Parliament Street – Salhieh, Diab Building, Damascus, Syria; <i>and</i> P.O. Box 8126 Damascus Syria. (See also addresses under Lebanon)</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	84 FR 61541, 11/13/19.
	<p>EKT Electronics, a.k.a., the following four aliases:            -Katrangi Electronics;            -Katrangi Trading;            -Katrangi Labs; <i>and</i>            -Electronics Systems.</p> <p>#1 floor, 11/A, Abbasieh Building, Hijaz Street, P.O. Box 10112, Damascus, Syria; <i>and</i> #1 floor, 02/A, Fares Building, Rami Street, Margeh, Damascus, Syria (See alternate addresses under Lebanon).</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54509, 9/22/08. 77 FR 24590, 4/25/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Elemed Liban, 16 Parliament Street – Salhieh, Diab Building, Damascus, Syria; <i>and</i> P.O. Box 8126 Damascus Syria. (See also address under Lebanon)	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	84 FR 61541, 11/13/19.
	Encyclopedia Electronics Center, a.k.a., Hassan Matni Import Export Co., Nazir Matni Electronics, Mosalam Baroudi Street, P.O. Box 12071, Halbouni, Damascus, Syria.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54509, 9/22/08. 76 FR 50410, 8/15/11.
	Higher Institute of Applied Science and Technology (HIAST), a.k.a., Institut Supérieur des Sciences Appliquées et de Technologie (ISSAT), Institut des Sciences Appliquées et de Technologie (ISAT), P.O. Box 31983, Barzeh, Damascus, Syria.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	70 FR 11861, 3/10/05. 76 FR 50410, 8/15/11.
	Industrial Establishment of Defense (IED), a.k.a., Industrial Establishment of Defence (IED), Établissements Industriels de la Défense (EID), Etablissement Industriel de la Défense (ETINDE), Al Thawraa Street, P.O. Box 2330, Damascus, Syria.	For all items subject to the EAR. (see §744.3 of the EAR).	Presumption of denial.	70 FR 11861, 3/10/05. 76 FR 50410, 8/15/11.
	Jamal Jum'ah al-Shawi, Al Bab, Syria.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 57451, 8/23/16.
	Mohammed Katranji, #1 floor, 11/A, Abbasieh Building, Hijaz Street, P.O. Box 10112, Damascus, Syria; <i>and</i> #1 floor, 02/A, Fares Building, Rami Street, Margeh, Damascus, Syria (See alternate address under Lebanon).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54509, 9/22/08. 76 FR 50410, 8/15/11.
	Muhammad 'ulwan Al-Shawi, Al Bab, Syria	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 57451, 8/23/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	National Standards and Calibration Laboratory (NSCL), a.k.a., Scientific Studies and Research Center (SSRC)-NSCL, Institut National Calibration Centre, P.O. Box 4470, Damascus, Syria.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	70 FR 11861, 3/10/05. 76 FR 50410, 8/15/11.
	Rahal Corporation for Technology and Medical Supplies, 16 Parliament Street – Salhie, Diab Building, Damascus, Syria; <i>and</i> P.O. Box 8126 Damascus Syria. (See also address under Lebanon)	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	84 FR 61541, 11/13/19.
	Rahal Establishment, 16 Parliament Street – Salhie, Diab Building, Damascus, Syria; <i>and</i> P.O. Box 8126 Damascus Syria. (See also address under Lebanon)	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	84 FR 61541, 11/13/19.
	Rizk Ali, Damascus International Airport, Damascus Airport Motorway, Damascus, Syria.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 3580, 1/26/18.
	Scientific Studies and Research Center (SSRC), a.k.a., Center for Scientific Studies and Research (SSRC), Scientific Studies Research Centre (SSRC), Centre d'Etudes et de Recherches Scientifiques (CERS), Center for Study and Research (CERS), Scientific Studies and Research Council, Syrian Scientific Research Council, Scientific Research Council (SRC), P.O. Box 4470, Damascus, Syria.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	70 FR 11861, 3/10/05. 76 FR 50410, 8/15/11.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Sekirin Tekstil Ithalat Ihracat le ve Dis Ticaret Limited Sirketi, a.k.a., the following seven aliases: -Sekirin Textiles Export Import Limited Company; -Al Shakirin International Transport Company; -Shakirin Company; -Shakrin Company; -Sekirin Ticaret; -Al Shakirin Company; <i>and</i> -Sekirin Company.  Al Bab, Syria (See alternate addresses under Iraq and Turkey).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 57451, 8/23/16.
	Ukraine Mediterranean Airlines, a.k.a., UM Airlines, UM Air, 29 Ayar Str., Julia Dumna building, Damascus, Syria (See alternate addresses under Iran and Ukraine).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 50410, 8/15/11.
<b>TAIWAN</b>	Arthur Shyu, 3F-1 No. 52, SEC 2, Chung Shan N. Road, Taipei 104 Taiwan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 22640, 4/23/15
	Enrich Ever Technologies Co., Ltd., a.k.a., the following one alias: -Enrich Ever Technologies Co. 9F No. 38 Ming-Fu 13th Street, Taoyuan, Taiwan; <i>and</i> 8F, No. 431, Da-You Road, Taoyuan, Taiwan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 40178, 6/21/16.
	Hivocal Technology Company, Ltd., 10F, No. 736, Jhongjheng Road, Jhonghe City, Taipei County 235, Taiwan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 40178, 6/21/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Infinity Wise Technology Limited, Flat/RMA 6/F, Man Wing Building 503-507 Nathan Road Yaumate 1, Taiwan; <i>and</i> 8F, No. 431, Da-You Road Taoyuan, Taiwan (See alternate addresses under China).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 40178, 6/21/16. 85 FR 83769, 12/23/20.
	Landstar Tech Company Ltd., 13/F, Number 181, Sec 1, Datong Rd., Sijhih City, Taipei, Taiwan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 7359, 2/19/10.
	Kuang-Su Corporation, 8F, No. 431, Da-You Road, Taoyuan, Taiwan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 40178, 6/21/16.
	Xunwei Technologies Co., Ltd., Taipei, Taiwan.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	Yi-Lan Chen, a.k.a., Kevin Chen, 13/F, Number 181, Sec 1, Datong Rd., Sijhih City, Taipei, Taiwan, <i>and</i> 7 <sup>th</sup> Floor, Number 17, Zhonghua Rd., Sec 2, Xinzhuang City, Taipei, Taiwan.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	75 FR 7359, 2/19/10.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
<b>THAILAND</b>	Asian Aviation Logistics Co., Ltd., 21 Tower 2nd Floor Zone A805 Srinakarin Road, Suanluang Bangkok 10250 Thailand; <i>and</i> 111/11 Village 0.14 Kingkaew Road, Rajatheva, Bangplee District, Samutprakarn 10540, Thailand; <i>and</i> 188/5 Moo 5 Srinakarin Rd, Samrongnua, Muang, Samut Prakarn 10270, Thailand.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 75463 12/12/13.
	Huawei Cloud Thailand, Bangkok, Thailand.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	85 FR 51603, 8/20/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Huawei OpenLab Bangkok, a.k.a., the following one alias, -Huawei Bangkok OpenLab. Bangkok, Thailand.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	85 FR 51603, 8/20/20.
	Huawei Technologies (Thailand) Co., 87/1 Wireless Road, 19 <sup>th</sup> Floor, Capital Tower, All Seasons Place, Pathumwan, Bangkok, 10330, Thailand.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 43495, 8/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Khalidee Boolay Surinanda, a.k.a., the following one alias: -Khalidee Boolay Surinandha.</p> <p>21 Tower 2nd Floor Zone A805 Srinakarin Road, Suanluang Bangkok 10250 Thailand; <i>and</i> 111/11 Village 0.14 Kingkaew Road, Rajatheva, Bangplee District, Samutprakarn 10540, Thailand; <i>and</i> 111/11 Village 0.14 King Kaeo Road, Racha Thewa Sub-District, Bang Phli District, Samut Prakarn, 10540, Thailand.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 75463 12/12/13.
	<p>Kosol Surinanda, a.k.a., the following one alias: -Kosol Surinandha.</p> <p>140/65 ITF Tower, 27 Floor, Silom Rd., Suriyawongse, Bangrak, Bangkok, 10500, Thailand; <i>and</i> 21 Tower 2nd Floor Zone A805 Srinakarin Road, Suanluang Bangkok 10250 Thailand; <i>and</i> 495 Soi Anamai, Sri-nakarin Road, Suanluang Bangkok 10250 Thailand; <i>and</i> 111/11 Village 0.14 Kingkaew Road, Rajatheva, Bangplee District, Samutprakarn 10540, Thailand; <i>and</i> 111/11 Village 0.14 King Kaeo Road, Racha Thewa Sub-District, Bang Phli District, Samut Prakarn, 10540, Thailand.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 75463 12/12/13.
	Marilog Avion Services Company, Limited, 987 Silom Road, Bang Rak, Bangkok, Thailand, 10500.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 59421, 9/22/20.
	Mohamad Rifan, 987 Silom Road, Bang Rak, Bangkok, Thailand, 10500.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 59421, 9/22/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Mostafa Oveici, a.k.a., the following one alias: -Mosi Oveici.</p> <p>21 Tower 2nd Floor Zone A805 Srinakaran Road, Suanluang Bangkok 10250 Thailand, (See alternate address under Iran).</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 75463 12/12/13.
<b>TURKEY</b>	<p>3K Aviation Consulting and Logistics, a.k.a., the following one alias: -3K Havacilik ve Danismanlik SAN. TIC. LTD. ST.</p> <p>Biniciler Apt. Savas Cad. No. 18/5, Sirinyali Mah. 07160, Antalya, Turkey; <i>and</i> Sonmez Apt. No. 4/5 1523 Sokak, Sirinyali Mah. 07160, Antalya, Turkey.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 44824, 9/4/18.
	<p>Abbas Goldoozan, Kimya IC VE Dis Ticaret Ltd., 2nd Floor, No. 2, Istanbul, Turkey; <i>and</i> Yesil Tulumba A, Istanbul, Turkey 34134 (See also alternate address under Iran).</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 22640, 4/23/15. 83 FR 44824, 9/4/18.
	<p>Ag Yildiz Insaat Gayrimenkul Tasimacilik Pazarlama Ithalat Ihracat ve TicaretLtd. Sirketi, a.k.a., the following four aliases: -Ag Yildiz Cargo; -Ag Yildiz Gayrimenkul; -Yildiz Company; <i>and</i> -Yildiz Shipping Company.</p> <p>Guneykent Mah. Universite Blv. Tuze Sitesi Altı No: 393/B, Sahinbey, Gaziantep, Turkey (See alternate addresses under Iraq and Syria).</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 57451, 8/23/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Aeolian Airlines, Ozgur KK No 4 Da 5 Davran Ap Flo, Istanbul, Turkey; <i>and</i> Davran Ap Florya, Istanbul, Turkey 34153; <i>and</i> Attaturk Airport, Istanbul, Turkey, (See alternate addresses under Greece).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 75463 12/12/13.
	Ala al-Shawi, a.k.a., the following one alias: -AbuCemal.  60147 Caddesi No. 23, Sanayi Mahallesi, Sehitkamil, Gaziantep, Turkey.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 57451, 8/23/16.
	Ali Guzel, 60147 Caddesi No. 23, Sanayi Mahallesi, Sehitkamil, Gaziantep, Turkey.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 57451, 8/23/16.
	AR Kompozit Kimya, a.k.a., the following two aliases: -AR Composites Company Ltd; <i>and</i> -AR Kompozit Kimya Muhendislik Taah Dis Tic Ltd.  Kuyumcukent 2, Plaza Kat 5, No 9, Yenibosna, Istanbul, Turkey.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	82 FR 2887, 1/10/17.
	Avistar Havacilik Bilisim Turizm Insaat Sanayi Ve Ticaret Limited Sirketi, Yenibosna Dogu Sanayi Sitesi, 9 Blok No: 1, Bahcelievler - Istanbul, Turkey; <i>and</i> Dogu Sanayi Sitesi 9. Blok No:9/1 Yenibosna, Istanbul, Turkey.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 75463 12/12/13.
	Blue Lines FZE, Unit 2706, Floor 27, Maslak Baybigiz Plaza, 34396, Istanbul, Turkey (see alternate address under United Arab Emirates).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 59421, 9/22/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Cenk Ozturk,  Aktepe Sanayi Sitesi, Kinalikar Sokak, Orta Mahalle No. 19, Orhanli –Tuzla, Istanbul, Turkey.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	82 FR 24245, 5/26/17.
	ERA Metalurji San. Ve Tic. Ltd. Sti.,  Aktepe Sanayi Sitesi, Kinalikar Sokak, Orta Mahalle No. 19, Orhanli –Tuzla, Istanbul, Turkey.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	82 FR 24245, 5/26/17.
	Ergin Turker, Yenibosna Dogu Sanayi Sitesi, 9 Blok No: 1, Bahcelievler - Istanbul, Turkey.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 75463 12/12/13.
	Eslem Global Pazarlama Sanayi ve Ticaret, PO Box 34122, Sultanahmet, Fetih, Istanbul, Turkey; <i>and</i> Divanyolu Caddesi No: 15/408 Sultanahmet Fatih Istanbul, Turkey.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	84 FR 61541, 11/13/19.
	Eurocenter Havacilik Dis Ticaret Limited Sirketi, Kemalpasa Mh, Ordu Cad., Yesil Tulumba Sk No 9, Fatih, Istanbul, Turkey; <i>and</i> Yesil Tulumba Eminonu Sok No.9, Eminonu - Istanbul, Turkey 34143; <i>and</i> Yesil Tulumba Sk:No 9 Fatih, Eminonu -Istanbul, Turkey 34143; <i>and</i> Senlikkoy Mahallesi, Ozgur Sk No. 4, Da:5, Davran Ap Florya, 34153 Istanbul, Turkey.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 75463 12/12/13.
	Fulya Kalafatoglu Oguzturk, a.k.a., the following one alias: -Macide Fulya Kalafatoglu.  Barajyolu Cd Yenisehir Mh Sinpas Koruk Konutlari No 40 Sogut Blok D1 Istanbul, Turkey.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	82 FR 2887, 1/10/17.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Golsad Istanbul Trading, a.k.a., the following one alias: -Golsad Import-Export.</p> <p>Kimya IC VE Dis Ticaret Ltd., 2nd Floor, No. 2, Istanbul, Turkey; <i>and</i> Yesil Tulumba A, Istanbul, Turkey 34134.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Presumption of denial.</p>	<p>80 FR 22640, 4/23/15.</p>
	<p>Gulnihal Yegane, Egs Bloklari B-1 Blok K.1 No: 114, Yesilkoy- Bakirkoy, Istanbul, Turkey; <i>and</i> Huzur mah, Ayazaga Oyak sitesi, 9.Blok, No:19, Sisli, Istanbul, Turkey; <i>and</i> Turgut Reis Mh. Glyimkent Kath Is Merk. K:4 D:4412 Esenler/Istanbul, Turkey; <i>and</i> Onucreis Mah. Giyimkent Sitesi 3. Sokak No:118 Esenler/Istanbul, Turkey.</p>	<p>For all items subject to the EAR. (See §744.11 of the EAR).</p>	<p>Presumption of denial.</p>	<p>78 FR 75463 12/12/13.</p>
	<p>Huawei OpenLab Istanbul, a.k.a., the following one alias, -Huawei Istanbul OpenLab.  Istanbul, Turkey.</p>	<p>For all items subject to the EAR, see §§ 736.2(b)(3)(vi)<sup>1</sup>, and 744.11 of the EAR, EXCEPT<sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).</p>	<p>Presumption of denial.</p>	<p>85 FR 51603, 8/20/20.</p>

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Huseyin Engin Borluca, Biniciler Apt. Savas Cad. No. 18/5, Sirinyali Mah. 07160, Antalya, Turkey; <i>and</i> Sonmez Apt. No. 4/5 1523 Sokak, Sirinyali Mah. 07160, Antalya, Turkey.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	83 FR 44824, 9/4/18.
	Kral Aviation Services Ltd., Yesilkoy Mh. Ataturk Cd., Esg Business Park B1. B2 K:6 No:234, Bakirkoy Istanbul, Turkey.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 75463 12/12/13.
	Kral Aviation, a.k.a., the following two aliases: -Kral Havacilik Ic Ve Dis Ticaret Sirketi; <i>and</i> -Kral Aviation Ltd.  Senlikkoy Mah, Gumus Sok, No: 1/3, Floor: 11, Florya 134159, Istanbul, Turkey; <i>and</i> Senlikkoy Mah. Gumus Sok. No 3/1 Floor: 1 Florya Istanbul, 34153 Turkey <i>and</i> Yesilkoy Mh. Ataturk Cad. EGS Business Park Bloklari B2 Blok Kat:6, Istanbul Turkey.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 75463 12/12/13.
	Luqman Yasin Yunus Shragi, a.k.a., the following two aliases: -Lkemanasel Yosef; <i>and</i> -Luqman Sehreci.  Savcili Mahalesi Turkmenler Caddesi No:2, Sahinbey, Gaziantep, Turkey; <i>and</i> Sanayi Mahalesi 60214 Nolu Caddesi No 11, SehitKamil, Gaziantep, Turkey.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 57451, 8/23/16.
	Mehmet Cingi,  Aktepe Sanayi Sitesi, Kinalikar Sokak, Orta Mahalle No. 19, Orhanli –Tuzla, Istanbul, Turkey.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	82 FR 24245, 5/26/17.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Mehmet Yari, PO Box 34122, Sultanahmet, Fetih, Istanbul, Turkey.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	84 FR 61541, 11/13/19.
	Murat Peker, Mah. Idris Kosku Caddesi Kutu, Sokak No:1 Pierreloti/Eyup, Istanbul, Turkey.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 75463 12/12/13.
	Murat Taskiran, Kuyumcukent 2, Plaza Kat 5, No 9, Yenibosna, Istanbul, Turkey.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	82 FR 2887, 1/10/17.
	Pioneer Logistics Havacilik Turizm Yonetim Danismanlik Ithalat Ihracat San. Tic. Ltd. Sti, Egs Bloklari B-1 Blok Kat: 1 No; 114, Yesilkoy- Bakirkoy, Istanbul, Turkey <i>and</i> Huzur mah, Ayazaga Oyak sitesi, 9.Blok, No:19, Sisli, Istanbul, Turkey; <i>and</i> Turgut Reis Mh. Glyimkent Kath Is Merk. K:4 D:4412 Esenler/Istanbul, Turkey <i>and</i> Onucleis Mah. Giyimkent Sitesi 3. Sokak No:118 Esenler/Istanbul, Turkey.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 75463 12/12/13.
	Ramor Group, a.k.a., the following four aliases: -Ramor Construction Food and Furniture Incorporation; -Ramor Ins; -Ramor Company; <i>and</i> -Ramor Ltd. Co.  Unit 42, Gardenya Plaza 7/1, 12th Floor, No: 77, Atasehir, Istanbul, Turkey 34758; <i>and</i> 1st.End.ve.Tic.Serbest Bol.Sub. Kopuzlar Cad.No.8 Solingen Zemin Kat Tuzla/Istanbul, Turkey.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	82 FR 2887, 1/10/17.
	Resit Tavan, Turgotozl CD Agaoglu MySkyTowers, A Blok D 12, Istanbul, Turkey 34758.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	82 FR 2887, 1/10/17.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Sekirin Tekstil Ithalat Ihracat le ve Dis Ticaret Limited Sirketi, a.k.a., the following seven aliases:            -Sekirin Textiles Export Import Limited Company;            -Al Shakirin International Transport Company;            -Shakirin Company;            -Shakrin Company;            -Sekirin Ticaret;            -Al Shakirin Company; <i>and</i>            -Sekirin Company.</p> <p>Savcili Mahalesi Turkmenler Caddesi No:2, Sahinbey, Gaziantep, Turkey; <i>and</i>            Sanayi Mahalesi 60214 Nolu Caddesi No 11, Sehit Kamil, Gaziantep, Turkey (See alternate addresses under Iraq and Syria).</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 57451, 8/23/16.
	Seyyed Abdolreza Mousavi, Kemalpasa Mh, Ordu Cad., Yesil Tulumba Sk No 9, Fatih, Istanbul, Turkey, (See alternate address under Greece).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 75463 12/12/13.
	<p>Yunus Luqman Yasin Shragi, a.k.a., the following one alias:            -Yunus Sehreci.</p> <p>Savcili Mahalesi Turkmenler Caddesi No: 2, Sahinbey, Gaziantep, Turkey; <i>and</i>            Sanayi Mahalesi 60214 Nolu Caddesi No 11, SehitKamil, Gaziantep, Turkey.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 57451, 8/23/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
UGANDA	UCB Arcade, a.k.a., the following alias: -Allied Trading Co.  P.O. Box 5999, Kampala, Uganda (See alternate address under Allied Trading Co. in Pakistan).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	77 FR 58006, 9/19/12.
UKRAINE	Chernomorneftegaz, a.k.a., the following two aliases: -Chornomornaftogaz, <i>and</i> -NJSC Chornomornaftogaz.  Kirova / per. Sovnarkomovskaya, 52/1, Simferopol, Crimea, 95000, Ukraine. (See also Crimea (Occupied)).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 21396, 4/16/14.
	Donetsk People's Republic,  Donetsk Region, Ukraine.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 42455, 7/22/14.
	Feodosiya Enterprise, a.k.a., the following four aliases: -Feodosia Oil Products Supply Co.; <i>and</i> -Feodosiya Enterprise on Providing Oil Products; <i>and</i> -Feodosiyske Company for the Oil; <i>and</i> -Theodosiya Oil Terminal.  Feodosiya, Geologicheskaya str. 2, Crimea 98107, Ukraine; <i>and</i> Feodosia, Str. Geological 2, Crimea 98107, Ukraine (See alternate addresses under Crimea (Occupied)).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 42455, 7/22/14.
	Khors Air Company, 34, Lesi Ukrainki Boulevard, Kiev, 01133, Ukraine; <i>and</i> 10, Mekhanizatoriv Street, Kiev, 03035, Ukraine.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 50410, 8/15/11.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Luhansk People’s Republic, a.k.a., the following two aliases: -Lugansk People’s Republic -People’s Republic of Luhansk.  Luhansk Region, Ukraine.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 42455, 7/22/14.
	Natalya Totkaya, 34, Lesi Ukrainki Boulevard, Kiev, 01133, Ukraine; <i>and</i> 10, Mekhanizatoriv Street, Kiev, 03035, Ukraine.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 50410, 8/15/11.
	Private Joint-Stock Company Mako Holding, a.k.a., the following one alias: -Mako Holding.  Bohdan Khmelnytsky Avenue, Building 102, Voroshilovsky District, Donetsk, Donetsk Oblast 83015, Ukraine.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 52968, 9/2/15.
	Roman Unytskyi, 34, Lesi Ukrainki Boulevard, Kiev, 01133, Ukraine; <i>and</i> 10, Mekhanizatoriv Street, Kiev, 03035, Ukraine.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 50410, 8/15/11.
	Sergei (Sergi) Ivanovich Tomchani, a.k.a., Sergey Ivanovich Tomchani, 34, Lesi Ukrainki Boulevard, Kiev, 01133, Ukraine; <i>and</i> 10, Mekhanizatoriv Street, Kiev, 03035, Ukraine (See alternate addresses under Greece and United Kingdom).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 50410, 8/15/11.
	Ukraine Mediterranean Airlines, a.k.a., UM Airlines, UM Air, 7, Shulyavskaya Str., Kiev, Ukraine (See alternate addresses under Iran and Syria).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 50410, 8/15/11.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
<b>UNITED ARAB EMIRATES</b>	A.H. Shamnad, P.O. Box 42340, Dubai, U.A.E.; and No. 3-4 Sharafia Ahmed Ali Building, Al Nakheel, Deira, Dubai 396, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54509, 9/22/08.
	Abdulla K. Al Suleimani, a.k.a., the following two aliases: -Shehab Ahmed; <i>and</i> -Hamad Abdulla.  Jebel Ali Free Zone, PO Box 61002, Dubai, United Arab Emirates.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 59421, 9/22/20.
	Abdullah Poor Nagar, PO Box 64705, Number 20, Al Ras Street, The Gold Sough, Diera, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	84 FR 61541, 11/13/19.
	aBensa FZ LLC, a.k.a. the following one alias: -BiotaGroup Company  Al Thuraya Tower 1, 9th Floor, Office 907, P.O. Box: 500097, Dubai, U.A.E.; <i>and</i> Al Thuraya Tower 1, Media City, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 18811, 03/28/13.
	AdCom Systems, a.k.a. the following two aliases: -Sky Global Communications; <i>and</i> -Sky Global Communication Systems.  Industrial City of Abu Dhabi - ICAD1, Mussafah, Abu Dhabi, UAE; <i>and</i> #2 Mezzanine Level, Block 19, Sharq 40 Al Morour Street, Abu Dhabi Island, Abu Dhabi, UAE.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 14958, 3/21/16; 83 FR 48534, 9/26/18.
	Advanced Aerospace Industries, Industrial City of Abu Dhabi, Abu Dhabi, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 3580, 1/26/18.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Advanced Targeting Systems Company, LLC (ATS), P.O. Box 34237, High Specialized Economical Zone M41, 103A13, Al Mussafah, Abu Dhabi, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 14958, 3/21/16.
	Aerostar Asset Management FZC, a.k.a., the following two aliases: -Star Aviation Group; <i>and</i> -Star Aviation Services FZC.  Sharjah Airport International Free Zone (Saif Zone), Sharjah, United Arab Emirates; <i>and</i> P.O. Box 9300, A2-59, Saif Zone, Sharjah, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 75463 12/12/13.
	Afsari General Trading LLC, Mezzanine Fl, No. M-7, Al Bakhit Centre, Abu-Bakr Rd, Deira, Dubai, U.A.E.; <i>and</i> No. 405, Albakhit Centre, Abu-Bakr, AE-Dubai, U.A.E.; <i>and</i> P.O. Box 40150, Al Bakhit Centre, Messanine Floor, M- 7, Deira, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 18811, 03/28/13.
	Ahmad Asad Faour, a.k.a., the following one alias: -Ahmad Assad Fa'ur.  Industrial Area 11, 28 <sup>th</sup> St, Wave Tech Bldg, Sharjah, U.A.E.; <i>and</i> Business Bay, Emirates National Tower, Churchill Bldg, Office 209, Dubai, U.A.E.; <i>and</i> P.O. Box 25187, Sharjah, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 32445, 6/5/14.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Ajab Noor, a.k.a., the following one alias: -Ajab Nur.  Box No. 28715, Dubai, U.A.E.; <i>and</i> Dubai Tower, Al Maktoum Rd, Al Rigga, Dubai, Near Baniyas Square Metro Station, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 8527, 2/18/15.
	Ajab Trading Co. LLC, Box No. 28715, Dubai, U.A.E.; <i>and</i> Dubai Tower, Al Maktoum Rd, Al Rigga, Dubai, Near Baniyas Square Metro Station, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 8527, 2/18/15.
	Ajmal Aviation, P.O. Box 40445, Building C1, Ajman Free Zone, Ajman, United Arab Emirates.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 59421, 9/22/20.
	al Ajwa al Tiqniah Telecommunications Wire and Wireless Devices, P.O. Box 3421, Sharjah, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 32445, 6/5/14.
	Al Maskah Used Car and Spare Parts, Maliha Road, Industrial Area 6, Sharjah, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	77 FR 25057, 4/27/12.
	Al Merikh General Trading, Suite #203, Bani Yas Tower Dubai, UAE; and PO Box 3559, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	84 FR 40241, 8/14/19.
	Al Ras Gate General Trading, PO Box 64705, Number 20, Al Ras Street, The Gold Sough, Diera, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	84 FR 61541, 11/13/19.
	al Tawasul al Arabi Net Systems, al Tawasul Building, Industrial Area 11, Sharjah, U.A.E.; <i>and</i> P.O. Box 25187, Sharjah, U.A.E. (See alternate address under Lebanon).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 32445, 6/5/14.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Al-Faris, RAK Free Zone, P.O. Box 10559, Ras Al Khaimah, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54509, 9/22/08.
	Aletra General Trading (a.k.a., Erman & Sultan Trading Co.), Sabkha Street, Shop No. 8, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 37633, 6/28/11.
	Alex Ardalan, Al Thuraya Tower 1, 9th Floor, Office 907, P.O. Box: 500097, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 18811, 03/28/13.
	Alex Nouri Zadeh, a.k.a. the following three aliases: -Alex Banai; -Alex Norry; <i>and</i> -Nouri Zadeh,  No. 102 and 106, 1st Floor, K5 Entrance, Alshami Rest. Bldg., Al Muraqqabat Rd., Deira, Dubai, 184609 U.A.E.; <i>and</i> P.O. Box 184607, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	77 FR 58006, 9/19/12.
	Ali Akbar Yahya, 505 Siraj Building 17B Street, Mankhool, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR)	Presumption of denial.	73 FR 54509, 9/22/08.
	Ali Al-Dhaheri, Building No. H03, 6 Abu Dhabi Heights Street, Abu Dhabi, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.
	Ali Reza Divanizadeh, Al Ras Center Building, Behind Al Ras Hotel, Shop No. B-05, P.O. Box 5680, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54509, 9/22/08.
	Ammar Almounajed, a.k.a., the following one alias: -Ammar al-Mounjad.  Warehouse No. 1017, Old Agent Bldg., Dubai Air Cargo Village, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 3580, 1/26/18.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Amir Mohammad Zahedi, RAK Free Zone, P.O. Box 10559, Ras Al Khaimah, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54509, 9/22/08.
	Aristeidis A. Pappas, Villa D71, Al Hamra Village, Ras Al Khaimah, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 56003, 9/18/14.
	Atlinx Electronics, Flat 401- Bin Yas Center - Al Maktum Road, P.O. Box 42340, Dubai, U.A.E.; and Shops 3-4, Sharafia Ahmed Ali Building, al-Nakheel, Deira, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54509, 9/22/08.
	Avia Trust, a.k.a., the following one alias: -Avia Trust FZE.  Warehouse G-22 PO Box 54541, Dubai Airport Free Zone Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 75463, 12/12/13.
	Basha Asmath Shaikh  Office M-2, Al Andalus Bldg, Next to Shoemart Bldg, Abu Hail, Dubai, U.A.E.; <i>and</i> PO Box 29687, Dubai, U.A.E.; <i>and</i> PO Box 191252, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	84 FR 21236, 5/14/19.
	Behover General Trading/Information Technologies, a.k.a., the following one alias: -DBA Behover Information Technologies.  P.O. Box 25756, Atrium Center Building, Burdubai, Dubai, U.A.E.; <i>and</i> Unit M3&4, Atrium Centre, Bank Street Dubai, U.A.E.; <i>and</i> P.O. Box 19741, Dubai, U.A.E.; <i>and</i> Unit 2009, Prism Tower, Business Bay, Dubai, U.A.E.; <i>and</i> P.O. Box 115904, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 14958, 3/21/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Bestway Line FZCO, TPOFCB-06WS10, Jebal Ali Free Zone, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	84 FR 61541, 11/13/19.
	Beverly Apigo, P.O. Box 28515, Dubai, U.A.E.; <i>and</i> 202 B Sama Tower Sheikh Tayed Road #3 Dubai, U.A.E. P.O. Box 16048; <i>and</i> BC2-414, RAK Free Trade Zone, P.O. Box 16048, Ras Al Khaimah, U.A.E.; <i>and</i> G1/RAK Free Trade Zone RAK - U.A.E.; <i>and</i> G-17 Sheikh Tayed Road #3, Ras Al Khaimah Free Trade Zone, Dubai, U.A.E.; <i>and</i> P.O. Box 10559 Ras Al Khaimah, U.A.E.; <i>and</i> P.O. Box 25344 Bur Dubai, Dubai, U.A.E.; <i>and</i> Suite 608 Atrium Center, Bank St., Bur Dubai, Dubai, U.A.E., P.O. Box 16048; <i>and</i> Suite 706 Atrium Center Bank Street, Bur Dubai, Dubai U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 14958, 3/21/16.
	Blue Lines FZE, RAK Free Zone, PO Box 10559, Ras Al Khaimah, United Arab Emirates (see alternate address under Turkey).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 59421, 9/22/20.
	Complete Freight Solutions, 704 The Atrium Ctr, Khalid Bin, Dubai, U.A.E; <i>and</i> 1 <sup>st</sup> Floor, Office No. 114, Yousef Al Otaiba Bldg, Above Emirates Islamic Bank Office, 2 <sup>nd</sup> December Street (Old Al Dyafah Street), P.O. Box No. 29687, Satwa, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 14958, 3/21/16.
	Crescent International Trade and Services FZE, Office No. B34BS330111, Jebel Ali, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 44683, 8/1/14.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Cybernet MEA, 202 B Sama Tower Sheikh Tayed Road #3, Dubai, U.A.E., P.O. Box 16048; <i>and</i> BC2-414, RAK Free Trade Zone, P.O. Box 16048 Ras Al Khaimah, U.A.E.; <i>and</i> G1/RAK Free Trade Zone RAK - U.A.E.; <i>and</i> G-17 Sheikh Tayed Road #3, Ras Al Khaimah Free Trade Zone, Dubai, U.A.E.; <i>and</i> No. 608 Atrium Center Bank Street, Dubai, U.A.E.; <i>and</i> P.O. Box 10559 Ras Al Khaimah, U.A.E.; <i>and</i> P.O. Box 116911 Dubai, U.A.E.; <i>and</i> P.O. Box 25344 Bur Dubai, Dubai, U.A.E.; <i>and</i> Suite 608 Atrium Center Bank Street, Bur Dubai, Dubai, U.A.E.; <i>and</i> Suite 706 Atrium Center Bank Street, Bur Dubai, Dubai U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 14958, 3/21/16.
	Danoush Trading Company, No. 104, Beside Kheibar Hotel, Morshed Market St., Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54509, 9/22/08.
	David Khayam, Apt #1811 Manchester Tower, Dubai Marina, Dubai, U.A.E.; <i>and</i> PO Box 111831, Al Daghaya, Dubai, U.A.E.; <i>and</i> Dubai Shopping Center, Office 13, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 18811, 03/28/13.
	Divanizadeh General Trading Company, Al Ras Center Building, Behind Al Ras Hotel, Shop No. B-05, P.O. Box 5680, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54510, 9/22/08.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Donna Lynn Ocampo, P.O. Box 28515, Dubai, U.A.E.; <i>and</i> 202 B Sama Tower Sheikh Tayed Road #3 Dubai, U.A.E., P.O. Box 16048; <i>and</i> BC2-414, RAK Free Trade Zone P.O. Box 16048 Ras Al Khaimah, U.A.E.; <i>and</i> G1/RAK Free Trade Zone RAK - U.A.E.; <i>and</i> G-17 Sheikh Tayed Road #3 Ras Al Khaimah Free Trade Zone Dubai, U.A.E.; <i>and</i> P.O. Box 10559 Ras Al Khaimah, U.A.E.; <i>and</i> P.O. Box 25344 Bur Dubai, Dubai, U.A.E.; <i>and</i> Suite 608 Atrium Center, Bank St., Bur Dubai, Dubai, U.A.E. P.O. Box 16048; <i>and</i> Suite 706 Atrium Center Bank Street Bur Dubai, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 14958, 3/21/16.
	Dr. Artush Parsi, No. 75 Noor Mohammed Taleb Building, Opposite to Ascot Hotel, Khaleed-bin-Valid Rd, Bur Dubai, Dubai, U.A.E.; <i>and</i> No. 7 Noor Mohammad Taleb Bldg. Opp. Ascot Hotel Khalid Bin Rd, Dubai, U.A.E.; <i>and</i> No. 705, Noor Mohammad Taleb Bldg, Bin Valid Road, Dubai, U.A.E.; <i>and</i> P.O. Box 122114, Dubai, U.A.E.; <i>and</i> P.O. 111837, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 18811, 03/28/13.
	E and I Systems FZE, Business Centre, Al Shmookh Building, UAQ Free Trade Zone, Umm Al Quwain, United Arab Emirates.	For all items subject to the EAR. (See §744.11 of the EAR).	See §744.2(d) of the EAR.	85 FR 59421, 9/22/20.
	Emirates Alloys, a.k.a., the following two aliases: -Emirates Alloys General Trading LLC; <i>and</i> -Emirates Aero.  No. 101 Marwan Ahmed Ali Building, Port Saeed Road, P.O. Box 183799, Dubai, U.A.E.; <i>and</i> No. 104b Sh Maryam Palace, Deira, Dubai U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	84 FR 40241, 8/14/19.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Emirates Hermes General Trading, a.k.a. the following two aliases:            -Emirates Hermes General Trading LLC; <i>and</i>            -Emirates Hermes General Trading Co., Inc.</p> <p>Office M-2, Al Andalus Bldg, Next to Shoemart Bldg, Abu Hail, Dubai, U.A.E.; <i>and</i> P.O. Box 29687, Dubai, U.A.E.; <i>and</i> P.O. Box 191252, Dubai, U.A.E.; <i>and</i> 73 Al Mina Rd., Dubai, U.A.E.; <i>and</i> Emirates Islamic Bank Building Al Diyafa, Dubai, U.A.E.; <i>and</i> P.O. Box: 29687, Office No: M-02, Al Andalus Building, Shoe-Mart Building, Next To Abu Hail Shopping Centre, Abu Hail , Dubai, U.A.E.; <i>and</i> 2nd of December Street 3, Office 314, Yousuf Al Otaiba Building near Al Maya Supermarket, Trade Center, 191252, Dubai, U.A.E.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	84 FR 21236, 5/14/19.
	Emitech Middle East FZC, P.O. Box 513364, SAIF Zone, Sharjah, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 3580, 1/26/18.
	<p>Euromoto Middle East FZE,</p> <p>Q-4 136 Warehouse, Sharjah Airport International Free (SAIF) Zone, Sharjah, UAE; <i>and</i> Q1-08-051/B, Sharjah Airport International Free (SAIF) Zone, Sharjah, UAE; <i>and</i> P.O. Box 121826, Sharjah Airport International Free (SAIF) Zone, Sharjah, UAE.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	82 FR 24245, 5/26/17.
	Fajr Almadeena Electronics, No. 102 and 106, 1st Floor, K5 Entrance, Alshami Rest. Bldg., Al Muraqqabat Rd., Deira, Dubai, 184609 U.A.E.; <i>and</i> P.O. Box 184607, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	77 FR 58006, 9/19/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Farrokh Nia Yaghmaei, a.k.a, Farokh Nia Yaghmaei, Flat 401- Bin Yas Center - Al Maktum Road, P.O. Box 42340, Dubai, U.A.E.; <i>and</i> Shops 3- 4, Sharafia Ahmed Ali Building, al-Nakheel, Deira, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54510, 9/22/08. 76 FR 21631, 4/18/11.
	Feroz Khan, a.k.a., the following three aliases: -Haaje Khan; -Haaji Khan; <i>and</i> -Firoz.  Maliha Road, Industrial Area 6, Sharjah, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	77 FR 25057, 4/27/12.
	Focus Middle East, No. 504, Bldg 5EA, Dubai Airport Free Zone, PO Box 293541, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 14796, 03/16/20.
	Foremost International FZE, P.O. Box 123833, Q4-163, SAIF Zone, Sharjah, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 3580, 1/26/18.
	FWS Trading FZE, Rainbow No. 1212, Ajman Free Zone, Ajman, U.A.E.; <i>and</i> City Tower 2, Office #2004, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 8829, 2/23/16.
	German Sky International Trading Company LLC, a.k.a., the one alias: - Civil Trading FZE  Office No. 901, Riqqa Al Buteen Plaza, Al Maktoum Street, Dubai, UAE; <i>and</i> Al Maktoum Road, 9th Floor, Riqqa Al Buteen Plaza Bldg, Dubai, UAE; <i>and</i> P.O. Box 16111 Ras Al Khaimah, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	84 FR 21236, 5/14/19.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Ghasem Afsari, No. 405, Albakhit Centre, Abu-Bakr, AE-Dubai, U.A.E.; <i>and</i> P.O. Box 40150, Al Bakhit Centre, Messanine Floor, M-7, Deira, Dubai, U.A.E.; <i>and</i> Mezzanine Fl, No. M-7, Al Bakhit Centre, Abu-Bakr Rd, Deira, Dubai, U.A.E.; <i>and</i> No. 75 Noor Mohammed Taleb Building, Opposite to Ascot Hotel, Khaleed-bin-Valid Rd, Bur Dubai, Dubai, U.A.E.; <i>and</i> No. 7 Noor Mohammad Taleb Bldg. Opp. Ascot Hotel Khalid Bin Rd, Dubai, U.A.E.; <i>and</i> No. 705, Noor Mohammad Taleb Bldg, Bin Valid Road, Dubai, U.A.E.; <i>and</i> P.O. Box 122114, Dubai, U.A.E.; <i>and</i> P.O. 111837, Dubai, U.A.E.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 18811, 03/28/13.
	<p>Glasgow International Trading, a.k.a., the following one alias: -Glasgow International General Trading LLC.  P.O. Box 6462, Dubai, U.A.E.; <i>and</i> P.O. Box 42064, Dubai, U.A.E.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 75463 12/12/13.
	<p>Global Merchant General Trading LLC, P.O. Box 39960, Dubai, U.A.E.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 40178, 6/21/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Good Luck Shipping LLC, a.k.a., as the following two aliases:            -Good Luck Shipping Services; <i>and</i>            -GLS.</p> <p>Office 206/207 Malik Saeed, Ahmad Ghabbash, Bur Dubai, UAE; <i>and</i> P.O. Box 8486, Dubai, UAE; PO Box 5562, Dubai, UAE.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	83 FR 44824, 9/4/18.
	Gulf Eagle Contracting (GEC), P.O. Box 31814, Al Dhafra Road, New Airport Road, Abu Dhabi, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 14958, 3/21/16.
	Gulf Eagle Industrial and Metal Profiles (GEIMP), P.O. Box 31814, Al Mussafah Industrial City, Abu Dhabi, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 14958, 3/21/16.
	Gulf Gate Sea Cargo LLC, No. 508, Bldg P-114, Almaktoom Road, Deirah, Dubai, United Arab Emirates; <i>and</i> P.O. Box 39948, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 40178, 6/21/16.
	Gulf Gate Shipping Co. LLC, No. 508, Bldg P-114, Almaktoom Road, Deirah, Dubai, United Arab Emirates; <i>and</i> P.O. Box 39948, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 40178, 6/21/16.
	H. Ghasir, Flat 401- Bin Yas Center - Al Maktum Road, P.O. Box 42340, Dubai, U.A.E.; <i>and</i> Shops 3-4, Sharafia Ahmed Ali Building, al-Nakheel, Deira, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54503, 9/22/08.
	Hamed Al Fahid Trading Company, Shop No. 3-4 Ahmed Ali Bldg., Al Jalel, Deira, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54503, 9/22/08.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Hamed Athari, No. 3-4 Sharafia Ahmed Ali Building, Al Nakheel, Deira, Dubai 396, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54503, 9/22/08.
	Hamed Kianynejad, Rainbow No. 1212, Ajman Free Zone, Ajman, U.A.E.; City Tower 2, Office #2004, Dubai, U.A.E.; <i>and</i> City Tower 2, 20th Floor, Office #2005, Sheikh Zayed Road, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 8829, 2/23/16.
	Hamid Rashed, Apt #1811 Manchester Tower, Dubai Marina, Dubai, U.A.E.; <i>and</i> PO Box 111831, Al Daghaya, Dubai, U.A.E.; <i>and</i> Dubai Shopping Center, Office 13, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 18811, 03/28/13.
	Hamideh Ghayour, P.O. Box 155904, Dubai, U.A.E.; <i>and</i> Unit M3&4, Atrium Centre, Bank Street Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 14958, 3/21/16.
	Huawei OpenLab Dubai, a.k.a., the following one alias, -Huawei Dubai OpenLab.  Dubai, United Arab Emirates.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	85 FR 51603, 8/20/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Husayn Fa'ur, a.k.a., the following one alias: -Hussein Faour.  Beirut Hadath, Morjan Bldg near Sfeir Bridge, Lebanon; <i>and</i> Industrial Area 11, 28 <sup>th</sup> St, Wave Tech Bldg, Sharjah, U.A.E. (See alternate address under Lebanon).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 32445, 6/5/14.
	Ibrahim Nasir,  P.O. Box 32332, Dubai, United Arab Emirates (See additional address in Canada).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 59421, 9/22/20.
	Infotec, a.k.a., the following two aliases: -Info Tech, <i>and</i> -I. Tec Trading FZE,  P.O. Box 10559, Ras Al Khaimah, U.A.E.; <i>and</i> Ras Al Khaimah Free Trade Zone (RAKFTZ), U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 78146, 12/16/11. 77 FR 71098, 11/29/12.
	Innovative Technology Systems (ITS), 2nd Floor, #202 Sheik Zayed Road Dubai, POB 25344, U.A.E.; <i>and</i> Suite 608 Atrium Center, Bank Street, Bur Dubai, Dubai, U.A.E; <i>and</i> Suite 706 Atrium Center Bank Street, Bur Dubai, Dubai U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 14958, 3/21/16.
	Jamal Hasan, a.k.a. the following alias: -Jamal Haji,  No. 102 and 106, 1st Floor, K5 Entrance, Alshami Rest. Bldg., Al Muraqqabat Rd., Deira, Dubai, 184609 U.A.E.; <i>and</i> P.O. Box 184607, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	77 FR 58006, 9/19/12.
	Jazirah Aviation Club, Al Jazirah, Al Hamra, Ras al Khaimah, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 3580, 1/26/18.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Kadin Satco FZE, No. 28 Street 6, Phase Springs 10, Emirates Hills, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 75463 12/12/13.
	Khaled Al Taher, TPOFCB-06WS10, Jebal Ali Free Zone, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	84 FR 61541, 11/13/19.
	Khosrow Kasraei, P.O. Box 61342, Jebel Ali, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 44683, 8/1/14.
	Liberty House Trading LLC, a.k.a. the following two aliases: - Baet Alhoreya Electronics Trading; <i>and</i> - Baet Alhoreya,  Apt #1811 Manchester Tower, Dubai Marina, Dubai, U.A.E.; <i>and</i> PO Box 111831, Al Daghaya, Dubai, U.A.E.; <i>and</i> Dubai Shopping Center, Office 13, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 18811, 03/28/13.
	Lufti Busaidi Sulaiman, a.k.a., the following one alias: - Lufti Al Busaidi.  Jebel Ali Free Zone, PO Box 61002, Dubai, United Arab Emirates.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 59421, 9/22/20.
	Majidco Micro Electronics, Flat 401- Bin Yas Center - Al Maktum Road, P.O. Box 42340, Dubai, U.A.E.; and Shops 3-4, Sharafia Ahmed Ali Building, al-Nakheel, Deira, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54503, 9/22/08.
	Managed Systems and Services (MSAS)(FZC), No. A3089 Seif Sharjah U.A.E.; <i>and</i> SAIF Zone 250 M2 Warehouse P60-109, PO Box 122550, Sharjah, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 14958, 3/21/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Manohar Nair, a.k.a., the following one alias: -Manoharan Nair.</p> <p>Office M-2, Al Andalus Bldg, Next to Shoemart Bldg, Abu Hail, Dubai, U.A.E., and P.O. Box 29687, Dubai, U.A.E.; and P.O. Box 191252, Dubai, U.A.E.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	84 FR 21236, 5/14/19.
	<p>Mayrow General Trading, Flat 401- Bin Yas Center - Al Maktum Road, P.O. Box 42340, Dubai, UAE; Shops 3-4, Sharafia Ahmed Ali Building, al-Nakheel, Deira, Dubai, U.A.E.; P.O. Box 42340, Deira, Dubayy, U.A.E. and P.O. Box 171978, Deira, Dubayy, U.A.E.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54503, 9/22/08.
	<p>Mayrow Technics Co., No. 3-4 Sharafia Ahmed Ali Building, Al Nakheel, Deira, Dubai 396, U.A.E.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54503, 9/22/08.
	<p>Mehdi Jafariyeh, a.k.a., the following one alias: -Mehdi Jeffery.</p> <p>P.O. Box 28515, Dubai, U.A.E.; and 202 B Sama Tower Sheikh Tayed Road #3 Dubai, U.A.E., P.O. Box 16048; and BC2-414, RAK Free Trade Zone P.O. Box 16048 Ras Al Khaimah, U.A.E.; and G 1/RAK Free Trade Zone RAK - U.A.E.; and G-17 Sheikh Tayed Road #3 Ras Al Khaimah Free Trade Zone, Dubai, U.A.E. and P.O. Box 10559 Ras Al Khaimah, U.A.E.; and P.O. Box 25344 Bur Dubai, Dubai, U.A.E.; and Suite 608 Atrium Center, Bank St., Bur Dubai, Dubai, U.A.E., P.O. Box 16048; and Suite 706 Atrium Center Bank Street Bur Dubai, Dubai U.A.E.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 14958, 3/21/16.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Mehdi Rafie, Shop No. 3 & 4, Sharafia Ahmed Ali Bldg., Al Nakheel St., Deira, P.O. Box 171978, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54503, 9/22/08.
	Mehran Kamalinia, a.k.a., Ronald Simon, Shop No. 3 & 4, Sharafia Ahmed Ali Bldg., Al Nakheel St., Deira, P.O. Box 171978, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54503, 9/22/08.
	Mehrdad Moeinansari, a.k.a., the following one alias: -Mehrdad Ansari. No 7101, Index Tower DIFC, Dubai, U.A.E.; <i>and</i> No 508, Sheikha Maryam Bldg., Deirah, Dubai, U.A.E. 39948.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 40178, 6/21/16.
	Micatic General Trading, Flat 401- Bin Yas Center - Al Maktum Road, P.O. Box 42340, Dubai, U.A.E.; and Shops 3-4, Sharafia Ahmed Ali Building, al-Nakheel, Deira, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54503, 9/22/08.
	Micro Middle East Electronics, Flat 401- Bin Yas Center - Al Maktum Road, P.O. Box 42340, Dubai, U.A.E.; and Shops 3-4, Sharafia Ahmed Ali Building, al-Nakheel, Deira, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54503, 9/22/08.
	Moh Khoman, No. 405, Albakhit Centre, Abu-Bakr, AE-Dubai, U.A.E.; <i>and</i> P.O. Box 40150, Al Bakhit Centre, Messanine Floor, M-7, Deira, Dubai, U.A.E.; <i>and</i> Mezzanine Fl, No. M-7, Al Bakhit Centre, Abu-Bakr Rd, Deira, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 18811, 03/28/13.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Mohamad Javad, No. 405, Albakhit Centre, Abu-Bakr, AE-Dubai, U.A.E.; <i>and</i> P.O. Box 40150, Al Bakhit Centre, Messanine Floor, M-7, Deira, Dubai, U.A.E.; <i>and</i> Mezzanine Fl, No. M-7, Al Bakhit Centre, Abu-Bakr Rd, Deira, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 18811, 03/28/13.
	Mohamed Nashir, Jebel Ali Free Zone, PO Box 61002, Dubai, United Arab Emirates.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 59421, 9/22/20.
	Mohammed Marzoghi, TPOFCB-06WS10, Jebal Ali Free Zone, Dubai, UAE; <i>and</i> C21 Gate No 4, Ajman, UAE. (see also address under Bahrain).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	84 FR 61541, 11/13/19.
	Mohammad Nayeb, No. 102 and 106, 1st Floor, K5 Entrance, Alshami Rest. Bldg., Al Muraqqabat Rd., Deira, Dubai, 184609 U.A.E.; <i>and</i> P.O. Box 184607, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	77 FR 58006, 9/19/12.
	Mohsen Saghafi, Shop No. 3 & 4, Sharafia Ahmed Ali Bldg., Al Nakheel St., Deira, P.O. Box 171978, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54503, 9/22/08.
	Mojtaba Alikhani, Rainbow No. 1212, Ajman Free Zone, Ajman, U.A.E.; <i>and</i> City Tower 2, Office #2004, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 8829, 2/23/16.
	Mostafa Salehi, No. 308, 3 <sup>rd</sup> Floor, Rafi Center, Al Nakheel, Deira, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54503, 9/22/08.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Mujahid Ali, a.k.a. the following one alias: -Mujahid Ali Mahmood Ali  Office No. B34BS33O111, Jebel Ali, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 44683, 8/1/14.
	Narinco, Flat 401- Bin Yas Center - Al Maktum Road, P.O. Box 42340, Dubai, U.A.E.; and Shops 3-4, Sharafia Ahmed Ali Building, al-Nakheel, Deira, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54503, 9/22/08.
	Neda Overseas Electronics L.L.C., No. 308, 3 <sup>rd</sup> Floor, Rafi Center, Al Nakheel, Deira, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54503, 9/22/08.
	Next Gulf Trading LLC, No. 75 Noor Mohammed Taleb Building, Opposite to Ascot Hotel, Khaleed-bin-Valid Rd, Bur Dubai, Dubai, U.A.E.; <i>and</i> No. 7 Noor Mohammad Taleb Bldg. Opp. Ascot Hotel Khalid Bin Rd, Dubai, U.A.E.; <i>and</i> No. 705, Noor Mohammad Taleb Bldg, Bin Valid Road, Dubai, U.A.E.; <i>and</i> P.O. Box 122114, Dubai, U.A.E.; <i>and</i> P.O. 111837, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 18811, 03/28/13.
	Patco Group Ltd, PO Box 20470, Ajman, U.A.E.; <i>and</i> Ajman Free Zone Bldg., 48-Block-C Meena Road near Ajman Sea Port, Ajman, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 14958, 3/21/16.
	Pearltrainer FZE, P.O. Box 32707, Sharjah, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 3580, 1/26/18.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Pegasus General Trading FZC, a.k.a., the following six aliases:            -Pegasus General Trading FZE;            -Pegasus General Trading Company;            -Pegasus General Trading LLC;            -Pegasus General;            -Pegasus Trading; <i>and</i>            -Pegasus.</p> <p>Office No. 09, Building No. Q-1, Near Nilona/Gate No. 3, Al Dhaid Street, Sharjah Airport International Airport Free Zone, Sharjah U.A.E.; <i>and</i> Building Q1-09, Sharjah International Airport Free Zone, Sharjah, U.A.E.; <i>and</i> #R2-15, PO Box 121640, SAIF Zone, Sharjah, U.A.E.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 14796, 03/16/20.
	Perfect Tyre Trading Co LLC, Al Ain - Al Sanaiya - Inh. Mohammed Sultan Aldarmaki – Bld, Dubai, U.A.E.; <i>and</i> Post Box No. 67221, Abu Dhabi, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 8527, 2/18/15.
	<p>Presto Freight International, LLC, aka Presto Freight International LLC (PFI),</p> <p>Office M-2, Al Andalus Bldg, Next to Shoemart Bldg, Abu Hail, Dubai, U.A.E.; <i>and</i> P.O. Box 29687, Dubai, U.A.E.; <i>and</i> P.O. Box 191252, Dubai, U.A.E.; <i>and</i> P.O. Box No. 115360, Mezzanine Floor, Office No. M-02, Al Andalus Building, Above Shoe -Mart shop (Next to Abu Hail Center), Abu Hail, Dubai U.A.E.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	84 FR 21236, 5/14/19.
	Pyramid Technologies, P.O. Box 42340, Dubai, U.A.E.; <i>and</i> No. 3-4, Sharafia Ahmed Ali Building, Al Nakheel, Deira, Dubai 396, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 54503, 9/22/08.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Rainbow General Trading Company, City Tower 2, 20th Floor, Office #2005, Sheikh Zayed Road, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 8829, 2/23/16.
	Raneen Wireless Development Systems Company (RWDS, LLC), Abu Dhabi -Mussaffah-ICAD I-(1 01A13, 104A1 3, 105A13, 100A13, 103A13, 102A13) 40 Abu Dhabi, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.
	Reza Ghoreishi, P.O. Box 61342, Jebel Ali, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 56003, 9/18/14.
	Reza Hajigholamali, P.O. Box 20470, Ajman, U.A.E.; <i>and</i> Ajman Free Zone Bldg., 48-Block-C Meena Road near Ajman Sea Port, Ajman, U.A.E (See alternate address under Iran).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 14958, 3/21/16.
	Rigsol Well Drilling Equipment Trading, a.k.a., the following one alias: -Rigsol.  Saleh Al Kazim, Deira, Garhoud, Dubai, United Arab Emirates; <i>and</i> Office No. 3, Al Kazim Building, Garhoud, Dubai, United Arab Emirates.	For all items subject to the EAR. (See §744.11 of the EAR).	See §744.2(d) of the EAR.	85 FR 59421, 9/22/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Rose Ann Apigo, P.O. Box 28515, Dubai, U.A.E.; <i>and</i> 202 B Sama Tower Sheikh Tayed Road #3 Dubai, U.A.E., P.O. Box 16048; <i>and</i> BC2-414, RAK Free Trade Zone P.O. Box 16048 Ras Al Khaimah, U.A.E.; <i>and</i> G1/RAK Free Trade Zone RAK - U.A.E.; <i>and</i> G-17 Sheikh Tayed Road #3 Ras Al Khaimah Free Trade Zone, Dubai, U.A.E.; <i>and</i> P.O. Box 10559 Ras Al Khaimah, U.A.E.; <i>and</i> P.O. Box 25344 Bur Dubai, Dubai, U.A.E.; <i>and</i> Suite 608 Atrium Center, Bank St., Bur Dubai, Dubai, U.A.E., P.O. Box 16048; <i>and</i> Suite 706 Atrium Center Bank Street, Bur Dubai, Dubai U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 14958, 3/21/16.
	S&D Industry Ltd., Souk Al Kabeer Building, Office No. F01, Bur Dubai Area, PO Box 932, Dubai, United Arab Emirates; <i>and</i> Office No. 1 Galadari Engineering Works Building, Deira, Dubai, United Arab Emirates; <i>and</i> 1304 Al Baker Tower 4, Al Tawun, Sharjah, United Arab Emirates.	For all items subject to the EAR. (See §744.11 of the EAR).	See §744.2(d) of the EAR.	85 FR 59421, 9/22/20.
	Saeed Talebi, a.k.a., the following one alias: -Allen Talebi.  No. 28 Street 6, Phase Springs 10, Emirates Hills, Dubai, U.A.E., (See alternate addresses under Canada and Iran).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 75463 12/12/13.85 FR 52901, 8/27/20.
	Saeed Valadbaigi, a.k.a., the following two aliases: -Saeed Valad; <i>and</i> -Saeed Baigi.  No. 101 Marwan Ahmed Ali Building, Port Saeed Road, P.O. Box 183799, Dubai, U.A.E.; <i>and</i> No. 104b Sh Maryam Palace, Deira, Dubai U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	84 FR 40241, 8/14/19.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Safe Technical Supply Co., LLC, a.k.a., the following three aliases:            -Safe Technical Equipment Services LLC;            -Safe Technical; <i>and</i>            -SafeTech.</p> <p>Showroom No. 6, Jadaf Ship Docking Yard, Gate No. 1, Al Khail Road, P.O. Box 4832, Dubai, UAE, <i>and</i> Shed No: 138-A, Dubai Maritime City, Dubai, UAE, <i>and</i> Office No. 3, Mezzanine Floor, Saleh Al Menhali Bldg., Mohammed bin Zayed City, PO Box 30560, Abu Dhabi, U.A.E. (See also addresses under Oman and Saudi Arabia).</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	84 FR 61541, 11/13/19.
	<p>SANCO Middle East, FZC, a.k.a., the following one alias:            -SANCO ME FZC.</p> <p>P.O. Box 8447, Sharjah Airport Free Zone (SAIF Zone), Sharjah, U.A.E.; <i>and</i> Warehouse # X1-51, Al Dhaid Road (Airport Road), Sharjah Airport International Free Zone, Sharjah, U.A.E.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 14796, 03/16/20.
	<p>SANCO Middle East, LLC, a.k.a., the following one alias:            SANCO ME, LLC.</p> <p>Twin Tower 204A, Sharjah, 208, U.A.E.; <i>and</i> Office # 202, 2nd Floor, Block A, Twin Tower, Al Entifadha Street, Al Majaz 2, Sharjah, U.A.E.; <i>and</i> Flat No 204, Floor No 2, Jamal Abdul Nasser Street, Al Majaz, Sharjah, U.A.E.; <i>and</i> P.O. Box 83982, Sharjah, U.A.E.</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 14796, 03/16/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Satori Corporation, a.k.a., the following one alias: - Satori SAS.  Dubai Silicon Oasis, Apricot Tower, Office 810 P.O. Box 341028, Dubai, U.A.E. (See alternate address under France).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
	Sawa Air Aviation FZCO, a.k.a., the following two aliases: -Sawa Aviation; <i>and</i> -Sawa Air.  P.O. Box 42707, Al Sahel Bldg, Fish Round About, Deira, Dubai, U.A.E. 254.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 75463 12/12/13.
	Sci Box Scientific and Laboratory Equipment Trading, LLC, P.O. Box 183312, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	See §744.2(d) of the EAR.	85 FR 52901, 8/27/20.
	Seyed Mahdi Mousavi, P.O. Box 49465, Dubai, UAE; <i>and</i> P.O. Box 7941, Dubai, U.A.E. (See alternate addresses under Iran).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	77 FR 58006, 9/19/12.
	Seyed Mousavi Trading, a.k.a., the following two aliases: -Hitech Computer Peripherals; <i>and</i> -Hitech Corporation.  P.O. Box 49465, Dubai, UAE; <i>and</i> P.O. Box 7941, Dubai, U.A.E. (See alternate addresses under Iran).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	77 FR 58006, 9/19/12.
	Shaji Muhammed Basheer, a.k.a., the following alias: -S. Basheer.  Shop No. 3 & 4, Sharafia Ahmed Ali Bldg., Al Nakheel St., Deira, P.O. Box 171978, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	77 FR 24590, 4/25/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Shehab Bin Braik Al Breiki, Jebel Ali Free Zone, PO Box 61002, Dubai, United Arab Emirates.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 59421, 9/22/20.
	Sky Float Aviation FZE, M6 Office 1309, Building R2, Near Urban Line Group, SAIF Zone, P.O. Box 121887, Sharjah, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 83420, 12/22/20.
	Sky Gulf Consultancy and Researches LLC, P.O. Box 25298, Abu Dhabi, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 3580, 1/26/18.
	Sky Gulf Electronic Devices Industries, Industrial City of Abu Dhabi (ICAD) Zone 1 plots 104A 13 and 105A13 Abu Dhabi, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 52901, 8/27/20.
	Skylinks FZC, a.k.a., the following two aliases: -Skylinks; <i>and</i> -Skylinks Satellite Comm.  P.O. Box 28515, Dubai, U.A.E.; <i>and</i> 202 B Sama Tower Sheikh Tayed Road #3 Dubai, U.A.E., P.O. Box 16048; <i>and</i> BC2-414, RAK Free Trade Zone P.O. Box 16048 Ras Al Khaimah, U.A.E.; <i>and</i> G1/RAK Free Trade Zone RAK - U.A.E.; <i>and</i> G-17 Sheikh Tayed Road #3 Ras Al Khaimah Free Trade Zone, Dubai, U.A.E.; <i>and</i> P.O. Box 10559 Ras Al Khaimah, U.A.E.; <i>and</i> P.O. Box 25344 Bur Dubai, Dubai, U.A.E.; <i>and</i> Suite 608 Atrium Center, Bank St., Bur Dubai, Dubai, U.A.E., P.O. Box 16048; <i>and</i> Suite 706 Atrium Center Bank Street, Bur Dubai, Dubai U.A.E. 3 (See alternate address under China).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 14958, 3/21/16. 85 FR 83769, 12/23/20.
	Source Com, Sharjah Airport, SAIF Zone P6 Area 191, Sharjah, U.A.E.; <i>and</i> P.O. Box 120291, Sharjah, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 32445, 6/5/14.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Stealth Telecom FZC, P.O. Box 7755, Sharjah, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	83 FR 3580, 1/26/18.
	Super Alloys, No. 101 Marwan Ahmed Ali Building, Port Saeed Road, P.O. Box 183799, Dubai, U.A.E.; <i>and</i> No. 104b Sh Maryam Palace, Deira, Dubai U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	84 FR 40241, 8/14/19.
	Syed Amir Ahmed Najfi, Sabkha Street, Shop No. 8, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 37633, 6/28/11.
	Taha Mansur, a.k.a., the following one alias: -Taha Mansour.  P.O. Box 389, Dubai, U.A.E.; <i>and</i> Al Quoz Warehouse, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 32445, 6/5/14.
	Techcare Services FZ LLC, No. 1, Ground Floor Office 8/D, P.O. Box 312391, Al- Jazeera Al Hamra, UAE.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	83 FR 44824, 9/4/18.
	Teofila Logistics, Office 228, Al Aatar Shopping Mall, P.O. Box 115824, Karama, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 14958, 3/21/16.
	TGO General Trading LLC, a.k.a., the following one alias: -Three Green Orbit.  19th Floor Festival Tower, Festival City, P.O. Box 36605, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 14958, 3/21/16.
	Thrust Aviation FZE, 17c-F3 PO Box 5406 Fujairah Free Zone, Fujairah U.A.E.; <i>and</i> PO Box 5232 Fujairah Free Zone, Fujairah U.A.E.; <i>and</i> Q4-168 PO 8318 Sharjah Free Zone, Sharjah, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	78 FR 75463 12/12/13.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Transworld Aviation, a.k.a., the following one alias: -Transworld Aviation FZE.  Jebel Ali Free Zone, PO Box 61002, Dubai, United Arab Emirates.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 59421, 9/22/20.
	T.V. Joe Ouseppachan, Office 228, Al Aatar Shopping Mall, P.O. Box 115824, Karama, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	81 FR 14958, 3/21/16.
	UEC (Pvt.) Ltd., P.O. Box 97, Abu Dhabi, UAE (See alternate addresses under Pakistan and Saudi Arabia).	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	83 FR 44824, 9/4/18.
	Waseem Jawad, Ras Al Khaimah Free Trade Zone (RAKFTZ), U.A.E.; <i>and</i> P.O. Box: 25123, Dubai U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 78148, 12/16/11.
	Wave Tech Computers, Industrial Area 11, 28 <sup>th</sup> St, Wave Tech Bldg, Sharjah, U.A.E.; <i>and</i> P.O. Box 3421, Sharjah, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 32445, 6/5/14.
	Wave Tech Group, Business Bay, Emirates National Tower, Churchill Bldg, Office 209, Dubai, U.A.E.; <i>and</i> P.O. Box 30686, Dubai, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	79 FR 32445, 6/5/14.
	Wellmar Technology FZE, Office B1-307F, Ajman Free Zone, Ajman, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 14796, 03/16/20.
	Zurmat General Trading, Office No. 205, Platinum Business Center, Baghdad Street, Al-Nahda 2, Al-Qusais, Dubai, U.A.E.; <i>and</i> P.O. Box No. 171452, Dubai, U.A.E.; <i>and</i> 1 <sup>st</sup> Street, Industrial Area 4 <sup>th</sup> , Sharjah, U.A.E. (Behind the Toyota Showroom), <i>and</i> P.O. Box 35470, Sharjah, U.A.E.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	77 FR 25057, 4/27/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
<b>UNITED KINGDOM</b>	A.P. Finance Limited, 38, Princes Court - 88 Brompton Road, Knightsbridge, London, SW3 1ES, United Kingdom; <i>and</i> Enterprise House, 113/115 George Lane, London, E18 1AB, United Kingdom.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 50410, 8/15/11.
	Anatolii Pysarenko, 38, Princes Court - 88 Brompton Road Knightsbridge, London, SW3 1ES, United Kingdom; <i>and</i> Enterprise House, 113/115 George Lane, London, E18 1AB, United Kingdom.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 50410, 8/15/11.
	Aviation Network Associates, a.k.a., the following one alias: -Aviana.  24 Chiswell Street, 3rd Floor, London, United Kingdom EC1Y 4YX.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 59421, 9/22/20.
	Brian Douglas Woodford (See alternate address under Singapore).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 74001, 12/5/08.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Centre for Integrated Photonics Ltd., B55 Adastral Park, Pheonix House, Martlesham Heath, Ipswich, IP5 3RE United Kingdom.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 43495, 8/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	Chas Newport, 24 Chiswell Street, 3rd Floor, London, United Kingdom EC1Y 4YX.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 59421, 9/22/20.
	Cloudminds Inc., C/O Maples Corporate Services Limited Uglan House, South Church Street, George Town, Grand Cayman KY1-1104, Cayman Islands.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 34497, 6/5/20.
	Daniel Basden, Aviation 3 Trebeck Street, Mayfair, London, United Kingdom W1J7 LS.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 59421, 9/22/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Dart Aviation, a.k.a., the following four aliases:            -Dart Aviation Technics;            -Dart Aviation Marlbrine S.A.R.L.;            -MBP Trading Ltd.; <i>and</i>            -SARL IEAS.</p> <p>Unit 7 Minton Distribution Park, London Road, Amesbury SP4 7RT Wiltshire, London, United Kingdom; <i>and</i> Martlet House E1, Yeoman Gate Yeoman Way Worthing West Sussex BN13 3QZ. (See alternate addresses under France, Iran and Senegal).</p>	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	84 FR 61541, 11/13/19. 85 FR 14796, 03/16/20.
	<p>Evans Meridians Ltd.,             Drake Chambers, 1<sup>st</sup> Floor Yamraj Building, PO Box 3321, Road Town, Tortola, British Virgin Islands.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	83 FR 44824, 9/4/18.
	Farshid Gillardian, a.k.a., Isaac Gill, Isaac Gillardian, London, United Kingdom.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 74001, 12/5/08.
	Fentex Properties LTD., Tortola, British Virgin Islands.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 80646, 12/28/15.
	Flamar Shipping Ltd, P.O. Box 3321, Road Town, Tortola, British Virgin Islands.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Graham Avery, Aviation 3 Trebeck Street, Mayfair, London, United Kingdom W1J7 LS.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 59421, 9/22/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Huawei Global Finance (UK) Limited, Great Britain.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	Huawei Technologies R&D UK, a.k.a., the following two aliases, -Huawei Research & Development (UK) Ltd; <i>and</i> -Huawei Technologies Research & Development (UK)).  Former Spicers Site Sawston Bypass Sawston Cambridge Cambridgeshire CB22 3JG, England; <i>and</i> 302 Cambridge Science Park, Milton Road, Cambridge, CB4 0WG, England; <i>and</i> Phoenix House (B55) Adastral Park, Martlesham Heath, Ipswich, Suffolk. IP5 3RE.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	85 FR 51603, 8/20/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Huawei Technologies (UK) Co., Ltd., a.k.a., the following one alias: -Huawei Software Technologies Co. Ltd.  300 South Oak Way, Green Park, Reading, RG2 6UF; and 6 Mitre Passage, SE 10 0ER, United Kingdom.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 43495, 8/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	IKCO Finance 6 Lothbury, London, England, EC2R 7HH.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	77 FR 24590, 4/25/12.
	Latebrook Trading Ltd, Drake Chambers, Road Town, Tortola, British Virgin Islands.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	LTS Holding Limited (f.k.a. IPP-International Petroleum Products Ltd.), Tortola, British Virgin Islands. (See alternate address under Switzerland).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 80646, 12/28/15.
	MCES, London, United Kingdom.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	73 FR 74001, 12/5/08.
	Myra Gkizi, 38, Princes Court - 88 Brompton Road, Knightsbridge, London, SW3 1ES, United Kingdom.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 50410, 8/15/11.
	Nelford United Corp, P.O. Box 3321, Road Town, Tortola, British Virgin Islands.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	<p>Nicolas Kaiga, a.k.a., the following one alias: -Nicholas Kaiga.</p> <p>Flat #6, Philibeach Gardens, Kensington Chelsea, London, United Kingdom. (See alternate addresses under Belgium and Netherlands).</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	84 FR 40241, 8/14/19.
	<p>Niki Panteli Kyriakou, 38, Princes Court - 88 Brompton Road, Knightsbridge, London, SW3 1ES, United Kingdom (See alternate address under Cyprus).</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	76 FR 50410, 8/15/11.
	<p>Oystercredit Ltd Ogb, OMC Chambers, Wickhams Cay 1, Road Town, Tortola, British Virgin Islands.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	<p>PremiAir Aerospace, a.k.a., the following one alias: -Aviation International.</p> <p>Aviation 3 Trebeck Street, Mayfair, London, United Kingdom W1J7 LS; <i>and</i> Station Cottage, The Street, Nacton, Ipswich, Suffolk, United Kingdom, IP10 0HR.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	85 FR 59421 9/22/20.
	<p>Profin Estates, Inc., Palm Chambers 5, Suite 120, The Lake Building, Wickhams Cay 1, P.O. Box 3175, Road Town, Tortola, British Virgin Islands.</p>	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Proven Glory, British Virgin Islands	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	Proven Honour, British Virgin Islands.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	Qihoo 360 Technology Co. Ltd., P.O. Box 309 George Town; <i>and</i> C/O Maples Corporate Services Limited Uglan House, South Church Street, George Town, Grand Cayman KY1-1104, Cayman Islands.	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	85 FR 34497, 6/5/20.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
	Sergei (Sergi) Ivanovich Tomchani, a.k.a., Sergey Ivanovich Tomchani, 38, Princes Court – 88 Brompton Road, Knightsbridge, London, SW3 1ES, United Kingdom; <i>and</i> Enterprise House 113/115 George Lane, London, E18 1AB, United Kingdom (See alternate addresses under Greece and Ukraine).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	76 FR 50410, 8/15/11.
	Southport Management Services Limited, De Castro Street 24, Akara Building, Wickhams Cay 1, Road Town, Tortola, Virgin Islands, British (See also address under Cyprus).	For all items subject to the EAR. (See §744.11 of the EAR).	Presumption of denial.	80 FR 52968, 9/2/15.
	Unimont S.A., Drake Chambers, P.O. Box 3321, Road Town, Tortola, British Virgin Islands.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.
	Veteran Avia LLC, a.k.a., the following one alias: -Veteran Airline.  1 Beckett Place, South Hampshire, London, U.K. (See also addresses under Armenia, Greece, and Pakistan).	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	79 FR 56003, 9/18/14. 81 FR 8829, 2/23/16, 82 FR 2887, 1/10/17.
	Voltero Alliance LLP, 45-51 Newhall Street 330, Birmingham, West Midlands, B3 3RB, United Kingdom.	For all items subject to the EAR. (See §744.11 of the EAR.)	Presumption of denial.	77 FR 61256, 10/9/12.

COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
VIETNAM	Huawei Technologies (Vietnam) Company Limited, Hanoi, Vietnam.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.
	Huawei Technology Co. Ltd., Hanoi, Vietnam.	For all items subject to the EAR, see §§ 736.2(b)(3)(vi) <sup>1</sup> , and 744.11 of the EAR, EXCEPT <sup>2</sup> for technology subject to the EAR that is designated as EAR99, or controlled on the Commerce Control List for anti-terrorism reasons only, when released to members of a “standards organization” (see §772.1) for the purpose of contributing to the revision or development of a “standard” (see §772.1).	Presumption of denial.	84 FR 22963, 5/21/19. 85 FR 29853, 5/19/20. 85 FR 36720, 6/18/20. 85 FR 51603, 8/20/20.

<sup>1</sup> **Foreign-produced direct product items involving footnote 1 designated entities.** You may not reexport, export from abroad, or transfer (in-country) without a license or license exception any foreign-produced item specified in paragraph (a) or (b) of this footnote when there is “knowledge” that:

(1) The foreign-produced item will be incorporated into, or will be used in the “production” or “development” of any “part,” “component,” or “equipment” produced, purchased, or ordered by any entity with a footnote 1 designation in the license requirement column of this supplement; or

(2) Any entity with a footnote 1 designation in the license requirement column of this supplement is a party to any transaction involving the foreign-produced item, *e.g.*, as a “purchaser,” “intermediate consignee,” “ultimate consignee,” or “end-user.”

*Note to introductory paragraph of footnote 1: Sophistication and capabilities of technology in items is a factor in license application review; license applications for foreign-produced items controlled by this footnote that are capable of supporting the “development” or “production” of telecom systems, equipment and devices at only below the 5G level (e.g., 4G, 3G, etc.) will be reviewed on a case-by-case basis.*

(a) **Direct product of “technology” or “software” subject to the EAR and specified in certain Category 3, 4 or 5 ECCNs.** The foreign-produced item is a direct product of “technology” or “software” subject to the EAR and specified in Export Control Classification Number (ECCN) 3D001, 3D991, 3E001, 3E002, 3E003, 3E991, 4D001, 4D993, 4D994, 4E001, 4E992, 4E993, 5D001, 5D991, 5E001, or 5E991 of the Commerce Control List (CCL) in supplement no. 1 to part 774 of the EAR.

(b) **Direct product of a plant or major component of a plant.** The foreign-produced item is produced by any plant or major component of a plant that is located outside the United States, when the plant or major component of a plant, whether made in the U.S. or a foreign country, itself is a direct product of U.S.-origin “technology” or “software” subject to the EAR that is specified in ECCN 3D001, 3D991, 3E001, 3E002, 3E003, 3E991, 4D001, 4D993, 4D994, 4E001, 4E992, 4E993, 5D001, 5D991, 5E001, or 5E991 of the CCL.

**Notes to paragraph (b) of footnote 1:**

(1) *A major component of a plant located outside the United States means equipment that is essential to the “production” of an item, including testing equipment.*

(2) *A foreign-produced item includes any foreign-produced wafer whether finished or unfinished.*

<sup>2</sup> **Cybersecurity research and vulnerability disclosure.** The following exports, reexports, and transfers (in-country) to Huawei Technologies Co., Ltd. (Huawei) and its non-U.S. affiliates on the Entity List for cybersecurity research and vulnerability disclosure subject to

other provisions of the EAR are excluded from the Entity List license requirements: when the disclosure to Huawei and/or to its listed non-U.S. affiliates is limited to information regarding security vulnerabilities in items owned, possessed, or controlled by Huawei or any of its non-U.S. affiliates when related to the process of providing ongoing security research critical to maintaining the integrity and reliability of existing and currently ‘fully operational network’ and equipment. A ‘fully operational network’ refers to a ‘third party’ network providing services to the ‘third party’s’ customers. The term ‘third party’ refers to a party that is not Huawei, one of its listed non-U.S. affiliates, or the exporter, reexporter, or transferor, but rather an organization such as a telecommunications service provider.

**SUPPLEMENT NO. 5 TO PART 744 - PROCEDURES FOR END-USER REVIEW COMMITTEE ENTITY LIST AND 'MILITARY END USER' (MEU) LIST DECISIONS**

The End-User Review Committee (ERC), composed of representatives of the Departments of Commerce, State, Defense, Energy and, where appropriate, the Treasury, will make all decisions to make additions to, removals from or changes to the Entity List and the 'Military End User' (MEU) List. The ERC will be chaired by the Department of Commerce and will make all decisions to add an entry to the Entity List and MEU List by majority vote and all decisions to remove or modify an entry by unanimous vote.

When determining to add an entity to the Entity List or MEU List or to modify an existing entry, the ERC will also specify the section or sections of the EAR that provide the basis for that determination. All additions and modifications to the MEU List are done pursuant to § 744.21(b). The license requirements, the license application review policy, or the availability of license exceptions for entities on the MEU List are specified in § 744.21 under paragraphs (b) to (e). In addition, for the Entity List if the section or sections that form the basis for an addition or modification do not specify the license requirements, the license application review policy, or the availability of license exceptions, the ERC will specify the license requirements, the license application review policy and which license exceptions (if any) will be available for shipments to that entity.

Any agency that participates in the ERC may make a proposal for an addition to, modification of, or removal of an entry from the Entity List or MEU List by submitting that proposal to the chairperson.

The ERC will vote on each proposal no later than 30 days after the chairperson first circulates it to all member agencies unless the ERC unanimously agrees to postpone the vote. If a member agency is not satisfied with the outcome of the vote of the ERC that agency may escalate the matter to the Advisory Committee on Export Policy (ACEP). A member agency that is not satisfied with the decision of the ACEP may escalate the matter to the Export Administration Review Board (EARB). An agency that is not satisfied with the decision of the EARB may escalate the matter to the President.

The composition of the ACEP and EARB as well as the procedures and time frames shall be the same as those specified in Executive Order 12981 as amended by Executive Orders 13020, 13026 and 13117 for license applications. If at any stage, a decision by majority vote is not obtained by the prescribed deadline the matter shall be raised to the next level.

A final decision by the ERC (or the ACEP or EARB or the President, as may be applicable in a particular case) to make an addition to, modification of, or removal of an entry from the Entity List or MEU List shall operate as clearance by all member agencies to publish the addition, modification or removal as an amendment to the Entity List or MEU List even if, in the case of a decision by the ERC to add an entry or any decision by the ACEP or EARB, such decision is not unanimous. Such amendments will not be further reviewed through the regular Export Administration Regulations interagency review process.

A proposal by the ERC to make any change to the EAR other than an addition to, modification of, or removal of an entry from the Entity List or MEU List shall operate as a recommendation and shall not be treated as interagency clearance of an EAR amendment. The chairperson of the ERC will be responsible for circulating to all member agencies proposals submitted to him or her by any member agency. The chairperson will be responsible for serving as secretary to the ACEP and EARB for all review of ERC matters. The chairperson will communicate all final decisions that require Entity List or MEU List amendments, to the Bureau of Industry and Security which shall be responsible for drafting the necessary

changes to the Entity List and MEU List. If the ERC decides in a particular case that a party should be informed individually instead of by EAR amendment the chairperson will be responsible for preparing the “is informed” letter for the signature of the Deputy Assistant Secretary for Export Administration.

A listed entity may present a request to remove or modify its Entity List or the MEU List entry along with supporting information to the chairman at Room 3886, U.S. Department of Commerce, 14<sup>th</sup> Street and Pennsylvania Avenue, NW, Washington, DC 20230. The chairperson shall refer all such requests and supporting information to all member agencies. The member agencies will review and vote on all such requests. The time frames, procedures and right of escalation by a member agency that is dissatisfied with the results that apply to proposals made by a member agency shall apply to these requests. The decision of the ERC (or the ACEP or EARB or the President, as may be applicable in a particular case) shall be the final agency decision on the request and shall not be appealable under part 756 of the EAR. The chairperson will prepare the response to the party who made the request. The response will state the decision on the request and the fact that the response is the final agency decision on the request. The response will be signed by the Deputy Assistant Secretary for Export Administration.

**The End-User Review Committee will conduct regular reviews of the Entity List and MEU List for the purpose of determining whether any listed entities should be removed or modified.** The review will include analysis of whether the criteria for listing the entity are still applicable and research to determine whether the name(s) and address(es) of each entity are accurate and complete and whether any affiliates of each listed entity should be added or removed.

**SUPPLEMENT NO. 6 TO PART 744 – UNVERIFIED LIST**

Exports, reexports, and transfers (in-country) involving parties to the transaction who are listed in this supplement are subject to the restrictions outlined in § 744.15 of the EAR.

<b>COUNTRY</b>	<b>LISTED PERSON AND ADDRESS</b>	<b>FEDERAL REGISTER CITATION AND DATE OF PUBLICATION</b>
<b>ARMENIA</b>	Atlas Sanatgaran, Komitas 26/114, Yerevan, Armenia	85 FR 64014, 10/9/2020.
	Iranian & Armenian, Komitas 26/114, Yerevan, Armenia	85 FR 64014, 10/9/2020.
	Piricas Trading Company, No. 20 Heratsi 2A, Yerevan, Armenia	85 FR 64014, 10/9/2020.
<b>AZERBAIJAN</b>	Caspian Oil Montaj Office 39, Block B 30 Kaverochkin Street Baku, Azerbaijan	82 FR 16732, 04/06/17.
<b>CANADA</b>	Laval Electronics, 3073 Rue Edmond-Rostand, Laval, QC H7P, Canada	83 FR 22844, 05/17/18.
	Rizma, Inc. 1403-8 McKee Avenue Toronto, Ontario M2N 7E5 Canada	80 FR 60532, 10/07/15.
	Services GP Tek a.k.a. Nouvelle Option  1305 Rue Pise Brossard, QC J4W 2P7, Canada; <i>and</i>  203-760 Rue Gal Montreal, QC H4G 2P7, Canada; <i>and</i>  6271 Rue Beaulieu Montreal, QC, H4E 3E9, Canada	83 FR 22844, 05/17/18.
<b>CHINA</b>	Able Supply Chain Limited, Rm 511, 5/F, Corporation Park, 1 On Lai Street, Sha Tin, New Territories, Hong Kong; and Rm 605, 6/F,	84 FR 14610, April 11, 2019.

	Corporation Park, 1 On Lai Street, Sha Tin, New Territories, Hong Kong; and Unit C, 9/F, Winning House, No. 72-76 Wing Lok Street, Sheung Wan, Hong Kong	
	Anhui Institute of Metrology No. 13, Yanan Road, Baohe Industrial Development District Hefei, China 230051	84 FR 14608, 04/11/19.
	ARI International, Ltd. Room 1208, Block B Jiangsu Building, No. 6013 Yitian Road Futian District, Shenzhen, China	82 FR 16732, 04/06/17.
	AW Industrial Ltd., Room A, 3/F Hung Fook Industrial Building, No 60 Hung To Road, Kwun Tong, Kowloon, Hong Kong; <i>and</i> D1 6/F Kras Asia Industrial Building, No 79 Hung To Road, Kwun Tong, Hong Kong	85 FR 83788, 12/23/20.
	Boqur International Ltd., Room 1203, 12/F, International Trade Centre, 11-19 Sha Tsui Road, Tsuen Wan, New Territories, Hong Kong; <i>and</i> Room 19C, Lockhart Centre, 301-307 Lockhart Road, Wan Chai, Hong Kong	81 FR 40171, June 21, 2016.
	Boson Technology Co., Limited., Unit 22, 10/F, Nan Fung Commercial Centre, 19 Lam Lok Street, Kowloon, Kwun Tong, Hong Kong; <i>and</i> Room 1907, 19/F, Lee Garden One, 33 Hysan Avenue, Causeway Bay, Hong Kong; <i>and</i> Room 1501 (462), 15/F., SPA Centre, 53-55 Lockhart Road, Wan Chai, Hong Kong	84 FR 14610, April 11, 2019.
	Brilliance Technology Ltd, a.k.a., Brilliance Technology Group, Flat A, 11/F, Adolfo Mansion, 114-116 Austin Road, Tsim Sha Tsui, Yau Tsim Mong, Hong Kong; and Rm. 1203, 12/F, Hip Kwan Commercial Bldg., 38 Pitt Street, Yau Ma Tei, Yau Tsim Mong, Hong Kong	79 FR 34220, June 16, 2014; 82 FR 16732, April 6, 2017.
	Carry Goldstar Ltd., 15A, 15/F, Cheuk Nang Plaza, 250 Hennessy Road, Wan Chai, Hong Kong	81 FR 40171, June 21, 2016.
	Center for High Pressure Science and Technology Advanced Research 1690 Cailun Rd, Bldg #6 Pudong, Shanghai, China 201203	84 FR 14608, 04/11/19.
	Central Right Investments Ltd., Room 1019, 10/F, 1 Hung To Road, Kwun Tong, Hong Kong	81 FR 40171, June 21, 2016.
	Changchun National Extreme Precision Optics Co Ltd No. 3608 Dong Nanhu Road Jilin Province, Changchun, China 130000	84 FR 14608, 04/11/19.

	Changhe Aircraft Industries Group No. 539, Chaoyang Road Jingdezhen City, Jiangxi Province, China	83 FR 22844, 05/17/18.
	Chengde Oscillator Electronic Technology Co. #17 Siheyuan Village, Pingquan Town Pingquan City, Hebei Province Chengde City, China 067506	84 FR 14608, 04/11/19.
	China National Plant Import/Export Co. Room 2135, Jingxin Building A No Dong San Huan North Road Beijing, China	79 FR 34220, 06/16/14.
	CST Source Industrial Co., Ltd., Rooms 5-15, 13/F, South Tower, World Finance Centre, Harbour City, 17 Canton Road, Tsim Sha Tsui, Kowloon, Hong Kong	81 FR 40171, June 21, 2016.
	Dandong Center for Food Control No. 31-1 Zhongyang Avenue Dandong, China	83 FR 22844, 05/17/18.
	Daystar Electric (HK) Ltd., Flat D, 19/F, Waylee Industrial Centre, 30-38 Tsuen King Circuit, Tsuen Wan, New Territories, Hong Kong; <i>and</i> 9/F Kam Chung Commercial Building, 19-21 Hennessy Road, Wanchai, Hong Kong	80 FR 4781, January 29, 2015.
	E-Chips Technology, Unit 4, 7/F, Bright Way Tower, No. 33 Mong Kok Road, Mong Kok, Kowloon, Hong Kong; <i>and</i> Flat 1205, 12/F, Tai Sang Bank Building, 130-132 Des Voeux Road Hong Kong	80 FR 4779, January 29, 2015; 80 FR 60532, October 7, 2015.
	Emax Technology Co. Ltd. HK, Room 19C, Lockhart Centre, 301-307 Lockhart Road, Wan Chai, Hong Kong; <i>and</i> Rm 2017, Lippo Centre Tower 2, 89 Queensway, Admiralty, Hong Kong	85 FR 83788, 12/23/20.
	Fortune International Trading, Room 1701(017) 17/F Henan Bldg, No. 90 Jaffee Rd, Wanchai, Hong Kong; <i>and</i> Room 1907, 19/F, Lee Garden One, 33 Hysan Avenue, Causeway Bay, Hong Kong	85 FR 83788, 12/23/20.
	Fussion Electronics Co., Ltd., 11/F, International Trade Centre, 11-19 Sha Tsui Road, Tsuen Wan, New Territories, Hong Kong	81 FR 40171, June 21, 2016.
	Globe Communication (HK) Ltd., Flat 01A2, 10/F, Carnival Commercial Building, 18 Java Road, North Point, Hong Kong; <i>and</i> Flat C, 9/F, Winning House, 72- 74 Wing Lok Street, Sheung Wan, Hong Kong	81 FR 40171, June 21, 2016.
	Guangdong University of Technology No 100 Waihuan Xi Road Guangzhou Higher Education Mega Ctr Guangzhou, China 510006	84 FR 14608, 04/11/19.

	Gucheng Xian Fengxin Titanium Alloy Xiyuan Industrial District Gucheng County, Hebei Province Hengshui City, China 253800	84 FR 14608, 04/11/19.
	Haofeng Industrial Co., Ltd., Room 1101, 11/F, San Toi Building, 139 Connaught Road, Central, Hong Kong	81 FR 40171, June 21, 2016.
	Hefei Institutes of Physical Science, Chinese Academy of Sciences No. 350, Shushanhu Rd Shushan District Hefei City, China 230031	84 FR 14608, 04/11/19.
	HK Hengyu Storage Logistics Limited, Rm 2309, 23/F, Ho King Commercial Centre, 2-16 Fayuen St, Mongkok, Kwun Tong, Hong Kong; <i>and</i> Flat/Rm B10, 9/F, Mai Hing Factory Building, 16-18 Shing Yip Street, Kowloon, Kwun Tong, Hong Kong; <i>and</i> Flat/Rm B11, 12/F Mai Hing Factory Building, 16-18 Shing Yip Street, Kowloon, Kwun Tong, Hong Kong	84 FR 14610, April 11, 2019.
	Hong Kong Engy Technology Co., a.k.a. Hong Kong Energy Technology Co., a.k.a. SZ Engy Technology Co., a.k.a. SZ Energy Technology Co., Workshop 15, 2/F, Cardinal Industrial Building, 17 On Lok Mun Street, Fanling, New Territories, Hong Kong	81 FR 40171, June 21, 2016.
	Hong Kong Haimao Info-Tec Development Co Ltd, Rm 1013B, Well Fung Ind. Center, Ta Chuen Ping Street, Kwai Chung, Hong Kong	79 FR 34220, June 16, 2014.
	Hongbo Industrial Technology, Unit 3, 9/F, Shing Yip Industrial Building, 19-21 Shing Yip Street, Kwun Tong, Kowloon, Hong Kong; <i>and</i> Unit 04, 7/F, Bright Way Tower, No. 33, Mong Kok Road, Kowloon, Hong Kong	80 FR 4781, January 29, 2015.
	Huaduan (Anhui) Machine Tool Manufacturer Co. Chaoyang Rd #888, Dongguan Development Si Town, Anhui Province Suzhou, China	84 FR 14608, 04/11/19.
	Jiangsu HNHB Equipment Co., Ltd. No. 9, Xiangtou West Road Yixing City, Jiangsu Province, China	82 FR 16732, 04/06/17.
	Jiangxi Hongdu Aviation Ind. Group The Nanchang National High & New Technology Development Zone Jiangxi Province, Yaohu Nanchang, China	83 FR 22844, 05/17/18.
	Jin Yan Technology & Development Co., Ltd., Workshop 11, 8/F, Block A, Delya Industrial Centre, 7 Shek Pai Tau Road, Tuen Mun, New Territories, Hong Kong; <i>and</i> Room 1, Fook Cheung Building, 42 Ka Shin Street, Tai Kok Tsui, Kowloon, Hong Kong	81 FR 40171, June 21, 2016.
	Kenwoo International Trade Company, 1907, 19/F, Lee Garden One, 33 Hysan Avenue,	85 FR 83788, 12/23/20.

	Causeway Bay, Hong Kong; <i>and</i> Room 517, New City Centre, 2 Lei Yue Mun Road, Kwun Tong, Kowloon, Hong Kong; <i>and</i> Flat H, 6/F, Block 2, Golden Dragon Industrial Centre, Tai Lin Pai Road, Kwai Chung, Hong Kong	
	KingV Ltd., a.k.a. Jinnway Data Ltd., Room 31, 9/F, Shing Yip Industrial Building, 19-21 Shing Yip Street, Kwun Tong, Kowloon, Hong Kong; <i>and</i> 11/F, Front Block, Hang Lok Building, 130 Wing Lok Street, Sheung Wan, Hong Kong	81 FR 40171, June 21, 2016.
	Lianqi (HK) Electronics Co Ltd, Unit N, 3/F, Hopewell House, 175 Hip Wo Street, KwunTong, Kowloon, Hong Kong	79 FR 34220, June 16, 2014.
	Ling Ao Electronic Technology Co. Ltd, a.k.a. Voyage Technology (HK) Co., Ltd., a.k.a. Xuan Qi Technology Co. Ltd, Room 17, 7/F, Metro Centre Phase 1, No. 32 Lam Hing St., Kowloon Bay, Kwun Tong, Hong Kong; <i>and</i> 15B, 15/F, Cheuk Nang Plaza, 250 Hennessy Road, Wan Chai, Hong Kong; <i>and</i> Flat C, 11/F, Block No. 2, Camelpaint Bldg., 62 Hoi Yuen Street, Kwun Tong, Kowloon, Hong Kong; <i>and</i> Room C1-D, 6/F, Wing Hing Industrial Building, 14 Hing Yip Street, Kwun Tong, Kowloon, Hong Kong; <i>and</i> Flat/Rm. A30, 9/F Silvercorp International Tower, 707-713 Nathan Road, Mongkok, Kowloon, Hong Kong; <i>and</i> Room 912A, 9/F. Witty Commercial Building, 1A-1L Tung Choi Street, Mongkok, Kowloon, Hong Kong; <i>and</i> Unit A, 7/F, King Yip Factory Bldg., 59 King Yip Street, Kwun Tong, Kowloon, Hong Kong; <i>and</i> Unit D, 16/F, One Capital Place, 18 Luard Road, Wan Chai, Hong Kong; <i>and</i> Unit B213, 1/F, New East Sun Industrial Bldg., 18 Shing Yip Street, Kowloon, Kwun Tong, Hong Kong	80 FR 4779, January 29, 2015; 80 FR 60532, October 7, 2015; 82 FR 16733, April 6, 2017; 83 FR 22845, May 17, 2018; 84 FR 14610, April 11, 2019.
	Lion Chip Electronics Ltd, Unit N, 3/F, Hopewell House, 175 Hip Wo Street, KwunTong, Kowloon, Hong Kong	79 FR 34220, June 16, 2014.
	Luoyang Weimi Optics No. 18 Lingbo Road New & High Tech Industry Development Zone Luoyang, China 471000	84 FR 14608, 04/11/19.
	Maipu Communication Technology Co Ltd, 7/F Kerry Warehouse, 36-42 Shan Mei St, Shatin, Hong Kong	79 FR 34220, June 16, 2014.
	Master-Uni Industry Co., Ltd., Room 602, 6/F, 168 Queens Road, Central, Hong Kong	81 FR 40171, June 21, 2016.
	Nanchang University No. 999 Xuefu Avenue Honggutan New District Nanchang, 330031, China	83 FR 22844, 05/17/18.

	Nano Tech International Co Ltd, Unit 5, 27/F, Richmond Commercial Building, 109 Argyle Street, Mongkok, Kowloon, Hong Kong	79 FR 34220, June 16, 2014.
	Narpel Technology Co., Limited, Unit A, 6/F, Yip Fat Factory Building, Phase 1, No 77 Hoi Yuen Road, Kwun Tong, Kowloon, Hong Kong; and Room 4C, 8/F, Sunbeam Centre, 27 Shing Yip Street, Kwun Tong, Kowloon, Hong Kong; and Room 1905, Nam Wo Hong Building, 148 Wing Lok Street, Sheung Wan, Hong Kong; and 15B, 15/F, Cheuk Nang Plaza, 250 Hennessy Road, Wan Chai, Hong Kong	79 FR 34217, June 16, 2014; 80 FR 4779 January 29, 2015; 80 FR 60532, October 7, 2015.
	Phonai Electronics Ltd., 51F, Core Building 11, New Territories, Hong Kong	81 FR 40171, June 21, 2016.
	Powersun Electronics, Flat/Rm 502D, Hang Pont Commercial Building, 31 Tonkin Street, Cheung Sha Wan, Kowloon, Hong Kong; and G/F and G/M, Winner Godown Building, 1-9 Sha Tsui Road, Tsuen Wan, New Territories, Hong Kong	79 FR 34217, June 16, 2014; 80 FR 4781, January 29, 2015.
	Rising Logistics Company Limited, Workshop 12, 13/F, Block B, New Trade Plaza, No. 6, On Ping Street, Sha Tin, New Territories, Hong Kong; and Unit 208, 2/F, Block B, Hoi Luen Industrial Centre, 55 Hoi Yuen Road, Kowloon, Kwun Tong, Hong Kong; and Unit 1105, Hua Qin International Building, 340 Queens Road, Central, Hong Kong Island, Hong Kong	84 FR 14610, April 11, 2019.
	Scitech International Express Co. Limited, Workshop 11, 8/F, Block A, Delya Industrial Centre, 7 Shek Pai Tau Road, Tuen Mun, New Territories, Hong Kong	81 FR 40171, June 21, 2016.
	Selective Components Ltd., Room 8, 10/F, International Trade Centre, 11-19 Sha Tsui Road, Tsuen Wan, New Territories, Hong Kong	81 FR 40171, June 21, 2016.
	Shaanxi Hongyuan Aviation Forging Building Hongyuan Street Luqiao Town Shaanxi, China 713801	84 FR 14608, 04/11/19.
	Shanghai Institute of Applied Physics, Chinese Academy of Sciences 239 Zhangheng Road, Pudong District Shanghai, China	84 FR 14608, 04/11/19.
	Shanxi Hemu Industrial Co., Ltd. Yongchang Rd Xianyang HiTech Industries Development Zone Shanxi, China	83 FR 22844, 05/17/18.
	Shenzhen Winthought Tech Room 223, Zhong Xing Industrial City Chuangye Road Nanshan District, Shenzhen, China	82 FR 16732, 04/06/17.

	Sino Superconductor Technology Company a.k.a. Zongyi Superconductor Technologies Co. Ltd., a.k.a. SinoHTS 505 Nantian Bldg, 10, Xinxu Rd Shangdi, Haidian, Beijing, China	83 FR 22844, 05/17/18.
	Suke Logistics Ltd., Flat 6, 20/F, Mega Trade Centre, 1-9 Mei Wan Street, Tsuen Wan, New Territories, Hong Kong	80 FR 4781, January 29, 2015.
	Sun Wing Ltd., Room 31, 9/F, Shing Yip Industrial Building, 19-21 Shing Yip Street, Kwun Tong, Kowloon, Hong Kong	81 FR 40171, June 21, 2016.
	Sun Yat-Sen University, No. 135 Xingang, Xi Road, Guangzhou, China	85 FR 64014, 10/9/2020.
	Sur-Link Technology (HK) Ltd., a.k.a. Sur-Link International (HK) Ltd., a.k.a. Surlink Group, Flat 6, 20/F, Mega Trade Centre, 1-9 Mei Wan Street, Tsuen Wan, New Territories, Hong Kong	81 FR 40171, June 21, 2016.
	Swelatel Technology Limited, Rm. 19C, Lockhart Ctr., 301-307 Lockhart Rd., Wan Chai, Hong Kong; <i>and</i> Rm. 2107, Lippo Centre Tower 2, 89 Queensway, Admiralty, Wan Chai, Hong Kong	84 FR 14610, April 11, 2019.
	Toptech Electronics Ltd., 15/F, Hong Kong and Macau Building, 156-157 Connaught Road, Central, Hong Kong	81 FR 40171, June 21, 2016.
	TRI Microsystems Rm 2806, Building A, Rongchao Yinglong Mansion No. 5 Longfu Road, Longchen Street, Longgang District, Shenzhen, China	84 FR 14608, 04/11/19.
	Universe Market Limited, Unit A, 17/F, Good Will Industrial Building, 36-44 Pak Tin Par Street, Tsuen Wan, New Territories, Hong Kong	84 FR 14610, April 11, 2019.
	Winthought Company Ltd., Unit E1, 3/F, Wing Tat Commercial Building, 121-125 Wing Lok Street, Sheung Wan, Hong Kong	81 FR 40171, June 21, 2016.
	Wuxi Beetech Inc. No. 58 4th Floor Feihong Road Nanhu, Wuxi, China	84 FR 14608, 04/11/19.
	Xiang Cheng Gao Trading (HK) Ltd., 1215 Lot, DD 125, Ha Tsuen Road, Ha Tsuen, Ping Shan, Yuen Long, New Territories, Hong Kong	85 FR 83788, 12/23/20.
	Xinjiang East Hope New Energy Company Ltd Xinjiang East Eco. Development Zone XinJiang, China	83 FR 22844, 05/17/18.
	Yashen (HK) Electronics, Flat R, 15/F, Phase 2, Goldfield Industrial Building, 144-150 Tai Lin Pai Road, Kai Chung, New Territories, Hong Kong; <i>and</i> Room N, 3/F, Mongkok Building, 97 Mongkok Road, Kowloon, Hong Kong	79 FR 34220, June 16, 2014.

	Yield Best International, 6/F, Block H, East Sun Industrial Centre, 16 Shing Yip Street, Kwun Tong, Kowloon, Hong Kong; <i>and</i> Unit J, 9/F, King Win Factory Building, 65-67 King Yip Street, Kwun Tong, Hong Kong	81 FR 40171, June 21, 2016.
	Yogone Electronics Co., Unit 602, 6/F, Silvercord Tower 2, 30 Canton Road, Tsim Sha Tsui, Kowloon, Hong Kong	80 FR 60532, October 7, 2015.
	ZDAS (HK) Company, G/F, 16 Kwan Tei North Tsuen Leung Yeuk Tau, Sha Tau Kok Road, Fanling, Hong Kong; <i>and</i> Room 1609, 16/F, Block B, Veristrong Industrial Center, 34-36 Au Pui Wan Street, FoTaan, Shatin, New Territories, Hong Kong	79 FR 34220, June 16, 2014.
	ZhongJie Electronics, G/F, 26 Pau Chung Street, Tokwawan, Kowloon, Hong Kong; <i>and</i> Rm 2309, 23/F, Ho King Comm Ctr, 2-16 Fayuen St., Mongkok, Kowloon, Hong Kong	79 FR 34220, June 16, 2014.
	Zhongsan Thincloud Optics Co. Ltd. 8 KA, Building A, No. 5 Kuxing Road Sanjiao Town, Zhongshan, China 528445	84 FR 14608, 04/11/19.
<b>CZECH REPUBLIC</b>	Bonitopto S.R.O. Vancurova 1084/10 Ostrov 363 01 Czech Republic; <i>and</i>  Jachymovska 178 Ostrov 363 01 Czech Republic	80 FR 60532, 10/07/15.
<b>ESTONIA</b>	Simms Marine Group OU Paavli Str. 5/2 Tallinn, Estonia, 10412	83 FR 22844, 05/17/18. 83 FR 26205, 06/06/18.
<b>FINLAND</b>	Aelcomp OY, Kurkisuontie 2B, Helsinki 00904 Finland; <i>and</i> Merisotilaankatu 2, Helsinki 00160 Finland	85 FR 64014, 10/9/2020.
	Intertranslog OY, Tupatallinkatu 3, Lappeenranta 53300 Finland; <i>and</i> Harapaisentie 55, Lappeenranta 53301 Finland	85 FR 64014, 10/9/2020.
<b>GEORGIA</b>	Spars Ltd. a.k.a. Spars Trading Ltd.  Room 1, House 11	80 FR 60532, 10/07/15.

	Nutsubdize 111 marker Tbilisi, Georgia, 0183	
<b>GERMANY</b>	Universal Logistics Systems GmbH Cargo City Sud, Building 577 Frankfurt Airport Frankfurt am Main Germany	85 FR 64014, 10/9/2020.
<b>INDIA</b>	Conduit Technologies Pvt., Ltd. Office 201, 2/F, Lunkad Sky Station Konark Naga, Mhada Colony Viman Nagar, Pune, India; <i>and</i>  Office UG21, East Court Phoenix Market City Viman Nagar, Pune, India	81 FR 40169, 06/21/16.
<b>LATVIA</b>	Alfa Photonics 21 Krisjana Valdemara Iela Riga, Latvia; <i>and</i>  151-11 Krisjana Valdemara Iela Riga, Latvia; <i>and</i>  52-66 Darza Iela Riga, Latvia; <i>and</i>  Nordic Technology Park 15/25 Jurkalnes Iela Riga, Latvia	81 FR 40169, 06/21/16.
<b>LEBANON</b>	Al Ghayth Trade and Transport 1st Floor, Bohsali Bldg., Beirut Port Street Beirut, Lebanon	82 FR 16733, 04/06/17.
<b>MALAYSIA</b>	Infomaya Tech Sdn Bhd Level 2, Enterprise 5 Technology Park Bukit Jalil 57000 Kuala Lumpur, Malaysia	84 FR 14608, 04/11/19.
	Premier Kiosk Global Supply Co., aka PKGS, aka Global Kiosk No. 5, 18th Floor, Plaza 138, Hotel Maya Jalan Ampang, Kuala Lumpur, Malaysia 50450	84 FR 14608, 04/11/19.

<b>PAKISTAN</b>	Andleeb Associates Sultan Complex Abid Majeed Road Rawalpindi, Pakistan	83 FR 22845, 05/17/18.
	ENGRO Polymer & Chemicals Limited, The Harbour Front, HC-3, Dolmen City, 16th Floor, Block-4, Scheme-5, Clifton, Karachi, Pakistan	85 FR 64014, 10/9/2020.
	Naina Exporters and Importers, H-96, Intelligence School Colony, M.T. Khan Road, Karachi, Pakistan	85 FR 64014, 10/9/2020.
	Seven Star Company, H-96 Intelligence School Colony, M.T. Khan Road, Karachi, Pakistan	85 FR 64014, 10/9/2020.
	T.M.A. International a.k.a. TMA International a.k.a. Tahir Asad Industries Pvt. Ltd. a.k.a. T.A. Industries Pvt. Ltd.  45-B, Ahmed Block New Garden Town, Lahore, Pakistan; <i>and</i>  417 Gulshan Block Iqbal Town, Lahore, Pakistan	80 FR 4781, 01/29/15.
<b>RUSSIA</b>	Alliance EG Ltd. Leninsky Prospect 139, Office 310 St. Petersburg 198216, Russia	83 FR 22845, 05/17/18.
	EFO Ltd. Politechnicheskaya Street 21 Saint Petersburg 192019, Russia; <i>and</i>  15A Novolitovskaya Str., Office 441 Saint Petersburg, Russia	83 FR 22845, 05/17/18.
	Intercom Ltd. Kalinina Street 13 Saint Petersburg 198099, Russia	83 FR 22845, 05/17/18.
	JSC Voentelcom Bolshaya Olenya Str. 15A Moscow, Russia	79 FR 34220, 06/16/14.
	Nasosy Ampika 3-ya Institutskaya St. Bld. 15 Moscow, Russia	79 FR 34220, 06/16/14.
	Nuclin LLC Serebryakova Proezd 14 Moscow, Russia	79 FR 34220, 06/16/14.

	Radiofizika OAO D.10. Ul. Geroev Panfilovtsev Moscow 125363, Russia	83 FR 22845, 05/17/18.
	FSUE Rosmorport Far Eastern Basin Branch Nizhneportovaya Street 3 Primorskiy Territory, Vladivostok 690003, Russia	83 FR 22845, 05/17/18.
	SDB IRE RAS 1 Vvedenskogo Square Fryazino, Russia	79 FR 34220, 06/16/14.
	Security 2 Business Academy a.k.a. S2BA a.k.a. Academy of Business Security  Deguninskaya Street 10 Moscow, Russia; <i>and</i>  Novoslobodskaya Str. 14/19 Moscow, Russia	79 FR 34220, 06/16/14.
	Tavrida Microelectronics Zelenaya Street 1 Dolgoprudnyy Moscow 141700, Russia	83 FR 22845, 05/17/18.
	VIP Technology Ltd. Bechtereva Street 3/2, Office 40 Saint Petersburg 192019, Russia	83 FR 22845, 05/17/18.
<b>SINGAPORE</b>	Dorado Network Pte. Ltd. 128 Joo Seng Road DP Computers Building 04-04 Singapore; <i>and</i>  629 Aljunied Road Cititech Industrial Building Singapore; <i>and</i>  512 Woodlands Drive 14 Singapore	81 FR 40169, 06/21/16.
<b>SWITZERLAND</b>	Light Range AG Stutzstrasse 13C Schindellegi, Switzerland; <i>and</i>  Lowenstrasse 20 Zurich, Switzerland; <i>and</i>  Via Delle Scuole 34E Figino, Switzerland	81 FR 40169, 06/21/16.

<b>TURKEY</b>	Fast Aviation, Yesilkoy MAH Ataturk, Cad. EGS Bloklari, B:2 No:2 D:1, Istanbul, Turkey	85 FR 64014, 10/9/2020.
	Metafor Lojistik, Ma. Istiklal Cad. Beyoglu, Istanbul, Turkey	85 FR 64014, 10/9/2020.
<b>UNITED ARAB EMIRATES</b>	Abu Trade LLC Lot Number 155 Al Zaroni Yard, Al Wasl Road, Dubai, UAE	81 FR 40169, 06/21/16.
	Aero King FZC, Flat #501, Al Masjid Bldg No 416, Al Nahda, Sharjah, UAE; <i>and</i> Al Khabaisa Area, Salahuddin Street, Deira, UAE; <i>and</i> B04-518 Business Center 03, RAKEZ Business Zone-FZ, RAK, UAE; <i>and</i> Room #518, Business Center 3, Business Park Nakheel, Ras Al Khaimah, UAE	85 FR 64014, 10/9/2020.
	Alsaroud General Trading a.k.a. Alsaroud Ground Trading Company a.k.a. Alsaroud General Trading LLC, Avenue 125  Street 2, Building 30/1 Industrial Area 17, Sharjah, UAE; <i>and</i>  P.O. Box 35939 Sharjah, UAE; <i>and</i>  204 Shaikha Hind Bint Saqr Alqasemi Building Near Etisalat Building Almareja Street Al Jubail, Sharjah, UAE	83 FR 22845, 05/17/18.
	Alsima Middle East General Trading 802 Whiteswan Building, near Fairmont Hotel Sheikh Zayed Road Dubai, UAE	81 FR 40169, 06/21/16.
	Blue Wing General Trading Damas Tower #506, Al Maktoum Road Dubai, UAE	82 FR 16733, 04/06/17.
	Doubair General Trading Co. LLC P.O. Box 30239 Dubai, UAE	79 FR 34220, 06/16/14.
	EBN AUF Trading PO Box 330073 Ras Al Khaimah, United Arab Emirates; <i>and</i>  PO Box 42558	84 FR 14608, 04/11/19.

	Ras Al Khaimah, United Arab Emirates	
	Elemental Lab, PO Box 172237, Dubai UAE; <i>and</i> Gargash Ctr near Babkha Sub, Gargashe 7 Flr Ofc Num 703, Dubai, UAE; <i>and</i> 701 Benyas Building, Benyas Square, Dubai, UAE; <i>and</i> 701, Baniyas Building, Baniyas Square, Dubai, UAE	85 FR 64014, 10/9/2020.
	Empire of East General Trading M110, Al Khaleej Center, Bur Dubai, Dubai, UAE; <i>and</i>  112 Al-Ain Center Al Mankhool Road, Bur Dubai, Dubai, UAE 34608; <i>and</i>  112 Al-Ain Center P.O. Box 112100 Bur Dubai, Dubai, UAE 34608; <i>and</i>  Office #1904, Al Mousa Tower 2 Sheikh Zayed Road Dubai, UAE	84 FR 14608, 04/11/19.
	Establishment Standard Lab FZE a.k.a. Standard Lab FZE  Ras Al Khaimah Free Trade Zone Business Park, Ras Al Khaimah, UAE; <i>and</i>  P.O. Box 17049 Ras Al Khaimah, UAE	81 FR 40169, 06/21/16.
	Golden Business FZE Warehouse #FZS1 AN08 Jebel Ali Free Zone Dubai, UAE; <i>and</i>  P.O. Box 263128 Dubai, UAE	79 FR 34220, 06/16/14.
	Gulf Modern Solutions Engineering Company No. 14, 35B Street Al Satwa Road Dubai, UAE	80 FR 60532, 10/07/15.
	Kassem IT Techno Park Office 135 JAFZA Building 22	84 FR 14608, 04/11/19.

	<p>P.O. Box 98166 Jebel Ali Free Zone Dubai, UAE; <i>and</i></p> <p>Warehouse UD2 Between Roundabout 7,8 Jebel Ali Free Zone Dubai, UAE; <i>and</i></p> <p>Roundabout 8 WA – 06 Jebel Ali Free Zone Dubai, UAE</p>	
	<p>Lavender General Trading, Plot# MO0706, Street N200, JAFZA North, Dubai, UAE; <i>and</i> 732C Street, Plot# MO0543A, Gate 5, JAFZA, Dubai, UAE; <i>and</i> Warehouse 9, Industrial Area 11, Sharjah, UAE; <i>and</i> Office No. 123, 1st Floor, Dubai Real Estate Bldg., Dubai Maritime City, Dubai, UAE</p>	85 FR 64014, 10/9/2020.
	<p>Marinatec Office 2008, Grosvenor Commercial Tower Sheikh Zayed Road Dubai, UAE; <i>and</i></p> <p>P.O. Box 42236 17A Radisson Plaza Deira, Dubai, UAE</p>	81 FR 40169, 06/21/16.
	<p>Masomi General Trading Unit No. B605, Baniyas Complex, Baniyas Square P.O. Box 39497 Dubai, UAE</p>	80 FR 60532, 10/07/15.
	<p>Middle East Oilfield Equipment 723 Sama Tower, 6/F, near Fairmont Hotel Sheikh Zayed Road P.O. Box 4404 Dubai, UAE; <i>and</i></p> <p>217 Twin Towers Baniyas Road P.O. Box 4404 Deira, Dubai, UAE; <i>and</i></p> <p>Flat 102, Mohammed Zainal Faraidooni Building Salahuddin Road Dubai, UAE</p>	81 FR 40169, 06/21/16.
	<p>Pacific Ocean Star General Trading, aka Pacific Ocean Marine Services</p>	84 FR 14608, 04/11/19.

	<p>Floor 12A/Office 04, Damac Executive Bay Tower B Al A'amal St., Business Bay PO Box 187128 Dubai, UAE; <i>and</i></p> <p>Office 707, Damac Executive Bay Tower B Al A'amal St., Business Bay PO Box 187128 Dubai, UAE</p>	
	Piricas Trading Company, No. 507 Al Mina Street, P.O. Box 181950, Dubai, UAE	85 FR 64014, 10/9/2020.
	Recaz Star General Trading LLC #307 Naser Lootah Building Khalid bin Waleed Road Dubai, UAE	80 FR 60532, 10/07/15.
	<p>Renat International General Trading Office #H241, Building #1G Ajman Free Zone Ajman, UAE; <i>and</i></p> <p>Building #H1, Behind China Mall Ajman Free Zone Area Ajman, UAE</p>	80 FR 60532, 10/07/15.
	<p>Rich Star General Trading LLC #203 The Atrium Centre Khalid bin Waleed Road Bur Dubai, Dubai, UAE; <i>and</i></p> <p>P.O. Box 181977 Dubai, UAE</p>	80 FR 4781, 01/29/15.
	<p>Rising Sun FZE, BC 1300147, Ajman Freezone, Ajman, UAE; <i>and</i></p> <p>G08, Block G1, Dubai Airport Free Zone Area (DAFZA), Dubai, UAE</p>	85 FR 64014, 10/9/2020.
	<p>Roudah Al Hayat General Trading FZE a.k.a. Rudha Al Hayat General Trading a.k.a. Rouda Al Hayat General Trading a.k.a. JSB Logistics,</p> <p>406 Al Rhakaimi Building Deira, Dubai, UAE; <i>and</i></p> <p>#3204 Aspect Tower D Sheikh Zayed Road Dubai, UAE; <i>and</i></p> <p>#1506 Aspect Tower D</p>	83 FR 22846, 05/17/18

	<p>Sheikh Zayed Road Dubai, UAE; <i>and</i></p> <p>901 Regal Tower Business Bay Dubai, UAE; <i>and</i></p> <p>402 Al Fahad Building Damascus Street Dubai, UAE</p>	
	<p>Sea Prince Logistics LLC, Plot# MO0706, Street N200, JAFZA North, Dubai, UAE; <i>and</i></p> <p>732C Street, Plot# MO0543A, Gate 5, JAFZA, Dubai, UAE; <i>and</i></p> <p>Warehouse 9, Industrial Area 11, Sharjah, UAE; <i>and</i></p> <p>Office No. 123, 1st Floor, Dubai Real Estate Bldg., Dubai Maritime City, Dubai, UAE</p>	85 FR 64014, 10/9/2020.
	<p>Tek Work General Trading 1902 Metropolis Business Tower P.O. Box 12865 Business Bay, Dubai, UAE</p>	81 FR 40169, 06/21/16.
	<p>TEM International FZC Dubai Silicon Oasis Headquarters Building, 4<sup>th</sup> Floor C&amp;D Wings P.O. Box 341041 Dubai, UAE</p>	83 FR 22846, 05/17/18
	<p>Trade Star FZC Sheikh Zayed Road Al Mossa Tower 1, 17<sup>th</sup> Floor Dubai, UAE; <i>and</i></p> <p>ELOB Office #E55G-31 Hamriyah Free Zone Sharjah, UAE</p>	80 FR 60532, 10/7/2015.
	<p>World Heavy Equipment a.k.a. World Equipment Trading L.L.C.</p> <p>Industrial Area 10 Ras Al Khaimah, UAE</p>	79 FR 34220, 06/16/14.

**SUPPLEMENT NO. 7 TO PART 744—‘MILITARY END-USER’ (MEU) LIST**

The license requirement for entities listed in supplement no. 7 to part 744 applies to the export, reexport, or transfer (in-country) of any item subject to the EAR listed in supplement no. 2 to part 744. A license is required to export, reexport, or transfer (in-country) any item subject to the EAR listed in supplement no. 2 to part 744 when an entity that is listed on the MEU List is a party to the transaction as described in § 748.5(c) through (f). No license exceptions are available for exports, reexports or transfers (in-country) to listed entities on the MEU List for items specified in supplement no. 2 to part 744, except license exceptions for items authorized under the provisions of License Exception GOV set forth in § 740.11(b)(2)(i) and (ii) of the EAR as specified in § 744.21(c). The license application procedure and license review policy for entities specified in this supplement 7 to part 744 is specified in § 744.21(d) and (e).

Country	Entity	Federal Register Citation
BURMA	[Reserved]	[Reserved]
CHINA, PEOPLE'S REPUBLIC OF	Academy of Aerospace Solid Propulsion Technology (AASPT), Tian Wang te Zi #1, Baqiao District, Xian, China.	85 FR 83799, 12/23/20.
	The following eight subordinate institutions of Aero-Engine Company of China:  <i>Subordinate institution</i> AECC Aero Science & Technology Co. Ltd., Cheng-fa Industrial Park, ShuLong Road, SanHe Block, Sichuan, Chengdu, China.  <i>Subordinate institution</i> AECC Aviation Power Co. Ltd., Xiujia Bay, Weiyong Dt., Xian 710021, China.  <i>Subordinate institution</i> AECC Beijing Institute of Aeronautical. Materials, No. 8 Hangcai Avenue, Beijing, Haidian District, China.  <i>Subordinate institution</i> AECC China Gas Turbine Establishment, No. 1 Hangkong Road, Mianyang, Sichuan Province, China.  <i>Subordinate institution</i> AECC Commercial Aircraft Engine Co. Ltd.,	85 FR 83799, 12/23/20.

	<p>No. 3998 South Lianhua Road, Shanghai 200241, Minhang District, China.</p> <p><u>Subordinate institution</u> AECC Harbin Dongan Engine Co., Ltd., No. 51 Baoguo Street, Haerbin 150036, China.</p> <p><u>Subordinate institution</u> AECC Shenyang Liming Aero Engine Co., Ltd., No. 6 Dongta Street, Shenyang 110043, China.</p> <p><u>Subordinate institution</u> AECC South Industry Company Limited, 95 Xinghua West Road, Zhuzhou 412002, China.</p>	
	<p>Anhui Yingliu Hangyuan Power, 96 West Pihe Rd., Hengshan Town, Jiangxi, Shangrao, China.</p>	<p>85 FR 83799, 12/23/20.</p>
	<p>The following seven subordinate institutions of Aviation Industry Corporation of China:</p> <p><u>Subordinate institution</u> AVIC Aircraft Co. Ltd., No. 1 Xifei Avenue, Xian 710089, Yanliang District, China.</p> <p><u>Subordinate institution</u> AVIC Chengdu Aircraft Industrial (GROUP) Co., Ltd., No. 88 Weiyi Road, Huang Tianba, Chengdu 610091, China.</p> <p><u>Subordinate institution</u> AVIC Flight Automatic Control Research Institute (FACRI), No. 92 Dianzi 1st Road, AVIC No 618 Institute, Xian 710065, China.</p> <p><u>Subordinate institution</u> AVIC General Aircraft Huanan Industry Co. Ltd., No. 999, Jinhai Middle Road, Jinwan District, Building 201Z Huhai 519040, Guangdong Province, China.</p> <p><u>Subordinate institution</u> AVIC General Aircraft Zhejiang Institute Co., Ltd., Floor 9, Building 1, 48 KeYuan Road, ZheJiang, China.</p>	<p>85 FR 83799, 12/23/20.</p>

	<p><u>Subordinate institution</u>                      AVIC International Holding Corporation,                      No. 18 Beichen East Road,                      Beijing 100101 Chaoyang District, China.</p> <p><u>Subordinate institution</u>                      AVIC Leihua Electronic Technology Research                      Institute (LETRI),                      No. 796 Liangxi Road,                      Binhu District 214063, China.</p>	
	Baimtec Material Co., Ltd., No 5, Yongxiang North Road, Yongfeng Ind, Beijing 100094, China.	85 FR 83799, 12/23/20.
	Beijing Aero Lever Precision Ltd., Houju St No. 3 Changping, High Tec Park, Beijing 102200, China.	85 FR 83799, 12/23/20.
	Beijing Ander Tech. Co., Ltd. No. C22, Yu An Rd., Area B, Tianzhu, Beijing 101318, China.	85 FR 83799, 12/23/20.
	Beijing Guang Ming Electronics Co., Ltd., No. 41 Yu Qiao Bei Li, Tongzhou District, Beijing 101100, China.	85 FR 83799, 12/23/20.
	Beijing Siyuan Electronic Co., Ltd., Satellite Building, No.63 Zhichun Road, Haidian District, Beijing 100086, China.	85 FR 83799, 12/23/20.
	Beijing Skyrizon Aviation Industry Investment Co., Ltd., a.k.a., the following one alias: -Beijing Tianjiao Aviation Industry Investment Company.  21/F Tower C Zhizhen Plaza, No. 7 Zhichun Road, Haidian District Beijing, China.	86 FR 4864, 1/14/21.
	CAST Xi'an Spaceflight Engine Factory, a.k.a., the following one alias: -7103 Factory.  7103 Factory No 6 Academy No 69, Shenzhou Second Road, Aerospace Base, Xian, China.	85 FR 83799, 12/23/20.
	Chengdu Holy Aviation Science & Tech, No. 220, Tongjiang Road, Pengzhou City, Sichuan 611936, China.	85 FR 83799, 12/23/20.
	China Aviation Ind. Std. Parts No. 355, Baiyun S. Road, Baiyun Dist,	85 FR 83799, 12/23/20.

	Gui Yang 550014, China.	
	CSSC Xijiang Shipbuilding Co., Ltd., No. 133 Fenghuang Road, Liuzhou City, Guangxi 572000, China.	85 FR 83799, 12/23/20.
	Elink Electronic Technology Co. Ltd., Room 717, Building 41, No.8633 Zhongchun Road, Minhang District, Shanghai, China.	85 FR 83799, 12/23/20.
	Fly Raise International Limited, Unit 04 7/F Bright Way Tower, No. 33 Mong Kok Road, Kowloon 999077, Hong Kong.	85 FR 83799, 12/23/20.
	Fuhua Precision Man. Co, Fanhua Ave and Wanfoshan Rd, Taohua Ind. Park, Hefei City, Jingkai Dist, China.	85 FR 83799, 12/23/20.
	Government Flying Service, 18 South Perimeter Road, Hong Kong Int'l Airport, Lantau, Hong Kong.	85 FR 83799, 12/23/20.
	Guangzhou Hangxin Aviation Technology Co., Ltd., No. 1 Guangbao Road, Guangzhou Luogang District, China.	85 FR 83799, 12/23/20.
	Guizhou Aviation Tech. Dev. Nat., Shangbashan Road, Guiyang City, China.	85 FR 83799, 12/23/20.
	Guizhou Liyang Intl Manufacturing Co Ltd., No. 1 Gaotie Road, Anshun City 561102 Guizhou, China.	85 FR 83799, 12/23/20.
	Hafei Aviation Industry Co., Ltd. (HAFEI), Nancheng Rd No. 2, HARBIN 150066, Heilongjiang Province, China.	85 FR 83799, 12/23/20.
	Hangzhou Bearing Test & Research Center Co., Ltd., No. 333 Hua Feng Road, Hangzhou, Zhejiang, China.	85 FR 83799, 12/23/20.
	Harbin General Aircraft Industry Co., Ltd., a.k.a., the following one alias: -Harbin Hafei Aviation Industry Co. Ltd.  15 Youxie Street, Harbin 150066, Pingfang District, China.	85 FR 83799, 12/23/20.
	Henan Aerospace Precision Mach, 15 Xinnan Road, Xinyang 464000, China.	85 FR 83799, 12/23/20.
	Hunan South General Aviation Engine Co., Ltd., Dongjiaduan, Hi-Tech Industry Zone, Zhuzhou, Hunan 412000, Lusong District, China.	85 FR 83799, 12/23/20.

Hutchison Optel Telecom Technology Co., Ltd., G-3, No. 67-1, Ke Yuan 3th Road, Chongqing Hitech Industrial Development Zone, Chongqing 400041, China.	85 FR 83799, 12/23/20.
Jiangsu Meilong Aviation Components Co., No. 88 Wufengshang Road, Suzhou, Zhenjiang 212132, China.	85 FR 83799, 12/23/20.
Jiatai Aircraft Equipment Co., Ltd., No. 1 ZhongHang Ave., Fancheng District, Xiangyang City, Hubei Province, China.	85 FR 83799, 12/23/20.
Jincheng Group Imp & Exp. Co. Ltd. Floor 26th Jincheng Plaza, 216 Middle Longpan Road, Nanjing, Jiangsu 210002, China.	85 FR 83799, 12/23/20.
Laboratory of Toxicant Analysis, Institute of Pharmacology and Toxicology, No. 27 Taiping Road, Beijing, Haidian District, China.	85 FR 83799, 12/23/20.
Molecular Devices Shanghai Corporation, No. 239 GangAo Road, WaiGaoQiao Free Trade Zone, Room 318, 3F, Building 2, Shanghai, China.	85 FR 83799, 12/23/20.
Nanjing Engineering Institute of Aircraft Systems (NEIAS), 33 Shuige Road, Jiangning Economic Development Zone, Nanjing 211106, China.	85 FR 83799, 12/23/20.
National Satellite Meteorological Bureau, No. 46 Baishiqiao Road, HaiDian District, Beijing 100081, China.	85 FR 83799, 12/23/20.
Second Institute of Oceanography, Ministry of Natural Resources, No. 36 Baochubei Road, Hangzhou 310012, Hangzhou Xihu District, China.	85 FR 83799, 12/23/20.
Shaanxi Aero Electric Co., Ltd., 17th, Jinye 2 Road, Xian High Tech Zone Xian, China.	85 FR 83799, 12/23/20.
Shaanxi Aircraft Industry Co Ltd., P.O. 34, Hanzhong City 723213, Shaanxi Province, China.	85 FR 83799, 12/23/20.
Shanghai Aerospace Equip. Man., No. 100 Huaning Road, Shanghai 200245, China.	85 FR 83799, 12/23/20.
Shanghai Aircraft Design and Research Institute, No. 5 Yun Jin Road, Shanghai 200232, China.	85 FR 83799, 12/23/20.
Shanghai Aircraft Manufacturing Co. Ltd. (SAMC),	85 FR 83799,

No. 919 Shangfei Road, Shanghai 201324, Pudong New District, China.	12/23/20.
Shanghai Tianlang Electronic Science Co., Ltd., 1500 Qinjiagang Road, Room 112 & 6, Shanghai, Pudong New Area, China.	85 FR 83799, 12/23/20.
Shenyang Academy of Instrumentation Science Co., Ltd., No. 242, Baihai Street, Shenyang 110043, Dadong District, China.	85 FR 83799, 12/23/20.
Shenyang Aircraft Corporation, 1 Lingbei Street, Shenyang 110000, Huanggu District, China.	85 FR 83799, 12/23/20.
Shenyang Xizi Aviation Industry Co., Ltd., 76-43 Shenbei Road, Shenyang 110136, China.	85 FR 83799, 12/23/20.
Sichuan Hange Aviation Tech. Co., Ltd., No. 269, 3rd Tengfei Road, Southwest Airport Economy Development Zone, Chengdu 61000, China.	85 FR 83799, 12/23/20.
Star Tech Aviation Co., Ltd., Unit E1, 15/F, 41-43 Au Pui Wan Street, On Wah IND Bldg, Shatin, New Territories, Hong Kong 999077, Hong Kong.	85 FR 83799, 12/23/20.
Sumec Instruments Equipment Co. Ltd., 198 Changjiang Road, 14 / F Nanjing 210018, China.	85 FR 83799, 12/23/20.
Suzhou Eric Mechanics and Electronics Co. Ltd., No. 8 Huqiao Road, Suzhou, China.	85 FR 83799, 12/23/20.
Wuxi Hyatech Co., Ltd., No. 35 Xindong an Road, Wuxi, China.	85 FR 83799, 12/23/20.
Wuxi Paike New Mat. Tech. Co., Ltd., No. 22 Lianhe Rd., Hudai Ind. Park, Wuxi Binhu District, China.	85 FR 83799, 12/23/20.
Wuxi Turbine Blade Co. Ltd., 1800 Huishan Ave., Economic Zone, Wuxi 214174, China.	85 FR 83799, 12/23/20.
Xac Group Aviation Electronics Import & Export Co. Ltd., 70# West Ave of Renmin, Xian 710089, Yanliang District, China.	85 FR 83799, 12/23/20.
XAIC Tech (Xi'an) Industrial Co., Ltd. No. 1 Xifei Road, Xian Yanliang District, China.	85 FR 83799, 12/23/20.
Xian Aero-Engine Controls Co., Ltd., 750 Daqing Road, Xian, China.	85 FR 83799, 12/23/20.
Xian Aircraft Industrial Company Limited, No. 1 Xifei Avenue Shanxi,	85 FR 83799, 12/23/20.

	Yanliang District, China.	
	Xi'an Xae Flying Aviation Manufacturing Technology Co., Ltd., No.12 Fengcheng Road, Xian 710018, Weiyang District, China.	85 FR 83799, 12/23/20.
	Xian Xr Aero- Components Co. Ltd., Hongqi East Road, Xian 710021, China.	85 FR 83799, 12/23/20.
	Yibin Sanjiang Machine Co., Ltd., No. 72 MinJiangBei Road, Yibin 64407, Sichuan, China.	85 FR 83799, 12/23/20.
	Zhejiang Perfect New Material Co., Ltd., No. 28, Dingsheng Road, Leidian Town, Deqing County, HuZhou City, China.	85 FR 83799, 12/23/20.
<b>RUSSIA</b>	Admiralty Shipyard JSC, 203, Fontanka Emb., 190121, St.Peterburg, Russia.	85 FR 83799, 12/23/20.
	Aleksandrov Scientific Research Technological Institute NITI, Koporskoe Highway, House 72, Sosnovy Bor, Russia.	85 FR 83799, 12/23/20.
	Argut OOO, 6 Mnevniky str end 6 fl, Moscow 123308, Russia.	85 FR 83799, 12/23/20.
	Communication center of the Ministry of Defense, Bolshoi Znamenskiy per. 21, Moscow, Russia.	85 FR 83799, 12/23/20.
	Federal Research Center Boreskov Institute of Catalysis, pr. Lavrentieva 5, Novosibirsk 630090, Russia.	85 FR 83799, 12/23/20.
	Federal State Budgetary Enterprise of the Administration of the President of Russia, 1-ya Reysovaya Street, 1, Moscow 119027, Russia.	85 FR 83799, 12/23/20.
	Federal State Budgetary Enterprise Special Flight Unit Rossiya of the Administration of the President of Russia, 1-ya Reysovaya Street, 1, Moscow 119027, Russia.	85 FR 83799, 12/23/20.
	Federal State Unitary Enterprise Dukhov Automatics Research Institute (VNIIA), 22, Sushchevskaya UI, Moscow 127055RU.	85 FR 83799, 12/23/20.
	Foreign Intelligence Service (SVR), Yasenevo 11 Kolpachny, Moscow, 0101000.	85 FR 83799, 12/23/20.
	Forensic Center of Nizhniy Novgorod Region Main Directorate of the Ministry of Interior Affairs, Gorkiy Street, 71,	85 FR 83799, 12/23/20.

	Nizhniy Novgorod 603950, Russia.	
	Irkut Corporation, Leningradsky Prospect 68, Moscow 125315, Russia.	85 FR 83799, 12/23/20.
	Irkut Research and Production Corporation Public Joint Stock Company, 68 Leningradsky Prospect, Moscow 125315, Russia.	85 FR 83799, 12/23/20.
	Joint Stock Company Scientific Research Institute of Computing Machinery, Melnichnaya Street, 31, Kirov 610025, Russia.	85 FR 83799, 12/23/20.
	JSC Central Research Institute of Machine Building (JSC TsNIIMash), Pionerskaya Street, 4, korpus 22, Moskovskaya obl., Korolov 141070, Russia.	85 FR 83799, 12/23/20.
	JSC Rocket and Space Centre – Progress, Zemetsa Street 18, Samarskaya Oblast, Samara 443009, Russia.	85 FR 83799, 12/23/20.
	Kamensk-Uralsky Metallurgical Works J.S. Co., 5 Zavodskaya St., Kamensk Uralsky, 623405 Sverdlovsk region, Russia.	85 FR 83799, 12/23/20.
	Kazan Helicopter Plant PJSC, Tetsevsкая St, Kazan 420085, Russia.	85 FR 83799, 12/23/20.
	Komsomolsk-na-Amur Aviation Production Organization (KNAAPO), 1 Sovetskaya Street, Komsomolsk-on-Amur, Khabarovsk Krai, Russia 618018.	85 FR 83799, 12/23/20.
	Ministry of Defence RF, 19 Znamenka Str, Moscow 119160, Russia.	85 FR 83799, 12/23/20.
	NPO High Precision Systems JSC, Kievskaya Street 7, Moscow, Russia.	85 FR 83799, 12/23/20.
	NPO Splav JSC, 33 ul. Shcheglov Kaya Zaseka Tula, 300004 Russia.	85 FR 83799, 12/23/20.
	Oboronprom OJSC, 29/141 Vereiskaya Street, Moscow, 121357 Russia.	85 FR 83799, 12/23/20.
	PJSC Beriev Aircraft Company, 1 Aviatorov Square, Taganrog 347923, Russia.	85 FR 83799, 12/23/20.
	PJSC Irkut Corporation, Regional Aircraft 26 Leninskaya Sloboda, Moscow 115280, Russia.	85 FR 83799, 12/23/20.
	PJSC Kazan Helicopters, Tetsevsкая Street, 14, Kazan, Tatarstan Republic 420085, Russia.	85 FR 83799, 12/23/20.

POLYUS Research Institute of M.F. Stelmakh Joint Stock Company, Building 1, 3 Vvedenskogo Street, Moscow, 117342, Russia.	85 FR 83799, 12/23/20.
Promtech-Dubna, JSC, Programmistov st., 4, room 364, Dubna, Moscow 141983, Russia.	85 FR 83799, 12/23/20.
Public Joint Stock Company United Aircraft Corporation, Bolshaya Pionerskaya, Moscow 115054, Russia.	85 FR 83799, 12/23/20.
Radiotechnical and Information Systems (RTI) Concern, 127083, Moscow, 8 marta, 10/1 Russia.	85 FR 83799, 12/23/20.
Rapart Services LLC, Aeroportovskaya str. 6/2, Solnechnogorskiy region, Dubrobki 141580, Russia.	85 FR 83799, 12/23/20.
Rosoboronexport OJSC (ROE), Strada Strominka 27, Moscow, 107076 Russia.	85 FR 83799, 12/23/20.
Rostekh – Azimuth, Building 2, 5 Suite X Room 15 Floor 2, Narishkinskaya Alleya, Moscow 125167, Russia.	85 FR 83799, 12/23/20.
Rostec (Russian Technologies State Corporation), 24 Usacheva Street, Moscow, Russia 119048.	85 FR 83799, 12/23/20.
Russian Aircraft Corporation MiG, Leningradskoe highway, 6, building 1, Moscow, 125171 Russia.	85 FR 83799, 12/23/20.
Russian Helicopters JSC, Bolshaya Pionerskaya, 1, Moscow, 123610 Russia.	85 FR 83799, 12/23/20.
Sukhoi Aviation JSC, Polikarpov str., 23B, Moscow, 125284 Russia.	85 FR 83799, 12/23/20.
Sukhoi Civil Aircraft, 1 Sovetskaya Street, Komsomolsk-On-Amur 681018, Russia; <i>and</i> 15 Tupoleva Street, OP JSC SCA, Zukhovskiy 140180, Russia; <i>and</i> 23b Bld 2 Polikarpova St, Moscow 125824, Russia; <i>and</i> 26, Bld. 5, Leninskaya Sloboda Street, Moscow, 115280, Russia; <i>and</i> Antonova Avenue 1, Uljanovsk 432072, Russia; <i>and</i> Leningradskaya Street 80 / 4A, Komsomolsk-On-Amur 681007, Russia.	85 FR 83799, 12/23/20.
Tactical Missiles Corporation JSC, KorolevIlyicha Street, 7,	85 FR 83799, 12/23/20.

	141080, Russia	
	Tupolev JSC, Academician Tupolev Embankment 17, Moscow, 105005, Russia.	85 FR 83799, 12/23/20.
	UEC-Saturn, 163 Lenin Avenue, Rybinsk 152903, Yavoslavl Region, Russia.	85 FR 83799, 12/23/20.
	United Aircraft Corporation, Bolshaya Pionerskaya str., 1, Moscow, 115054, Russia.	85 FR 83799, 12/23/20.
	United Engine Corporation, 16, Budyonny Avenue, Moscow, 105118 Russia.	85 FR 83799, 12/23/20.
	United Instrument Manufacturing Corporation, Vereiskaya 29, str. 141, Moscow, Russia.	85 FR 83799, 12/23/20.
<b>VENEZUELA</b>	[RESERVED]	[RESERVED]

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**§ 745.1 ADVANCE NOTIFICATION AND ANNUAL REPORT OF ALL EXPORTS OF SCHEDULE 1 CHEMICALS TO OTHER STATES PARTIES**

Pursuant to the Convention, the United States is required to notify the Organization for the Prohibition of Chemical Weapons (OPCW) not less than 30 days in advance of every export of a Schedule 1 chemical, in any quantity, to another State Party. In addition, the United States is required to provide a report of all exports of Schedule 1 chemicals to other States Parties during each calendar year. If you plan to export

any quantity of a Schedule 1 chemical controlled under the EAR and licensed by the Department of Commerce or controlled under the International Traffic in Arms Regulations (ITAR) and licensed by the Department of State, you are required under this section to notify the Department of Commerce in advance of this export. You are also required to provide an annual report of exports that actually occurred during the previous calendar year. The United States will transmit the advance notifications and an aggregate annual report to the OPCW of exports of Schedule 1 chemicals from the United States. Note that the notification and annual report requirements of this section do not relieve the exporter of any requirement to obtain a license from the Department of Commerce for the export of Schedule 1 chemicals subject to the EAR or from the Department of State for the export of Schedule 1 chemicals subject to the ITAR.

*(a) Advance notification of exports*

You must notify BIS at least 45 calendar days prior to exporting any quantity of a Schedule 1 chemical listed in Supplement No. 1 to this part to another State Party, except that notifications for exports of 5 milligrams or less of saxitoxin (for medical or diagnostic purposes only) must be submitted to BIS at least 3 calendar days prior to the date of export (see 15 CFR 712.6(a)). This is in addition to the requirement to obtain an export license under the EAR for chemicals controlled by ECCN 1C350 or 1C351 for any reason for control, or from the Department of State for Schedule 1 chemicals controlled under the ITAR. Note that such notifications may be sent to BIS prior to or after submission of a license application to BIS for Schedule 1 chemicals controlled subject to the EAR and under ECCNs 1C350 or 1C351 or to the Department of State for Schedule 1 chemicals controlled on the ITAR. Such notices must be submitted separately from license applications.

**(1)** Such notification should be on company letterhead or must clearly identify the reporting

entity by name of company, complete address, name of contact person and telephone and fax numbers, along with the following information:

- (i) Common Chemical Name;
- (ii) Structural formula of the chemical;
- (iii) Chemical Abstract Service (CAS) Registry Number;
- (iv) Quantity involved in grams;
- (v) Planned date of export;
- (vi) Purpose (end-use) of export;
- (vii) Name of recipient;
- (viii) Complete street address of recipient;
- (ix) Export license or control number, if known; and
- (x) Company identification number, once assigned by BIS.

(2) Send the notification either by fax to (202) 482-1731 or by mail or courier delivery to the following address:

Information Technology Team  
Treaty Compliance Division  
Bureau of Industry and Security  
U.S. Department of Commerce  
Room 4515  
14th Street and Pennsylvania Avenue, N.W.  
Washington, DC 20230.

Attn: “Advance Notification of Schedule 1 Chemical Export”.

(3) Upon receipt of the notification, BIS will inform the exporter of the earliest date the shipment may occur under the notification procedure. To export the Schedule 1 chemical, the exporter must have applied for and been

granted a license (see §§742.2 and 742.18 of the EAR, or the ITAR at 22 CFR Part 121).

**(b) Annual report of exports**

(1) You must report all exports of any quantity of a Schedule 1 chemical to another State Party during the previous calendar year, starting with exports taking place during calendar year 1997. Reports for exports during calendar years 1997 and 1998 are due to the Department of Commerce August 16, 1999. Thereafter, annual reports of exports are due on February 13 of the following calendar year. The report should be on company letterhead or must clearly identify the reporting entity by name of company, complete address, name of contact person and telephone and fax numbers along with the following information for each export:

- (i) Common Chemical Name;
- (ii) Structural formula of the chemical;
- (iii) CAS Registry Number;
- (iv) Quantity involved in grams;
- (v) Date of export;
- (vi) Export license number;
- (vii) Purpose (end-use) of export;
- (viii) Name of recipient;
- (ix) Complete address of recipient, including street address, city and country; and
- (x) Company identification number, once assigned by BIS.

(2) The report must be signed by a responsible party, certifying that the information provided in the annual report is, to the best of his/her knowledge and belief, true and complete.

(3) Send the report either by fax to (202) 482-

1731 or by mail or courier delivery to the following address:

Information Technology Team  
Treaty Compliance Division  
Bureau of Industry and Security  
U.S. Department of Commerce  
Room 4515  
14th Street and Pennsylvania Avenue, N.W.  
Washington, DC 20230.

Attn: “Annual Report of Schedule 1 Chemical Export”.

Return to  
"General  
Prohibition 7"  
in §736.

**§ 745.2 END-USE CERTIFICATE  
REPORTING REQUIREMENTS  
UNDER THE CHEMICAL WEAPONS  
CONVENTION**

*NOTE: The End-Use Certificate requirement of this section does not relieve the exporter of any requirement to obtain a license from the Department of Commerce for the export of Schedule 3 chemicals subject to the Export Administration Regulations or from the Department of State for the export of Schedule 3 chemicals subject to the International Traffic in Arms Regulations.*

**(a)(1)** No U.S. person, as defined in §744.6(c) of the EAR, may export from the United States any Schedule 3 chemical identified in Supplement No. 1 to this part to countries not party to the Chemical Weapons Convention (destinations *not* listed in Supplement No. 2 to this part) unless the U.S. person obtains from the consignee an End-Use Certificate issued by the government of the importing destination. This Certificate must be issued by the foreign government’s agency responsible for foreign affairs or any other agency or department designated by the importing government for this

purpose. Supplement No. 3 to this part includes foreign authorized agencies responsible for issuing End-Use Certificates pursuant to this section. Additional foreign authorized agencies responsible for issuing End-Use Certificates will be included in Supplement No. 3 to this part when known. End-Use Certificates may be issued to cover aggregate quantities against which multiple shipments may be made to a single consignee. An End-Use Certificate covering multiple shipments may be used until the aggregate quantity is shipped. End-Use Certificates must be submitted separately from license applications.

**(2)** Submit a copy of the End-Use Certificate, no later than 7 days after the date of export, either by fax to (202) 482-1731 or by mail or courier delivery to the following address:

Information Technology Team  
Treaty Compliance Division  
Bureau of Industry and Security  
U.S. Department of Commerce  
Room 4515  
14th Street and Pennsylvania Avenue, N.W.  
Washington, DC 20230.

Attn: “CWC End-Use Certificate Report”.

**(b)** The End-Use Certificate described in paragraph (a) of this section must state the following:

- (1)** That the chemicals will be used only for purposes not prohibited under the Chemical Weapons Convention;
- (2)** That the chemicals will not be transferred to other end-user(s) or end-use(s);
- (3)** The types and quantities of chemicals;
- (4)** Their specific end-use(s); and
- (5)** The name(s) and complete address(es) of the end-user(s).

**SUPPLEMENT NO. 1 TO PART 745 - SCHEDULES OF CHEMICALS**

<b>Schedule 1</b>		
<b>A. Toxic Chemicals:</b>		<b>CAS Registry Number</b>
<b>1</b>	FAMILY: O-Alkyl( $\leq C_{10}$ , incl. cycloalkyl) alkyl (Me, Et, n-Pr or i-Pr)-phosphonofluoridates Not limited to the following examples: Sarin: O-Isopropyl methylphosphonofluoridate Soman: O-Pinacolyl methylphosphonofluoridate	107-44-8 96-64-0
<b>2</b>	FAMILY: O-Alkyl ( $\leq C_{10}$ , incl. cycloalkyl) N,N-dialkyl (Me, Et, n-Pr or i-Pr) phosphoramidocyanidates Not limited to the following example: Tabun: O-Ethyl N,N-dimethyl phosphoramidocyanidate	77-81-6
<b>3</b>	FAMILY: O-Alkyl (H or $\leq C_{10}$ , incl. cycloalkyl) S-2-dialkyl (Me, Et, n-Pr or i-Pr)-aminoethyl alkyl (Me, Et, n-Pr or i-Pr) phosphonothiolates and corresponding alkylated or protonated salts Not limited to the following example: VX: O-Ethyl S-2-diisopropylaminoethyl methyl phosphonothiolate	50782-69-9
<b>4</b>	Sulfur mustards: 2-Chloroethylchloromethylsulfide Mustard gas: Bis(2-chloroethyl)sulfide Bis(2-chloroethylthio)methane Sesquimustard: 1,2-Bis(2-chloroethylthio)ethane 1,3-Bis(2-chloroethylthio)-n-propane 1,4-Bis(2-chloroethylthio)-n-butane 1,5-Bis(2-chloroethylthio)-n-pentane Bis(2-chloroethylthiomethyl)ether O-Mustard: Bis(2-chloroethylthioethyl)ether	2625-76-5 505-60-2 63869-13-6 3563-36-8 63905-10-2 142868-93-7 142868-94-8 63918-90-1 63918-89-8
<b>5</b>	Lewisites: Lewisite 1: 2-Chlorovinylchloroarsine Lewisite 2: Bis(2-chlorovinyl)chloroarsine	541-25-3 40334-69-8

	Lewisite 3: Tris(2-chlorovinyl)arsine	40334-70-1
<b>6</b>	Nitrogen mustards: HN1: Bis(2-chloroethyl)ethylamine HN2: Bis(2-chloroethyl)methylamine HN3: Tris(2-chloroethyl)amine	538-07-8 51-75-2 555-77-1
<b>7</b>	Saxitoxin	35523-89-8
<b>8</b>	Ricin	9009-86-3
<b>13</b>	FAMILY: P-alkyl (H or $\leq C_{10}$ , incl. cycloalkyl) N-(1-(dialkyl( $\leq C_{10}$ , incl. cycloalkyl)amino))alkylidene(H or $\leq C_{10}$ , incl. cycloalkyl) phosphonamidic fluorides and corresponding alkylated or protonated salts  Not limited to the following examples:  N-(1-(di-n-decylamino)-n-decylidene)-P-decylphosphonamidic fluoride  Methyl-(1-(diethylamino)ethylidene)phosphonamidofluoridate	2387495-99-8  2387496-12-8
<b>14</b>	FAMILY: O-alkyl (H or $\leq C_{10}$ , incl. cycloalkyl) N-(1-(dialkyl( $\leq C_{10}$ , incl. cycloalkyl)amino))alkylidene(H or $\leq C_{10}$ , incl. cycloalkyl) phosphoramidofluoridates and corresponding alkylated or protonated salts  Not limited to the following examples:  O-n-Decyl N-(1-(di-n-decylamino)-n-decylidene)phosphoramidofluoridate  Methyl (1-(diethylamino)ethylidene)phosphoramidofluoridate  Ethyl (1-(diethylamino)ethylidene)phosphoramidofluoridate	2387496-00-4  2387496-04-8  2387496-06-0
<b>15</b>	Methyl-(bis(diethylamino)methylene)phosphonamidofluoridate	2387496-14-0
<b>16</b>	Carbamates (quaternaries and bisquaternaries of dimethylcarbamoyloxypyridines)	
<b>16.1</b>	FAMILY: Quaternaries of dimethylcarbamoyloxypyridines: 1-[N,N-dialkyl( $\leq C_{10}$ )-N-(n-(hydroxyl, cyano, acetoxy)alkyl( $\leq C_{10}$ )) ammonio]-n-[N-(3-dimethylcarbamoxy- $\alpha$ -picolinyl)-N,N-dialkyl( $\leq C_{10}$ ) ammonio]decane dibromide (n=1-8)  Not limited to the following example:  1-[N,N-dimethyl-N-(2-hydroxy)ethylammonio]-10-[N-(3-dimethylcarbamoxy- $\alpha$ -picolinyl)-N,N-dimethylammonio]decane dibromide	77104-62-2

<b>16.2</b>	FAMILY: Bisquaternaries of dimethylcarbamoxyloxy pyridines: 1,n-Bis[N-(3-dimethylcarbamoxy- $\alpha$ -picolyl)-N,N-dialkyl( $\leq C_{10}$ ) ammonio]-alkane-(2,(n-1)-dione) dibromide (n=2-12) Not limited to the following example: 1,10-Bis[N-(3-dimethylcarbamoxy- $\alpha$ -picolyl)-N-ethyl-N-methylammonio]decane-2,9-dione dibromide	77104-00-8
<b>B. Precursors:</b>		<b>CAS Registry Number</b>
<b>9</b>	FAMILY: Alkyl (Me, Et, n-Pr or i-Pr) phosphonyldifluorides Not limited to the following example: DF: Methylphosphonyldifluoride	676-99-3
<b>10</b>	FAMILY: O-Alkyl (H or $\leq C_{10}$ , incl. cycloalkyl) O-2-dialkyl (Me, Et, n-Pr or i-Pr)-aminoethyl alkyl (Me, Et, n-Pr or i-Pr) phosphonites and corresponding alkylated or protonated salts Not limited to the following example: QL: O-Ethyl O-2-diisopropylaminoethyl methylphosphonite	57856-11-8
<b>11</b>	Chlorosarin: O-Isopropyl methylphosphonochloridate	1445-76-7
<b>12</b>	Chlorosoman: O-Pinacolyl methylphosphonochloridate	7040-57-5
<b>SCHEDULE 2</b>		
<b>A. Toxic Chemicals:</b>		<b>CAS Registry Number</b>
<b>1</b>	Amiton: O,O-Diethyl S-[2-(diethylamino)ethyl] phosphorothiolate and corresponding alkylated or protonated salts	78-53-5
<b>2</b>	PFIB: 1,1,3,3,3-Pentafluoro-2-(trifluoromethyl)-1-propene	382-21-8
<b>3</b>	BZ: 3-Quinuclidinyl benzilate	6581-06-2
<b>B. Precursors:</b>		<b>CAS Registry Number</b>
<b>4</b>	FAMILY: Chemicals, except for those listed in Schedule 1, containing a phosphorus atom to which is bonded one methyl, ethyl or propyl (normal or iso) group but not further carbon atoms, Not limited to the following examples: Methylphosphonyl dichloride Dimethyl methylphosphonate Exemption: Fonofos: O-Ethyl S-phenyl ethylphosphonothiothionate	676-97-1 756-79-6 944-22-9
<b>5</b>	FAMILY: N,N-Dialkyl (Me, Et, n-Pr or i-Pr) phosphoramidic dihalides	

6	FAMILY: Dialkyl (Me, Et, n-Pr or i-Pr) N,N-dialkyl (Me, Et, n-Pr or i-Pr)-phosphoramidates	
7	Arsenic trichloride	7784-34-1
8	2,2-Diphenyl-2-hydroxyacetic acid	76-93-7
9	Quinuclidine-3-ol	1619-34-7
10	FAMILY: N,N-Dialkyl (Me, Et, n-Pr or i-Pr) aminoethyl-2-chlorides and corresponding protonated salts	
11	FAMILY: N,N-Dialkyl (Me, Et, n-Pr or i-Pr) aminoethane-2-ols and corresponding protonated salts Exemptions: N,N-Dimethylaminoethanol and corresponding protonated salts N,N-Diethylaminoethanol and corresponding protonated salts	108-01-0 100-37-8
12	FAMILY: N,N-Dialkyl (Me, Et, n-Pr or i-Pr) aminoethane-2-thiols and corresponding protonated salts	
13	Thiodiglycol: Bis(2-hydroxyethyl)sulfide	111-48-8
14	Pinacolyl alcohol: 3,3-Dimethylbutane-2-ol	464-07-3
<b>SCHEDULE 3</b>		
<b>A. Toxic Chemicals:</b>		<b>CAS Registry Number</b>
1	Phosgene: Carbonyl dichloride	75-44-5
2	Cyanogen chloride	506-77-4
3	Hydrogen cyanide	74-90-8
4	Chloropicrin: Trichloronitromethane	76-06-2
<b>B. Precursors</b>		<b>CAS Registry Number</b>
5	Phosphorus oxychloride	10025-87-3
6	Phosphorus trichloride	7719-12-2
7	Phosphorus pentachloride	10026-13-8
8	Trimethyl phosphite	121-45-9
9	Triethyl phosphite	122-52-1
10	Dimethyl phosphite	868-85-9
11	Diethyl phosphite	762-04-9
12	Sulfur monochloride	10025-67-9
13	Sulfur dichloride	10545-99-0
14	Thionyl chloride	7719-09-7
15	Ethyl-diethanolamine	139-87-7

<b>16</b>	Methyldiethanolamine	105-59-9
<b>17</b>	Triethanolamine	102-71-6

**Note to Supplement 1:** The numerical sequence of the “Schedule 1” Toxic Chemicals and Precursors is not consecutive so as to align with the December 23, 2019, consolidated textual changes to “Schedule 1” of the Annex on Chemicals to the Chemical Weapons Convention (CWC), which reflect the decisions adopted by the CWC Conference of the States Parties in November 2019.

**SUPPLEMENT NO. 2 TO PART 745 - STATES PARTIES TO THE CONVENTION ON  
THE PROHIBITION OF THE DEVELOPMENT, PRODUCTION, STOCKPILING, AND  
USE OF CHEMICAL WEAPONS AND ON THEIR DESTRUCTION**

List of States Parties as of June 1, 2016

Afghanistan	Costa Rica	Japan	Nigeria
Albania	Cote d'Ivoire (Ivory Coast)	Jordan	Niue
Algeria	Croatia	Kazakhstan	Norway
Andorra	Cuba	Kenya	Oman
Angola	Cyprus	Kiribati	Pakistan
Antigua and Barbuda	Czech Republic	Korea (Republic of)	Palau
Argentina	Denmark	Kuwait	Panama
Armenia	Djibouti	Kyrgyzstan	Papua New Guinea
Australia	Dominica	Laos (P.D.R.)	Paraguay
Austria	Dominican Republic	Latvia	Peru
Azerbaijan	Ecuador	Lebanon	Philippines
Bahamas	El Salvador	Lesotho	Poland
Bahrain	Equatorial Guinea	Liberia	Portugal
Bangladesh	Eritrea	Libya	Qatar
Barbados	Estonia	Liechtenstein	Romania
Belarus	Ethiopia	Lithuania	Russian Federation
Belgium	Fiji	Luxembourg	Rwanda
Belize	Finland	Macedonia	Saint Kitts and Nevis
Benin	France	Madagascar	Saint Lucia
Bhutan	Gabon	Malawi	Saint Vincent and the Grenadines
Bolivia	Gambia	Malaysia	Samoa
Bosnia-Herzegovina	Georgia	Maldives	San Marino
Botswana	Germany	Mali	Sao Tome and Principe
Brazil	Ghana	Malta	Saudi Arabia
Brunei Darussalam	Greece	Marshall Islands	Senegal
Bulgaria	Grenada	Mauritius	Serbia
Burkina Faso	Guatemala	Mauritania	Seychelles
Burma	Guinea	Mexico	Sierra Leone
Burundi	Guinea-Bissau	Micronesia	Singapore
Cambodia	Guyana	Moldova (Republic of)	Slovak Republic
Cameroon	Haiti	Monaco	Slovenia
Canada	Holy See	Mongolia	Solomon Islands
Cape Verde	Honduras	Montenegro	Somalia
Central African Republic	Hungary	Morocco	South Africa
Chad	Iceland	Mozambique	Spain
Chile	India	Namibia	Spain
China*	Indonesia	Nauru	Sri Lanka
Colombia	Iran	Nepal	Sudan
Comoros	Iraq	Netherlands (Kingdom of the) ***	Suriname
Congo (Democratic Republic of the)	Ireland	New Zealand	Swaziland
Congo (Republic of the)	Italy	Nicaragua	Sweden
Cook Islands	Jamaica	Niger	Switzerland
			Syria

**State Parties to the Chemical Weapons Convention**

**Supplement No. 2 to Part 745 - page 2**

Tajikistan	Turkmenistan	Vanuatu
Tanzania	Tuvalu	Venezuela
Thailand	Uganda	Vietnam
Timor-Leste	Ukraine	Yemen
Togo	United Arab Emirates	Zambia
Tonga	United Kingdom	Zimbabwe
Trinidad and Tobago	United States	
Tunisia	Uruguay	
Turkey	Uzbekistan	

\* For CWC purposes only, China includes Macau.

\*\*\* For CWC purposes only, the Netherlands (Kingdom of) includes: Aruba, Curaçao, and Saint Maarten (the Dutch two-fifths of the island of Saint Martin).

**SUPPLEMENT NO 3 TO PART 745 - FOREIGN AUTHORIZED AGENCIES  
RESPONSIBLE FOR ISSUING END-USE CERTIFICATES PURSUANT TO §745.2**

Israel            Chemical, Environment Technology Administration  
                     Ministry of Industry & Trade  
                     30 Agron Street  
                     Jerusalem 94190, Israel

Contact: Josef Dancona  
Deputy Director  
Tel: 972-2-6220193  
Fax: 972-2-6241987

Taiwan<sup>1</sup>        Board of Foreign Trade,  
                     Ministry of Economic Affairs  
                     1 Hukou St., Taipei  
                     Tel: 02-2351-0271  
                     Fax: 02-2351-3603

Export Processing Zone Administration,  
Ministry of Economic Affairs  
600 Chiachang Rd., Nantze, Kaohsiung  
Tel: 07-361-1212  
Fax: 07-361-4348

Science-Based Industrial Park Administration  
National Science Council  
Executive Yuan  
2 Hsin-an Rd., Hsinchu  
Tel: 03-577-3311  
Fax: 03-577-6222

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<sup>1</sup> Two of the three offices (Export Processing Zone Administration and the Science-Based Industrial Park Administration) are in special economic zones and are responsible for the activity in their respective zones.

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### § 746.1 INTRODUCTION

In this part, references to the EAR are references to 15 CFR chapter VII, subchapter C. This part implements broad based controls for items and activities subject to the EAR imposed to implement U.S. government policies. Two categories of controls are included in this part.

#### (a) Comprehensive controls

This part contains or refers to all the BIS licensing requirements, licensing policies, and License Exceptions for countries subject to general embargoes or comprehensive sanctions, currently Cuba, Iran, and Syria. This part is the focal point for all the EAR requirements for transactions involving these countries.

(1) **Cuba.** All the items on the Commerce Control List (CCL) require a license to Cuba. In addition, most other items subject to the EAR, but not included on the CCL, designated by the Number “EAR99”, require a license to Cuba. Most items requiring a license to these destinations are subject to a general policy of

denial. Because these controls extend to virtually all exports, they do not appear in the Country Chart in part 738 of the EAR, nor are they reflected in the Commerce Control List in part 774 of the EAR.

(2) **Iran.** BIS maintains license requirements and other restrictions on exports and reexports to Iran. A comprehensive embargo on transactions involving this country is administered by the Department of the Treasury’s Office of Foreign Assets Control (OFAC).

(3) **Syria.** Pursuant to Sections 5(a)(1) and 5(a)(2)(A) of the Syria Accountability and Lebanese Sovereignty Restoration Act of 2003 (Public Law 108-175, codified as a note to 22 USC 2151) (the SAA), since May 14, 2004 BIS has maintained a prohibition on the export to Syria of all items on the Commerce Control List (in 15 CFR Part 774) (CCL) and a prohibition on the export to Syria of products of the United States, other than food and medicine. The President also exercised national security waiver authority pursuant to Section 5(b) of the SAA for certain transactions. Section 746.9 of this part sets forth the specific license requirements, licensing policy and license exceptions applicable to Syria as a sanctioned country under the EAR. These provisions were issued consistent with Executive Order 13338 of May 11, 2004 which implemented the SAA.

#### (b) Sanctions on selected categories of items to specific destinations.

(1) BIS controls the export and reexport of selected categories of items to countries under United Nations Security Council arms embargoes. See the Commerce Control List in Supplement No. 1 to Part 774. See also §§ 746.3 (Iraq) and 746.4 (North Korea).

(2) The countries subject to United Nations Security Council arms embargoes are: **Central African Republic, Democratic Republic of the Congo, Eritrea, Iran, Iraq, Lebanon, Libya, North Korea, Somalia, and Sudan.**

(3) A license is required to export or reexport items identified in Part 774 as having a “UN” reason for control to countries identified in paragraph (b)(2) of this section. To the extent consistent with United States national security and foreign policy interests, BIS will not approve applications for such licenses if the authorization would be contrary to the relevant United Nations Security Council Resolution.

(4) You may not use any License Exception, other than License Exception GOV, for items for personal or official use by personnel and agencies of the U.S. Government or agencies of cooperating governments as set forth in § 740.11(b) of the EAR, to export or reexport items with a UN reason for control to countries listed in paragraph (b)(2) of this section. This paragraph does not apply to Iraq, which is governed by § 746.3(c) of this part; North Korea, which is governed by § 746.4(c) of this part; or Iran, which is governed by § 746.7(c) of this part.

**(c) *Russian Industry Sector Sanctions***

The Russian Industry Sector Sanctions are set forth under § 746.5 and referenced under the License Requirements section of certain Export Control Classification Numbers (ECCNs) in Supplement No. 1 to part 774 (Commerce Control List), as well as in a footnote to the Commerce Country Chart in Supplement No. 1 to part 738.

(d) This part also contains descriptions of controls maintained by the Office of Foreign Assets Control in the Treasury Department and by the Directorate of Defense Trade Controls in the Department of State. Comprehensive embargoes and supplemental controls implemented by BIS under the EAR usually also involve controls on items and activities maintained by these agencies. This part sets forth the allocation of licensing responsibilities between BIS and these other agencies. References to the requirements of other agencies are informational; for current, complete, and

authoritative requirements, you should consult the appropriate agency's regulations.

**§ 746.2 CUBA**

**(a) *License requirements***

As authorized by section 6 of the Export Administration Act of 1979, as amended (EAA) and by the Trading with the Enemy Act of 1917, as amended, you will need a license to export or reexport all items subject to the EAR (see part 734 of the EAR for the scope of items subject to the EAR) to Cuba, including any release of technology or source code subject to the EAR to a Cuban national, except as follows:

**(1) License Exceptions.** You may export or reexport without a license if your transaction meets all the applicable terms and conditions of any of the following License Exceptions. To determine the scope and eligibility requirements, you will need to turn to the sections or specific paragraphs of part 740 of the EAR (License Exceptions). Read each License Exception carefully, as the provisions available for embargoed countries are generally narrow.

**(i)** Temporary exports and reexports (TMP) by the news media (see §740.9(a)(9) of the EAR).

**(ii)** Operation technology and software (TSU) for legally exported commodities or software (see §740.13(a) of the EAR).

**(iii)** Sales technology (TSU) (see §740.13(b) of the EAR).

**(iv)** Software updates (TSU) for legally exported software (see §740.13(c) of the EAR).

**(v)** Parts (RPL) for one-for-one replacement in certain legally exported commodities (see §740.10(a) of the EAR).

**(vi)** Baggage (BAG) (see §740.14 of the EAR).

(vii) Governments and international organizations (GOV) (see §740.11 of the EAR).

(viii) Gift parcels and humanitarian donations (GFT) (see §740.12 of the EAR).

(ix) Items in transit (TMP) from Canada through the U.S. (see §740.9(b)(1)(iv) of the EAR).

(x) Aircraft, vessels and spacecraft (AVS) for certain aircraft on temporary sojourn; equipment and spare parts for permanent use on a vessel or aircraft, and ship and plane stores; vessels on temporary sojourn; or cargo transiting Cuba on aircraft or vessels on temporary sojourn (see §740.15(a), (b), (d), and (e) of the EAR).

(xi) Permissive reexports of certain spare parts in foreign-made equipment (see §740.16(h) of the EAR).

(xii) Exports of agricultural commodities, classified as EAR99, under License Exception Agricultural Commodities (AGR) and certain reexports of U.S. origin agricultural commodities, classified as EAR99, under License Exception AGR (see §740.18 of the EAR).

(xiii) Commodities and software authorized under License Exception Consumer Communications Devices (CCD) (see § 740.19 of the EAR).

(xiv) License Exception Support for the Cuban People (SCP) (see § 740.21 of the EAR).

**(2) Deemed exports and deemed reexports.** A license is not required to release technology or source code subject to the EAR but not on the Commerce Control List (i.e., EAR99 technology or source code) to a Cuban national in the United States or a third country.

**(b) Licensing policy**

Items requiring a license are subject to a general policy of denial, except as follows:

**(1) Medicines and Medical Devices.**

Applications to export medicines and medical devices as defined in part 772 of the EAR will generally be approved, except:

(i) To the extent restrictions would be permitted under section 5(m) of the Export Administration Act of 1979, as amended (EAA), or section 203(b)(2) of the International Emergency Economic Powers Act;

(ii) If there is a reasonable likelihood that the item to be exported will be used for purposes of torture or other human rights abuses;

(iii) If there is a reasonable likelihood that the item to be exported will be reexported;

(iv) If the item to be exported could be used in the production of any biotechnological product; or

(v) If it is determined that the United States government is unable to verify, by on-site inspection or other means, that the item to be exported will be used for the purpose for which it was intended and only for the use and benefit of the Cuban people, but this exception shall not apply to donations of medicines for humanitarian purposes to a nongovernmental organization in Cuba.

**(2) Exports and reexports that generally will be approved.** Applications for licenses to export or reexport the following generally will be approved:

(i) Telecommunications items that would improve communications to, from, and among the Cuban people;

(ii) Commodities and software to human rights organizations or to individuals and non-governmental organizations that promote

independent activity intended to strengthen civil society in Cuba;

(iii) Commodities and software to U.S. news bureaus in Cuba whose primary purpose is the gathering and dissemination of news to the general public;

(iv) Agricultural items that are outside the scope of agricultural commodities as defined in part 772 of the EAR, such as insecticides, pesticides and herbicides, and agricultural commodities not eligible for License Exception AGR;

(v) Items necessary to ensure the safety of civil aviation and the safe operation of commercial aircraft engaged in international air transportation, excluding the export or reexport of such aircraft leased to state-owned enterprises; and

(vi) Items necessary for the environmental protection of U.S. and international air quality, waters, or coastlines (including items related to renewable energy or energy efficiency).

**(3) Exports and reexports that may be authorized on a case-by-case basis.**

(i) Applications for licenses to export or reexport items to meet the needs of the Cuban people, including exports and reexports of such items to state-owned enterprises, agencies, and other organizations of the Cuban government that provide goods and services for the use and benefit of the Cuban people may be authorized on a case-by-case basis. This policy of case-by-case review includes applications for licenses to export or reexport items for:

(A) Agricultural production, artistic endeavors (including the creation of public content, historic and cultural works and preservation), education, food processing, disaster preparedness, relief and response, public health and sanitation, residential construction and renovation and public transportation;

(B) Wholesale and retail distribution for domestic consumption by the Cuban people;

(C) Construction of facilities for treating public water supplies, facilities for supplying electricity or other energy to the Cuban people, sports and recreation facilities, and other infrastructure that directly benefits the Cuban people; and

(D) Items that will enable or facilitate export from Cuba of items produced by the private sector.

**NOTE 1 TO PARAGRAPH(b)(3)(i):** Licenses issued pursuant to the policy set forth in this paragraph generally will have a condition prohibiting both reexports from Cuba to any other destination and uses that enable or facilitate the export of goods or services from Cuba, that primarily generate revenue for the state.

**NOTE 2 To PARAGRAPH (b)(3)(i):** The policy of case-by-case review in this paragraph is intended to facilitate exports and reexports to meet the needs of the Cuban people. Accordingly, BIS generally will deny applications to export or reexport items for use by state-owned enterprises, agencies, and other organizations that primarily generate revenue for the state, including those engaged in tourism and those engaged in the extraction or production of minerals or other raw materials. Applications for export or reexport of items destined to the Cuban military, police, intelligence or security services also generally will be denied. Additionally, pursuant to section 3(a) of the National Security Presidential Memorandum on Strengthening the Policy of the United States Toward Cuba (NSPM), dated June 16, 2017, BIS generally will deny applications to export or reexport items for use by entities or subentities identified by the Department of State in the *Federal Register* or at <https://www.state.gov/e/eb/tfs/spi/cuba/cubarestrictedlist/index.htm>, unless such transactions are

determined to be consistent with sections 2 and 3(a)(iii) of the NSPM.

(ii) [Reserved]

(4) *Temporary sojourns of aircraft and vessels.* Applications for exports or reexports of aircraft or vessels on temporary sojourn to Cuba, other than aircraft operated by certificated air carriers or cargo vessels for hire, are subject to a general policy of denial unless consistent with the foreign policy or national security interests of the United States. Applications for exports or reexports of aircraft operated by certificated air carriers or cargo vessels for hire on temporary sojourn to Cuba may be authorized on a case-by-case basis.

**NOTE 1 TO PARAGRAPH (b)(4):** Applications for exports or reexports of private and corporate aircraft, cruise ships, sailboats, fishing vessels, and other similar aircraft and vessels on temporary sojourn to Cuba will generally be denied.

**(c) Definitions**

For purposes of this section, “U.S. person” means any person subject to the jurisdiction of the United States, as described in §515.329 of the Cuban Assets Control Regulations (31 CFR 515.329).

**(d) Related controls**

OFAC maintains controls on the activities of persons subject to U.S. jurisdiction, wherever located, involving transactions with Cuba or any Cuban national, as provided in 31 CFR part 515. Exporters and reexporters should consult with OFAC for further guidance on its related controls.

**§ 746.3 IRAQ**

Pursuant to United Nations Security Council (UNSC) Resolutions 1483 and 1546 and other relevant resolutions, the United Nations maintains an embargo on the sale or supply to

Iraq of arms and related matériel and their means of production, except items required by the Government of Iraq to serve the purposes of Resolution 1546. UNSC Resolutions 707 and 687 require that Iraq eliminate its nuclear weapons program and restrict its nuclear activities to the use of isotopes for medical, industrial or agricultural purposes. Such resolutions further mandate that Iraq eliminate its chemical and biological weapons programs as well as its ballistic missile program. In support of the applicable UNSC resolutions, certain Iraq specific license requirements and licensing policies are detailed in this section. In addition, this section details restrictions on transfers of items subject to the EAR within Iraq. Exporters should be aware that other provisions of the EAR, including parts 742 and 744, will continue to apply with respect to exports and reexports to Iraq and transfers within Iraq.

**(a) License requirements**

(1) A license is required for the export or reexport to Iraq or transfer within Iraq of any item controlled on the Commerce Control List for NS, MT, NP, CW, CB, RS, CC, EI, SI, or SL reasons. See part 742 of the EAR.

(2) License applications for the export or reexport to Iraq or transfer within Iraq of machine tools controlled for national security (NS) or nuclear nonproliferation (NP) reasons, as well as for any items controlled for crime control (CC) or United Nations (UN) reasons (including items classified under ECCN 0A986) or ECCNs that end in the number “018” or items classified under “600 series” ECCNs, that would make a material contribution to the production, research, design, development, support, maintenance or manufacture of Iraqi weapons of mass destruction, ballistic missiles or arms and related matériel will be subject to a general policy of denial. Exports of “600 series” items to the Government of Iraq will be reviewed under the policies set forth for such items in §§ 742.4(b) and 742.6(b) of the EAR.

Return to "U.S. Person" in § 772.

Embargoes and Other Special Controls

Part 746–page 6

(3) A license is required for the export or reexport to Iraq or transfer within Iraq of items on the Commerce Control List controlled for RS reasons under the following ECCNs: 0B999, 0D999, 1B999, 1C992, 1C995, 1C997, 1C999 and 6A992.

(4) A license is required for the export or reexport to Iraq or transfer within Iraq of any item subject to the EAR if, at the time of the export, reexport or transfer, you know, have reason to know, or are informed by BIS that the item will be, or is intended to be, used for a “military end-use” or by a “military end-user”, as defined in this Section. This license requirement does not apply to exports, reexports or transfers of items for the official use by personnel and agencies of the U.S. Government or exports, reexports or transfers to the Government of Iraq . See §740.11(b)(3) of the EAR for the definition of “agency of the U.S. Government.” BIS may inform an exporter, reexporter, or other person, either individually by specific notice or through amendment to the EAR, that a license is required for export, reexport or transfer of items subject to the EAR to specified end-users, because BIS has determined that there is an unacceptable risk of diversion to the uses or users described in this paragraph. **Specific notice is to be given only by, or at the direction of, the Deputy Assistant Secretary for Export Administration.** When such notice is provided orally, it will be followed by a written notice within two working days signed by the Deputy Assistant Secretary for Export Administration. The absence of any such notification does not excuse the exporter, reexporter or other person from compliance with the license requirements of this paragraph.

(i) **Military end-use.** In this section, the phrase “military end-use” means incorporation into a military item described on the U.S. Munitions List (USML) (22 CFR part 121, International Traffic in Arms Regulations) or the Wassenaar Arrangement Munitions List (WAML) (as set out on the Wassenaar Arrangement website at <http://www.wassenaar.org>); or use, development,

or deployment of military items described on the USML or the WAML.

(ii) **Military end-user.** In this section, the term “military end-user” means any “person” whose actions or functions are intended to support “military end-uses” as defined in paragraph (a)(4)(i) of this section and who is not recognized as a legitimate military organization by the U.S. Government.

(5) **Definitions.** For purposes of exports or reexports to Iraq or transfers within Iraq, “ballistic missile” is defined as any missile capable of a range greater than 150 kilometers.

**(b) Licensing policy**

(1) License applications for the export or reexport to Iraq or transfer within Iraq of items listed in paragraph (a)(1), (a)(2), or (a)(3) of this section for Iraqi civil nuclear or military nuclear activity, except for use of isotopes for medical, industrial or agricultural purposes, will be subject to a policy of denial.

(2) License applications for the export or reexport to Iraq or transfer within Iraq of machine tools controlled for national security (NS) or nuclear non-proliferation (NP) reasons, as well as for any items controlled for crime control (CC) or United Nations (UN) reasons (including items controlled under ECCN 0A505.c) or ECCNs that end in the number “018”, that would make a material contribution to the production, research, design, development, support, maintenance or manufacture of Iraqi weapons of mass destruction, ballistic missiles or arms and related matériel will be subject to a general policy of denial.

(3) License applications for the export or reexport to Iraq or transfer within Iraq of items listed in paragraph (a)(3) of this section will be reviewed on a case-by-case basis to determine if they would contribute to the building of Iraqi civil infrastructure. Applications determined not to contribute to the building of Iraqi civil

infrastructure will be subject to a general policy of denial.

(4) License applications for the export or reexport to Iraq or transfer within Iraq of items listed in paragraph (a)(4) of this section will be subject to a policy of denial.

**(c) License exceptions**

You may export or reexport without a license if your transaction meets all the requirements of any of the following License Exceptions: CIV, APP, TMP, RPL, GOV, GFT, TSU, BAG, AVS, or ENC. For specific requirements of each of these License Exceptions, refer to part 740 of the EAR. Notwithstanding the above, this paragraph may not be applied to exports or reexports that require a license under paragraph (a)(4) of this section.

**(d) Related State Department Controls**

The Department of State, Directorate of Defense Trade Controls, maintains controls on arms and military equipment to Iraq under the International Traffic in Arms Regulations (22 CFR parts 120 through 130).

**(e) Transition for Licenses issued by the Department of the Treasury's Office of Foreign Assets Control**

Prior to July 30, 2004, the Department of the Treasury's Office of Foreign Assets Control (OFAC) exercised primary licensing jurisdiction for transactions with Iraq, as provided in 31 CFR part 575. This section establishes a validity period for licenses issued by OFAC for exports or reexports to Iraq.

**(1) Validity period.** Licenses issued by OFAC for the export or reexport of items that require a license to Iraq under the Export Administration Regulations (EAR) shall continue to be valid under the EAR. For those licenses with specified expiration dates, such dates will continue to apply. Licenses without specified

expiration dates will be valid through July 30, 2005. The recordkeeping requirements applicable to exports and reexports of items pursuant to licenses issued by OFAC are described in paragraph (e)(3) of this section.

**NOTE TO PARAGRAPH (e)(1).** *Persons that have been authorized by OFAC to export or reexport items that are subject to the export control jurisdiction of other agencies must consult with OFAC and the other relevant agencies with regard to the expiration date of the authorization granted by OFAC.*

**(2) Reexports or transfers.** Items subject to a license requirement under the EAR for export or reexport to Iraq as of July 30, 2004 that were previously exported or reexported to Iraq under a specific license granted by OFAC:

(i) May not be transferred within Iraq to a new end-user without a license from BIS;

(ii) May be reexported to the United States without a license;

(iii) May be reexported to third countries subject to the license requirements for the destination, end-use or end-user set forth elsewhere in the EAR.

**(3) Recordkeeping requirement.** Persons in receipt of a specific license granted by OFAC described in paragraph (e)(1) of this section must maintain a record of those items exported or reexported to Iraq pursuant to such specific license and record when the items are consumed or destroyed in the normal course of their use in Iraq, reexported to a third country not requiring further authorization from BIS, or returned to the United States. This requirement applies only to items subject to a license requirement under the EAR for export to Iraq as of July 30, 2004. These records must be maintained in accordance with recordkeeping requirements set forth in part 762 of the EAR and must include the following information:

(i) Date of export or reexport and related details (including means of transport);

(ii) Description of items (including ECCN) and value of items in U.S. Dollars;

(iii) Description of proposed end-use and locations in Iraq where items are intended to be used;

(iv) Parties other than specific OFAC licensee who may be given temporary access to the items; and

(v) Date of consumption or destruction, if the items are consumed or destroyed in the normal course of their use in Iraq, or the date of reexport to a third country not requiring further authorization from BIS, or return to the United States.

***(f) License Requirements for certain transfers within Iraq of items subject to the EAR***

**(1) Licensed items.** A license is required for the transfer within Iraq of any item subject to the EAR exported or reexported pursuant to a specific license issued by the Department of the Treasury or a Department of Commerce specific license or License Exception.

**(2) Other items.**

(i) A license is required for the transfer within Iraq of any item subject to the EAR, if, at the time of the transfer, you know, have reason to know, or are informed by BIS that the item will be used in the design, development, production or use of weapons of mass destruction or the means of their delivery, as set forth in part 744 of the EAR.

(ii) A license is required for the transfer within Iraq to designated terrorists or terrorist organizations, as set forth in §§744.12, 744.13, or 744.14 of the EAR.

**§ 746.4 NORTH KOREA**

***(a) Licensing Requirements***

As authorized by section 6 of the Export Administration Act of 1979, as amended, and consistent with United Nations Security Council Resolution 1718, a license is required to export or reexport any item subject to the EAR (see part 734 of the EAR) to the Democratic People's Republic of Korea (North Korea), except food and medicines classified as EAR99 (definitions in part 772 of the EAR). Portions of certain license exceptions, set forth in paragraph (c) of this section, may be available. Exporters should be aware that other provisions of the EAR, including parts 742 and 744, also apply to exports and reexports to North Korea.

***(b) Licensing Policy***

Items requiring a license are subject to case-by-case review, except as follows:

**(1) Luxury Goods.** Applications to export or reexport luxury goods, e.g., luxury automobiles; yachts; gems; jewelry; other fashion accessories; cosmetics; perfumes; furs; designer clothing; luxury watches; rugs and tapestries; electronic entertainment software and equipment; recreational sports equipment; tobacco; wine and other alcoholic beverages; musical instruments; art; and antiques and collectible items, including but not limited to rare coins and stamps are subject to a general policy of denial. For further information on luxury goods, see Supplement No. 1 to part 746.

**(2)** Applications to export or reexport arms and related materiel are subject to a general policy of denial. In addition, applications to export or reexport items specified by UN documents S/2006/814, S/2006/815 and S/2006/853 and other items that the UN Security Council or the Sanctions Committee established pursuant to UN Security Council Resolution 1718 has determined could contribute to North Korea's nuclear-related, ballistic missile-related or other weapons of mass destruction-related programs are also subject to a general policy of denial.

(3) Applications to export or reexport items controlled for NP and MT reasons (except ECCN 7A103 items) are subject to a general policy of denial.

(4) Applications to export or reexport humanitarian items (e.g., blankets, basic footwear, heating oil, and other items meeting subsistence needs) intended for the benefit of the North Korean people; items in support of United Nations humanitarian efforts; and agricultural commodities or medical devices items that are determined by BIS, in consultation with the interagency license review community, not to be luxury goods are subject to a general policy of approval.

(5) Other items on the CCL. See §742.19(b) of the EAR.

#### *(c) License Exceptions*

You may export or reexport without a license if your transaction meets all the applicable terms and conditions of any of the license exception subsections specified in this paragraph. To determine scope and eligibility requirements, you will need to refer to the sections or specific paragraphs of part 740 (License Exceptions). Read each license exception carefully, as the provisions available for countries subject to sanctions are generally narrow.

(1) TMP for items for use by the news media as set forth in §740.9(a)(9) of the EAR.

(2) GOV for items for personal or official use by personnel and agencies of the U.S. Government, the International Atomic Energy Agency (IAEA), or the European Atomic Energy Community (Euratom) as set forth in §740.11(a), (b)(2) of the EAR.

(3) GFT, except that GFT is not available to export or reexport luxury goods as described in this section to North Korea.

(4) TSU for operation technology and software for lawfully exported commodities as set forth in §740.13(a) and sales technology as set forth in §740.13 (b) of the EAR.

(5) BAG for exports of items by individuals leaving the United States as personal baggage as set forth in §740.14(a) through (d) of the EAR.

(6) AVS for civil aircraft as set forth in §740.15(a)(4) of the EAR.

(d) The Secretary of State has designated North Korea as a country the government of which has repeatedly provided support for acts of international terrorism. For anti-terrorism controls, see Section 742.19 of the EAR.

(e) OFAC maintains controls on certain transactions involving persons subject to U.S. jurisdiction and North Korean entities or any specially designated North Korean national.

## § 746.5 RUSSIAN INDUSTRY SECTOR SANCTIONS

### *(a) License requirements*

(1) **General prohibition.** As authorized by Section 6 of the Export Administration Act of 1979, a license is required to export, reexport or transfer (in-country) any item subject to the EAR listed in Supplement No. 2 to this part and items specified in ECCNs 0A998, 1C992, 3A229, 3A231, 3A232, 6A991, 8A992, and 8D999 when you know that the item will be used directly or indirectly in exploration for, or production of, oil or gas in Russian deepwater (greater than 500 feet) or Arctic offshore locations or shale formations in Russia, or are unable to determine whether the item will be used in such projects. Such items include, but are not limited to, drilling rigs, parts for horizontal drilling, drilling and completion equipment, subsea processing equipment, Arctic-capable marine equipment, wireline and down hole motors and equipment, drill pipe and casing, software for hydraulic

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fracturing, high pressure pumps, seismic acquisition equipment, remotely operated vehicles, compressors, expanders, valves, and risers. You should be aware that other provisions of the EAR, including parts 742 and 744, also apply to exports and reexports to Russia. License applications submitted to BIS under this section may include the phrase “section 746.5” in Block 9 (Special Purpose) in Supplement No. 1 to part 748.

**(2) Additional prohibition on those informed by BIS.** BIS may inform persons, either individually by specific notice or through amendment to the EAR, that a license is required for a specific export, reexport, or transfer (in-country) or for the export, reexport, or transfer (in-country) of specified items to a certain end-user or end-use, because there is an unacceptable risk of use in, or diversion to, the activities specified in paragraph (a)(1) of this section in Russia. Specific notice is to be given only by, or at the direction of, the Deputy Assistant Secretary for Export Administration. When such notice is provided orally, it will be followed by a written notice within two working days signed by the Deputy Assistant Secretary for Export Administration. However, the absence of any such notification does not excuse persons from compliance with the license requirements of paragraph (a)(1) of this section.

### *(b) Licensing policy*

Applications for the export, reexport or transfer (in-country) of any item that requires a license for Russia will be reviewed with a presumption of denial when for use directly or indirectly for exploration or production from deepwater (greater than 500 feet), Arctic offshore, or shale projects in Russia that have the potential to produce oil.

### *(c) License exceptions*

No license exceptions may overcome the license requirements set forth in this section, except License Exception GOV (§ 740.11(b)).

## **§ 746.6 CRIMEA REGION OF UKRAINE**

### *(a) License requirements*

**(1) General prohibition.** As authorized by Section 6 of the Export Administration Act of 1979, a license is required to export or reexport any item subject to the EAR to the Crimea region of Ukraine and the transfer within the Crimea region of Ukraine except food and medicine designated as EAR99 or software that is necessary to enable the exchange of personal communications over the Internet (such as instant messaging, chat and email, social networking, sharing of photos and movies, Web browsing, and blogging), provided that such software is designated EAR99 or is classified as mass market software under Export Control Classification Number (ECCN) 5D992.c of the EAR, and provided further that such software is widely available to the public at no cost to the user. The ‘Crimea region of Ukraine’ includes the land territory in that region as well as any maritime area over which sovereignty, sovereign rights, or jurisdiction is claimed based on purported annexation of that land territory.

**(2)** For purposes of applying the EAR deemed export and deemed reexport requirements for foreign nationals located in or from the Crimea region of Ukraine, the nationality of the foreign national (as determined by accepted methods, such as looking to the passport or other nationality document(s) recognized by the United States Government) is what is used for purposes of determining whether a license is required for a deemed export or deemed reexport. For any other export, reexport or transfer (in-country), see the license requirements specified in paragraph (a).

### *(b) License review policy*

Applications will be reviewed with a presumption of denial, except for items authorized under OFAC Ukraine-Related General License No. 4 which will be reviewed on a case-by-case basis.

**(c) License exceptions**

You may export, reexport or transfer (in-country) without a license if your transaction meets all the applicable terms and conditions of any of the license exception paragraphs specified in this paragraph (c). To determine scope and eligibility requirements, you will need to refer to the sections or specific paragraphs of part 740 (License Exceptions). Read each license exception carefully, as the provisions available for countries subject to sanctions are generally narrow.

- (1) TMP for items for use by the news media as set forth in § 740.9(a)(9) of the EAR.
- (2) GOV for items for personal or official use by personnel and agencies of the U.S. Government, the International Atomic Energy Agency (IAEA), or the European Atomic Energy Community (Euratom) as set forth in § 740.11(a) and (b)(2) of the EAR.
- (3) GFT for gift parcels and humanitarian donations as set forth in § 740.12.
- (4) TSU for operation technology and software for lawfully exported commodities as set forth in § 740.13(a) and sales technology as set forth in § 740.13 (b) of the EAR.
- (5) BAG for exports of items by individuals leaving the United States as personal baggage as set forth in § 740.14(a) through (d) of the EAR.
- (6) AVS for civil aircraft and vessels as set forth in § 740.15(a)(4) and (d) of the EAR.

**§ 746.7 IRAN**

The Treasury Department's Office of Foreign Assets Control (OFAC) administers a comprehensive trade and investment embargo against Iran. This embargo includes prohibitions on exports and certain reexport transactions involving Iran, including transactions dealing with items subject to the EAR. These prohibitions are set forth in OFAC's Iranian Transactions Regulations (31 CFR part 560). In addition, BIS maintains licensing requirements on exports and reexports to Iran under the EAR as described in paragraph (a)(1) of this section or elsewhere in the EAR (See, e.g., § 742.8 – Anti-terrorism: Iran).

**(a) License requirements**

**(1) EAR license requirements.** A license is required under the EAR to export or reexport to Iran any item on the CCL containing a CB Column 1, CB Column 2, CB Column 3, NP Column 1, NP Column 2, NS Column 1, NS Column 2, MT Column 1, RS Column 1, RS Column 2, CC Column 1, CC Column 2, CC Column 3, AT Column 1 or AT Column 2 in the Country Chart Column of the License Requirements section of an ECCN or classified under ECCNs 0A503, 0A980, 0A982, 0A983, 0E982, 1C355, 1C395, 1C980, 1C982, 1C983, 1C984, 2A994, 2D994, 2E994, 5A001.f.1, 5A980, 5D001 (for 5A001.f.1 or for 5E001.a (for 5A001.f.1, or for 5D001.a (for 5A001.f.1))), 5D980, 5E001.a (for 5A001.f.1, or for 5D001.a (for 5A001.f.1)) or 5E980.

**(2) BIS authorization.** To avoid duplication, exporters or reexporters are not required to seek separate authorization from BIS for an export or reexport subject both to the EAR and to OFAC's Iranian Transactions Regulations. Therefore, if OFAC authorizes an export or reexport, such authorization is considered authorization for purposes of the EAR as well. Transactions that are not subject to OFAC regulatory authority may require BIS authorization.

**(b) Licensing Policy**

Applications for licenses for transactions for humanitarian reasons or for the safety of civil aviation and safe operation of U.S-origin aircraft will be considered on a case-by-case basis. Licenses for other purposes generally will be denied.

**(c) License Exceptions**

No license exceptions may be used for exports or reexports to Iran.

**(d) EAR Anti-terrorism controls**

The Secretary of State has designated Iran as a country that has repeatedly provided support for acts of international terrorism. Anti-terrorism license requirements and licensing policy regarding Iran are set forth in § 742.8 of the EAR.

**(e) Prohibition on exporting or reexporting EAR items without required OFAC authorization**

No person may export or reexport any item that is subject to the EAR if such transaction is prohibited by the Iranian Transactions Regulations (31 CFR part 560) and not authorized by OFAC. The prohibition of this paragraph (e) applies whether or not the EAR requires a license for the export or reexport.

**§ 746.8 [RESERVED]****§ 746.9 SYRIA**

Sections 5(a)(1) and 5(a)(2)(A) of the Syria Accountability and Lebanese Sovereignty Restoration Act of 2003 (Public Law 108-175, codified as a note to 22 USC 2151) (the SAA) require a prohibition on the export to Syria of all items on the Commerce Control List (in 15 CFR Part 774) (CCL) and a prohibition on the export

to Syria of products of the United States, other than food and medicine. The President also exercised national security waiver authority pursuant to Section 5(b) of the SAA for certain transactions. The provisions in this section were issued consistent with Executive Order 13338 of May 11, 2004 which implemented the SAA.

**(a) License requirements.**

A license is required for the export or reexport to Syria of all items subject to the EAR, except food and medicine classified as EAR99 (food and medicine are defined in part 772 of the EAR). A license is required for the deemed export and deemed reexport, as described in §§734.13(b) and 734.14(b) of the EAR, respectively, of any technology or source code on the Commerce Control List (CCL) to a Syrian foreign national. Deemed exports and deemed reexports to Syrian foreign nationals involving technology or source code subject to the EAR but not listed on the CCL do not require a license.

**(b) License Exceptions.**

No License Exceptions to the license requirements set forth in paragraph (a) of this section are available for exports or reexports to Syria, except the following:

- (1) TMP for items for use by the news media as set forth in §740.9(a)(9) of the EAR,
- (2) GOV for items for personal or official use by personnel and agencies of the U.S. Government as set forth in §740.11(b)(2) of the EAR,
- (3) TSU for operation technology and software, sales technology, and software updates pursuant to the terms of §740.13(a), (b), or (c) of the EAR,
- (4) BAG for exports of personally-owned items by individuals leaving the United States as personal baggage pursuant to the terms of §740.14(a) through (d), only, of the EAR, and
- (5) AVS for the temporary sojourn of civil

aircraft reexported to Syria pursuant to the terms of §740.15(a)(4) of the EAR.

(c) *Licensing policy.*

(1) Except as described in this paragraph (c), all license applications for export or reexport to Syria are subject to a general policy of denial. License applications for “deemed exports” and “deemed reexports” of technology and source code will be reviewed on a case-by-case basis. BIS may consider, on a case-by-case basis, license applications for exports and reexports of items necessary to carry out the President’s constitutional authority to conduct U.S. foreign affairs and as Commander-in-Chief, including exports and reexports of items necessary for the performance of official functions by the United States Government personnel abroad.

(2) BIS may also consider the following license applications on a case-by-case basis: items in support of activities, diplomatic or otherwise, of the United States Government (to the extent that regulation of such exportation or reexportation would not fall within the President’s constitutional authority to conduct the nation’s foreign affairs); medicine (on the CCL) and medical devices (both as defined in Part 772 of the EAR); parts and components intended to ensure the safety of civil aviation and the safe operation of commercial passenger aircraft; aircraft chartered by the Syrian Government for the transport of Syrian Government officials on official Syrian Government business;

telecommunications equipment and associated computers, software and technology; items in support of United Nations operations in Syria; and items necessary for the support of the Syrian people, including, but not limited to, items related to water supply and sanitation, agricultural production and food processing, power generation, oil and gas production, construction and engineering, transportation, and educational infrastructure. The total dollar value of each approved license for aircraft parts for flight safety normally will be limited to no more than \$2 million over the 24-month standard license term, except in the case of complete overhauls.

(3) In addition, consistent with Part 734 of the EAR, the following are not subject to the EAR and therefore not subject to this General Order: informational materials in the form of books and other media; publicly available software and technology; and technology exported in the form of a patent application or an amendment, modification, or supplement thereto or a division thereof (see 15 CFR 734.3(b)(1)(v), (b)(2) and (b)(3)).

**NOTE TO §746.9.** *For administrative reasons, BIS continues to maintain provisions in General Order No. 2, Supplement No. 1 to Part 736 of the EAR relating to the President’s waiver of certain prohibitions. This section contains all of the substantive controls against Syria, including the waiver-related provisions maintained in General Order No. 2.*

**SUPPLEMENT NO. 1 TO PART 746 - EXAMPLES OF LUXURY GOODS**

The following further amplifies the illustrative list of luxury goods set forth in §746.4(b)(1):

**(a) Tobacco and tobacco products**

**(b) Luxury watches:** wrist, pocket, and other with a case of precious metal or of metal clad with precious metal

**(c) Apparel and fashion items, as follows:**

**(1) Leather articles**

**(2) Silk articles**

**(3) Fur skins and artificial furs**

**(4) Fashion accessories:** leather travel goods, vanity cases, binocular and camera cases, handbags, wallets, designer fountain pens, silk scarves

**(5) Cosmetics, including beauty and make-up**

**(6) Perfumes and toilet waters**

**(7) Designer clothing:** leather apparel and clothing accessories

**(d) Decorative items, as follows:**

**(1) Rugs and tapestries**

**(2) Tableware of porcelain or bone china**

**(3) Items of lead crystal**

**(4) Works of art (including paintings, original sculptures and statuary), antiques (more than 100 years old), and collectible items, including rare coins and stamps**

**(e) Jewelry:** jewelry with pearls, gems, precious and semi-precious stones (including diamonds, sapphires, rubies, and emeralds), jewelry of precious metal or of metal clad with precious metal

**(f) Electronic items, as follows:**

**(1) Flat-screen, plasma, or LCD panel televisions or other video monitors or receivers (including high-definition televisions), and any television larger than 29 inches; DVD players**

**(2) Personal digital assistants (PDAs)**

**(3) Personal digital music players**

**(4) Computer laptops**

**(g) Transportation items, as follows:**

**(1) Yachts and other aquatic recreational vehicles (such as personal watercraft)**

**(2) Luxury automobiles (and motor vehicles):** automobiles and other motor vehicles to transport people (other than public transport), including station wagons

**(3) Racing cars, snowmobiles, and motorcycles**

**(4) Personal transportation devices (stand-up motorized scooters)**

**(h) Recreational items, as follows:**

**(1) Musical instruments**

**(2) Recreational sports equipment**

**(i) Alcoholic beverages:** wine, beer, ales, and liquor

**SUPPLEMENT NO. 2 TO PART 746 – RUSSIAN INDUSTRY SECTOR SANCTION LIST**

The source for the Schedule B numbers and descriptions in this list comes from the Bureau of the Census's Schedule B concordance of exports 2014. Census's Schedule B List 2014 can be found at <http://www.census.gov/foreign-trade/schedules/b/2014/index.html>. The Introduction Chapter of the Schedule B provides important information about classifying products and interpretations of the Schedule B, e.g., NESOI means Not Elsewhere Specified or Included. In addition, important information about products within a particular chapter may be found at the beginning of chapters.

Schedule B	Description
7304110000	Line pipe of a kind used for oil or gas pipelines, seamless, of stainless steel
7304191020	Line pipe of a kind used for oil or gas pipelines, seamless, of iron (noncast) or nonalloy steel, with an outside diameter not exceeding 114.3 mm
7304191050	Line pipe for oil or gas pipelines, seamless, iron (noncast) or nonalloy steel, with outside diameter over 114.3 mm but not over 406.4 mm
7304191080	Line pipe of a kind used for oil or gas pipelines, seamless, of iron (noncast) or nonalloy steel, with an outside diameter exceeding 406.4 mm
7304195020	Line pipe of a kind used for oil or gas pipelines, seamless, of other alloy steel, not stainless, with an outside diameter not exceeding 114.3 mm
7304195050	Line pipe, used for oil or gas pipelines, seamless, of other alloy steel, not stainless, with an outside diameter >114.3 mm, but <406.4 mm
7304195080	Line pipe of a kind used for oil or gas pipelines, seamless, of alloy steel, not stainless, with an outside diameter exceeding 406.4 mm
7304220000	Oil well drill pipe, of stainless steel
7304233000	Oil well drill pipe, of iron or nonalloy steel
7304236000	Oil well drill pipe, of alloy steel other than stainless steel
7304241000	Oil well casing of stainless steel
7304246000	Oil well tubing of stainless steel
7304291055	Oil well casing of iron or nonalloy steel
7304293155	Oil well casing of other alloy steel not stainless
7304295000	Oil well tubing of iron or nonalloy steel
7304296100	Oil well tubing of other alloy steel other than stainless steel
7305111000	Line pipe for oil or gas, longitudinally submerged arc welded, external diameter more than 406.4 mm, circular cross-sections, of iron or nonalloy steel
7305115000	Line pipe for oil/gas pipelines, longitudinally submerged arc welded with external diameter over 406.4mm, of alloy steel, with circular cross-section
7305121000	Line pipe for oil or gas, other longitudinally welded, external diameter more than 406.4mm, circular cross-section, iron or nonalloy steel
7305125000	Line pipe for oil or gas pipelines, longitudinally welded with external diameter >406.4 mm, of alloy steel, with circular cross section
7305191000	Line pipe for oil or gas other than longitudinally welded, external diameter more than 406.4 mm, circular cross-section, iron or nonalloy steel
7305195000	Line pipe for oil or gas pipelines, with external diameter >406.4 mm, of alloy steel, circular cross section, welded/riveted, NESOI
7305203000	Casing, oil or gas drilling, other than seamless, circular cross-section, external diameter over 406.4 mm, iron or nonalloy steel
7305207000	Casing, oil or gas drilling, other than seamless, circular cross-section, external diameter over 406.4 mm, alloy steel
7306110000	Line pipe for oil or gas not seamless NESOI, of stainless steel
7306191000	Line pipe for oil or gas not seamless NESOI, of iron or nonalloy steel
7306195000	Line pipe for oil or gas not seamless NESOI, of alloy steel other than stainless steel
7311000000	Containers for compressed or liquefied gas of iron or steel
7613000000	Aluminum containers for compressed or liquefied gas
8207130000	Rock drilling or earth boring tools with working part of cermets, and parts thereof
8207191030	Percussion rock drill bits, core bits and reamers, of base metal, and parts thereof
8207192030	Rotary rock drill bits, core bits and reamers of base metal, and parts thereof

8207195030	Rock drilling or earth boring tools of base metals, NESOI, and parts thereof
8413500010	Oil well and oil field pumps, reciprocating positive displacement
8413600050	Oil well and oil field pumps, rotary positive displacement
8413820000	Liquid elevators
8413920000	Parts of liquid elevators
8421398020	Electrostatic precipitators, industrial gas cleaning equipment
8421398030	Industrial gas cleaning equipment, NESOI
8421398040	Gas separation equipment
8430494000	Offshore oil and natural gas drilling and production platforms
8430498010	Boring or sinking machinery, rotary, for oil well and gas field drilling
8430498020	Boring or sinking machinery for oil well and gas field drilling, NESOI
8431390050	Parts suitable for use solely or principally with the oil and gas field machinery of headings 8425 to 8430
8431434000	Offshore oil and natural gas drilling and production platform parts, of subheading 8430.41 or 8430.49
8431438010	Parts of oil and gas field machinery of subheading 8430.49 except parts of offshore drilling and production platforms
8431438090	Parts of boring or sinking machinery of subheading 8430.41 or 8430.49, NESOI
8479899850	Oil and gas field wire line and downhole equipment
8705200000	Mobile drilling derricks
8708998175	Parts and accessories, for motor vehicles of heading 8705.20, NESOI
8905200000	Floating or submersible drilling or production platforms
8905901000	Floating docks

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## § 748.1 GENERAL PROVISIONS

### (a) *Scope*

In this part, references to the Export Administration Regulations or EAR are references to 15 CFR chapter VII, subchapter C. The provisions of this part involve requests for classifications and advisory opinions, export license applications, reexport license applications, and certain license exception notices subject to the EAR. All terms, conditions, provisions, and instructions, including the applicant and consignee certifications, contained in electronic or paper form(s) are incorporated as part of the EAR. For the purposes of this part, the term “application” refers to both electronic applications and the Form BIS-748P: Multipurpose Application.

### (b) *BIS responses*

BIS will give a formal classification, advisory opinion or licensing decision only through the review of a properly completed application supported by all relevant facts and required documentation submitted in writing or electronically to BIS.

### (c) *Confidentiality*

Consistent with section 12(c) of the Export Administration Act, as amended, information obtained for the purpose of considering license applications, and other information obtained by the U.S. Department of Commerce concerning license applications, will not be made available to the public without the approval of the Secretary of Commerce or of the Under Secretary for Industry and Security.

### (d) *Electronic Filing Required*

All export and reexport license applications, License Exception AGR notifications, requests to authorize use of License Exception STA for “600 series” end items (which are currently submitted

as export license applications) and classification requests and their accompanying documents must be filed via BIS’s Simplified Network Application Processing system (SNAP-R), unless BIS authorizes submission via the paper forms BIS 748-P (Multipurpose Application Form), BIS-748P-A (Item Appendix) and BIS-748P-B, (End-User Appendix). Only original paper forms may be used. Facsimiles or reproductions are not acceptable.

**(1) Reasons for authorizing paper submissions.** BIS will process paper applications notices or requests if the submitting party meets one or more of the following criteria:

(i) BIS has received no more than one submission (i.e. the total number of export license applications, reexport license applications, license exception AGR notifications, and classification requests) from that party in the twelve months immediately preceding its receipt of the current submission;

(ii) The party does not have access to the Internet;

(iii) BIS has rejected the party's electronic filing registration or revoked its eligibility to file electronically;

(iv) BIS has requested that the party submit a paper copy for a particular transaction; or

(v) BIS has determined that urgency, a need to implement U.S. government policy or a circumstance outside the submitting party’s control justify allowing paper submissions in a particular instance.

**(2) Procedure for requesting authorization to file paper applications, notifications, or requests.** The applicant must state in Block 24 or as an attachment to the paper application (Form BIS 748-P) which of the criteria in paragraph (d)(1) of this section it meets and the facts that support such statement. Submit the

completed application, notification or request to Bureau of Industry and Security, U.S. Department of Commerce, 14<sup>th</sup> Street and Pennsylvania, N.W., Room 2099B, Washington D.C. 20230.

San Jose, CA 95113  
Tel: (408) 998-8806  
Fax: (408) 998-8677.

**(3) BIS decision.** If BIS authorizes or requires paper filing pursuant to this section, it will process the application, notification or request in accordance with Part 750 of the EAR. If BIS rejects a request to file using paper, it will return the Form BIS-748P and all attachments to the submitting party without action and will state the reason for its decision.

**(b)** For the convenience of foreign consignees and other foreign parties, certain BIS forms may be obtained at U.S. Embassies and Consulates throughout the world.

**§ 748.3 CLASSIFICATION REQUESTS AND ADVISORY OPINIONS**

**(a) Introduction**

**§ 748.2 OBTAINING FORMS; MAILING ADDRESSES**

**(a)** You may obtain the forms required by the EAR from any U.S. Department of Commerce District Office; or in person or by telephone or facsimile from the following BIS offices:

You may ask BIS to provide you with the correct Export Control Classification Number (ECCN) down to the paragraph (or subparagraph) level, if appropriate. BIS will issue you a determination that each item identified in your classification request is either described by an ECCN in the Commerce Control List (CCL) in Supplement No. 1 to Part 774 of the EAR or not described by an ECCN and, therefore, an "EAR99" item. These classification determinations issued by BIS are not U.S. Government determinations that the items described therein are "subject to the EAR," as this term is defined in §734.3 of the EAR. Those who request commodity classifications and advisory opinions should have determined that the items at issue are not subject to the exclusive export control jurisdiction of one of the other U.S. Government agencies listed in §734.3(b) of the EAR. If requested, for a given end-use, end-user, and/or destination, BIS will advise you whether a license is required, or likely to be granted, for a particular transaction. Note that these responses do not bind BIS to issuing a license in the future. This type of request, along with requests for guidance regarding other interpretations of the EAR, is commonly referred to as an "Advisory Opinion." The encryption provisions in the EAR require the submission of a classification request in accordance with §740.17(d) of the EAR in order for certain items to be eligible for export and reexport under License Exception ENC (see §740.17 of the EAR) or to be released from "EI"

**(1) Outreach and Educational Services Division**

U.S. Department of Commerce  
14th Street and Pennsylvania Ave., NW.  
Room H1099D  
Washington, DC 20230  
Tel: (202) 482-4811  
Fax: (202) 482-2927, or

**(2)**Bureau of Industry and Security  
Western Regional Office  
U.S. Department of Commerce  
2302 Martin St., Suite 330  
Irvine, CA 92612  
Tel: (949) 660-0144  
Fax: (949) 660-9347,

**(3)** Bureau of Industry and Security  
Western Regional Office  
Northern California Branch  
U.S. Department of Commerce  
160 W. Santa Clara Street  
Suite 725

controls (see §§ 740.17(b)(2) and 740.17(b)(3) of the EAR).

**(b) Classification requests**

Submit classification requests in accordance with the procedures in §748.1.

(1) Each Classification Request must be limited to six items. Exceptions may be granted by BIS on a case-by-case basis for several related items if the relationship between the items is satisfactorily substantiated in the request. Classification requests must be supported by any descriptive literature, brochures, precise technical specifications or papers that describe the items in sufficient technical detail to enable classification by BIS submitted as PDF files attached to the SNAP-R submission unless a paper submission is authorized pursuant to § 748.1 of the EAR.

(2) When submitting a Classification Request, you must complete Blocks 1 through 5, 14, 22(a), (b), (c), (d), and (i), 24, and 25 on the application. You must provide a recommended classification in Block 22(a) and explain the basis for your recommendation based on the technical parameters specified in the appropriate ECCN in Block 24. If you are unable to determine a recommended classification for your item, include an explanation in Block 24, identifying the ambiguities or deficiencies that precluded you from making a recommended classification.

(3) BIS assigns each of its commodity classifications a Commodity Classification Automated Tracking System (CCATS) number. Neither the BIS classification nor the CCATS number may be relied upon or cited as evidence that the U.S. Government has determined that the items described in the commodity classification determination are subject to the EAR (*See* 15 CFR 734.3).

**(c) Advisory Opinions**

Advisory opinion requests must be in writing and be submitted to the address listed in §748.1(d)(2). Both your letter and envelope must be marked “Advisory Opinion”.

(1) Your letter must contain the following information if you are requesting guidance regarding interpretations of the EAR:

(i) The name, title, and telephone and facsimile numbers of the person to contact;

(ii) Your complete address comprised of street address, city, state, country, and postal code; and

(2) If you are requesting BIS to determine whether a license is required, or the licensing policy related to a particular end-use, end-user, and/or destination, in addition to the information required in §748.3(c)(1) you must also include:

(i) All available information on the parties to the transaction and the proposed end-use or end-user;

(ii) The model number for each item, where appropriate;

(iii) The Export Control Classification Number, if known, for each item; and

(iv) Any descriptive literature, brochures, technical specifications or papers that describe the items in sufficient technical detail to enable BIS to verify the correct classification.

(3) Requests for Validated End-User authorization should be submitted in accordance with the provisions set forth in §748.15 and Supplement Nos. 8 and 9 to this part.

(4) Advisory opinions are limited in scope to BIS’s interpretation of EAR provisions. Advisory opinions differ from commodity classifications in that advisory opinions are not limited to the interpretation of provisions contained in the

Commerce Control List. Advisory opinions may not be relied upon or cited as evidence that the U.S. Government has determined that the items described in the advisory opinion are not subject to the export control jurisdiction of another agency of the U.S. Government (See 15 CFR 734.3).

**(d) Classification requests for encryption items**

A classification request associated with encryption items transferred from the U.S. Munitions List consistent with Executive Order 13026 of November 15, 1996 (3 CFR, 1996 Comp., p. 228) and pursuant to the Presidential Memorandum of that date may be required to determine eligibility under License Exception ENC or for release from “EI” controls. Refer to Supplement No. 6 to part 742 of the EAR for a complete list of technical information that is required for encryption classification requests. Refer to § 740.17(e)(3) and Supplement No. 8 to part 742 of the EAR for information that is required to be submitted in a self-classification report. Refer to § 740.17(b) of the EAR for instructions regarding mass market encryption commodities and software, including self-classifications and classification requests. Refer to § 740.17 of the EAR for the provisions of License Exception ENC, including encryption self-classifications, classification requests and sales reporting. All classification requests, notifications and reports submitted to BIS pursuant to §§ 740.17 and 742.15(b) of the EAR will be reviewed by the ENC Encryption Request Coordinator, Ft. Meade, MD.

**(e) Classification requests to confirm that a “part,” “component,” “accessory,” “attachment,” or “software” is not “specially designed”**

**(1) Scope.** If you have a “part,” “component,” “accessory,” “attachment,” or “software” that is “specially designed” on the basis of paragraph (a)(1) or (2) of the “specially designed” definition

in § 772.1 of the EAR, you may submit a request in accordance with the procedures in § 748.1 to confirm that the item is not “specially designed” provided you meet the following criteria:

**(i)** The “part,” “component,” “accessory,” “attachment,” or “software” does not meet the criteria of exclusion paragraph (b)(3) of the “specially designed” definition, but would meet the criteria if the minor changes in form or fit were determined to be insignificant by the U.S. Government.

**(ii)** The performance capabilities of the “part,” “component,” “accessory,” “attachment,” or “software” are the same as those of a “part,” “component,” “accessory,” “attachment,” or “software” that would meet the criteria of exclusion paragraph (b)(3) of the definition of “specially designed” in § 772.1 of the EAR.

**(2) Information to be provided.** Applicants wishing to submit a CCATS requesting confirmation that a “part,” “component,” “accessory,” “attachment,” or “software” is not “specially designed” must submit classification requests in accordance with the procedures in § 748.1 and general provisions regarding submitting classification requests in § 748.3(b). In addition, applicants must submit additional information identified in this paragraph (e)(2).

**(i)** The classification request must indicate in Block 24 or in a separate PDF attachment included with the CCATS submission that the “part,” “component,” “accessory,” “attachment” or “software” would meet the criteria in paragraph (e)(1)(i) and (ii) of this section;

**(ii)** A detailed explanation must be provided regarding all changes in form and fit; *and*

**(iii)** A rationale must be provided that explains why such changes in form and fit should be treated as minor or insignificant in terms of their role in the performance capabilities of the enumerated item.

**(3) U.S. Government Review.** Commodity classification requests submitted pursuant to § 748.3(e) are reviewed by the Departments of Commerce, State and Defense. A consensus determination is required to confirm that a “part,” “component,” “accessory,” “attachment,” or “software” is not “specially designed” on the basis of this paragraph. The interagency review process will ensure U.S. national security and foreign policy interests are evaluated prior to any confirmation pursuant to § 748.3(e). The interagency review will consider on a case-by-case basis whether a particular “part,” “component,” “accessory,” “attachment,” or “software” is “specially designed” taking into account all the following:

(i) The insignificance of the changes in form and fit;

(ii) The overall role of the “part,” “component,” “accessory,” “attachment,” or “software” in the performance capabilities of the enumerated or otherwise described item that it is used in or with;

(iii) How substantively common it is to the other “part,” “component,” “accessory,” “attachment,” or “software” that would meet the paragraph (b)(3) criteria;

(iv) Whether such a confirmation would be consistent with U.S. Government multilateral export control regime commitments; *and*

(v) Any other criteria that may be relevant in determining whether the “part,” “component,” “accessory,” “attachment,” or “software” is “specially designed,” including an evaluation of how such a confirmation may affect U.S. national security and foreign policy interests.

**(4) CCATS response.** The BIS response to the CCATS request will reflect the interagency consensus determination and the response will be made in accordance with the procedures in

§§ 748.1 and 748.3(b). In addition, the BIS response will indicate one of the following:

(i) The “part,” “component,” “accessory,” “attachment,” or “software” is not “specially designed” on the basis of being within the scope of paragraph (b)(3) because the changes in form and fit have been determined by the U.S. Government to be minor or insignificant. In such cases, the new classification, which may be EAR99 or in another ECCN entry that does not use “specially designed,” will be provided as part of the BIS response;”

(ii) The request under § 748.3(e) has been denied and the “part,” “component,” “accessory,” “attachment,” or “software” continues to be classified under a “specially designed” ‘catch-all’ (see the definition of “specially designed” in §772.1 of the EAR). The response will also include a determination regarding where the “specially designed” “part,” “component,” “accessory,” “attachment,” or “software” is classified on the CCL; or

(iii) Returned without action (RWA) because insufficient information was provided or information was not provided in a timely fashion. These requests will be reviewed closely, and they will likely require additional follow up questions of applicants, so responding to such requests in a timely fashion will be an important part of the process to ensure such requests are considered by the U.S. Government.

**NOTE TO PARAGRAPH (e):** *Although these requests for confirmation that an item is not “specially designed” are also reviewed by the Departments of State and Defense, similar to § 748.3(b)(3), the public is reminded that neither the BIS classification nor the CCATS number may be relied upon or cited as evidence that the U.S. Government has determined that the “parts,” “components,” “accessories,” “attachments” and “software” described in the commodity classification determination or a release made from “specially designed” pursuant to § 748.3(e)*

- (1) **\*\*Export transactions:** Only a person in the US may apply for export licenses.  
 (2) **\*\*Routed exports:** Only the USPPI or the authorized US agent of the FPPI can.  
 (3) **\*\*Reexports:** The **\*\*USPPI**, the **\*\*FPPI**, or the authorized US agent of the FPPI can.  
 Note: Power of attorney needed

are subject to the EAR (see § 734.3 of the EAR).

**the power of attorney**

**§ 748.4 BASIC GUIDANCE RELATED TO APPLYING FOR A LICENSE**

**(a) License Applicant**

**(1) Export transactions.** Only a person in the United States may apply for a license to export items from the United States. The applicant must be the exporter, who is the U.S. principal party in interest with the authority to determine and control the sending of items out of the United States, except for Encryption License Arrangements (ELA) (see §750.7(d) of the EAR). See definition of “exporter” in part 772 of the EAR.

**(2) Routed export transactions.** The U.S. principal party in interest or the duly authorized U.S. agent of the foreign principal party in interest may apply for a license to export items from the United States. Prior to submitting an application, the agent that applies for a license on behalf of the foreign principal party in interest **must obtain a power of attorney** or other written authorization from the foreign principal party in interest. See §758.3(b) and (d) of the EAR.

**(3) Reexport transactions.** The U.S. or foreign principal party in interest, or the duly authorized U.S. agent of the foreign principal party in interest, may apply for a license to reexport controlled items from one country to another. Prior to submitting an application, an agent that applies for a license on behalf of a foreign principal party in interest must obtain a power-of-attorney or other written authorization from the foreign principal party in interest, unless there is a preexisting relationship by ownership, control, position of responsibility or affiliation. **See power-of-attorney requirements in paragraph (b)(2) of this section.**

**(b) Disclosure of parties on license applications and**

**(1) Disclosure of parties.** License applicants must disclose the names and addresses of all parties to a transaction. When the applicant is the U.S. agent of the foreign principal party in interest, the applicant must disclose the fact of the agency relationship, and the name and address of the agent’s principal. **If there is any doubt about which persons should be named as parties to the transaction, the applicant should disclose the names of all such persons and the functions to be performed by each in Block 24 of the application.**

Note that when the foreign principal party in interest is the ultimate consignee or end-user, the name and address need not be repeated in Block 24. See “Parties to the transaction” in §748.5.

**(2) Power of attorney or other written authorization.**

**(i) Requirement.** An agent must obtain a power of attorney or other written authorization from the principal party in interest, unless there is a preexisting relationship by ownership, control, position of responsibility or affiliation, prior to preparing or submitting an application for a license, when acting as either:

**(A)** An agent, applicant, licensee and exporter for a foreign principal party in interest in a routed transaction; or

**(B)** An agent who prepares an application for export on behalf of a U.S. principal party in interest who is the actual applicant, licensee and exporter in an export transaction.

**(ii) Application.** Block 7 of the application (documents on file with applicant) must be marked “other” and Block 24 (Additional information) must be marked “748.4(b)(2)” to indicate that the power of attorney or other written authorization is on file with the agent. See §758.3(d) for power of attorney requirement, and see also part 762 of the EAR for recordkeeping requirements.

**\*\*power of attorney \*\*POA or \*\*agency declaration required**

**(c) Prohibited from applying for a license**

No person subject to a denial order based on a conviction for a violation of any statute specified at 50 U.S.C. 4819(e)(1)(B) may apply for any license for a period up to 10 years from the date of the conviction. The duration of the prohibition shall be included as a term of the denial order. See § 766.25 of the EAR.

**(d) Prior action on a shipment**

If you have obtained a license without disclosure of the facts described in this section, the license will be deemed to have been obtained without disclosure of all facts material to the granting of the license and the license so obtained will be deemed void. See part 764 of the EAR for other sanctions that may result in the event a violation occurs.

**(1) Licenses for items subject to detention or seizure.** If you submit a license application for items that you know have been detained or seized by the Office of Export Enforcement or by the U.S. Customs Service, you must disclose this fact to BIS when you submit your license application.

**(2) Licenses for items previously exported.** You may not submit a license application to BIS covering a shipment that is already laden aboard the exporting carrier, exported or reexported. If such export or reexport should not have been made without first securing a license authorizing the shipment, you must send a letter of explanation to the

Office of Export Enforcement  
U.S. Department of Commerce  
14th and Pennsylvania Avenue, N.W.,  
H4520  
Washington, D.C. 20230

The letter must state why a license was not obtained and disclose all facts concerning the shipment that would normally have been disclosed on the license application. You will be

informed of any action and furnished any instructions by the Office of Export Enforcement.

**(e) Multiple shipments**

Your license application need not be limited to a single shipment, but may represent a reasonable estimate of items to be shipped throughout the validity of the license. Do not wait until the license you are using expires before submitting a new application. You may submit a new application prior to the expiration of your current license in order to ensure uninterrupted shipping.

**(f) Second application**

You may not submit a second license application covering the same proposed transaction while the first is pending action by BIS.

**(g) Resubmission**

If a license application is returned without action to you by BIS or your application represents a transaction previously denied by BIS, and you want to resubmit the license application, a new license application must be completed in accordance with the instructions contained in Supplement No. 1 to part 748. Cite the Application Control Number on your original application in Block 24 on the new license application.

**(h) Emergency processing**

Applicants may request emergency processing of license applications by contacting the Outreach and Educational Services Division of the Office of Exporter Services by telephone on (202) 482-4811 or by facsimile on (202) 482-2927. Refer to the Application Control Number when making emergency processing requests. BIS will expedite its evaluation, and attempt to expedite the evaluations of other government agencies, of a license application when, in its sole judgement, the circumstances justify emergency processing. See

**On 2-28-2018, BIS advised their current policy now is to only approve these Emergency Processing requests for two reasons: (i) humanitarian, (ii) AOG.**

§750.7(g) of the EAR for the limit on the validity period of emergency licenses.

consignee may be a bank, forwarding agent, or other person who acts as an agent for a principal party in interest.

**§ 748.5 PARTIES TO THE TRANSACTION**

**(e) Ultimate Consignee**

The following parties may be entered on the application. The definitions, which also appear in Part 772 of the EAR, are set out here for your convenience to assist you in filling out your application correctly.

The principal party in interest located abroad who receives the exported or reexported items. The ultimate consignee is not a forwarding agent or other intermediary, but may be the end-user.

**(a) Applicant**

**(f) End-User**

The person who applies for an export or reexport license, and who has the authority of a principal party in interest to determine and control the export or reexport of items. See §748.4(a) and definition of “exporter” in part 772 of the EAR.

The person abroad that receives and ultimately uses the exported or reexported items. The end-user is not a forwarding agent or intermediary, but may be the purchaser or ultimate consignee.

**(b) Other party authorized to receive license**

**§ 748.6 GENERAL INSTRUCTIONS FOR LICENSE APPLICATIONS**

**(a) Instructions**

The person authorized by the applicant to receive the license. If a person and address is listed in Block 15 of the application, the Bureau of Industry and Security will send the license to that person instead of the applicant. Designation of another party to receive the license does not alter the responsibilities of the applicant, licensee or exporter.

(1) General instructions for filling out license applications are in Supp. No. 1 to this part.

**(c) Purchaser**

(2) License applications may require additional information due to the type of items requested in the application or the characteristics of the transaction. Special instructions for applications requiring such additional information are listed in § 748.8 and described fully in Supplement No. 2 to this part.

The person abroad who has entered into the transaction to purchase an item for delivery to the ultimate consignee. In most cases, the purchaser is not a bank, forwarding agent, or intermediary. The purchaser and ultimate consignee may be the same entity.

(3) License applications may also require additional information for evaluation of the parties in the transaction. Special instructions for applications requiring such additional information are listed in §§ 748.9 through 748.13.

**(d) Intermediate Consignee**

**(b) Application Control Number**

The person that acts as an agent for a principal party in interest and takes possession of the items for the purpose of effecting delivery of the items to the ultimate consignee. The intermediate

Each application has an application control number. The Application Control Number, consisting of a letter followed by six digits, is for use by BIS when processing applications, and by

**Note: The old \*\*log requirement at §748.7(c) "Maintenance of a log", no longer exists.** "Your company must maintain a log, either manually or electronically, specifying the date and time of each electronic submission, the ECCNs of items on each electronic submission, and the name of the employee or agent submitting the license application. This log may not be altered. Written corrections must be made in a manner that does not erase or cover original entries. If the log is maintained electronically, corrections may only be made as notations."

applicants when communicating with BIS concerning pending applications. This number is used for tracking purposes within the U.S. Government. The Application Control Number is not a license number.

**(c) Approval or denial in entirety**

License applications may be approved in whole or in part, denied in whole or in part, or returned without action. However, you may specifically request that your license application be considered as a whole and either approved or denied in its entirety.

**(d) Combining items on license applications**

Any items may be combined on a single application; however, if the items differ dramatically (e.g., computers and shotguns) the number of BIS offices to which a license application may be referred for review may increase significantly. Accordingly, it is recommended that you limit items on each license application to those that are similar and/or related.

**(e) Attachments to applications**

Documents required to be submitted with applications filed via SNAP-R must be submitted as PDF files using the procedures described in SNAP-R. Documents required to be submitted with paper applications must bear the application control number to which they relate and, if applicable, be stapled to the paper form. Where necessary, BIS may require you to submit additional information beyond that stated in the EAR confirming or amplifying information contained in your license application.

**(f) Changes in facts**

Answers to all items on the license application will be deemed to be continuing representations of the existing facts or circumstances. Any material or substantive change in the terms of the

order, or in the facts relating to the transaction, must be promptly reported to BIS, whether a license has been granted or the license application is still under consideration. If a license has been granted and such changes are not excepted in §750.7(c) of the EAR, they must be reported immediately to BIS, even though shipments against the license may be partially or wholly completed, during the validity period of the license.

**(g) Request for extended license validity period**

An extended validity period will generally be granted if your transaction is related to a multi-year project, when production lead time will not permit export or reexport during the normal validity period or for other similar circumstances. A continuing requirement to supply spare or replacement parts will not normally justify an extended validity period. To request an extended validity period, include justification for your request in Block 24 on the application.

**§ 748.7 REGISTERING FOR ELECTRONIC SUBMISSION OF LICENSE APPLICATIONS AND RELATED DOCUMENTS**

**(a) Scope**

This section describes the procedures for registering to submit electronic documents to BIS. The procedures in this section apply to submission of export and reexport license applications, classification requests, and License Exception AGR notifications.

**(b) Registration and use of BIS's Simplified Network Applications System—Redesign (SNAP-R)**

Parties wishing to submit electronically must log on to <https://snapr.bis.doc.gov/registration> to register. Upon initial registration, the party (the

filing entity) will have to supply the name of the entity that will be submitting documents electronically and its address and the name, telephone number, facsimile number and e-mail address of the person who will act as account administrator. The person will be required to certify that the information so supplied is correct and complete, that the person has authority to register the entity that will be making electronic submissions and that the person has authority to act as an account administrator for that entity.

***(c) Role of account administrator***

The account administrator is able to add and remove individual users to and from the account of the filing entity for which it is the account administrator. The account administrator can also make individual users account administrators and can terminate an individual user's administrator status. The account administrator can deactivate the account of an individual user and reactivate the account of a previously deactivated individual user. The account administrator can update the filing entity's identifying information such as name and address and any individual user's identifying information such as name, telephone number, facsimile number and e-mail address. The account administrator can reset individual users' passwords.

***(d) Role of individual users***

An individual user may submit to BIS export and reexport license applications, classification requests, and License Exception AGR notifications.

***(e) Effect of submission to BIS***

BIS may refuse to accept an electronic submission if it has reason to believe that the individual user making the submission lacks authority to do so. However, BIS is not obligated to conduct any checks to determine whether an individual user has the necessary authority and will generally treat users as acting within their

authority. Acting through their account administrators, parties have the ability to remove an individual user when that individual user is no longer authorized to make submissions on behalf of that party to BIS and should do so promptly.

***(f) Requirement to keep identifying information accurate and current***

**(1) Filing entities.** Filing entities must, through their account administrators, update their identifying information such as name, address and telephone number in their SNAP-R account as necessary to keep that information accurate and current.

**(2) Individual users.** Individual users must, through their account administrators, update their identifying information such as name, telephone number, facsimile number and e-mail address in their SNAP-R accounts as necessary to keep that information accurate and current.

**§ 748.8 UNIQUE APPLICATION AND SUBMISSION REQUIREMENTS**

In addition to the instructions contained in Supplement No. 1 to this part 748, you must also ensure that the additional requirements for certain items or types of transactions described in this section are addressed in your license application. See Supplement No. 2 to this part 748 if your application involves:

- (a)** Chemicals, medicinals, and pharmaceuticals.
- (b)** Communications intercepting devices.
- (c)** Digital computers, telecommunications, and related equipment.
- (d)** [RESERVED]
- (e)** Intransit shipments through the United States.
- (f)** Intransit shipments outside of the United States.

(g) Nuclear Nonproliferation items and end-uses.

(h) Numerical control devices, motion control boards, numerically controlled machine tools, dimensional inspection machines, direct numerical control systems, specially designed assemblies and specially designed software.

(i) Parts, components, and materials incorporated abroad into foreign-made products.

(j) Ship stores, plane stores, supplies, and equipment.

(k) Regional stability controlled items.

(l) Reexports.

(m) Robots.

(n) Short Supply controlled items.

(o) Technology.

(p) Temporary exports or reexports.

(q) Exports of chemicals controlled for CW reasons by ECCN 1C350 to countries not listed in Supplement No. 2 to part 745 of the EAR..

(r) Encryption classification requests.

(s) [RESERVED] (s) used to be for \*\*FNR

(t) [RESERVED]

(u) Aircraft and vessels on temporary sojourn.

(v) In-country transfers.

(w) License Exception STA eligibility requests for “600 series” end items.

(x) License application for a transaction involving a 9x515 and “600 series” item that is

equivalent to a transaction previously approved under an ITAR license or other approval.

(y) Satellite exports.

**§ 748.9 SUPPORT DOCUMENTS FOR EVALUATION OF FOREIGN PARTIES IN LICENSE APPLICATIONS AND / OR FOR PROMOTING COMPLIANCE WITH LICENSE REQUIREMENTS**

**(a) Scope**

License applicants may be required to obtain support documents concerning the foreign parties and the disposition of the items intended for export, reexport, or transfer (in-country). Some support documents are issued by foreign governments, while other support documents are signed and issued by the purchaser and/or ultimate consignee. For support documents issued by foreign governments, any foreign legal restrictions or obligations exercised by the government issuing the support document are in addition to the conditions and restrictions placed on the transaction by BIS. However, the laws and regulations of the United States are in no way modified, changed, or superseded by the issuance of a support document by a foreign government.

**(b) Requirements to obtain support documents for license applications**

Unless an exception in paragraph (c) of this section applies, a support document is required for certain license applications for:

(1) The People’s Republic of China (PRC) other than the Hong Kong Special Administrative Region (see §§ 748.10 and 748.11(a)(2));

(2) “600 Series Major Defense Equipment” (see § 748.11);

Larry Sullivan from the BIS West Coast Office said to get a "Statement" (or BIS-711) from all parties unless direct sale to a foreign government. But that was in 2014, long before the more relaxed \*\*BIS-711 rules.

licenses requiring \*\*support documents \*\*English \*\*translation

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(3) Firearms and related commodities to member countries of the Organization of American States (see § 748.12); and

(4) The Hong Kong Special Administrative Region of the People’s Republic of China (see § 748.13).

**NOTE 1 TO PARAGRAPH (b):** *On a case-by-case basis, BIS may require license applicants to obtain a support document for any license application.*

**NOTE 2 TO PARAGRAPH (b):** *For End-Use Certificate requirements under the Chemical Weapons Convention, see § 745.2 of the EAR.*

**(c) Exceptions to requirements to obtain support documents**

(1) Even if a support document requirement is imposed by paragraph (b) of this section, no support document is required for any of the following situations:

(i) The ultimate consignee or purchaser is an “Agency of the United States Government” (see § 740.11(b)(1) for definition). If either the ultimate consignee or purchaser is not an agency of the United States government, however, a support document may still be required from the non-U.S. governmental party;

(ii) The ultimate consignee or purchaser is a foreign government(s) or foreign government agency(ies), other than the government of the People’s Republic of China. To determine whether the parties in a transaction meet the definition of “foreign government agency,” refer to the definition contained in part 772 of the EAR.

If either the ultimate consignee or purchaser is not a foreign government or foreign government agency, however, a support document may still be required from the nongovernmental party;

(iii) The license application is filed by, or on behalf of, a relief agency registered with the

Advisory Committee on Voluntary Foreign Aid, U.S. Agency for International Development, for export to a member agency in the foreign country;

(iv) The license application is submitted for commodities for temporary exhibit, demonstration, or testing purposes;

(v) The license application is submitted for commodities controlled for short supply reasons (see part 754 of the EAR);

(vi) [Reserved]

(vii) The license application is submitted for software or technology; or

(viii) The license application is submitted for encryption commodities controlled under ECCN 5A002, 5A004 or 5B002.

(2) BIS will consider granting an exception to the requirement for obtaining a support document where the requirements cannot be met due to circumstances beyond the applicant’s control. An exception will not be granted contrary to the objectives of the U.S. export control laws and regulations. Refer to § 748.13 of this part for specific instructions on procedures for requesting an exception.

**(d) Content of support documents**

In addition to specific requirements described for each support document in §§ 748.10, 748.11, and 748.12, the use and submission of support documents must comply with the following requirements.

**(1) English translation.** All abbreviations, coded terms, or other expressions on support documents having special significance in the trade or to the parties to the transaction must be explained on an attachment to the document. Documents in a language other than English must be accompanied by an attachment giving an accurate English translation, either made by a

This **USED TO MEAN:** "If neither the ultimate consignee nor the purchaser is a foreign government", then a statement (like a \*\*BIS-711) is required from the nongovernmental party.

But **NOW** §748.9(c)(1)(ii) says "**may still be required**", where it used to say "a statement **is required** from the nongovernmental party".

**\*\*must disclose any \*\*material fact in any application. Also see p. 1034.**

translating service or certified by the applicant to be correct. Explanations or translations should be provided on a separate piece of paper, and not entered on the support documents themselves.

**(2) Responsibility for full disclosure.**

(i) The license application covering the transaction discloses all facts pertaining to the transaction. Information contained in a support document obtained after submission of a license application and not submitted to BIS as part of the application cannot be construed as extending or expanding or otherwise modifying the specific information supplied in a license application or license issued by BIS. The authorizations contained in the resulting license are not extended by information contained in the support document regarding reexport from the country of destination, transfer (in-country), or any other facts relative to the transaction that are not reported on the license application.

(ii) Misrepresentations, either through failure to disclose facts, concealing a material fact, or furnishing false information, may subject responsible parties to administrative or criminal action by BIS.

(iii) In obtaining the required support document, the applicant is not relieved of the responsibility for full disclosure of any other information concerning the ultimate destination, end use, or end user of which the applicant knows, even if inconsistent with the representations made in the applicable support document. The applicant is responsible for promptly notifying BIS of any change in the facts contained in the support document that comes to the applicant's attention.

**(e) Procedures for using support document with license application**

**(1) Timing for obtaining support document.**

When a support document is required for a

license application in §§ 748.10, 748.11, and 748.12, license applicants may submit the application prior to receipt of a copy of the support document, unless BIS informs the applicant that the support document must be submitted with the application. However, if the license is granted, items authorized on the license may not be exported, reexported, or transferred (in-country) until the license holder obtains a copy of the support document. The documents issued by the Government of the Hong Kong Special Administrative region that are required pursuant to § 748.13 are not used to evaluate license applications. They must be obtained before shipment and need not be obtained before submitting a license application.

**(2) Information necessary for license application.** When a support document is required for a license application, applicants should mark the appropriate box in Block 7, regardless of whether a copy of the support document is on file with the applicant at the time of submission.

**(f) Recordkeeping provisions**

License applicants must retain on file the original or a copy of any support document issued in support of a license application submitted to BIS. All recordkeeping provisions in part 762 apply to this requirement.

**(g) Effect on license application review**

BIS reserves the right in all respects to determine to what extent any license will be issued covering items for which a support document has been issued. If a support document was issued by a foreign government, BIS will not seek or undertake to give consideration to recommendations from the foreign government as to the action to be taken on a license application. A support document will be only one of the factors upon which BIS will base its licensing action,

**\*\*MOFCOM is required for all licensable transactions >\$50K to the PRC. Sometimes the threshold is lower than \$50K.**

since end uses and other considerations are important factors in the decision making process.

**(h) Grace period for complying with requirements following regulatory change**

(1) Whenever the requirement for a PRC End-User Statement, Statement by Ultimate Consignee or Purchaser, or Firearms Convention Import Certificate is imposed or extended by a change in the regulations, the license application need not conform to the new support documentation requirements for a period of 45 days after the effective date of the regulatory change published in the Federal Register.

(2) License applications filed during the 45-day grace period may require the submission of evidence available to the applicant that will support representations concerning the ultimate consignee, ultimate destination, and end use, such as copies of the order, letters of credit, correspondence between the applicant and ultimate consignee, or other documents received from the ultimate consignee. If such evidence is required, applicants must also identify the regulatory change (including its effective date) that justifies exercise of the 45-day grace period.

**§ 748.10 PEOPLE'S REPUBLIC OF CHINA (PRC) END-USER STATEMENT**

**(a) Requirement to obtain document**

Unless the provisions of §§ 748.9(c) or 748.11(a)(2) apply, a PRC End-User Statement is required for license applications including any of the following commodities destined for the PRC:

(1) Cameras classified under ECCN 6A003 requiring a license to the PRC for any reason, and the value of such cameras exceeds \$5,000;

(2) Computers requiring a license to the PRC for any reason, regardless of the value of the computers; or

**(3) Any commodity(ies) requiring a license to the PRC for any reason on the Commerce Control List, and the total value of such commodity(ies) requiring a license exceeds \$50,000.**

**NOTE 1 TO PARAGRAPH (a):** *If an order meets the commodity(ies) and value requirements listed above, then a PRC End-User Statement is required. An order may not be split into multiple license applications solely to avoid a requirement to obtain a PRC End-User Statement.*

**NOTE 2 TO PARAGRAPH (a):** *If an order includes both items that do require a license to the PRC and items that do not require a license to the PRC, the value of the latter items should not be factored into the value thresholds described above. Also, if a license application includes 6A003 cameras and other items requiring a license to the PRC, then the value of the 6A003 cameras should be factored into the value threshold described in paragraph (a)(3).*

**NOTE 3 TO PARAGRAPH (a):** *See § 748.11(a)(2) for permissive use of a Statement by Ultimate Consignee and Purchaser in place of a PRC End-User Statement.*

**NOTE 4 TO PARAGRAPH (a):** *On a case-by-case basis, BIS may require license applicants to obtain a PRC End-User Statement for a license application that would not otherwise require a PRC End-User Statement under the requirements of paragraph (a) of this section.*

**NOTE 5 TO PARAGRAPH (a):** *This requirement to obtain an end-user statement from the PRC Ministry of Commerce does not apply to transactions destined to the PRC Special Administrative Region of Hong Kong.*

**\*\*BIS can require a MOFCOM anytime**

**(b) Obtaining the document**

(1) If a PRC End-User Statement is required for any reason under paragraph (a) of this section, then applicants must request that the importer obtain a PRC End-User Statement for all items on a license application that require a license to the PRC for any reason listed on the CCL.

(2) PRC End-User Statements are issued and administered by the Ministry of Commerce; Department of Mechanic, Electronic and High Technology Industries; Export Control Division I; Chang An Jie No. 2; Beijing 100731 China; Phone: (86)(10) 6519 7366 or 6519 7390; Fax: (86)(10) 6519 7543; <http://zzyhzm.mofcom.gov.cn/>. See the BIS website ([www.bis.doc.gov](http://www.bis.doc.gov)) for the current contact information.

**(c) Content of the document**

(1) The license applicant's name must appear on the PRC End-User Statement submitted to BIS as the applicant, supplier, or order party.

(2) License applicants must ensure that the following information is included on the PRC End-User Statement signed by an official of the Department of Mechanic, Electronic and High Technology Industries, Export Control Division I, of the PRC Ministry of Commerce (MOFCOM), with MOFCOM's seal affixed to it:

- (i) Title of contract and contract number (optional);
- (ii) Names of importer and exporter;
- (iii) End user and end use;
- (iv) Description of the commodity, quantity and dollar value; and
- (v) Signature of the importer and date.

**NOTE TO PARAGRAPH (c):** *The license applicant should furnish the consignee with the commodity description contained in the CCL to be used in applying for the PRC End-User Statement. It is also advisable to furnish a manufacturer's catalog, brochure, or technical specifications if the commodity is new.*

**(d) Procedures for using document with license application**

**(1) Using a PRC End-User Statement for multiple applications.** A PRC End-User Statement may cover more than one purchase order and more than one item. Where the Statement includes items for which more than one license application will be submitted, the applicant should ensure that the total quantities on the license application(s) do not exceed the total quantities shown on the PRC End-User Statement.

**(2) Alterations.** After a PRC End-User Statement is issued by the Government of the People's Republic of China, no corrections, additions, or alterations may be made on the certificate by any person. Any necessary corrections, additions, or alterations should be noted by the applicant in a separate statement on file with the applicant.

**(3) Validity period.** A PRC End-User Statement is valid until the quantities of items identified on the Statement have been shipped.

**§ 748.11 STATEMENT BY ULTIMATE CONSIGNEE AND PURCHASER****(a) Requirement to obtain document**

**(1) General requirement for all countries excluding the People's Republic of China (PRC).** Unless an exception in § 748.9(c) or paragraph (a)(3) of this section applies, a Statement by Ultimate Consignee and Purchaser is required if the license application includes "600 Series Major Defense Equipment" (600 series

MDE) requiring a license for any reason on the Commerce Control List and such items are destined for a country other than the PRC.

**(2) Permissive substitute of Statement by Ultimate Consignee and Purchaser in place of PRC End-User Statement.** The requirement to obtain a support document for license applications involving the PRC is generally determined by § 748.10(a) of the EAR. However, a Statement by Ultimate Consignee and Purchaser may be substituted in place of a PRC End-User Statement when the commodities to be exported (i.e., replacement parts and components) are valued at \$75,000 or less and are for servicing previously exported commodities.

**(3) Exception to general requirement.** The general requirement described in paragraph (a)(1) of this section does not apply if the applicant is the same person as the ultimate consignee, provided the required statements are contained in Block 24 on the license application. This exemption does not apply, however, where the applicant and consignee are separate entities, such as parent and subsidiary, or affiliated or associated firms.

**NOTE 1 TO PARAGRAPH (a):** *An order may not be split into multiple license applications solely to avoid a requirement to obtain a Statement by Ultimate Consignee and Purchaser.*

**NOTE 2 TO PARAGRAPH (a):** *On a case-by-case basis, BIS may require license applicants to obtain a Statement by Ultimate Consignee and Purchaser for a license application that would not otherwise require a Statement by Ultimate Consignee and Purchaser under the requirements of paragraph (a) of this section.*

**(b) Obtaining the document**

**(1)** The ultimate consignee and purchaser must complete either a statement on company letterhead, or Form BIS–711, Statement by Ultimate Consignee and Purchaser, as described

in paragraph (c) of this section. Unless otherwise specified, any reference in this section to “Statement by Ultimate Consignee and Purchaser” applies to both the statement on company letterhead and to Form BIS–711.

**(2)** If the consignee and purchaser elect to complete the statement on letterhead and both the ultimate consignee and purchaser are the same entity, only one statement is necessary.

**(3)** If the ultimate consignee and purchaser are separate entities, separate statements must be prepared and signed.

**(4)** If the ultimate consignee and purchaser elect to complete Form BIS–711, only one Form BIS–711 (containing the signatures of the ultimate consignee and purchaser) need be completed.

**(5)** Whether the ultimate consignee and purchaser sign a written statement or complete Form BIS–711, the following constraints apply:

**(i)** Responsible officials representing the ultimate consignee or purchaser must sign the statement. “Responsible official” is defined as someone with personal knowledge of the information included in the statement, and authority to bind the ultimate consignee or purchaser for whom they sign, and who has the power and authority to control the use and disposition of the licensed items.

**(ii)** The authority to sign the statement may not be delegated to any person (agent, employee, or other) whose authority to sign is not inherent in his or her official position with the ultimate consignee or purchaser for whom he or she signs. The signing official may be located in the United States or in a foreign country. The official title of the person signing the statement must also be included.

**(iii)** The consignee and/or purchaser must submit information that is true and correct to the best of their knowledge and must promptly send a

new statement to the applicant if changes in the facts or intentions contained in their statement(s) occur after the statement(s) have been forwarded to the applicant. Once a statement has been signed, no corrections, additions, or alterations may be made. If a signed statement is incomplete or incorrect in any respect, a new statement must be prepared, signed and forwarded to the applicant.

**(c) Content of the document**

See Supplement No. 3 to this part for the information necessary to complete a statement on company letterhead or on Form BIS-711.

**(d) Procedures for using document with license application**

**(1) Validity period.**

(i) If a Statement by Ultimate Consignee and Purchaser is obtained prior to submission of the license application and the Statement is required to support one or more license applications, an applicant must submit the first license application within one year from the date the statement was signed.

(ii) All subsequent license applications supported by the same Statement by Ultimate Consignee and Purchaser must be submitted within four years of signature by the consignee or purchaser, whichever was last.

**(2) [RESERVED]**

**§ 748.12 FIREARMS IMPORT CERTIFICATE OR IMPORT PERMIT**

License applications for certain firearms and related commodities require support documents in accordance with this section. For destinations that are members of the Organization of American States (OAS), an FC Import Certificate or equivalent official document is required in

accordance with paragraphs (a) through (d) of this section. For other destinations that require a firearms import or permit, the firearms import certificate or permit is required in accordance with paragraph (e) of this section.

**(a) Requirement to obtain document for OAS member states**

Unless an exception in § 748.9(c) applies, an FC Import Certificate is required for license applications for firearms and related commodities, regardless of value, that are destined for member countries of the OAS. This requirement is consistent with the OAS Model Regulations described in § 742.17 of the EAR.

**(1) Items subject to requirement.** Firearms and related commodities are those commodities controlled for “FC Column 1” reasons under ECCNs 0A501 (except 0A501.y), 0A502, 0A504 (except 0A504.f), or 0A505 (except 0A505.d).

**(2) Countries subject to requirement.**

(i) OAS member countries include: Antigua and Barbuda, Argentina, Bahamas, Barbados, Belize, Bolivia, Brazil, Canada, Chile, Colombia, Costa Rica, Dominica, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago, Uruguay, and Venezuela.

**(ii) [RESERVED]**

**(3) Equivalent official document in place of FC Import Certificate.** For those OAS member countries that have not yet established or implemented an FC Import Certificate procedure, BIS will accept an equivalent official document (e.g., import license or letter of authorization) issued by the government of the importing country as supporting documentation for the export of firearms.

**(b) Obtaining the document**

(1) Applicants must request that the importer (e.g., ultimate consignee or purchaser) obtain the FC Import Certificate or an equivalent official document from the government of the importing country, and that it be issued covering the quantities and types of firearms and related items that the applicant intends to export. (See Supplement No. 6 to this part for a list of the OAS member countries' authorities administering the FC Import Certificate System.) Upon receipt of the FC Import Certificate, its official equivalent, or a copy, the importer must provide the original or a certified copy of the FC Import Certificate or the original or a certified copy of the equivalent official document to the license applicant.

(2) If the government of the importing country will not issue an FC Import Certificate or its official equivalent, the applicant must supply the information described in paragraphs (c)(1) and (c)(6) through (c)(8) of this section on company letterhead.

**(c) Content of the document**

The FC Import Certificate or its official equivalent must contain the following information:

(1) Applicant's name and address. The applicant may be either the exporter, supplier, or order party.

(2) FC Import Certificate Identifier/Number.

(3) Name of the country issuing the certificate or unique country code.

(4) Date the FC Import Certificate was issued, in international date format (e.g., 24/12/12 for 24 December 2012, or 3/1/99 for 3 January 1999).

(5) Name of the agency issuing the certificate, address, telephone and facsimile numbers, signing officer name, and signature.

(6) Name of the importer, address, telephone and facsimile numbers, country of residence, representative's name if commercial or government body, citizenship, and signature.

(7) Name of the end user(s), if known and different from the importer, address, telephone and facsimile numbers, country of residence, representative's name if commercial (authorized distributor or reseller) or government body, citizenship, and signature. Note that BIS does not require the identification of each end user when the firearms and related commodities will be resold by a distributor or reseller if unknown at the time of export.

(8) Description of the commodities approved for import including a technical description and total quantity of firearms, parts and components, ammunition and parts.

**NOTE 1 TO PARAGRAPH (c)(8):** *You must furnish the consignee with a detailed technical description of each commodity to be given to the government for its use in issuing the FC Import Certificate. For example, for shotguns, provide the type, barrel length, overall length, number of shots, the manufacturer's name, the country of manufacture, and the serial number for each shotgun. For ammunition, provide the caliber, velocity and force, type of bullet, manufacturer's name and country of manufacture.*

(9) Expiration date of the FC Import Certificate in international date format (e.g., 24/12/12) or the date the items must be imported, whichever is earlier.

(10) Name of the country of export (i.e., United States).

(11) **Additional information.** Certain countries may require the tariff classification number, by class, under the Brussels Convention (Harmonized Tariff Code) or the specific technical description of a commodity. For example,

shotguns may need to be described in barrel length, overall length, number of shots, manufacturer's name and country of manufacture. The technical description is not the Export Control Classification Number (ECCN).

***(d) Procedures for using document with license application***

**(1) Information necessary for license application.** The license application must include the same commodities as those listed on the FC Import Certificate or the equivalent official document.

**(2) Alterations.** After an FC Import Certificate or equivalent official document is used to support the issuance of a license, no corrections, additions, or alterations may be made on the FC Import Certificate by any person. Any necessary corrections, additions, or alterations should be noted by the applicant in a separate statement on file with the applicant.

**(3) Validity period.** FC Import Certificates or equivalent official documents issued by an OAS member country will be valid until the expiration date on the Certificate or for a period of four years, whichever is shorter.

***(e) Requirement to obtain an import certificate or permit for other than OAS member states***

If the country to which firearms, parts, components, accessories, and attachments controlled under ECCN 0A501, or ammunition controlled under ECCN 0A505, are being exported or reexported requires that a government-issued certificate or permit be obtained prior to importing the commodity, the exporter or reexporter must obtain and retain on file the original or a copy of that certificate or permit before applying for an export or reexport license unless:

**(1)** A license is not required for the export or reexport; or

**(2)** The exporter is required to obtain an import or end-user certificate or other equivalent official document pursuant to paragraphs (a) through (d) of this section and has, in fact, complied with that requirement.

**(3)(i)** The number or other identifying information of the import certificate or permit must be stated on the license application.

**(ii)** If the country to which the commodities are being exported does not require an import certificate or permit for firearms imports, that fact must be noted on any license application for ECCN 0A501 or 0A505 commodities.

*Note 2 to paragraph (e). Obtaining a BIS Statement by Ultimate Consignee and Purchaser pursuant to § 748.11 does not exempt the exporter or reexporter from the requirement to obtain a certification pursuant to paragraph (a) of this section because that statement is not issued by a government.*

**§748.13 HONG KONG IMPORT AND EXPORT LICENSES**

***(a) Requirement to obtain the document***

**(1) Exports and reexports to Hong Kong.** An exporter or reexporter must obtain the documents described in paragraph (a)(1)(i) or (a)(1)(ii) of this section before using a license issued by BIS to export or reexport to Hong Kong any item subject to the EAR and controlled on the CCL for NS, MT, NP column 1, or CB reasons. Collectively, the documents issued by Hong Kong must cover all of the items to be exported or reexported pursuant to a license.

**(i)** A copy of an import license issued to the Hong Kong importer by the Government of the

Hong Kong Special Administrative Region, pursuant to the Hong Kong Import and Export (Strategic Commodities) Regulations, that covers the items to be exported or reexported pursuant to that BIS license for which a Hong Kong import license is required and that is valid on the date of the export or reexport that is subject to the EAR; or

(ii) A copy of a written statement issued by the Government of the Hong Kong Special Administrative Region that no import license is required to import into Hong Kong the item(s) to be exported or reexported to Hong Kong. The statement may have been issued directly to the Hong Kong importer or it may be a written statement available to the general public. The statement may be used for more than one export or reexport to Hong Kong so long as it remains an accurate statement of Hong Kong law.

**(2) Reexports from Hong Kong.** No license issued by BIS may be used to reexport from Hong Kong any item subject to the EAR controlled on the CCL for NS, MT, NP column 1, and/or CB reasons unless the reexporter has received either:

(i) An export license issued by the Government of the Hong Kong Special Administrative Region, pursuant to the Hong Kong Import and Export (Strategic Commodities) Regulations, that covers all items to be reexported pursuant to that BIS license for which a Hong Kong export license is required and that is valid on the date of the reexport that is subject to the EAR; or

(ii) A copy of a written statement issued by the Government of the Hong Kong Special Administrative Region that no export license is required from Hong Kong for the item(s) to be reexported. The statement may have been issued directly to the Hong Kong reexporter or it may be a written statement available to the general public. The statement may be used for more than one reexport from Hong Kong so long as it remains an accurate statement of Hong Kong

law.

**(b) Recordkeeping**

The documents required to be obtained by paragraph (a) of this section must be retained and made available to the U.S. Government upon request in accordance with part 762 of the EAR.

**§ 748.14 GRANTING OF EXCEPTIONS  
TO THE SUPPORT DOCUMENT  
REQUIREMENTS**

**(a) Overview**

A request for an exception to obtaining the required support documentation will be considered by BIS; however, an exception will not be granted contrary to the objectives of the U.S. export control program. A request for exception may involve either a single transaction or, where the reason necessitating the request is continuing in nature, multiple transactions. If satisfied by the evidence presented, BIS may waive the support document requirement and accept the license application for processing.

**(b) Procedure for requesting  
an exception**

The request for an exception must be submitted with the license application to which the request relates, and the reason(s) for requesting the exception must be described in Block 24 or referred to in Block 24. Where the request relates to more than one license application, it should be submitted with the first license application and referred to in Block 24 on any subsequent license application.

**(c) Action by BIS**

**(1) Single transaction request.** Where a single transaction is involved, BIS will act on the request for exception at the same time as the license

application with which the request is submitted. In those instances where the related license application is approved, the issuance of the license will serve as an automatic notice to the applicant that the exception was approved. If any restrictions are placed on granting of the exception, these will appear on the approval. If the request for exception is not approved, BIS will advise the applicant.

**(2) Multiple transactions request.** Where multiple transactions are involved, BIS will advise the applicant of the action taken on the exception request. The response from BIS will contain any conditions or restrictions that BIS finds necessary to impose (including an exception termination date if appropriate). In addition, a written acceptance of these conditions or restrictions may be required from the parties to the transaction.

### **§ 748.15 AUTHORIZATION VALIDATED END-USER (VEU)**

Authorization Validated End-User (VEU) permits the export, reexport, and transfer to validated end-users of any eligible items that will be used in a specific eligible destination. Validated end-users are those who have been approved in advance pursuant to the requirements of this section. To be eligible for authorization VEU, exporters, reexporters, and potential validated end-users must adhere to the conditions and restrictions set forth in paragraphs (a) through (f) of this section. If a request for VEU authorization for a particular end-user is not granted, no new license requirement is triggered. In addition, such a result does not render the end-user ineligible for license approvals from BIS.

#### ***(a) Eligible end-users***

The only end-users to whom eligible items may be exported, reexported, or transferred under

VEU are those validated end-users identified in Supplement No. 7 to Part 748, according to the provisions in this section and those set forth in Supplement Nos. 8 and 9 to this part that have been granted VEU status by the End-User Review Committee (ERC) according to the process set forth in Supplement No. 9 to this part.

**(1)** Requests for authorization must be submitted in the form of an advisory opinion request, as described in §748.3(c)(2), and should include a list of items (items for purposes of authorization VEU include commodities, software and technology, except as excluded by paragraph (c) of this section), identified by ECCN, that exporters or reexporters intend to export, reexport or transfer to an eligible end-user, once approved. To ensure a thorough review, requests for VEU authorization must include the information described in Supplement No. 8 to this part. Requests for authorization will be accepted from exporters, reexporters or end-users. Submit the request to:

The Office of Exporter Services  
Bureau of Industry and Security  
U.S. Department of Commerce  
14th Street and Pennsylvania Avenue, NW.  
Room 2099B  
Washington, DC 20230

Mark the package “Request for Authorization Validated End-User.”

**(2)** In evaluating an end user for eligibility under authorization VEU, the ERC will consider a range of information, including such factors as: the entity's record of exclusive engagement in appropriate end-use activities; the entity's compliance with U.S. export controls; the need for an on-site review prior to approval; the entity's capability of complying with the requirements of authorization VEU; the entity's agreement to on-site reviews by representatives of the U.S. Government to ensure adherence to the conditions of the VEU authorization; and the entity's relationships with U.S. and foreign companies. In addition, when evaluating the eligibility of an

end user, the ERC will consider the status of export controls and the support and adherence to multilateral export control regimes of the government of the eligible destination.

(3) The VEU authorization is subject to revision, suspension or revocation entirely or in part.

(4) Information submitted in a VEU request is deemed to constitute continuing representations of existing facts or circumstances. Any material or substantive change relating to the authorization must be promptly reported to BIS, whether VEU authorization has been granted or is still under consideration.

***(b) Eligible destinations***

Authorization VEU may be used for the following destinations:

(1) The People's Republic of China.

(2) India.

***(c) Item restrictions***

Items controlled under the EAR for missile technology (MT) and crime control (CC) reasons may not be exported or reexported under this authorization.

***(d) End-use restrictions***

Items obtained under authorization VEU in China may be used only for civil end uses and may not be used for any activities described in part 744 of the EAR. Items obtained under authorization VEU in India may be used for either civil or military end uses and may not be used for any activities described in part 744 of the EAR. Exports, reexports, or transfers made under authorization VEU may be made to an end user listed in Supplement No. 7 to this part only if the items will be consigned to and for use by the

validated end user. Eligible end-users who obtain items under VEU may only:

(1) Use such items at the end-user's own facility located in an eligible destination or at a facility located in an eligible destination over which the end-user demonstrates effective control;

(2) Consume such items during use; or

(3) Transfer or reexport such items only as authorized by BIS.

***NOTE TO PARAGRAPH (d):*** Authorizations set forth in Supplement No. 7 to this part are country-specific. Authorization as a validated end-user for one country specified in paragraph (b) of this section does not constitute authorization as a validated end-user for any other country specified in that paragraph.

***(e) Certification and recordkeeping***

Prior to an initial export or reexport to a validated end-user under authorization VEU, exporters or reexporters must obtain certifications from the validated end-user regarding end-use and compliance with VEU requirements. Such certifications must include the contents set forth in Supplement No. 8 to this part. Certifications and all records relating to VEU must be retained by exporters or reexporters in accordance with the recordkeeping requirements set forth in part 762 of the EAR.

***(f) Reporting and review requirements***

(1) ***(i) Reports.*** Reexporters who make use of authorization VEU are required to submit annual reports to BIS. These reports must include, for each validated end-user to whom the exporter or reexporter exported or reexported eligible items:

(A) The name and address of each validated end-user to whom eligible items were reexported;

(B) The eligible destination to which the items were reexported;

(C) The quantity of such items;

(D) The value of such items; and

(E) The ECCN(s) of such items.

(ii) Reports are due by February 15 of each year, and must cover the period of January 1 through December 31 of the prior year. Reports must be sent to:

Office of Exporter Services  
Bureau of Industry and Security  
U.S. Department of Commerce  
14th Street and Constitution Avenue, NW  
Room 2099B  
Washington, DC 20230

Mark the package “Authorization Validated End-User Reports”.

(2) **Reviews.** Records related to activities covered by authorization VEU that are maintained by exporters, reexporters, and validated end-users who make use of authorization VEU will be reviewed on a periodic basis. Upon request by BIS, exporters, reexporters, and validated end-users must allow review of records, including on-site reviews covering the information set forth in paragraphs (e) and (f)(1) of this section.

**(g) Notification requirement**

Exporters and reexporters shipping under Authorization VEU and persons transferring (in-country) under Authorization VEU are required to provide the VEUs to which they are shipping or transferring notice of the shipment or transfer. Such notification must be conveyed to the VEU in writing and must include a list of the VEU-authorized contents of the shipment or transfer and a list of the ECCNs under which the VEU-

authorized items in the shipment or transfer are classified, as well as a statement that the items are being, will be, or were shipped or transferred pursuant to Authorization VEU. Notification of the export, reexport or transfer (in-country) to the VEU must be made within a timeframe agreed to in writing by the VEU and the person exporting, reexporting or transferring (in-country). The VEU and the person exporting, reexporting or transferring (in-country) must agree to the notification timeframe prior to the initial shipment or transfer under Authorization VEU. Depending on the agreement between the VEU and the person exporting, reexporting or transferring (in-country), a notification may be for individual shipments or for multiple shipments. Exporters, reexporters and VEUs are required to maintain the notifications they send or receive in accordance with their recordkeeping requirements.

**(h) Termination of Conditions on VEU Authorizations**

VEUs that are subject to item-specific conditions and have received items subject to such conditions under Authorization VEU are no longer bound by the conditions associated with the items if the items no longer require a license for export or reexport to the PRC or India, as applicable, or become eligible for shipment under a license exception to the destination. Items that become eligible for a License Exception are subject to the terms and conditions of the applicable License Exception and the restrictions in § 740.2 of the EAR. Items that become eligible for export without a license and that remain subject to the EAR may only be exported, reexported, transferred (in-country) or disposed of in accordance with the requirements of the EAR. Termination of VEU conditions does not relieve a validated end-user of its responsibility for violations that occurred prior to the availability of a license exception or prior to the removal of license requirements.

**(i) Records**

Records of items that were shipped under Authorization VEU prior to the removal of a license requirement or the availability of a license exception remain subject to the review requirements of paragraph (f)(2) of this section on and after the date that the license requirement

was removed or the license exception became applicable.

**SUPPLEMENT NO. 1 TO PART 748 - BIS-748P, BIS-748P-A: ITEM APPENDIX, AND  
BIS-748P-B: END-USER APPENDIX; MULTIPURPOSE APPLICATION  
INSTRUCTIONS**

All information must be legibly typed within the lines for each Block or Box, except where a signature is required. Enter only one typed line of text per Block or line. Where there is a choice of entering telephone numbers or facsimile numbers, and you wish to provide a facsimile number instead of a telephone number, identify the facsimile number with the letter “F” immediately after the number (e.g., 022-358-0-123456F). If you are completing this form to request classification of your item, you must complete Blocks 1 through 5, 14, 22(a), (b), (c), (d), and (i), 24, and 25 only.

**Block 1: Contact Person.** Enter the name of the person who can answer questions concerning the application.

**Block 2: Telephone.** Enter the telephone number of the person who can answer questions concerning the application.

**Block 3: Facsimile.** Enter the facsimile number, if available, of the person who can answer questions concerning the application.

**Block 4: Date of Application.** Enter the current date.

**Block 5: Type of Application.**  
*Export.* If the items are located within the United States, and you wish to export those items, mark the Box labeled “Export” with an (X).  
*Reexport.* If the items are located outside the United States, mark the Box labeled “Reexport” with an (X).

**\*\*CCATS** **Classification.** If you are requesting BIS to classify your item against the Commerce Control List (CCL), mark the Box labeled “Classification

Request” with an (X). If you are submitting a License Exception STA eligibility request pursuant to § 740.20(g), mark the box labeled “Export” with an (X) and then proceed to Block 6 of this supplement for instructions specific to such requests.

**Block 6: Documents submitted with Application.** Review the documentation you are required to submit with your application in accordance with the provisions of part 748 of the EAR, and mark all applicable Boxes with an (X).

Mark the Box “Foreign Availability” with an (X) if you are submitting an assertion of foreign availability with your license application. See part 768 of the EAR for instructions on foreign availability submissions.

If you are *not* making a foreign availability assertion under part 768 of the EAR, you may still mark the box “Foreign Availability” with an (X), if you are submitting an assertion of foreign availability with your license application. Foreign availability assertions covered under part 768 are limited to items controlled for national security reasons. However, if an applicant intends to include foreign availability support material for items not controlled for national security reasons, applicants are permitted to do this as part of the license application by marking the box “Foreign Availability” with an (X) and including the foreign availability information, along with the support material for the license application. Applicants must clearly

**\*\*RWA \*\*Returned Without Action -- but note that you must also put the ACS in Block 24, per § 748.4(g)**

## Application Instructions

label this support material as “Foreign availability information - outside the scope of part 768”. Although this information is outside the scope of part 768, applicants should still use Supplement No. 1 to part 768 for general guidance regarding what types of information may be suitable for demonstrating foreign availability. The purpose of submitting this type of foreign availability information will be to make the U.S. Government more aware of the foreign availability of items not controlled for national security reasons.

Mark the “Tech. Specs.” box with an (X) if you are submitting descriptive literature, brochures, technical specifications, etc. with your application.

Mark the “Other” box with an (X) and insert the phrase “STA request” for the description of the support document to submit a request for License Exception STA eligibility pursuant to § 740.20(g). (See Supplement No. 2 to part 748 under paragraph (w) for unique application and submission requirements for License Exception STA eligibility requests described under this Block 6.)

### **Block 7: Documents on File with Applicant.**

Certify that you have retained on file all applicable documents as required by the provisions of part 748 by placing an (X) in the appropriate Box(es).

**Block 8:** [Reserved]

**Block 9: Special Purpose.** Complete this Block for certain items or types of transactions only if specifically required in Supplement No. 2 to this part.

## Supplement No. 1 to Part 748—page 2

**Block 10: Resubmission Application Control Number.** If your original application was returned without action (RWA), provide the Application Control Number. **This does not apply to applications returned without being registered.**

**Block 11: Replacement License Number.** If you have received a license for identical items to the same ultimate consignee, but would like to make a modification that is not excepted in §750.7(c) of the EAR, to the license as originally approved, enter the original license number and complete Blocks 12 through 25, where applicable. Include a statement in Block 24 regarding what changes you wish to make to the original license.

**Block 12: Items Previously Exported.** This Block should be completed only if you have marked the “Reexport” box in Block 5. Enter the license number, License Exception symbol (for exports under General Licenses, enter the appropriate General License symbol), or other authorization under which the items were originally exported, if known.

**Block 13: Import/End-User Certificate.** Enter the name of the country and number of the Import or End User Certificate obtained in accordance with provisions of this part.

**Block 14: Applicant.** Enter the applicant's name, street address, city, state/country, and postal code. Provide a complete street address. P.O. Boxes are not acceptable. Refer to §748.5(a) of this part for a definition of “applicant”. If you

have marked “Export” in Block 5, you must include your company's Employer Identification Number unless you are filing as an individual or as an agent on behalf of the exporter. The Employee Identification Number is assigned by the Internal Revenue Service for tax identification purposes. Accordingly, you should consult your company's financial officer or accounting division to obtain this number.

**Block 15: Other Party Authorized to Receive License.**

If you would like BIS to transmit the approved license to another party designated by you, complete all information in this Block, including name, street address, city, country, postal code and telephone number. Leave this space blank if the license is to be sent to the applicant. Designation of another party to receive the license does not alter the responsibilities of the applicant.

**Block 16: Purchaser.** Enter the purchaser's complete name, street address, city, country, postal code, and telephone or facsimile number. Refer to §748.5(c) of this part for a definition of “purchaser”. If the purchaser is also the ultimate consignee, enter the complete name and address. If your proposed transaction does not involve a separate purchaser, leave Block 16 blank.

**Block 17: Intermediate Consignee.** Enter the intermediate consignee's complete name, street address, city, country, postal code, and telephone or facsimile number.

Provide a complete street address, P.O. Boxes are not acceptable. Refer to §748.5(d) of this part for a definition of “intermediate consignee”. If this party is identical to that listed in Block 16, enter the complete name and address. If your proposed transaction does not involve use of an intermediate consignee, enter “None”. If your proposed transaction involves more than one intermediate consignee, provide the same information in Block 24 for each additional intermediate consignee.

**Block 18: Ultimate Consignee.** This Block must be completed if you are submitting a license application. Enter the ultimate consignee's complete name, street address, city, country, postal code, and telephone or facsimile number. Provide a complete street address, P.O. Boxes are not acceptable. The ultimate consignee is the party who will actually receive the item for the end-use designated in Block 21. Refer to §748.5(e) of this part for a definition of “ultimate consignee”. A bank, freight forwarder, forwarding agent, or other intermediary may not be identified as the ultimate consignee. Government purchasing organizations are the sole exception to this requirement. This type of entity may be identified as the government entity that is the actual ultimate consignee in those instances when the items are to be transferred to the government entity that is the actual end-user, provided the actual end-user and end-use is clearly identified in Block 21 or in

the additional documentation attached to the application.

If your application is for the reexport of items previously exported, enter the new ultimate consignee's complete name, street address, city, country, postal code, and telephone or facsimile number. Provide a complete street address, P.O. Boxes are not acceptable. If your application involves a temporary export or reexport, the applicant should be shown as the ultimate consignee in care of a person or entity who will have control over the items abroad.

**Block 19: End-User.** Complete this Block only if the ultimate consignee identified in Block 18 is not the actual end-user. If there will be more than one end-user, use Form BIS-748P-B to identify each additional end-user. Enter each end-user's complete name, street address, city, country, postal code, and telephone or facsimile number. Provide a complete street address, P.O. Boxes are not acceptable.

**Block 20: Original Ultimate Consignee.** If your application involves the reexport of items previously exported, enter the original ultimate consignee's complete name, street address, city, country, postal code, and telephone or facsimile number. Provide a complete street address, P.O. Boxes are not acceptable. The original ultimate consignee is the entity identified in the original application for export as the ultimate consignee or the party currently in possession of the items.

**Block 21: Specific End-Use.** This Block must be completed if you are submitting a license application. Provide a complete and detailed description of the end-use intended by the ultimate consignee and/or end-user(s). If you are requesting approval of a reexport, provide a complete and detailed description of the end-use intended by the new ultimate consignee or end-user(s) and indicate any other countries for which resale or reexport is requested. If additional space is necessary, use Block 21 on Form BIS-748P-A or B. Be specific—vague descriptions such as “research”, “manufacturing”, or “scientific uses” are not acceptable.

**Block 22:** For a license application you must complete each of the sub-blocks contained in this Block. If you are submitting a classification request, you need not complete Blocks (e), (f), (g), and (h). If you wish to export, reexport or have BIS classify more than one item, use Form BIS-748P-A for additional items.

(a) **ECCN.** Enter the Export Control Classification Number (ECCN) that corresponds to the item you wish to export or reexport. If you are asking BIS to classify your item, provide a recommended classification for the item in this Block.

(b) **CTP.** You must enter the “Adjusted Peak Performance” (“APP”) in this Block if your application includes a digital computer or equipment containing a computer as described in Supplement No. 2 to this part.

Instructions on calculating the APP are contained in a Technical Note at the end of Category 4 in the CCL.

- (c) **Model Number.** Enter the correct model number for the item.
- (d) **CCATS Number.** If you have received a classification for this item from BIS, provide the CCATS number shown on the classification issued by BIS.
- (e) **Quantity.** Identify the quantity to be exported or reexported, in terms of the unit commonly used in the trade.
- (f) **Units.** The unit of quantity used in Block 22(e) must be entered on all license applications submitted to BIS. This Block may be left blank on license applications for technology only.
- (g) **Unit Price.** Provide the fair market value of the items you wish to export or reexport. Round all prices to the nearest whole dollar amount. Give the exact unit price only if the value is less than \$0.50. If normal trade practices make it impractical to establish a firm contract price, state in Block 24 the precise terms upon which the price is to be ascertained and from which the contract price may be objectively determined.
- (h) **Total Price.** Provide the total price of the item(s) described in Block 22(j).
- (i) **Manufacturer.** Provide the name only of the manufacturer, if known, for each of the items you wish to export, reexport, or have BIS classify, if different from the applicant.

- (j) **Technical Description.** Provide a description of the item(s) you wish to export, reexport, or have BIS classify. Provide details when necessary to identify the specific item(s), include all characteristics or parameters shown in the applicable ECCN using measurements identified in the ECCN (e.g., basic ingredients, composition, electrical parameters, size, gauge, grade, horsepower, etc.). These characteristics must be identified for the items in the proposed transaction when they are different than the characteristics described in promotional brochure(s).

**Block 23: Total Application Dollar Value.**

Enter the total value of all items contained on the application in U.S. Dollars. The use of other currencies is not acceptable.

**Block 24: Additional Information.**

Enter additional data pertinent to the application as required in the EAR. Include special certifications, names of parties of interest not disclosed elsewhere, explanation of documents attached, etc. Do not include information concerning Block 22 in this space.

If your application represents a previously denied application, you must provide the Application Control Number from the original application.

**If you are requesting BIS to classify your product, use this space to explain why you believe the ECCN entered in Block 22(a) is appropriate. This explanation must contain an analysis of the item in terms of the technical control parameters specified in the appropriate ECCN. If you have not identified a recommended classification**

in Block 22(a), you must state the reason you cannot determine the appropriate classification, identifying anything in the regulations that you believe precluded you from determining the correct classification.

If additional space is necessary, use Block 24 on Form BIS-748P-A or B.

This Block should be completed if your application includes a 9x515 or “600 series” item that is equivalent to a transaction previously approved under an ITAR license or other approval. Enter the previous State license number or other approval identifier in Block 24 of the BIS license application. If more than one previous State license number or other approval identifier is applicable, then enter the most recent one. Only those license applications where the particulars of the EAR license application are equivalent as previously authorized under the ITAR license or other approval in regard to the description of the item (including the item’s function, performance

capabilities, form and fit), purchaser, ultimate consignee and end users on the license will receive full consideration under this paragraph, which may result in a quicker processing time. The classification of the 9x515 or “600 series” item in question will no longer be the same because the item would no longer be “subject to the ITAR,” but all other aspects of the description of the item must be the same in order to be reviewed under this expedited process under paragraph (x) of Supplement No. 2 to part 748 of the EAR.

**Block 25:** You, as the applicant or duly authorized agent of the applicant, must manually sign in this Block. Rubber-stamped or electronic signatures are not acceptable. If you are an agent of the applicant, in addition to providing your name and title in this Block, you must enter your company's name in Block 24. Type both your name and title in the space provided.

**SUPPLEMENT NO. 2 TO PART 748 - UNIQUE APPLICATION AND SUBMISSION REQUIREMENTS**

In addition to the instructions contained in Supplement No. 1 to part 748, you must also ensure that the additional requirements for certain items or types of transactions described in this supplement are addressed in your license application. All other blocks not specifically identified in this supplement must be completed in accordance with the instructions contained in Supplement No. 1 to part 748. The term “Block” used in this supplement relates to Form BIS-748P, unless otherwise noted.

**(a) Chemicals, medicinals, and pharmaceuticals**

If you are submitting a license application for the export or reexport of chemicals, medicinals, and/or pharmaceuticals, the following information must be provided in Block 22.

- (1) Facts relating to the grade, form, concentration, mixture(s), or ingredients as may be necessary to identify the item accurately, and;
- (2) The Chemical Abstract Service Registry (C.A.S.) numbers, if they exist, must be identified.

**(b) Communications intercepting devices**

If you are required to submit a license application under §742.13 of this part, you must enter the words “Communications Intercepting Device(s)” in Block 9. The item you are requesting to export or reexport must be specified by name in Block 22(j).

**(c) Computers, telecommunications, information security items, and related equipment**

If your license application includes items controlled by both Category 4 and Category 5, your license application must be submitted under

Category 5 of the Commerce Control List (§774.1 of the EAR) - see Category 5 Part 1 Notes 1 and 2 and Part 2 Note 1. License applications including computers controlled by Category 4 must identify an “Adjusted Peak Performance” (“APP”) in Block 22(b). If the principal function is telecommunications, an APP is not required. Computers, related equipment, or software performing telecommunication or local area network functions will be evaluated against the telecommunications performance characteristics of Category 5 Part 1, while information security commodities, software and technology will be evaluated against the information security performance characteristics of Category 5 Part 2.

**(1) Requirements for license applications that include computers.** If you are submitting a license application to export or reexport computers or equipment containing computers to destinations in Country Group D:1 (See Supplement No. 1 to part 740 of the EAR), or to upgrade existing computer installations in those countries, you must also include technical specifications and product brochures to corroborate the data supplied in your license application, in addition to the APP in Block 22(b).

**(2) Security Safeguard Plan requirement.** The United States requires security safeguards for exports, reexports, and transfers (in-country) of High Performance Computers (HPCs) to ensure that they are used for peaceful purposes. If you are submitting a license application for an export, reexport, or in-country transfer of a high performance computer to or within a destination in Computer Tier 3 (see §740.7(c)(1) of the EAR) or to Cuba, Iran, North Korea, Sudan, or Syria you must include with your license application a security safeguard plan signed by the end-user, who may also be the ultimate consignee. This requirement also applies to exports, reexports, and transfers (in-country) of components or

electronic assemblies to upgrade existing “computer” installations in those countries. A sample security safeguard plan is posted on BIS's webpage at <http://www.bis.doc.gov/hpcs/SecuritySafeguardPlans.html>.

(d) [RESERVED]

**(e) *Intransit through the United States***

If you are submitting a license application for items moving intransit through the United States that do not qualify for the *intransit* provisions of License Exception TMP (see §740.9(b)(1) of the EAR), you must provide the following information with your license application:

- (1) In Block 9, enter the phrase “Intransit Shipment”;
- (2) In Block 24, enter the name and address of the foreign consignor who shipped the items to the United States and state the origin of the shipment;
- (3) Any available evidence showing the approval or acquiescence of the exporting country (or the country of which the exporter is a resident) for shipments to the proposed ultimate destination. Such evidence may be in the form of a Transit Authorization Certificate; and
- (4) Any support documentation required by §748.9 of this part for the country of ultimate destination.

**(f) *Intransit outside of the United States***

If you are submitting a license application based on General Prohibition Eight stated in §736.2(b)(8) of the EAR and identification of the intermediate consignee in the country of unloading or transit is unknown at the time the license application is submitted, the country of unloading or transit must be shown in Block 17.

**(g) *Nuclear Nonproliferation items and***

***end-uses***

**(1) Statement requirement.** If a license is required to export or reexport items described in §742.3 of the EAR, or any other item (except those controlled for short supply reasons) where the item is intended for a nuclear end-use, prior to submitting a license application, you must obtain a signed written statement from the end-user certifying the following:

(i) The items to be exported or replicas thereof (“replicas” refers to items produced abroad based on physical examination of the item originally exported, matching it in all critical design and performance parameters), will not be used in any of the activities described in §744.2(a) of the EAR; and

(ii) Written authorization will be obtained from the BIS prior to reexporting the items, unless they are destined to Canada or would be eligible for export from the United States to the new country of destination under NLR based on Country Chart NP Column 1.

**(2) License application requirements.** Along with the required certification, you must include the following information in your license application:

(i) In Block 7, place an (X) in the box titled “Nuclear Certification”;

(ii) In Block 9, enter the phrase “NUCLEAR CONTROLS”;

(iii) In Block 21, provide, if known, the specific geographic locations of any installations, establishments, or sites at which the items will be used;

(iv) In Block 22(j), if applicable, include a description of any specific features of design or specific modifications that make the item capable of nuclear explosive activities, or of safeguarded

or unsafeguarded nuclear activities as described in §744.2(a)(3) of the EAR; and

(v) In Block 24, if your license application is being submitted because you know that your transaction involves a nuclear end-use described in §744.2 of the EAR, you must fully explain the basis for your knowledge that the items are intended for the purpose(s) described §744.2 of the EAR. Indicate, if possible, the specific end-use(s) the items will have in designing, developing, fabricating, or testing nuclear weapons or nuclear explosive devices or in designing, constructing, fabricating, or operating the facilities described in §744.2(a)(3) of the EAR.

**(h) Numerical control devices, motion control boards, numerically controlled machine tools, dimensional inspection machines, direct numerical control systems, specially designed assemblies and specially designed software**

(1) If you are submitting a license application to export, reexport, or request BIS to classify numerical control devices, motion control boards, numerically controlled machine tools, dimensional inspection machines, and specially designed software you must include the following information in your license application:

(i) For numerical control devices and motion control boards:

(A) Make and model number of the control unit;

(B) Description and internal configuration of numerical control device. If the device is a computer with motion control board(s), then include the make and model number of the computer;

(C) Description of the manner in which a computer will be connected to the CNC unit for on-line processing of CAD data. Specify the make and model of the computer;

(D) Number of axes the control unit is capable of simultaneously controlling in a coordinated contouring mode, and type of interpolation (linear, circular, and other);

(E) Minimum programmable increment;

(F) A description and an itemized list of all software/firmware to be supplied with the control device or motion control board, including software/firmware for axis interpolation function and for any programmable control unit or device to be supplied with the control unit;

(G) Description of capabilities related to “real time processing” and receiving computer aided-design.

(H) A description of capability to accept additional boards or software that would permit an upgrade of the electronic device or motion control board above the control levels specified in ECCN 2B001; and

(I) Specify if the electronic device has been downgraded, and if so can it be upgraded in future.

(ii) For numerically controlled machine tools and dimensional inspection machines:

(A) Name and model number of machine tool or dimensional inspection machine;

(B) Type of equipment, e.g., horizontal boring machine, machining center, dimensional inspection machine, turning center, water jet, etc.;

(C) Description of the linear and rotary axes capable of being simultaneously controlled in a coordinated contouring mode, regardless of the fact that the coordinated movement of the machine axis may be limited by

another **\*\*de minimis**  
alternative

#### Unique Application and Submission Requirements

the numerical control unit supplied by the machine tool;

(D) Maximum workpiece diameter for cylindrical grinding machines;

(E) Motion (camming) of the spindle axis measured in the axial direction in one revolution of the spindle, and a description of the method of measurement for turning machine tools only;

(F) Motion (run out) of the spindle axis measured in the radial direction in one revolution of the spindle, and a description of the method of measurement;

(G) Overall positioning accuracy in each axis, and a description of the method for measurement; and

(H) Slide motion test results.

**(i) *Parts, components, and materials incorporated abroad into foreign-made products***

BIS will consider license applications to export or reexport to multiple consignees or multiple countries when an application is required for **foreign produced direct product** containing parts and components subject to the EAR in §732.4(b) of the EAR and to General Prohibition Two stated in §736.2(b)(2) of the EAR. Such requests will not be approved for countries listed in Country Group E:2 (See Supplement No. 1 to part 740 of the EAR), and may be approved only in limited circumstances for countries listed in Country Group D:1.

**(1) License applications for the export of parts and components.** If you are submitting a license application for the export of parts, components, or materials to be incorporated abroad into products that will then be sent to designated third countries, you must enter in Block 21, a description of end-use including a

#### Supplement No. 2 to Part 748—page 4

general description of the commodities to be manufactured, their typical end-use, and the countries where those commodities will be marketed. The countries may be listed specifically or may be identified by Country Groups, geographic areas, etc.

**(2) License applications for the reexport of incorporated parts and components.** If you are submitting a license application for the reexport of parts, components, or materials incorporated abroad into products that will be sent to designated third countries you must include the following information in your license application:

(i) In Block 9, enter the phrase “Parts and Components”;

(ii) In Block 18, enter the name, street address, city and country of the foreign party who will be receiving the foreign-made product. If you are requesting approval for multiple countries or consignees enter “Various” in Block 18, and list the specific countries, Country Groups, or geographic areas in Block 24;

(iii) In Block 20, enter the name, street address, city, and country of the foreign party who will be exporting the foreign-made product incorporating U.S. origin parts, components or materials;

(iv) In Block 21, describe the activity of the ultimate consignee identified in Block 18 and the end-use of the foreign-made product. Indicate the final configuration if the product is intended to be incorporated in a larger system. If the end-use is unknown, state “unknown” and describe the general activities of the end-user;

(v) In Block 22(e), specify the quantity for each foreign-made product. If this information is unknown, enter “Unknown” in Block 22(e);

(vi) In Block 22(h), enter the digit “0” for each foreign-made product;

(vii) In Block 22(j), describe the foreign-made product that will be exported, specifying type and model or part number. Attach brochures or specifications, if available. Show as part of the description the unit value, in U.S. dollars, of the foreign-made product (if more than one foreign-made product is listed on the license application, specify the unit value for each type/model/part number). Also include a description of the U.S. content (including the applicable Export Control Classification Number(s)) and its value in U.S. dollars. If more than one foreign-made product is identified on the license application, describe the U.S. content and specify the U.S. content value for each foreign-made product. Also, provide sufficient supporting information to explain the basis for the stated values. To the extent possible, explain how much of the value of the foreign-made product represents foreign origin parts, components, or materials, as opposed to labor, overhead, etc. When the U.S. content varies and cannot be specified in advance, provide a range of percentage and value that would indicate the minimum and maximum U.S. content;

(viii) Include separately in Block 22(j) a description of any U.S. origin spare parts to be reexported with the foreign-made product, if they exceed the amount allowed by §740.10 of the EAR. Enter the quantity, if appropriate, in Block 22(e). Enter the ECCN for the spare parts in Block 22(a) and enter the value of the spare parts in Block 22(h);

(ix) In Block 23, enter the digit "0";

(x) If the foreign-made product is the direct product of U.S. origin technology that was exported or reexported subject to written assurance, a request for waiver of that assurance, if necessary, may be made in Block 24. If U.S. origin technology will accompany a shipment to a country listed in Country Group D:1, E:1, or E:2 (see Supplement No. 1 to part 740 of the EAR)

describe in Block 24 the type of technology and how it will be used.

**(j) Ship stores, plane stores, supplies, and equipment**

**(1) Vessels under construction.** If you are submitting a license application for the export or reexport of items, including ship stores, supplies, and equipment, to a vessel under construction you must include the following information in your license application:

(i) In Block 18, enter the name, street address, city, and country of the shipyard where vessel is being constructed;

(ii) In Block 22(j), state the length of the vessel for a vessel under 12 m (40 ft) in length. For a vessel 12 m (40 ft) in length or over, provide the following information (if this information is unknown, enter "Unknown" in this Block):

(A) Hull number and name of vessel;

(B) Type of vessel;

(C) Name and business address of prospective owner, and the prospective owner's nationality; and

(D) Country of registry or intended country of registry.

**(2) Aircraft under construction.** If you are submitting a license application for the export or reexport of items, including plane stores, supplies, and equipment, to an aircraft under construction you must include the following information in your license application:

(i) In Block 18, enter the name and address of the plant where the aircraft is being constructed;

(ii) In Block 22(j), enter the following information (if this information is unknown, enter “Unknown” in this Block):

(A) Type of aircraft and model number;

(B) Name and business address of prospective owner and his nationality; and

(C) Country of registry or intended country of registry.

**(3) Operating vessels and aircraft.** If you are submitting a license application for the export or reexport of items, including ship or plane stores, supplies, and equipment to an operating vessel or aircraft, whether in operation or being repaired, you must include the following information in your license application:

(i) In Block 18, enter the name of the owner, the name of the vessel, if applicable, and port or point where the items will be taken aboard;

(ii) In Block 18, enter the following statement if, at the time of filing the license application, it is uncertain where the vessel or aircraft will take on the items, but it is known that the items will not be shipped to a country listed in Country Group D:1 or E:2 (see Supplement No. 1 to part 740 of the EAR):

Uncertain; however, shipment(s) will not be made to Country Groups D:1 or E:2.

(iii) Provide information as described in paragraph (j)(1)(ii) of this supplement for vessels or information contained in paragraph (j)(2)(ii) of this supplement for aircraft.

**(k) Regional stability controlled items**

(1) If you are submitting a license application for the export or reexport of items controlled for regional stability reasons and subject to licensing

under RS Column 1 on the Country Chart, your license application must be accompanied by full technical specifications.

(2) If you are submitting a license application for the export or reexport to Austria, Cyprus, Finland, Ireland, Israel, Malta, Mexico, Singapore or Sweden of items controlled by ECCNs 2A984, 2D984 or 2E984 to a person designated by a government end-user, pursuant to contract, your license application to export to such designated person must include a statement from the government end-user to be eligible for the licensing policy under §742.6(b)(2)(ii). A responsible official representing the designated end-user must sign the statement. “Responsible official” is defined as someone with personal knowledge of the information included in the statement, and authority to bind the designated end-user for whom they sign, and who has the power and authority to control the use and disposition of the licensed items. Statements from government end-users that the person is so designated (*i.e.*, support documents submitted in accordance with this paragraph (k)(2)) must address the following three criteria for a license application to be reviewed in accordance with the license review policy in §742.6(b)(2)(ii):

(i) U.S. Department of Homeland Security (DHS) Customer Contract Number or agreement reference number, End-user name (company), complete address (including street address, city, state, country and postal code), end-user point of contact (POC);

(ii) Brief contract description, including DHS Project information and projected outcome; and

(iii) The statement shall include a certification stating “We certify that all of the representations in this statement are true and correct to the best of our knowledge and we do not know of any additional representations which are inconsistent with the above statement.”

**Unique Application and Submission Requirements**

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**(l) Reexports**

If you know that an item that requires a license to be exported from the United States to a certain foreign destination will be reexported to a third destination also requiring approval, such a request must be included on the license application. The license application must specify the country to which the reexport will be made in Block 24. If the export does not require a license but the reexport does, you may apply for a license for the reexport, or you may export without a license and notify the consignee of the requirement to seek a license to reexport.

**(m) Robots**

If you are submitting a license application for the export or reexport of items controlled by ECCNs 2B007 or 2D001 (including robots, robot controllers, end-effectors, or related software) the following information must be provided in Block 24:

- (1) Specify if the robot is equipped with a vision system and its make, type, and model number;
- (2) Specify if the robot is specially designed to comply with national safety standards for explosive munitions environments;
- (3) Specify if the robot is specially designed for outdoor applications and if it meets military specifications for those applications;
- (4) Specify if the robot is specially designed for operating in an electro-magnetic pulse (EMP) environment;
- (5) Specify if the robot is specially designed or rated as radiation-hardened beyond that necessary to withstand normal industrial (i.e., non-nuclear industry) ionizing radiation, and its rating in grays (Silicon);

- (6) Describe the robot's capability of using sensors, image processing or scene analysis to generate or to modify robot program instructions or data;
- (7) Describe the manner in which the robot may be used in nuclear industry/manufacturing; and
- (8) Specify if the robot controllers, end-effectors, or software are specially designed for robots controlled by ECCN 2B007, and why.

**(n) Short Supply controlled items**

If you are submitting a license application for the export of items controlled for short supply reasons, you must consult part 754 of the EAR for instructions on preparing your license application.

**(o) Technology**

- (1) **License application instructions.** If you are submitting a license application for the export or reexport of technology you must check the box labeled “Letter of Explanation” in Block 6, enter the word “Technology” in Block 9, leave Blocks 22(e) and (i) blank, and include a general statement that specifies the technology (e.g., blueprints, manuals, etc.) in Block 22(j).
- (2) **Letter of explanation.** Each license application to export or reexport technology must be supported by a comprehensive letter of explanation. This letter must describe all the facts for a complete disclosure of the transaction including, if applicable, the following information:
  - (i) The identities of all parties to the transaction;
  - (ii) The exact project location where the technology will be used;
  - (iii) The type of technology to be exported or reexported;

Direct Product Rule 3-point test refers to "(o)(3)" here. Click to return to Direct Product Rule at General Prohibition Three.

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(iv) The form in which the export or reexport will be made;

(v) The uses for which the data will be employed;

(vi) An explanation of the process, product, size, and output capacity of all items to be produced with the technology, if applicable, or other description that delineates, defines, and limits the data to be transmitted (the “technical scope”); and

(vii) The availability abroad of comparable foreign technology.

### (3) Special provisions.

\*\*Letter of Assurance

(i) **Technology controlled for national security reasons.** If you are submitting a license application to export technology controlled for national security reasons to a country *not* listed in Country Group D:1, E:1, or E:2 (see Supplement No. 1 to part 740 of the EAR) upon request, you must provide BIS a copy of the written letter from the ultimate consignee assuring that, unless prior authorization is obtained from BIS, the consignee will not knowingly reexport the technology to any destination, or export the direct product of the technology, directly or indirectly, to a country listed in Country Group D:1, E:1, or E:2 (see Supplement No. 2 to part 740 of the EAR). If you are unable to obtain this letter of assurance from your consignee, you must state in your license application why the assurances could not be obtained.

(ii) **Maritime nuclear propulsion plants and related items.** If you are submitting a license application to export or reexport technology relating to maritime nuclear propulsion plants and related items including maritime (civil) nuclear propulsion plants, their land prototypes, and special facilities for their construction, support, or maintenance, including any machinery, device, component, or equipment specifically developed

or designed for use in such plants or facilities you must include the following information in your license application:

(A) A description of the foreign project for which the technology will be furnished;

(B) A description of the scope of the proposed services to be offered by the applicant, his consultant(s), and his subcontractor(s), including all the design data that will be disclosed;

(C) The names, addresses and titles of all personnel of the applicant, the applicant's consultant(s) and subcontractor(s) who will discuss or disclose the technology or be involved in the design or development of the technology;

(D) The beginning and termination dates of the period of time during which the technology will be discussed or disclosed and a proposed time schedule of the reports the applicant will submit to BIS, detailing the technology discussed or disclosed during the period of the license;

(E) The following certification:

I (We) certify that if this license application is approved, I (we) and any consultants, subcontractors, or other persons employed or retained by us in connection with the project licensed will not discuss with or disclose to others, directly or indirectly, any technology relating to U.S. naval nuclear propulsion plants. I (We) further certify that I (we) will furnish to the Bureau of Industry and Security all reports and information it may require concerning specific transmittals or disclosures of technology under any license granted as a result of this license application.

(F) A statement of the steps that you will take to assure that personnel of the applicant, the applicant's consultant(s) and subcontractor(s) will not discuss or disclose to others technology relating to U.S. naval nuclear propulsion plants; and

(G) A written statement of assurance from the foreign importer as described in paragraph (o)(3)(i) of this Supplement.

**(p) Temporary exports or reexports**

If you are submitting a license application for the temporary export or reexport of an item (not eligible for the *temporary exports and reexports* provisions of License Exception TMP (see §740.9(a) of the EAR)) you must include the following certification in Block 24:

The items described on this license application are to be temporarily exported (or reexported) for (state the purpose e.g., demonstration, testing, exhibition, etc.), used solely for the purpose authorized, and returned to the United States (or originating country) as soon as the temporary purpose has ended, but in no case later than one year of the date of export (or reexport), unless other disposition has been authorized in writing by the Bureau of Industry and Security.

**(q) Chemicals controlled for CW reasons under ECCN 1C350**

In addition to any supporting documentation required by part 748, you must also obtain from your consignee an End-Use Certificate for the export of chemicals controlled for CW reasons by ECCN 1C350 to non-States Parties (destinations *not* listed in Supplement No. 2 to part 745 of the EAR). See §745.2 of the EAR. In addition to the End-Use Certificate, you may still be required to obtain a Statement by Ultimate Consignee and Purchaser (Form BIS-711P) as support

documentation. Consult §§748.9 and 748.11 of the EAR.

**(r) Encryption classification requests**

Failure to follow the instructions in this paragraph may delay consideration of your encryption classification request.

**(1) [RESERVED]**

**(2) Classification Requests.** Fill out blocks 1-4, 14, 15, 22, and 25 pursuant to the instructions in Supplement No. 1 to this Part. Leave blocks 6, 7, 8, 10-13, 18-21, and 23 blank. Follow the directions specified for the blocks indicated below.

**(i) In Block 5 (Type of Application),** place an "X" in the box marked "classification" or "commodity classification" if submitting electronically for classification requests.

**(ii) In Block 9 (Special Purpose).**

**(A)** If submitting via SNAP-R, check the box "check here if you are submitting information about encryption required by 740.17 or 742.15 of the EAR."

**(B)** From the drop down menu in SNAP-R, choose:

**(1)** "License Exception ENC" if you are submitting an encryption classification request for specified License Exception ENC provisions (§§ 740.17(b)(2) or (b)(3) of the EAR);

**(2)** "Mass market encryption" if you are submitting an encryption classification request for certain mass market encryption items (§ 740.17(b) of the EAR).

**(3)** "Encryption - other" if you are submitting an encryption classification, for another reason.

**\*\* (s) used to contain license instructions for  
\*\*FNR \*\*Foreign National Review Request is now  
discontinued for lack of interest by applicants.**

**\*\* (t) used to contain outline instructions for  
writing a "FNR Support Statement," required  
for each foreign national in an FNR request.**

### Unique Application and Submission Requirements

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**(s) [RESERVED]**

**(t) [RESERVED]**

#### **(u) Aircraft and vessels on temporary sojourn.**

If the application is for an aircraft or a vessel traveling on a temporary sojourn, state the value of the aircraft or vessel as \$0 in box 22(g) (unit price) and 22(h) (total price). In box 23 (Total Application Dollar Value), insert the total value of items other than the aircraft or vessel that are included in the same application. If the application is only for the aircraft or vessel on temporary sojourn, insert \$0.

#### **(v) In-country transfers.**

To request an in-country transfer, you must specify "in-country transfer" in Block 9 (Special Purpose) and mark "Reexport" in Block 5 (Type of Application) of the BIS-748P "Multipurpose Application" form. The application also must specify the same foreign country for both the original ultimate consignee and the new ultimate consignee.

#### **(w) License Exception STA eligibility requests for "600 series" end items.**

To request a License Exception STA eligibility requests for "600 series" end items pursuant to § 740.20(g), you must mark an (X) in the "Export" box in Block 5 (Type of Application) block. You must mark an (X) in the "Other" box and insert the phrase "STA request" in Block 6 (Documents submitted with application) block. You must include the specific "600 Series" ECCN in Block 22. In addition to the ECCN, you will need to provide sufficient information for the U.S. Government to make a determination as to STA eligibility. This will require you to submit more than merely a description of the end item. In particular, you will need to provide

supporting information for why you believe that the end item does not, for example, provide a critical military or intelligence advantage to the United States or is available in countries that are not regime partners or close allies. You will also need to provide information regarding whether and, if so, how the end item is controlled by the export control laws and regulations of close allies and regime partners, if known. If you are not able to provide some of the information described above, the U.S. Government will still evaluate the request, including using resources and information that may only be available to the U.S. Government. However, when submitting such requests you are encouraged to provide as much information as you can based on the criteria noted above to assist the U.S. Government in evaluating these License Exception STA eligibility requests. In addition, you should provide BIS with the text you would propose BIS use in describing the end item in the appropriate "600 series" ECCN and the online table referenced in § 740.20(g)(5)(i) in anticipation that the request may be approved pursuant to § 740.20(g). You may submit additional information that you believe is relevant to the U.S. Government in reviewing the License Exception STA eligibility request as part of that support document or as an additional separate support document attachment to the license application.

#### **(x) License application for a transaction involving a 9x515 or "600 series" item that is equivalent to a transaction previously approved under an ITAR license or other approval.**

To request that the U.S. Government review of a license application for a 9x515 or "600 series" item also take into consideration a previously approved ITAR license or other approval, applicants must also include the State license number or other approval identifier in Block 24 of the BIS license application (see the instructions in Supplement No. 1 to part 748 under Block 24).

**NOTE TO PARAGRAPH (x): License**

*applications submitted under paragraph (x) will still be reviewed in accordance with license review procedures and timelines identified in part 750, including §§ 750.3 and 750.4. Applicants are advised that including a previously approved State license or other approval may have no effect on the license review process since each application is reviewed on its own merits at the time of submission. However, in some cases, previous licensing history may result in license applications being reviewed more quickly.*

**(y) Satellite exports.**

**(1)** A license application to export a satellite controlled by ECCN 9A515.a for launch in or by a country that is not a member of the North Atlantic Treaty Organization (NATO) or a major non-NATO ally of the United States (as defined in 22 CFR 120.31 and 120.32), must include a statement affirming that at the time of application or prior to export or reexport the following will be in place:

**(i)** A technology transfer control plan approved by the Department of Defense and an encryption technology control plan approved by the National Security Agency, or drafts reflecting advance discussions with the departments and information identifying the U.S. Government officials familiar with the preparation of such draft plans; and

**(ii)** Evidence of arrangements with the Department of Defense for monitoring of the launch activities.

**(2)** A license application to export a satellite controlled by ECCN 9A515.a for launch in or by a country that is a member of the North Atlantic Treaty Organization (NATO) or that is a major non-NATO ally of the United States (as defined in 22 CFR 120.31 and 120.32), must include a statement affirming that at the time of application or prior to export or reexport the following will be in place:

**(i)** A technology transfer control plan approved by the Department of Defense and an encryption technology control plan approved by the National Security Agency, or documentation from the Department of Defense that such plans are not required; and

**(ii)** Evidence of arrangements with the Department of Defense for monitoring of the launch or documentation from the Department of Defense that such monitoring is not required.

**NOTE 1 TO PARAGRAPH (y):**

*Regardless of a satellite's or spacecraft's jurisdictional status, ownership, or origin, the ITAR controls as a "defense service" the furnishing of assistance (including training) by a U.S. person to a foreign person directly related to (a) the integration of a satellite or spacecraft to a launch vehicle or (b) launch failure analyses. See (See 22 CFR 121, Categories IV(i) and XV(f), and 22 CFR 124.15).*

**(z) Exports of firearms and certain shotguns temporarily in the United States.**

**(1) Certification.** If you are submitting a license application for the export of firearms controlled by ECCN 0A501.a or .b, or shotguns with a barrel length less than 18 inches controlled in ECCN 0A502 that will be temporarily in the United States, *e.g.*, for servicing and repair or for intransit shipments, you must include the following certification in Block 24:

The firearms in this license application will not be shipped from or manufactured in Russia, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Turkmenistan, Ukraine, or Uzbekistan, except for any firearm model controlled by 0A501 that is specified under Annex A in Supplement No. 4 to part 740. I and the parties to this transaction will comply with the requirements specified in paragraphs (z)(2)(i) and (ii) of Supplement No. 2 to part 748.

**(2) Requirements.** Each approved license for commodities described under this paragraph (z) must comply with the requirements specified in paragraphs (z)(2)(i) and (ii) of this supplement.

**(i)** When the firearms enter the U.S. as a temporary import, the temporary importer or its agent must:

**(A)** Provide the following statement to U.S. Customs and Border Protection: “This shipment is being temporarily imported in accordance with the EAR. This shipment will be exported in accordance with and under the authority of BIS license number (provide the license number) (15 CFR 750.7(a) and 758.4);”

**(B)** Provide to U.S. Customs and Border Protection an invoice or other appropriate import-related documentation (or electronic equivalents) that includes a complete list and description of the firearms being temporarily imported, including their model, make, caliber, serial numbers, quantity, and U.S. dollar value; and

**(C)** Provide (if temporarily imported for servicing or replacement) to U.S. Customs and Border Protection the name, address, and contact

information (telephone number and/or email) of the organization or individual in the U.S. that will be receiving the item for servicing or replacement); and

**(ii)** In addition to the export clearance requirements of part 758 of the EAR, the exporter or its agent must provide the import documentation related to paragraph (z)(2)(i)(B) of this supplement to U.S. Customs and Border Protection at the time of export.

***Note 1 to paragraph (z):** In addition to complying with all applicable EAR requirements for the export of commodities described in paragraph (z) of this supplement, exporters and temporary importers should contact U.S. Customs and Border Protection (CBP) at the port of temporary import or export, or at the CBP website, for the proper procedures for temporarily importing or exporting firearms controlled in ECCN 0A501.a or .b or shotguns with a barrel length less than 18 inches controlled in ECCN 0A502, including regarding how to provide any data or documentation required by BIS.*

**SUPPLEMENT NO. 3 TO PART 748 - STATEMENT BY ULTIMATE CONSIGNEE  
AND PURCHASER CONTENT REQUIREMENTS**

If a statement on company letterhead will be used to meet the requirement to obtain a Statement by Ultimate Consignee and Purchaser, as described in § 748.11(a), follow the requirements described in paragraph (a) below. If Form BIS-711 will be used to meet the requirement, follow the requirements described in paragraph (b) below.

**(a) Statement on company letterhead.**

Information in response to each of the following criteria must be included in the statement. If any information is unknown, that fact should be disclosed in the statement. Preprinted information supplied on the statement, including the name, address, or nature of business of the ultimate consignee or purchaser appearing on the letterhead or order form is acceptable but will not constitute evidence of either the signer's identity, the country of ultimate destination, or end use of the items described in the license application.

**(1) Paragraph 1.** One of the following certifications must be included depending on whether the statement is proffered in support of a single license application or multiple license applications:

**(i) Single.** This statement is to be considered part of a license application submitted by [name and address of applicant].

**(ii) Multiple.** This statement is to be considered a part of every license application submitted by [name and address of applicant] until four years from the date this statement is signed.

**(2) Paragraph 2.** One or more of the following certifications must be included. Note that if any of the facts related to the following statements are unknown, this must be clearly stated.

**(i)** The items for which a license application will be filed by [name of applicant] will be used by us as capital equipment in the form in which received in a manufacturing process in [name of country] and will not be reexported or incorporated into an end product.

**(ii)** The items for which a license application will be filed by [name of applicant] will be processed or incorporated by us into the following product(s) [list products] to be manufactured in [name of country] for distribution in [list name of country or countries].

**(iii)** The items for which a license application will be filed by [name of applicant] will be resold by us in the form in which received for use or consumption in [name of country].

**(iv)** The items for which a license application will be filed by [name of applicant] will be reexported by us in the form in which received to [name of country or countries].

**(v)** The items received from [name of applicant] will be [describe use of the items fully].

**(3) Paragraph 3.** The following two certifications must be included:

**(i)** The nature of our business is [possible choices include: broker, distributor, fabricator, manufacturer, wholesaler, retailer, value added reseller, original equipment manufacturer, etc.].

**(ii)** Our business relationship with [name of applicant] is [possible choices include: contractual, franchise, distributor, wholesaler, continuing and regular individual business, etc.] and we have had this business relationship for [number of years].

**(4) Paragraph 4.** The final paragraph must include all of the following certifications:

(i) We certify that all of the facts contained in this statement are true and correct to the best of our knowledge and we do not know of any additional facts that are inconsistent with the above statements. We shall promptly send a replacement statement to [name of the applicant] disclosing any material change of facts or intentions described in this statement that occur after this statement has been prepared and forwarded to [name of applicant]. We acknowledge that the making of any false statement or concealment of any material fact in connection with this statement may result in imprisonment or fine, or both, and denial, in whole or in part, of participation in U.S. exports or reexports.

(ii) Except as specifically authorized by the U.S. Export Administration Regulations, or by written approval from the Bureau of Industry and Security, we will not reexport, resell, or otherwise dispose of any items approved on a license supported by this statement:

(A) To any country not approved for export as brought to our attention by the exporter; or

(B) To any person if there is reason to believe that it will result directly or indirectly in disposition of the items contrary to the representations made in this statement or contrary to the U.S. Export Administration Regulations.

(iii) We understand that acceptance of this statement as a support document cannot be construed as an authorization by BIS to reexport or transfer (in country) the items in the form in which received even though we may have indicated the intention to reexport or transfer (in country), and that authorization to reexport (or transfer in country) is not granted in an export license on the basis of information provided in the

statement, but as a result of a specific request in a license application.

**(b) Form BIS-711.**

Form BIS-711 is available at [http://www.bis.doc.gov/index.php/component/rs\\_form/form/21-request-bis-forms?task=forms.edit](http://www.bis.doc.gov/index.php/component/rs_form/form/21-request-bis-forms?task=forms.edit). Instructions on completing Form BIS-711 are described below. The ultimate consignee and purchaser may sign a legible copy of Form BIS-711. It is not necessary to require the ultimate consignee and purchaser to sign an original Form BIS-711, provided all information contained on the copy is legible. All information must be typed or legibly printed in each appropriate Block or Box.

**(1) Block 1: Ultimate Consignee.** The Ultimate Consignee must be the person abroad who is actually to receive the material for the disposition stated in Block 2. A bank, freight forwarder, forwarding agent, or other intermediary is not acceptable as the Ultimate Consignee.

**(2) Block 2: Disposition of Use of Items by Ultimate Consignee named in Block 1.** Place an (X) in “A.,” “B.,” “C.,” “D.,” and “E.,” as appropriate, and fill in the required information.

**(3) Block 3: Nature of Business of Ultimate Consignee named in Block 1.** Complete both “A” and “B”. Possible choices for “A” include: broker, distributor, fabricator, manufacturer, wholesaler, retailer, value added reseller, original equipment manufacturer, etc. Possible choices for “B” include: contractual, franchise, distributor, wholesaler, continuing and regular individual business, etc.

**(4) Block 4: Additional Information.** Provide any other information not appearing elsewhere on the form such as other parties to the transaction, and any other material facts that may be of value in considering license applications supported by this statement.

**(5) Block 5: Assistance in Preparing Statement.** Name all persons, other than employees of the ultimate consignee or purchaser, who assisted in the preparation of this form.

**(6) Block 6: Ultimate Consignee.** Enter the requested information and sign the statement in ink. (For a definition of ultimate consignee, see §748.5(e) of this part.)

**(7) Block 7: Purchaser.** This form must be signed in ink by the Purchaser, if the Purchaser is not the same as the Ultimate Consignee identified in Block 1. (For a definition of purchaser, see §748.5(c) of this part.)

**(8) Block 8: Certification for Exporter.** This Block must be completed to certify that no correction, addition, or alteration on this form was made subsequent to the signing by the Ultimate Consignee in Block 6 and Purchaser in Block 7.

**\*\*748-S4 RESERVED**

IC/DV Authorities

**Supplement No. 4** to Part 748—page 1

**SUPPLEMENT NO. 4 TO PART 748 - [RESERVED]**

**SUPPLEMENT NO. 5 TO PART 748 - U.S. IMPORT CERTIFICATE AND DELIVERY VERIFICATION PROCEDURE**

The United States participates in an Import Certificate/Delivery Verification procedure. Under this procedure, U.S. importers are sometimes required to provide their foreign suppliers with an U.S. International Import Certificate that is validated by the U.S. Government. This certificate tells the government of the exporter's country that the items covered by the certificate will be imported into the U.S. Economy and will not be reexported except as authorized by U.S. export control regulations. In addition, in some cases, the exporter's government may require a delivery verification. Under this procedure, the U.S. Customs Service validates a certificate confirming that the items have entered the U.S. economy. The U.S. importer must return this certificate to the foreign exporter.

This supplement establishes the procedures and requirements of BIS with respect to both of these programs. Paragraph (a) of this Supplement contains the requirements and procedures of the U.S. International Import Certificate procedure. Paragraph (b) of this Supplement contains the requirements and procedures of the Delivery Verification procedure.

**(a) U.S. International Import Certificates**

If you are a U.S. importer, a foreign supplier may request you to obtain a U.S. import certificate. The reason for this request is that the exporter's government requires a U.S. import certificate as a condition to issuing an export license. **To obtain such a certificate you will have to fill in and execute the U.S. International Import Certificate form (Form BIS-645P/ATF-4522/DSP-53) and submit it to the U.S. government agency that has jurisdiction over the items you are importing.** In doing so, you will be making a representation to the United States Government that you will import the items described in the certificate into the United States

or if not so imported, you will not divert, transship or reexport them to another destination with the explicit approval of the U.S. government agency that has jurisdiction over those items. (Representations that items will be entered into the U.S. do not preclude the temporary unloading of items in a foreign trade zone for subsequent entry into the economy of the U.S.) If the items described in the certificate are subject to U.S. Department of Commerce jurisdiction, the Department will validate the certificate and return it to you. You may then send the certificate to your foreign supplier. In this way the government of the exporting country is assured that the items will become subject to the export control laws of the United States.

**(1) Items for which the U.S. Department of Commerce issues U.S. International Import Certificates and forms to use.** The Department of Commerce issues U.S. International Import Certificates for the following types of items.

**(i) Items controlled for National Security reasons.** Items under the export licensing jurisdiction of BIS that are identified as controlled for national security reasons on the Commerce Control List (Supplement No. 1 to part 774 of the EAR). You will need to submit in triplicate a completed Form BIS-645P/ATF-4522/DSP-53;

**(ii) Nuclear equipment and materials.** Items subject to the export licensing jurisdiction of the Nuclear Regulatory Commission for nuclear equipment and materials. (see 10 CFR part 110). You will need to submit in quadruplicate a completed Form BIS-645P/ATF-4522/DSP-53; and

**(iii) Munitions Items.** Items listed on the U.S. Munitions List (see 22 CFR part 121) that do not appear on the more limited U.S. Munitions

**\*\*International Import Certificate \*\*U.S. International Import Certificate**

**Note:** This old-fashioned paper form with included carbon copies is now close to being obsolete. It was rarely used, in any event. The same form is/was used by Commerce (\*\*BIS-645P), State (\*\*DSP-53), and BATF (\*\*ATF-4522).

**\*\*BIS-645P \*\*ATF-4522 \*\*DSP-53 Note: all 3 forms are actually the same paper form.**

## U.S. IC and DV Procedure

Import List (27 CFR 47.21). You will need to submit in triplicate a completed Form BIS-645P. For triangular transactions (See paragraph (a)(5) of this Supplement) involving items on the U.S. Munitions List, you must contact the Department of State, Directorate of Defense Trade Controls and use Form BIS-645P/ATF-4522/DSP-53. You should contact the Treasury Department, Bureau of Alcohol, Tobacco and Firearms for items appearing on the U.S. Munitions Import List. You will need to use Form ATF-4522.

**(2) Where to submit forms.** U.S. International Import Certificates and requests to amend certificates may be presented for validation either in person or by mail at the following locations.

(i) By courier to the Bureau of Industry and Security, Room 2099B, 14th Street and Pennsylvania Ave., NW., Washington, DC 20230, Attn: Import Certificate Request; or

(ii) In person or by mail at one of the following Department of Commerce U.S. and Foreign Commercial Service District Offices:

Boston, MA  
Buffalo, NY  
Chicago, IL  
Cincinnati, OH  
Cleveland, OH  
Dallas, TX  
Detroit, MI  
Houston, TX  
Kansas City, MO  
Los Angeles, CA  
Miami, FL  
New Orleans, LO  
New York, NY  
Philadelphia, PA  
Phoenix, AZ  
Pittsburgh, PA  
Portland, OR  
St. Louis, MO  
San Francisco, CA  
Savannah, GA  
Seattle, WA

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Trenton, NJ

**(3) U.S. International Import Certificate validity periods.** The U.S. International Import Certificate must be submitted to the foreign government within six months from the date of certification by the U.S. Department of Commerce. The expiration of this six-month period in no way affects the responsibility of the importer to fulfill the commitments made in obtaining the certificate. If the certificate is not presented to the government of the exporting country before the expiration of its validity period, the exporter must apply for a new certificate. The original unused U.S. International Import Certificate must be returned to BIS at the address specified in paragraph (a)(2)(i) of this supplement.

**(4) Statements on the certificate or amendments are representations to the U.S. Government which continue in effect.**

(i) All statements and representations made in a U.S. International Import Certificate or an amendment thereto, will be deemed to be continuing in nature until the transaction described in the certificate is completed and the items are delivered into the economy of the importing country.

(ii) Any change of fact or intention in regard to the transaction described in the certificate shall be promptly disclosed to BIS by the U.S. importer by presentation of an amended certificate. The amended certificate must describe all of the changes and be accompanied by the original certificate bearing the certification of BIS. If the original certificate has been transferred to the foreign exporter, you must, where possible, attempt to obtain the original certificate prior to applying for an amendment. If the original certificate is unobtainable because the foreign exporter has submitted it to the appropriate foreign government, or for any other reason, then you must submit a written statement with your

**\*\*Triangular transaction check if needed for \*\*brokering ????**

amendment giving the reasons for your failure to submit the original certificate.

**(5) Certificates for Triangular transaction (items will not enter the U.S. or applicant is not sure that they will enter the United States).**

(i) In accordance with international practice, BIS will, upon request, stamp the certificate with a triangular symbol as notification to the government of the exporting country that the U.S. importer is uncertain whether the items will be imported into the U. S. or knows that the items will not be imported into the U.S., but that, in any case, the items will not be delivered to any other destination except in accordance with the EAR.

(ii) The triangular symbol on a certificate U.S. International Import Certificate is not, in and of itself, an approval by BIS to transfer or sell items to a foreign consignee. Note that a triangular Certificate will not be issued covering foreign excess property sold abroad by the U.S. Department of Defense.

**(6) Approval to export items to a foreign consignee prior to delivery under a U.S. International Import Certificate.**

The written approval of BIS is required before items covered by a U.S. International Import Certificate (whether or not bearing a triangular symbol) may be shipped to a destination other than the U.S. or Canada or sold to a foreign purchaser, and before title to or possession of such items may be transferred to a foreign transferee. This requirement does not apply after the items have been delivered in accordance with the undertaking set forth in the Certificate or if at the time of such shipment, sale, passage of possession or passage of title, a License Exception or a NLR provision of the EAR would authorize the transaction.

(i) If prior approval is required, a letter requesting authorization to release the shipment shall be submitted to BIS at the address listed in paragraph (a)(2)(i) of this supplement.

(ii) The letter must contain the certificate number; date issued; location of the issuing office; names, addresses, and identities of all parties to the complete transaction; and the quantity, dollar value, and description of the items. The letter must be accompanied by the U.S. International Import Certificate, and all other documentation required by the EAR for the item and country of ultimate destination, as identified in part 748 of the EAR. If requirements stated in part 748 of the EAR do not apply to your transaction, you must identify the intended end-use of the items in your letter.

(iii) Where the letter request is approved and is supported by a foreign import certificate, no further approval from BIS is required for the purchaser or transferee to resell or again transfer the items. However, where BIS approves a request that was not supported by a foreign import certificate, the person to whom approval is granted is required to inform the purchaser or transferee, in writing, that the items are to be shipped to the approved destination only and that no other disposition of the items is permitted without the approval of BIS.

(iv) If the transaction is approved, a validated letter of approval will be sent to the U.S. purchaser for retention in his records. Where a DV or other official government confirmation of delivery is required, the letter will so indicate.

(v) If the items covered by a certificate have been imported into a destination other than the U.S. and the foreign exporter of the items requests a Delivery Verification, the person who obtained the certificate must obtain a DV from the person to whom the items were delivered in the actual importing country. (If a DV is unobtainable, other official government confirmation of delivery must be obtained.) The DV or other official government confirmation of delivery must be submitted to BIS together with an explanatory letter giving the U.S. International Import Certificate number,

date issued, and location of issuing office. BIS will then issue Form ITA-6008, Delivery Compliance Notice, in two copies, the original of which must be forwarded to the country of origin in order to serve as evidence to the exporting country that the requirements of the U.S. Government have been satisfied with respect to delivery of the items.

**(vi) *Delivery, sale, or transfer of items to another U.S. purchaser.***

(A) Items covered by a U.S. International Import Certificate may not be sold, and title to or possession of such items may not be transferred, to another U.S. purchaser or transferee before the items are delivered to the U.S. (or to an approved foreign destination, as provided by paragraph (a)(5) of this Supplement), except in accordance with the provisions described in paragraph (a)(6) of this Supplement. The provisions of this paragraph do not apply after the items have been delivered in accordance with the undertaking set forth in the certificate.

(B) Resale or transfer to another U.S. purchaser or transferee requires the prior approval of BIS only in cases where the buyer or transferee is listed in Supplement No. 1 to part 766 of the EAR. However, you, as the person who obtained the certificate are required to notify BIS of any change in facts or intentions relating to the transaction, and in all cases you will be held responsible for the delivery of the items in accordance with the EAR. You are required in all cases to secure, prior to sale or transfer, and to retain in your files in accordance with the recordkeeping provisions contained in part 762 of the EAR, written acceptance by the purchaser or transferee of:

(I) All obligations undertaken by, and imposed under the EAR, upon the holder of the certificate; and

(2) An undertaking that all subsequent sales or transfers will be made subject to the same conditions.

(C) The responsibility of the certificate holder for obtaining a DV also applies to those cases where the items are resold to a U.S. purchaser (See paragraph (b)(1) of this Supplement.)

**(vii) *Reexport or transshipment of items after delivery to U.S. Items imported into the U.S.*** Items imported into the U.S. under the provisions of a U.S. International Import Certificate may not be reexported to any destination under the *intransit* provisions of License Exception TMP (see §740.9(b)(1) of the EAR). However, all other provisions of the EAR applicable to items of domestic origin shall apply to the reexport of items of foreign origin shipped to the U.S. under a U.S. International Import Certificate.

**(viii) *Lost or destroyed U.S. International Import Certificates.*** If a U.S. International Import Certificate is lost or destroyed, a duplicate copy may be obtained by the person in the U.S. who executed the original U.S. International Import Certificate by submitting to any of the offices listed in paragraph (a)(2)(i) of this supplement new Form BIS-645P/ATF-4522/DSP-53 in the same way as an original request, except that the forms shall be accompanied by a letter detailing the circumstances under which the original certificate was lost or destroyed and certifying:

(A) That the original U.S. International Import Certificate No. \_\_\_\_\_, dated \_\_\_\_\_, issued to (name and address of U.S. importer) for import from (foreign exporter's name and address) has been lost or destroyed; and

(B) That if the original U.S. International Import Certificate is found, the applicant agrees to return the original or duplicate of the certificate to the Bureau of Industry and Security.

(ix) *Unused U.S. International Import Certificates.* If the transaction will not be completed and the U.S. International Import Certificate will not be used, return the certificate for cancellation to BIS at the address listed in paragraph (a)(2)(i) of this supplement.

**(b) Delivery Verification Certificate**

U.S. importers may be requested by their foreign suppliers to furnish them with a certified Form BIS-647P, Delivery Verification Certificate, covering items imported into the U.S. These requests are made by foreign governments to assure that strategic items shipped to the U.S. are not diverted from their intended destination. In these instances, **the issuance of an export license by the foreign country is conditioned upon the subsequent receipt of a Delivery Verification Certificate from the U.S. importer.** Accordingly, your compliance with your foreign exporter's request for a Delivery Verification is necessary to ensure your foreign exporter fulfills its government obligations and is able to participate in future transactions with you. Failure to comply may subject your exporter to penalties that may prevent future trade.

(1) The responsibility of a person or firm executing a U.S. International Import Certificate for providing the foreign exporter with confirmation of delivery of the items includes instances where the items are resold or transferred to another U.S. person or firm prior to actual delivery to the U.S. or to an approved foreign destination. **The person who executed the U.S. International Import Certificate shall secure in writing from the U.S. purchaser or transferee, and retain in your files in accordance with the recordkeeping provisions stated in part 762 of the EAR:**

(i) Acceptance of the obligation to provide the purchaser or transferee with either the Delivery Verification (or other official government confirmation of delivery if a Delivery

Verification is unobtainable) or assurance that this document was submitted to BIS; and

(ii) An undertaking that each succeeding U.S. transferee or purchaser will assume the same obligation or assurance. In each case the seller or transferor must transmit to the U.S. purchaser or transferee the U.S. International Import Certificate number covering the export from the foreign country and request that they pass it on to any other U.S. purchasers or transferees.

(2) **Completion and certification of Delivery Verification Certificates.** If you are requested by your foreign exporter to provide a Delivery Verification, you must obtain Form BIS-647P from a U.S. customs office or one of the offices listed in paragraph (a)(2) of this supplement and complete all blocks (except those below the line titled "To be completed by U.S. Customs Service") on the form. **The language used in the block titled "Description of Goods" must describe the items in the same terms as those shown on the applicable U.S. International Import Certificate. Upon completion Form BIS-647P must be presented, in duplicate, to a U.S. customs office. The U.S. customs office will certify Form BIS-647P only where the import is made under a warehouse or consumption entry.**

(3) **Disposition of certified Delivery Verification Certificates.** The importer must send the original certified Delivery Verification Certificate to the foreign exporter or otherwise dispose of it in accordance with the instructions of the exporting country. The duplicate copy will be retained by the U.S. customs office.

(4)(i) **Issuance of a U.S. Delivery Compliance Notice in lieu of a Delivery Verification Certificate.** If you are requested to provide a Delivery Verification Certificate but do not wish to disclose the name of your customer to the foreign exporter (e.g., in the event that the items are resold or transferred to another person or firm before the items enter the U.S.), you may submit

an originally completed Form BIS-647P together with an explanatory letter requesting a Delivery Compliance Notice, to BIS **at the address listed in (a)(2)(i) of this supplement.**

**(ii)** BIS will provide you with a notice signifying that the items were imported into the U.S. and that a satisfactory DV has been submitted to BIS. You must then forward the original notice to your foreign exporter for submission to the foreign government. A copy of the notice should be retained in your files in accordance with the recordkeeping provisions stated in part 762 of the EAR.

**(5)(i) *Lost or destroyed Delivery Verification Certificate.*** When a Delivery Verification Certificate is lost or destroyed, the U.S. importer must submit a letter to BIS at the address listed in paragraph (a)(2)(i) of this supplement certifying that:

**(A)** The original Delivery Verification Certificate has been lost or destroyed;

**(B)** The circumstances under which it was lost or destroyed;

**(C)** The type of customs entry (warehouse or consumption), entry number, and date of entry; and

**(D)** The number and date of the related U.S. International Import Certificate.

**(ii)** BIS will, in applicable cases, notify the exporting government that a Delivery Verification Certificate been issued.

**(c) *Penalties and sanctions for violations***

The enforcement provisions of part 764 and Supplement No. 2 to part 736 of the EAR apply to transactions involving imports into the U.S. covered by this supplement and to both foreign and U.S. parties involved in a violation of this supplement. Any provisions of part 764 and Supplement No. 2 to part 736 of the EAR which, by their terms, relate to “exports” or “exports from the U.S.” are also deemed to apply and extend to imports into the U.S., applications for U.S. International Import Certificates (Forms BIS-645P presented to U.S. Department of Commerce for certification), U.S. International Import Certificates, and Delivery Verification Certificates, described in this supplement. (Applications the documents described in this supplement, are included within the definition of export control documents provided in part 772 of the EAR.) Refer to §764.3 of the EAR for more information.

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**SUPPLEMENT NO. 6 TO PART 748 - AUTHORITIES ISSUING IMPORT  
CERTIFICATES UNDER THE FIREARMS CONVENTION [RESERVED]**

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**[RESERVED]**

***[Status of Convention as of April 13, 1999 had not entered into force]***

**SUPPLEMENT NO. 7 TO PART 748 - AUTHORIZATION VALIDATED END-USER (VEU): LIST OF VALIDATED END-USERS, RESPECTIVE ITEMS ELIGIBLE FOR EXPORT, REEXPORT AND TRANSFER, AND ELIGIBLE DESTINATIONS**

<b>Country</b>	<b>Validated End-User</b>	<b>Eligible Items (By ECCN)</b>	<b>Eligible Destination</b>	<b>Federal Register Citation</b>
Nothing in this Supplement shall be deemed to supersede other provisions in the EAR, including but not limited to § 748.15(c).				
<b>China (People's Republic of)</b>	Advanced Micro Devices China, Inc.	3D002, 3D003, 3E001 (limited to "technology" for items classified under 3C002 and 3C004 and "technology" for use during the International Technology Roadmap for Semiconductors (ITRS) process for items classified under ECCNs 3B001 and 3B002), 3E002 (limited to "technology" for use during the ITRS process for items classified under ECCNs 3B001 and 3B002), 3E003.e (limited to the "development" and "production" of integrated circuits for commercial applications), 4D001, and 4E001 (limited to the "development" of products under ECCN 4A003).	Advanced Micro Devices (Shanghai) Co., Ltd. Buildings 33 (Unit 1), 46, 47, 48 & 49, River Front Harbor, Zhangjiang Hi-Tech Park, No. 1387 Zhangdong Rd., Pudong, Shanghai, China 201203.	75 FR 25763, 5/10/10. 76 FR 2802, 1/18/11. 78 FR 3319, 1/16/13. 81 FR 40783, 6/23/16.
			AMD Technology Development (Beijing) Co., Ltd. North and South Buildings RaycomInfotech, Park Tower C, No. 2 Science Institute South Rd., Zhong Guan Cun, Haidian District, Beijing, China 100190.	
			AMD Products (China) Co. Ltd. North and South Buildings RaycomInfotech Park Tower C, No. 2 Science Institute South Rd., Zhong Guan Cun, Haidian District, Beijing, China 100190.	

Country	Validated End-User	Eligible Items (By ECCN)	Eligible Destination	Federal Register Citation
Nothing in this Supplement shall be deemed to supersede other provisions in the EAR, including but not limited to § 748.15(c).				
	Advanced Micro-Fabrication Equipment, Inc., China	2B230, 3B001.a.2, and 3B001.e (items classified under ECCNs 3B001.a.2, and 3B001.e are limited to components and accessories).	Advanced Micro-Fabrication Equipment, Inc., China 188 Taihua Road Jinqiao Export Processing Zone (South Area) Pudong, Shanghai 201201, China.	78 FR 41291, 7/10/13. 80 FR 65931, 10/28/15.
	Applied Materials (China), Inc.	<i>These Items Authorized for those Applied Materials Destinations Identified by one asterisk (*):</i> 2B006.b, 2B230, 2B350.g.3, 2B350.i, 3B001.a, 3B001.b, 3B001.e, 3B001.f, 3C001, 3C002, 3D002 (limited to “software” specially designed for the “use” of stored program controlled items classified under ECCN 3B001).	*Applied Materials South East Asia Pte. Ltd. Shanghai Depot c/o Shanghai Applied Materials Technical Service Center No. 2667 Zuchongzhi Road, Shanghai, China 201203.	72 FR 59164, 10/19/07. 74 FR 19382, 4/29/09. 75 FR 27185, 5/14/10.
			*Applied Materials South East Asia Pte. Ltd. Beijing Depot c/o Beijing Applied Materials Technical Service Center No. 1 North Di Sheng Street, BDA Beijing, China 100176.	77 FR 10953, 2/24/12. 80 FR 65931, 10/28/15.
			*Applied Materials South East Asia Pte. Ltd. Wuxi Depot c/o Sinotrans Jiangsu Fuchang Logistics Co., Ltd. 1 Xi Qin Road, Wuxi Export Processing Zone Wuxi, Jiangsu, China 214028.	

Country	Validated End-User	Eligible Items (By ECCN)	Eligible Destination	Federal Register Citation
Nothing in this Supplement shall be deemed to supersede other provisions in the EAR, including but not limited to § 748.15(c).				
			<p>*Applied Materials South East Asia Pte. Ltd. Wuhan Depot c/o Wuhan Optics Valley Import &amp; Export Co., Ltd. No. 101 Guanggu Road East Lake High-Tec Development Zone Wuhan, Hubei, China 430074.</p> <p>*Applied Materials (China), Inc. Shanghai Depot No. 2667, Zuchongzhi Road Shanghai, China 201203.</p> <p>*Applied Materials (China), Inc. Beijing Depot No. 1 North Di Sheng Street, BDA Beijing, China 100176.</p>	

Country	Validated End-User	Eligible Items (By ECCN)	Eligible Destination	Federal Register Citation
Nothing in this Supplement shall be deemed to supersede other provisions in the EAR, including but not limited to § 748.15(c).				
		<p><i>These Items Authorized for the Applied Materials Destination Identified by two asterisks (**):</i>            2B006.b, 2B230, 2B350.g.3, 2B350.i, 3B001.a, 3B001.b, 3B001.e, 3B001.f, 3C001, 3C002, 3D002 (limited to “software” specially designed for the “use” of stored program controlled items classified under ECCN 3B001), and 3E001 (limited to “technology” according to the General Technology Note for the “development” or “production” of items controlled by ECCN 3B001).</p>	<p>**Applied Materials (Xi’an) Ltd.            No. 28 Xin Xi Ave., Xi’an High Tech Park Export Processing Zone            Xi’an, Shaanxi, China 710075.</p>	
		<p><i>This item is authorized for the Applied Materials Destination Identified by three asterisks (***):</i>            3E001 (limited to “technology” according to the General Technology Note for the “development” or “production” of items controlled by ECCN 3B001).</p>	<p>*** Applied Materials (China), Inc. –            Headquarters            1388 Zhangdong Road, Bldg. 22            Zhangjiang Hi-Tech Park, Pudong            Shanghai, 201203, China.</p>	

Country	Validated End-User	Eligible Items (By ECCN)	Eligible Destination	Federal Register Citation
Nothing in this Supplement shall be deemed to supersede other provisions in the EAR, including but not limited to § 748.15(c).				
	Boeing Tianjin Composites Co. Ltd.	1B001.f, 1D001 (limited to “software” specially designed or modified for the “use” of equipment controlled by 1B001.f), 2B001.b.2 (limited to machine tools with accuracies no better than ( <i>i.e.</i> , not less than) 13 microns), 2D001 (limited to “software,” other than that controlled by 2D002, specially designed or modified for the “use” of equipment controlled by 2B001.b.2), and 2D002 (limited to “software” for electronic devices, even when residing in an electronic device or system, enabling such devices or systems to function as a “numerical control” unit, capable of coordinating simultaneously more than 4 axes for “contouring control” controlled by 2B001.b.2).	Boeing Tianjin Composites Co. Ltd., 4566 Heibei Road, Marine Hi-Tech Development Area, Tanggu District, Tianjin, China 300451	72 FR 59164, 10/19/07. 74 FR 19382, 4/29/09. 77FR 10953, 2/24/12. 77 FR 40258, 7/9/12. 81 FR 61104, 9/6/16.
	CSMC Technologies Corporation	1C350.c.4, 1C350.c.12, 2B230.a, 2B230.b, 2B350.f, 2B350.g, 2B350.h, 3B001.e, 3B001.h (except for multilayer masks with a phase shift layer designed to produce “space qualified” semiconductor devices), 3C002.a, and 3C004.	CSMC Technologies Fab 1 Co., Ltd., 14 Liangxi Road, Wuxi, Jiangsu 214061, China  CSMC Technologies Fab 2 Co., Ltd., 8 Xinzhou Rd., Wuxi National New Hi-Tech Industrial Development Zone, Wuxi, Jiangsu 214028, China	76 FR 2802, 1/18/11. 76 FR 37634, 6/28/11. 77 FR 10953, 2/24/12. 78 FR 23472, 4/19/13. 78 FR 32981, 6/3/13.

Country	Validated End-User	Eligible Items (By ECCN)	Eligible Destination	Federal Register Citation
Nothing in this Supplement shall be deemed to supersede other provisions in the EAR, including but not limited to § 748.15(c).				
	Intel Semiconductor (Dalian) Ltd.	<i>These items authorized for the Intel destination identified by one asterisk (*):</i> 1A004, 1C006.d, 2A226, 2B006.b, 2B230, 2B231, 2B350, 3A233.a, 3B001 (except for multilayer masks with a phase shift layer designed to produce “space qualified” semiconductor devices), 3C002, 3E002 (excluding “development” and “production” technology specific to digital signal processors and digital array processors and further limited to “technology” based on the international technology roadmap for semiconductors (ITRS)), and 4E001(limited to “technology” for computer products or components not exceeding an adjusted peak performance (APP) level of 12.0 weighted teraflops).	*Intel Semiconductor (Dalian) Ltd. No. 109 Huai He Road East Dalian Economic and Technology Development Area Dalian, Liao Ning Province, 116600 China	78 FR 54752, 9/6/13. 81 FR 85145, 11/25/16.

Country	Validated End-User	Eligible Items (By ECCN)	Eligible Destination	Federal Register Citation
Nothing in this Supplement shall be deemed to supersede other provisions in the EAR, including but not limited to § 748.15(c).				
		<p><i>These items authorized for the Intel destination identified by two asterisks (**):</i>            1A004, 1C006.d, 2A226, 2B006.b, 2B230, 2B231, 2B350, 3A233.a, 3B001 (except for multilayer masks with a phase shift layer designed to produce “space qualified” semiconductor devices), and 3C002.</p>	<p>** Intel Semiconductor (Dalian) Ltd.            c/o Dalian Kintetsu Logistics Co., Ltd            Dayaowan Bonded Port No. 6 Road W4            Unit A1            Dalian Economic and Technology Development Area            Dalian, Liao Ning Province, 116601            China</p>	
	Lam Research Service Co., Ltd.	<p><i>These Items Authorized for those Lam’s Destinations Identified by a single asterisk (*):</i>            2B230, 2B350.c, 2B350.d, 2B350.g, 2B350.h, 2B350.i, and 3B001.e (limited to installation, warranty maintenance/repair, or maintenance/repair service of semiconductor manufacturing equipment manufactured by Lam, and items classified under ECCN 3B001.e are limited to specially designed components and accessories), 3D001 (limited to “software” (excluding source code) specially designed for the “development” or “production” of</p>	<p>* Lam Research International Sarl (Lam Beijing Warehouse),            c/o Beijing Lam Electronics Tech Center            1 Building, No. 28, Jinghai Second Road, BDA,            Beijing, China 100176.</p> <p>* Lam Research International Sarl (Lam Beijing Warehouse),            c/o Beijing STE International Logistics Co., Ltd.,            Building 3, No. 9 Ke Chuang Er Street            Beijing Economic &amp; Technological Development Area,            Beijing, China 100176.</p>	<p>75 FR 62462,            10/12/10.            77 FR 10953,            2/24/12.            78 FR 3319,            1/16/13.            78 FR 54752,            9/6/13.            79 FR 71014,            12/1/14.            82 FR 48925,            10/23/17.</p>

Country	Validated End-User	Eligible Items (By ECCN)	Eligible Destination	Federal Register Citation
Nothing in this Supplement shall be deemed to supersede other provisions in the EAR, including but not limited to § 748.15(c).				
		equipment controlled by ECCN 3B001.e)), 3D002 (limited to “software” (excluding source code) specially designed for the “use” of equipment controlled by ECCN 3B001.e)), and 3E001 (limited to “development” “technology” according to the General Technology Note of a type of equipment classified under ECCN 3B001.e).	<p>* Lam Research International Sarl (Lam Beijing Warehouse) c/o China International Electronic Service Company 1 Building, No. 28, Jinghai Second Road, BDA Beijing, China 100176</p> <p>* Lam Research International Sarl (Lam Beijing Warehouse) c/o HMG Hi-Tech Logistics (Beijing) Co., Ltd., Building 3, No. 9 Ke Chuang Er Street Beijing Economic &amp; Technological Development Area, Beijing, China 100176.</p> <p>* Lam Research International Sarl (Lam Dalian Warehouse) c/o Liaoning JD Logistics International Co., Ltd., Dalian Bonded Logistics Port, W5-B8, No. 6, Road #3, Dalian, China 116600.</p>	

Country	Validated End-User	Eligible Items (By ECCN)	Eligible Destination	Federal Register Citation
Nothing in this Supplement shall be deemed to supersede other provisions in the EAR, including but not limited to § 748.15(c).				
			<p>* Lam Research International Sarl (Lam Dalian Warehouse) c/o Liaoning JD Logistics International Co., Ltd., Dalian Bonded Logistics Zone No. 1 Public Warehouse Dalian, China 116600.</p> <p>* Lam Research International Sarl (Lam Shanghai Warehouse) c/o HMG Supply Chain (Shanghai) Co., Ltd., No. 633, Shangfeng Road, Pudong New District, Shanghai, China 201201.</p> <p>* Lam Research International Sarl (Lam Shanghai Warehouse), c/o Regal Harmony Logistics Co., Ltd., No.799, Yihua Road, Pudong New District, Shanghai, China 201299.</p> <p>* Lam Research International Sarl (Lam Shanghai Warehouse Operator), c/o Shanghai Well-Win Logistics Co., Ltd., No. 2667 Zuchongzhi Road, Pudong New District, Shanghai, China.</p>	

Country	Validated End-User	Eligible Items (By ECCN)	Eligible Destination	Federal Register Citation
Nothing in this Supplement shall be deemed to supersede other provisions in the EAR, including but not limited to § 748.15(c).				
			<p>* Lam Research International Sarl (Lam Shanghai Warehouse; WGQ Bonded Warehouse) c/o HMG Supply Chain (Shanghai) Co., Ltd., No. 55, Fei La Road, Waigaoqiao Free Trade Zone Pudong New Area, Shanghai, China 200131.</p> <p>* Lam Research International Sarl (Lam Wuhan Warehouse), c/o Wuhan HMG Logistics Co., Ltd., Factory C101/201, 1-2F Building 1, Central China Normal University Park Road, Wuhan, China 430223.</p> <p>* Lam Research International Sarl (Lam Wuxi Warehouse), c/o HMG WHL Logistics (Wuxi) Co., Ltd., Plot J3-4, No. 5 Gaolang East Road, CBZ, New District Wuxi Wuxi, China 214208.</p>	

Country	Validated End-User	Eligible Items (By ECCN)	Eligible Destination	Federal Register Citation
Nothing in this Supplement shall be deemed to supersede other provisions in the EAR, including but not limited to § 748.15(c).				
			<p>* Lam Research International Sarl (Lam Xiamen Warehouse), c/o VR Int'l Logistics (Xiamen) Co., Ltd., C3 Area No. 3 Warehouse, No. 1007 West Fangshan Road, Bonded Logistics Center (Type B) Xiang'an District, Xiamen, China 361101.</p> <p>* Lam Research International Sarl (Lam Xi'an Warehouse), c/o VR International Logistics (Xi'an) Co., Ltd., No. 28 Information Road, EPZ B Zone, Xi'an New District, Xi'an, China 710119.</p> <p>* Lam Research International Sarl (Wuxi EPZ Bonded Warehouse), c/o HMG WHL Logistics (Wuxi) Co., Ltd., 1st Floor, Area 4, No. 1, Plot J3, No. 5 Gaolang East Road, Export Processing Zone Wuxi, Jiangsu, China 214028.</p>	

Country	Validated End-User	Eligible Items (By ECCN)	Eligible Destination	Federal Register Citation
Nothing in this Supplement shall be deemed to supersede other provisions in the EAR, including but not limited to § 748.15(c).				
		<p><i>These Items Authorized for those Lam's Destinations Identified by double asterisks (**):</i> 2B230, 2B350.c, 2B350.d, 2B350.g, 2B350.h, 2B350.i, and 3B001.e (limited to installation, warranty maintenance/repair, or maintenance/repair service of semiconductor manufacturing equipment manufactured by Lam, and items classified under ECCN 3B001.e are limited to specially designed components and accessories), 3D001 (limited to “software” (excluding source code) specially designed for the “development” or “production” of equipment controlled by ECCN 3B001.e)), 3D002 (limited to “software” (excluding source code) specially designed for the “use” of equipment controlled by ECCN 3B001.e)), and 3E001 (limited to “development” “technology” or “production” “technology” according to the General Technology Note of a type to support integration, assembly (mounting), inspection, testing, and</p>	<p>** Lam Research Service Co., Ltd. (Shanghai), 1st Floor, Area C, Hua Hong Science &amp; Technology Park, 177 Bi Bo Road, Zhangjiang Hi-Tech Park, Pudong New District, Shanghai, China 201203.</p> <p>** Lam Research Service Co., Ltd. (Xiamen), Room 705A, Qiangye Building, Xiang'an Industrial Park, Xiamen Torch Hi-tech Zone, Xiamen, China 361115.</p> <p>**Lam Research Service Co., Ltd. (Beijing Branch), 6<sup>th</sup> Floor, Building 52, No.2, Jingyuan North Street, Beijing Economic &amp; Technological Development Area, Beijing, China 100176.</p> <p>** Lam Research Service Co., Ltd. (Dalian Branch), Units 01, 02, 13, 10th Floor, Jinma International Building, No. 1 Yongde Street, Dalian, China 116620</p>	

Country	Validated End-User	Eligible Items (By ECCN)	Eligible Destination	Federal Register Citation
Nothing in this Supplement shall be deemed to supersede other provisions in the EAR, including but not limited to § 748.15(c).				
		quality assurance of equipment classified under ECCN 3B001.e)).	<p>** Lam Research Service Co., Ltd. (Lam Dalian Representative Office), c/o Intel Semiconductor (Dalian) Ltd., No. 109 Huaihe Road East, Dalian Economic &amp; Technical Development Area, Dalian, China 116600.</p> <p>** Lam Research Service Co., Ltd. (Wuhan Representative Office), Room 302, Guanggu Software Park Building E4, No. 1 Guanshan Road, Wuhan, Hubei Province, China 430074.</p> <p>** Lam Research Service Co., Ltd. (Wuxi Branch), Room 302, Building 6, Singapore International Park, No. 89 Xing Chuang Si Road, Wuxi New District, Wuxi, Jiangsu, China 214028</p> <p>** Lam Research Service (Shanghai) Co., Ltd. (Xi'an Branch), Room 602, Building G, Wangzuo Xiandai City, 35 Tangyan Road, Gaoxin District Xi'an, China 710065.</p>	

Country	Validated End-User	Eligible Items (By ECCN)	Eligible Destination	Federal Register Citation
Nothing in this Supplement shall be deemed to supersede other provisions in the EAR, including but not limited to § 748.15(c).				
	Samsung China Semiconductor Co. Ltd.	1C350.c.4, 1C350.d.14, 2B006.a, 2B006.b.1.d, 2B230, 2B350.d.2, 2B350.g.3, 2B350.i.3, 3A233, 3B001.a.1, 3B001.b, 3B001.e, 3B001.f, 3B001.h, 3C002, 3C004, 3D002, and 3E001 (limited to “technology” for items classified under 3C002 and 3C004 and “technology” for use consistent with the International Technology Roadmap for Semiconductors process for items classified under ECCNs 3B001 and 3B002).	Samsung China Semiconductor Co., Ltd., No.1999, North Xiaohe Road, Xi’an, China 710119	78 FR 41291, 7/10/13. 78 FR 69535, 11/20/13. 79 FR 30713, 5/29/14. 80 FR 11863, 3/5/15.
	Shanghai Huahong Grace Semiconductor Manufacturing Corporation	1C350.c.4, 1C350.d.14, 2B230, 2B350.d.2, 2B350.g.3, 2B350.i.4, 3B001.a.1, 3B001.b, 3B001.e, 3B001.f, 3B001.h, 3C002, 3C004, 5B002, and 5E002 (controlled by ECCNs 5A002, 5A004, or 5A992 that have been successfully reviewed under the encryption review process specified in Sections 740.17(b)(2) or 740.17(b)(3) of the EAR).	Shanghai Huahong Grace Semiconductor Manufacturing Corporation – HFab 2, 668 Guoshoujing Road, Zhangjiang Hi-Tech Park, Shanghai 201203 China Shanghai Huahong Grace Semiconductor Manufacturing Corporation – HFab 1, 1188 Chuanqiao Road, Pudong, Shanghai 201206 China Shanghai Huahong Grace Semiconductor Manufacturing Corporation – GFab1, 1399 Zuchongzhi Road, Zhangjiang Hi- Tech Park, Shanghai 201203 China	78 FR 32981, 6/3/13.

Country	Validated End-User	Eligible Items (By ECCN)	Eligible Destination	Federal Register Citation
Nothing in this Supplement shall be deemed to supersede other provisions in the EAR, including but not limited to § 748.15(c).				
	SK hynix Semiconductor (China) Ltd.	3B001.a, 3B001.b, 3B001.e, and 3B001.f.	SK hynix Semiconductor (China) Ltd. Lot K7, Wuxi High-tech Zone Comprehensive Bonded Zone Wuxi New District, Jiangsu Province, China 214028.	75 FR 62462, 10/12/10. 77 FR 40258, 7/9/12. 78 FR 3319, 1/16/13. 78 FR 69535, 11/20/13
	SK hynix Semiconductor (Wuxi) Ltd.	3B001.a, 3B001.b, 3B001.e, and 3B001.f.	SK hynix Semiconductor (Wuxi) Ltd., Lot K7-1, Wuxi High-tech Zone Comprehensive Bonded Zone Wuxi New District, Jiangsu Province, China 214028.	75 FR 62462, 10/12/10. 77 FR 40258, 7/9/12. 78 FR 3319, 1/16/13. 78 FR 69535, 11/20/13
<b>India</b>	GE India Industrial Pvt Ltd.	1C002.a.1, 1C002.a.2, 1C002.b.1.a, 1C002.b.1.b, 1E001, 2E003.f, 9E003.a.1, 9E003.a.2, 9E003.a.4, 9E003.a.5, 9E003.a.6, 9E003.a.8, and 9E003.c.	<p>GE India Technology Centre Private Limited (GEITC) No. 122, EPIP, Phase II Hoodi Village, Whitefield Road Bangalore 560066, Karnataka, India.</p> <p>Bangalore Engineering Center (BEC) c/o GE India Technology Centre Private Limited (GEITC) No. 122, EPIP, Phase II Hoodi Village, Whitefield Road Bangalore 560066, Karnataka, India.</p>	74 FR 31620, 7/2/09. 74 FR 68147, 12/23/09. 77 FR 10953, 2/24/12.

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**SUPPLEMENT NO. 8 TO PART 748 - INFORMATION REQUIRED IN REQUESTS  
FOR VALIDATED END-USER (VEU) AUTHORIZATION**

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VEU authorization applicants must provide to BIS certain information about the prospective validated end-user. This information must be included in requests for authorization submitted by prospective validated end-users, or exporters or reexporters who seek to have certain entities approved as validated end-users. BIS may, in the course of its evaluation, request additional information.

**Required Information for Validated End-User Authorization Requests**

(1) Name of proposed VEU candidates, including all names under which the candidate conducts business; complete company physical address (simply listing a post office box is insufficient); telephone number; fax number; e-mail address; company Web site (if available); and name of individual who should be contacted if BIS has any questions. If the entity submitting the application is different from the prospective validated end-user identified in the application, this information must be submitted for both entities. If the candidate has multiple locations, all physical addresses located in the eligible destination must be listed.

(2) Provide an overview of the structure, ownership and business of the prospective validated end-user. Include a description of the entity, including type of business activity, ownership, subsidiaries, and joint-venture projects, as well as an overview of any business activity or corporate relationship that the entity has with either government or military organizations.

(3) List the items proposed for VEU authorization approval and their intended end-uses. Include a description of the items; the ECCN for all items, classified to the subparagraph level, as appropriate; technical parameters for the items including performance

specifications; and end-use description for the items. If BIS has previously classified the item, the Commodity Classification Automated Tracking System (CCATS) number may be provided in lieu of the information listed in the foregoing provisions of this paragraph.

(4) Provide the physical address(es) of the location(s) where the item(s) will be used, if this address is different from the address of the prospective validated end-user provided in paragraph (1) of this supplement.

(5) If the prospective validated end-user plans to reexport or transfer the item, specify the destination to which the items will be reexported or transferred.

(6) Specify how the prospective validated end-user's record keeping system will allow compliance with the recordkeeping requirements set forth in §748.15(e) of the EAR. Describe the system that is in place to ensure compliance with VEU requirements.

(7) Include an original statement on letterhead of the prospective validated end-user, signed and dated by a person who has authority to legally bind the prospective validated end-user, certifying that the end-user will comply with all VEU requirements. This statement must include acknowledgement that the prospective end-user:

(i) Has been informed of and understands that the item(s) it may receive as a validated end-user will have been exported in accordance with the EAR and that use or diversion of such items contrary to the EAR is prohibited;

(ii) Understands and will abide by all authorization VEU end-use restrictions, including the requirement that items received

under authorization VEU will only be used for authorized end-uses and may not be used for any activities described in part 744 of the EAR;

(iii) Will comply with VEU recordkeeping requirements; and

(iv) Agrees to allow on-site reviews by U.S. Government officials to verify the end-user's compliance with the conditions of the VEU authorization.

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**SUPPLEMENT NO. 9 TO PART 748 - END-USER REVIEW COMMITTEE**  
**PROCEDURES**

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(1) The End-User Review Committee (ERC), composed of representatives of the Departments of State, Defense, Energy, and Commerce, and other agencies, as appropriate, is responsible for determining whether to add to, to remove from, or otherwise amend the list of validated end-users and associated eligible items set forth in Supplement No. 7 to this part. The Department of Commerce chairs the ERC.

(2) Unanimous vote of the Committee is required to authorize VEU status for a candidate or to add any eligible items to a pre-existing authorization. Majority vote of the Committee is required to remove VEU authorization or to remove eligible items from a pre-existing authorization.

(3) In addition to requests submitted pursuant to §748.15, the ERC will also consider candidates for VEU authorization that are identified by the U.S. Government. When the U.S. Government identifies a candidate for VEU authorization, relevant parties (i.e., end-users and exporters or reexporters, when they can be identified) will be notified, before the ERC determines whether VEU authorization is appropriate, as to which end-users have been identified as potential VEU authorization candidates. End-users are not obligated to accept the Government's nomination.

(4) The ERC will make determinations whether to grant VEU authorization to each VEU candidate no later than 30 calendar days after the candidate's complete application is circulated to all ERC agencies. The Committee may request additional information from an applicant or potential validated end-user related to a particular VEU candidate's application. The period during which the ERC is waiting for additional information from an applicant or potential validated end-user is not included in calculating

the 30 calendar day deadline for the ERC's determination.

(5) If an ERC agency is not satisfied with the decision of the ERC, that agency may escalate the matter to the Advisory Committee on Export Policy (ACEP). The procedures and time frame for escalating any such matters are the same as those specified for license applications in Executive Order 12981, as amended by Executive Orders 13020, 13026 and 13117 and referenced in §750.4 of the EAR.

(6) A final determination at the appropriate decision-making level to amend the VEU authorization list set forth in Supplement No. 7 to this part operates as clearance by all member agencies to publish the amendment in the Federal Register.

(7) The Deputy Assistant Secretary of Commerce for Export Administration will communicate the determination on each VEU request to the requesting party and the end-user.

**Application Processing, Issuance and/or Denial**

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**§ 750.1 SCOPE**

In this part, references to the EAR are references to 15 CFR chapter VII, subchapter C. This part describes the Bureau of Industry and Security's (BIS) process for reviewing your application for a license and the applicable processing times for various types of applications. Information related to the issuance, denial, revocation, or suspension of a license or license application is provided along with the procedures on obtaining a duplicate or replacement license, the transfer of a license and shipping tolerances available on licenses. This part also contains instructions on obtaining the status of any pending application.

**§ 750.2 PROCESSING OF CLASSIFICATION REQUESTS AND ADVISORY OPINIONS**

*(a) Classification requests*

All classification requests submitted in accordance with procedures described in §748.3(a) and (b) of the EAR will be answered within 14 calendar days after receipt. All responses will inform the person of the proper classification (e.g., whether or not the item is subject to the Export Administration Regulations (EAR) and, if applicable, the appropriate Export Control Classification Number [ECCN]).

*(b) Advisory Opinion requests*

All advisory opinions submitted in accordance with procedures described in §748.3(a) and (c) of the EAR will be answered within 30 calendar days after receipt. Requests to obtain Validated End-User authorization will be resolved within 30 calendar days as described in Supplement No. 9 to Part 748 of the EAR.

**§ 750.3 REVIEW OF LICENSE APPLICATIONS BY BIS AND OTHER GOVERNMENT AGENCIES AND DEPARTMENTS**

*(a) Review by BIS*

In reviewing specific license applications, BIS will conduct a complete analysis of the license application along with all documentation submitted in support of the application. In addition to reviewing the item and end-use, BIS will consider the reliability of each party to the transaction and review any available intelligence information. To the maximum extent possible, BIS will make licensing decisions without referral of license applications to other agencies, however, BIS may consult with other U.S. departments and agencies regarding any license application.

**(b) Review by other departments or agencies**

(1) The Departments of Defense, Energy, State, and the Arms Control and Disarmament Agency (ACDA) have the authority to review any license application submitted under the EAR. In addition, BIS may, where appropriate, refer license applications to other U.S. government departments or agencies. These agencies and departments will be referred to as “agencies” for the purposes of this part. Though these agencies have the authority to review any license application, they may determine that they do not need to review certain types of license applications. In these instances, the agency will provide BIS with a Delegation of Authority to process those license applications without review by that particular agency.

(2) The Departments of Defense, Energy, State, and ACDA are generally concerned with license applications involving items controlled for national security, missile technology, nuclear nonproliferation, and chemical and biological weapons proliferation reasons or destined for countries and/or end uses of concern. In particular, these agencies are concerned with reviewing license applications as follows:

(i) The Department of Defense is concerned primarily with items controlled for national security and regional stability reasons and with controls related to encryption items;

(ii) The Department of Energy is concerned primarily with items controlled for nuclear nonproliferation reasons;

(iii) The Department of State is concerned primarily with items controlled for national security, nuclear nonproliferation, missile technology, regional stability, anti-terrorism, crime control reasons, and sanctions; and

(iv) The Department of Justice is concerned with controls relating to encryption items and items primarily useful for the surreptitious

interception of wire, oral, or electronic communications.

**§ 750.4 PROCEDURES FOR PROCESSING LICENSE APPLICATIONS****(a) Overview**

(1) All license applications will be resolved or referred to the President no later than 90 calendar days from the date of BIS's registration of the license application. Processing times for the purposes of this section are defined in calendar days. The procedures and time limits described in this part apply to all license applications registered on or after February 4, 1996. The procedures and time limits in effect prior to December 6, 1995 will apply to license applications registered prior to February 4, 1996.

(2) Properly completed license applications will be registered promptly upon receipt by BIS. Registration is defined as the point at which the application is entered into BIS's electronic license processing system. If your application contains deficiencies that prevent BIS from registering your application, BIS will attempt to contact you to correct the deficiencies, however, if BIS is unable to contact you, the license application will be returned without being registered. The specific deficiencies requiring return will be enumerated in a notice accompanying the returned license application. If a license application is registered, but BIS is unable to correct deficiencies crucial to processing the license application, it will be returned without action. The notice will identify the deficiencies and the action necessary to correct the deficiencies. If you decide to resubmit the license application, it will be treated as a new license application when calculating license processing time frames.

**(b) Actions *not* included in processing time calculations**

The following actions will not be counted in the time period calculations described in paragraph (a)(1) of this section for the processing of license applications:

**(1) Agreement by the applicant to the delay.**

BIS may request applicants to provide additional information in support of their license application, respond to questions arising during processing, or accept proposed conditions or riders on their license application. If BIS has provided the applicant with an intent to deny letter described in §750.6 of this part, processing times may be suspended in order to negotiate modifications to a license application and obtain agreement to such modifications from the foreign parties to the license application.

**(2) Pre-license checks.** BIS conducts pre-license checks in order to establish the identity and reliability of the recipient of the items subject to the EAR that require a license, as well as to substantiate representations made on the license application. The results of the pre-license check, including the U.S. government's inability to conduct the pre-license check due to the end user's or host government's actions, will be considered in determining the outcome of a license application. The time required to conduct a pre-license check is not included in license application processing time calculations according to this paragraph, if the pre-license check is:

(i) Conducted through government channels, and

(ii) The request for a pre-license check is made by the Secretary or by another agency within the following time frames:

(A) The pre-license check is requested within 5 days of the determination that it is necessary; and

(B) The analysis resulting from the pre-license check is completed and reported to licensing officials within 5 days.

**(3) Government-to-Government assurances.**

Requests for government-to-government assurances of suitable end-use of items approved for export or reexport when failure to obtain such assurances would result in rejection of the license application, provided that:

(i) The request for such assurances is sent to the Secretary of State within five days of the determination that the assurances are required;

(ii) The Secretary of State initiates the request of the relevant government within 10 days of receipt of the request for such assurances; and

(iii) The license is issued within 5 days of the Secretary's receipt of the requested assurances.

**(4) Consultations.** Consultation with other governments, if such consultation is provided for by a relevant bilateral arrangement or multilateral regime as a precondition for approving a license.

**(5) Multilateral reviews.** Multilateral review of a license application if such review is required by the relevant multilateral regime.

**(6) Congressional notification.** Under Section 6(j) of the Export Administration Act, as amended (EAA), the Secretaries of Commerce and State are required to notify appropriate Committees of the Congress 30 days prior to issuing a license to any country designated by the Secretary of State as being terrorist-supporting for any items that could make a significant contribution to the military potential of such countries, or could enhance the ability of such countries to support acts of international terrorism. Accordingly, the issuance of any license subject to this requirement will be delayed for 30 days.

(i) **Designated countries.** The following countries have been designated by the Secretary of State as terrorist-supporting countries: Iran, North Korea, Sudan, and Syria.

(ii) **Items subject to notification requirement.** License applications involving the export or reexport of the following items to the military, police, intelligence or other sensitive end-users are subject to this notification requirement:

(A) All items controlled for national security reasons;

(B) All items controlled for chemical and biological weapons proliferation reasons;

(C) All items controlled for missile technology reasons;

(D) All items controlled for nuclear nonproliferation reasons; and

(E) All items controlled by the CCL where the entry heading identifies the items controlled as those contained in the Wassenaar Arrangement Munitions List.

(iii) **Additional notifications.** The Secretaries of Commerce and State must also notify the appropriate Congressional committees 30 days before a license is issued for the export or reexport of any item controlled on the CCL to a designated country if the Secretary of State determines that the export or reexport “could make a significant contribution to the military potential of such country, including its military logistics capability, or could enhance the ability of such country to support acts of international terrorism.”

(7) **Congressional Notification.** Congressional notification, including any consultations prior to notification, prior to the issuance of an authorization to export when notification is required by § 743.5 of the EAR.

(8) **Satellites for launch.** Applicant must obtain approval by the Department of Defense of a technology transfer control plan and the National Security Agency of an encryption technology transfer control plan and must make arrangements with the Department of Defense for monitoring of all launch activities.

**(c) Initial processing**

Within 9 days of license application registration, BIS will, as appropriate:

(1) Contact the applicant if additional information is required, if the license application is improperly completed, or required support documents are missing, to request additional or corrected information;

(2) Assure the stated classification on the license application is correct;

(3) Return the license application if a license is not required with a statement notifying the applicant that a license is not required;

(4) Approve the license application or notify the applicant of the intent to deny the license application; or

(5) Refer the license application electronically along with all necessary recommendations and analysis concurrently to all agencies unless the application is subject to a Delegation of Authority. Any relevant information not contained in the electronic file will be simultaneously forwarded in paper copy.

**(d) Review by other agencies and/or interagency groups**

(1) Within 10 days of receipt of a referral the reviewing agency must advise BIS of any information not contained in the referral as described in paragraph (c)(5) of this section. BIS will promptly request such information from

the applicant. The time that elapses between the date the information is requested by the reviewing agency and the date the information is received by the reviewing agency will not be counted in processing time frames.

(2) Within 30 days of receipt of the initial referral, the reviewing agency will provide BIS with a recommendation either to approve (with or without conditions or riders) or deny the license application. As appropriate, such a recommendation may be made with the benefit of consultation and/or discussions in interagency groups established to provide expertise and coordinate interagency consultation. These interagency groups consist of:

(i) ***The Missile Technology Export Control Group (MTEC)***. The MTEC, chaired by the Department of State, reviews license applications involving items controlled for missile technology reasons. The MTEC also reviews license applications involving items not controlled for missile technology (MT) reasons, but destined for a country and/or end-use/end-user of MT concern.

(ii) ***The SubGroup on Nuclear Export Coordination (SNEC)***. The SNEC, chaired by the Department of State, reviews license applications involving items controlled for nuclear nonproliferation reasons. The SNEC also reviews license applications involving items not controlled for nuclear nonproliferation (NP) reasons, but destined for a country and/or end use/end-user of NP concern.

(iii) ***The Shield***. The Shield, chaired by the Department of State, reviews license applications involving items controlled for chemical and biological weapons reasons. The Shield also reviews license applications involving items not controlled for chemical and biological weapons (CBW) reasons, but destined for a country and/or end-use/end-user of CBW concern.

(iv) ***Remote Sensing Interagency Working***

***Group (RSIWG)***. The RSIWG, chaired by the State Department, reviews license applications involving remote sensing spacecraft described in ECCN 9A515.a.1, .a.2, .a.3, or .a.4, sensitive remote sensing components described in 9A515.g, or “technology” described in ECCN 9E515.f.

**(e) Recommendations by reviewing agencies**

Reviewing agencies recommending denial of a license application must provide a statement of reasons, consistent with the provisions of the EAA or EAR, and cite both the statutory and the regulatory basis for the recommendation to deny. A reviewing agency that fails to provide a recommendation within 30 days with a statement of reasons supported by the statutory and regulatory basis shall be deemed to have no objection to the final decision of BIS.

**(f) Interagency dispute resolution and escalation procedures**

\*\*Escalation \*\*escalate

**(1) Escalation to the Operating Committee (OC).**

(i) In any instance where the reviewing agencies are not in agreement on final disposition of a license application, it will be escalated to the OC for resolution. The Chair of the OC will consider the recommendations of the reviewing agencies and any information provided by the applicant in person during an open OC session. Each agency will be informed of the Chair’s decision on the license application within 14 days after the deadline for receiving agency recommendations.

(ii) If any agency disagrees with the OC Chair’s decision, the agency may escalate the decision by appealing to the Chair of the Advisory Committee on Export Policy for resolution. If such a request for escalation is not made within 5 days of the decision of the OC Chair, the chair's decision will be final.

**Application Processing, Issuance and/or Denial**

**(2) Escalation to the Advisory Committee on Export Policy (ACEP).** Requests for escalation to the ACEP must be in writing from an official appointed by the President with the advice and consent of the Senate, or a person properly acting in such capacity, and cite both the statutory and the regulatory basis for the appeal. The ACEP will review all relevant information and recommendations. The Chair of the ACEP will inform the reviewing agencies of the majority vote decision of the ACEP within 11 days from the date of receipt of the escalation request. Within 5 days of the decision, any dissenting agency may appeal in writing the ACEP’s decision to the Secretary of Commerce in the Secretary’s capacity as the Chair of the Export Administration Review Board. The written request must be made by the head of the agency requesting escalation and cite both the statutory and the regulatory basis for the appeal. Within the same period of time, the Secretary may initiate a meeting on his or her own initiative to consider a license application. In the absence of a timely appeal, the decision of the ACEP will be final.

**(3) Escalation to the Export Administration Review Board (EARB).** The EARB will review all relevant information and recommendations, and such other export control matters as may be appropriate. The Secretary of Commerce will inform the reviewing agencies of the majority vote decision of the EARB within 11 days from the date of receipt of the appeal. Within 5 days of the decision, any agency dissenting from the decision of the EARB may appeal the decision to the President. The appeal must be in writing from the head of the dissenting agency. In the absence of a timely appeal, the decision of the EARB will be final.

**§ 750.5 [RESERVED]**

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**§ 750.6 DENIAL OF LICENSE APPLICATIONS**

**(a) Intent to deny notification**

If BIS intends to deny your license application, BIS will notify you in writing within 5 days of the decision. The notification will include:

- (1)** The intent to deny decision;
- (2)** The statutory and regulatory basis for the denial;
- (3)** To the extent consistent with the national security and foreign policy of the United States, the specific considerations that led to the decision to deny the license application;
- (4)** What, if any, modifications or restrictions to the license application would allow BIS to reconsider the license application;
- (5)** The name of the BIS representative in a position to discuss the issues with the applicant; and
- (6)** The availability of appeal procedures.

**(b) Response to intent to deny notification**

You will be allowed 20 days from the date of the notification to respond to the decision before the license application is denied. If you respond to the notification, BIS will advise you if, as a result of your response, the decision to deny has been changed. Unless you are so advised by the 45th day after the date of the notification, the denial will become final, without further notice. You will then have 45 days from the date of final denial to exercise the right to appeal under part 756 of the EAR.

**§ 750.7 ISSUANCE OF LICENSES**

**(a) Scope**

Unless limited by a condition set out in a license, the export, reexport, or transfer (in-country) authorized by a license is for the item(s), end-use(s), and parties described in the license application and any letters of explanation.

The applicant must inform the other parties identified on the license, such as the ultimate consignees and end users, of the license’s scope and of the specific conditions applicable to them.

BIS grants licenses in reliance on representations the applicant made or submitted in connection with the license application, letters of explanation, and other documents submitted. Any license obtained in which a false or misleading representation was made, or a material fact was falsified or concealed on the license application, letters of explanation, or any document submitted in connection with the license application, shall be deemed void as of the date of issuance. See § 750.8(a) of the EAR, which provides that all licenses are subject to revocation, in whole or in part, without notice. See part 764 of the EAR for other sanctions that may result in the event a violation occurs. A BIS license authorizing the release of “technology” to an entity also authorizes the release of the same “technology” to the entity’s foreign persons who are permanent and regular employees (and who are not proscribed persons) of the entity’s facility or facilities authorized on the license, except to the extent a license condition limits or prohibits the release of the “technology” to foreign persons of specific countries or country groups.

**(b) Issuance of a license**

BIS may issue a license electronically via its Simplified Network Application Processing (SNAP-R) system or via paper or both electronically and via paper. Each license has a license number that will be shown on the license.

**(c) Changes to the license**

(1) The following non-material changes do not require submission of a “Replacement” license or any other notification to BIS. (If you wish to make any change not identified in this paragraph, you will need to submit a “Replacement” license in accordance with the instructions contained in Supplement No. 1 to part 748 of the EAR Block 11):

(i) Decrease in unit price or total value;

(ii) Increase in price if permitted under the shipping tolerances in §750.11 of this part;

(iii) Increase in price that can be justified on the basis of changes in point of delivery, port of export, or as a result of transportation cost, drayage, port charges, warehousing, currency fluctuations, etc.;

(iv) Establishment of unit or total price in conformance with a “price statement” on a license that permits price to be based on the market price at a specified date plus an exporter's mark-up, or like basis;

(v) Change in intermediate consignee if the new intermediate consignee is located in the country of ultimate destination as shown on the license, except a change in, or addition of, an intermediate consignee involving a consolidated shipment;

(vi) Change in continuity of shipment by unloading from carrier at a country listed in Country Group B (see Supplement No. 1 to part 740 of the EAR) port not in the country of ultimate destination, without the designation of an intermediate consignee on the shipping documents and license, provided:

(A) The purpose is to transfer the shipment to another vessel, barge, or vehicle, solely for onforwarding to the country of destination shown on the shipping documents and the license;

§750.7(c)(1)(v) says that a \*\*change in \*\*intermediate consignee within the same country is not a material change, so it does not require a replacement license (provided the goods are not in a consolidated shipment).

\*\*Amend license \*\*license amendment \*\*change to license \*\*address change \*\*change of address of a consignee \*\*material change \*\*non-material change

DOC/BIS tries to respond to these §750.c.2 requests within 2 weeks.

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(B) The shipment is moving on a through bill of lading;

(C) The carrier is not registered in, owned or controlled by, or under charter or lease to a country in Country Group D:1 or E:2 (see Supplement No. 1 to part 740 of the EAR), or a national of any of these countries;

(D) The carrier retains custody of the shipment until it is delivered to the ultimate consignee; and

(E) The original bill of lading or air waybill first issued at the port of export is delivered with the shipment to the ultimate consignee;

(vii) Change in address of purchaser or ultimate consignee if the new address is located within the same country shown on the license; or

(viii) Change in ECCN, where necessary only for the purpose of conforming to an official revision in the CCL; or wording of the item description. This does not cover an actual change in the item to be shipped, or an increase in the total price or quantity on the license; or

(ix) Direct exports, reexports, or transfers (in-country) to and among approved end users and the ultimate consignee on a license, provided those end users and ultimate consignee are listed by name and location on such license and the license does not contain any conditions specific to the ultimate consignee that cannot be complied with by the end user, such as a reporting requirement that must be made by the ultimate consignee. Reexports and transfers (in-country) among approved end users may be further limited by license conditions; or

(x) Export, reexport or transfer (in-country) of missile technology (MT) controlled minimum necessary “software” and/or “technology” permitted pursuant to the missile technology licensing policy in § 742.5(b)(3) of the EAR.

(See § 742.5(b)(3)(i) for the scope of eligible minimum “software” and/or “technology” and other limitations for licenses for MT controlled items).

*Note 1 to paragraph (c)(1)(x): This MT licensing policy is implemented pursuant to paragraph (c)(1)(x) of this section because it applies to all MT licenses, except when a condition is placed on the license which excludes the use of paragraph (c)(1)(x) of this section, as described in § 742.5(b)(3)(ii).*

*Note 2 to paragraph (c)(1)(x): License Exception TSU under § 740.13 of the EAR is available for the ECCNs controlled for MT reasons specified in paragraph (a)(5) in § 740.2, provided the software or technology is for an end use specified in that paragraph and meets the requirements of License Exception TSU. (See §§ 740.2(a)(5) and 740.13). The licensing policy in § 742.5(b)(3) is only available for licensed exports (or reexports, or transfers (in-country)).*

(2) In some circumstances, BIS may authorize changing the name of a person listed on a license (i.e., name of exporter, reexporter, purchaser, intermediate consignee, ultimate consignee or end user), provided the pertinent person has not undergone a change in ownership, including merger or acquisition, or any other change in legal status since the time the license was issued. In order to rely on this paragraph (c)(2), BIS must have approved the name change in response to an advisory opinion request submitted by the licensee pursuant to § 748.3(c) of the EAR and the instructions below.

(i) The advisory opinion request must be submitted on the licensee’s company letterhead and include the following information:

(A) The title of the advisory opinion, in this format: “License name change notification and review request;”

(B) All license numbers subject to the

**\*\*Licensee must notify  
\*\*Must notify  
\*\*Notify**

**Application Processing, Issuance and/or Denial**

notification and review request (either in the letter or as a separate attachment);

**(C)** The name(s) changing on the license(s) (include the original and new names), and when the name(s) are changing (either in the letter or as a separate attachment);

**(D)** Any background information available on the reasons for the name change(s) (e.g., press releases from the person changing its name(s)); and

**(E)** A statement regarding whether there has been a change in ownership, including a merger or acquisition, or any other change in legal status regarding the person(s) changing its name(s).

**(F)** Confirmation that, if the request is approved, the licensee will share the advisory opinion response from BIS with all other persons listed on the license, and inform those persons that the advisory opinion response must be retained pursuant to the recordkeeping requirements in part 762 of the EAR.

**(ii)** If BIS determines the name change is not a material change to the license and approves the request to change the name(s) on the license, BIS will send a written response to the licensee who submitted the notification. If BIS does not approve the request to change the name(s) on the license, BIS will send a written response to the licensee who submitted the notification.

**(iii)** For guidance on using an export license with approved name changes, see § 758.4(d) (Exports against license with approved name change).

**(iv)** If a license name change notification and review request is denied by BIS or the licensee determines that there has been a material change to the license, such as a change in ownership of a person on the license, including merger or acquisition, or any other change in legal status

since the time the license was issued, a new license application should be submitted.

**(d) Responsibility of the licensee**

The person to whom a license is issued is the licensee. In export transactions, the exporter must be the licensee, and the exporter-licensee is responsible for the proper use of the license, and for all terms and conditions of the license, except to the extent that certain terms and conditions are directed toward some other party to the transaction. In reexport or routed export transactions, a U.S. agent acting on behalf of a foreign principal party in interest may be the licensee; in these cases, both the agent and the foreign principal party in interest, on whose behalf the agent has acted, are responsible for the use of the license, and for all terms and conditions of the license, except to the extent that certain terms and conditions are directed toward some other party to the transaction. It is the licensee's responsibility to communicate in writing the specific license conditions to the parties to whom those conditions apply. In addition, when required by the license, the licensee is responsible for obtaining written acknowledgment(s) of receipt of the conditions from the party(ies) to whom those conditions apply.

**(e) Prohibited use of a license**

No person convicted of a violation of any statute specified in section 11(h) of the EAA, at the discretion of the Secretary of Commerce, may apply for any license for a period up to 10 years from the date of the conviction. See §766.25 of the EAR.

**(f) Quantity of commodities authorized**

Unlike software and technology, commodities will be approved with a quantity and dollar value limit. Any license resulting from a license application to export or reexport commodities will be licensed in terms of the specified unit of quantity commonly used in trade. A total dollar

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value for the commodity will be authorized based on the per unit price of the commodity. Subject to the shipping tolerances authorized in § 750.11 of this part, the authorization is limited by both the quantity and value listed on the license.

**(g) License validity period**

Licenses involving the export or reexport of items will generally have a four-year validity period, unless a different validity period has been requested and specifically approved by BIS or is otherwise specified on the license at the time that it is issued. Exceptions from the four-year validity period include license applications for items controlled for short supply reasons, which will be limited to a 12-month validity period and license applications reviewed and approved as an “emergency” (see § 748.4(h) of the EAR). Emergency licenses will expire no later than the last day of the calendar month following the month in which the emergency license is issued. The expiration date will be clearly stated on the face of the license. If the expiration date falls on a legal holiday (Federal or State), the validity period is automatically extended to midnight of the first business day following the expiration date.

**(1) Extended validity period.** BIS will consider granting a validity period exceeding 4 years on a case-by-case basis when extenuating circumstances warrant such an extension. Requests for such extensions may be made at the time of application or after the license has been issued and it is still valid. BIS will not approve changes regarding other aspects of the license, such as the parties to the transaction and the countries of ultimate destination. An extended validity period will generally be granted where, for example, the transaction is related to a multi-year project; when the period corresponds to the duration of a manufacturing license agreement, technical assistance agreement, warehouse and distribution agreement, or license issued under the International Traffic in Arms Regulations;

when production lead time will not permit an export or reexport during the original validity period of the license; when an unforeseen emergency prevents shipment within the 4-year validity of the license; or for other similar circumstances.

**(2) Request for extension.**

(i) The applicant must submit a letter in writing to request an extension in the validity period of a previously approved license. The subject of the letter must be titled: “Request for Validity Period Extension” and contain the following information:

**(A)** The name, address, and telephone number of the requestor;

**(B)** A copy of the original license, with the license number, validation date, and current expiration date legible; and

**(C)** Justification for the extension.

(ii) It is the responsibility of the applicant to ensure that all applicable support documents remain valid and are in the possession of the applicant. If the request for extension is approved, BIS will provide the applicant with a written response.

**\*\*Temporary exports**

**(h) Specific types of licenses**

**(1) Licenses for temporary exports or reexports.** If you have been granted a license for the temporary export or reexport of items and you decide not to return the items to the United States, you must submit a license application requesting authorization to dispose of the items. Except when the items are to be used on a temporary basis at a new destination (and returned to the United States after such use), you must ensure that your license application is accompanied by all documents that would be required if you had requested a license to export or reexport the same item directly to the new destination.

**\*\*replacement license**

**\*\*return license if revoked or suspended, but not if \*\*expired**

## Application Processing, Issuance and/or Denial

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**(2) Intransit within the United States.** If you have been issued a license authorizing an intransit shipment (that does not qualify for the *intransit* provisions of License Exception TMP) through the United States, your license will be valid only for the export of the intransit shipment wholly of foreign origin and for which a Transportation and Exportation customs entry or an Immediate Exportation customs entry is outstanding.

**(3) Intransit outside the United States.** If you have been issued a license authorizing unloading or transit through a country listed in the General Prohibition Eight contained in §736.2(b)(8) of the EAR, and you did not know the identity of the intermediate consignee at the time of the original license application, you must notify BIS in writing once you have ascertained the identity of the intermediate consignee. Your notification must contain the original license number, and the complete name, address, and telephone number of the intermediate consignee. The written request must be submitted to BIS at the address listed in §748.1(d)(2) of the EAR.

**(4) Replacement license.** If you have been issued a “replacement license” (for changes to your original license not covered in paragraph (c) of this section), you must retain both the original and the replacement license.

### **(i) Terminating license conditions**

Exporters or reexporters who have shipped under licenses with conditions that would not apply to an export under a License Exception or if no license was required, and foreign consignees who have agreed to such conditions, are no longer bound by these conditions when the licensed items become eligible for a License Exception or can be exported or reexported without a license. Items that become eligible for a License Exception are subject to the terms and conditions of the applicable License Exception and to the restrictions in §740.2 of the EAR. Items that become eligible for export without a license remain subject to the EAR and any export,

reexport, or disposition of such items may only be made in accordance with the requirements of the EAR. Termination of license conditions does not relieve an exporter or reexporter of its responsibility for violations that occurred prior to the availability of a License Exception or prior to the removal of license requirements.

### **(j) Records**

If you have been issued a license you must retain the license, and maintain complete records in accordance with part 762 of the EAR including any licenses (whether used or unused, valid or expired) and all supporting documents and shipping records.

## **§ 750.8 REVOCATION OR SUSPENSION OF LICENSES**

### **(a) Revocation**

All licenses for exports or reexports are subject to revision, suspension, or revocation, in whole or in part, without notice. BIS's Office of Exporter Services may revoke any license in which a person who has been convicted of one of the statutes specified in section 11(h) of the EAA, at the discretion of the Secretary of Commerce, has an interest in the license at the time of the conviction. It may be necessary for BIS to stop a shipment or an export or reexport transaction at any stage in the process (e.g., in order to prevent an unauthorized export or reexport). If a shipment is already en route, it may be further necessary for BIS to order the return or unloading of such shipment at any port of call in accordance with the provisions of the EAA.

### **(b) Return of revoked or suspended licenses**

If BIS revokes or suspends a license, the licensee shall return the license immediately upon notification that the license has been suspended or revoked. The license must be returned to BIS at the address listed in §748.1(d)(2) of the EAR,

Attn: “Return of Revoked/Suspended License”. All applicable supporting documents and records of shipments must be retained by the licensee in accordance with the recordkeeping provisions of part 762 of the EAR. If the licensee fails to return a license immediately upon notification that it has been suspended or revoked, BIS may impose sanctions provided for in part 764 of the EAR.

### § 750.9 DUPLICATE LICENSES

#### (a) *Lost, stolen or destroyed*

If a license is lost, stolen or destroyed, you, as the licensee, may obtain a duplicate of the license by submitting a letter to the BIS at the address listed in §748.1(d)(2) of the EAR, Attention: Duplicate License Request”. You must certify in your letter:

- (1) That the original license ([number] issued to [name and address of licensee]) has been lost, stolen or destroyed;
- (2) The circumstances under which it was lost, stolen or destroyed; and
- (3) If the original license is found, the licensee will return either the original or duplicate license to the BIS. Note that if shipment was made against the original license, those shipments must be counted against the duplicate license. If you are issued a duplicate license you must retain the duplicate license in accordance with the recordkeeping provisions of part 762 of the EAR.

#### (b) *Hong Kong Trade Department*

BIS will automatically issue a duplicate license whenever the license lists a party in Hong Kong as the intermediate consignee, or when Hong Kong is identified as the country from which the reexport will take place. The duplicate license will be labeled “Duplicate for Hong Kong Trade Department”. This duplicate must be forwarded

to the reexporter or intermediate consignee for submission to the Hong Kong Trade Department. The original license must be retained on file by the licensee in accordance with the recordkeeping provisions contained in part 762 of the EAR.

### § 750.10 TRANSFERS OF LICENSES FOR EXPORTS

#### (a) *Authorization*

As the licensee, you may not transfer a license issued for the export of items from the United States to any other party, except with the prior written approval of BIS. BIS may authorize a transfer of a license for export to a transferee who is subject to the jurisdiction of the United States, is a principal party in interest, and will assume all powers and responsibilities under the license for the control of the shipment of the items out of the United States. BIS will approve only one transfer of the same license and only transfers of licenses to export items.

#### (b) *How to request the transfer of licenses*

(1) **Letter from licensee.** You, as the licensee, must submit a letter in writing to request a transfer of a license or licenses. The letter must contain the following information:

- (i) The reasons for the requested transfer;
- (ii) Either a list of the outstanding license numbers or a statement that all outstanding licenses in the name of the licensee are to be transferred, and the total number of such outstanding licenses;
- (iii) A list of all license applications for export to be transferred that are pending with BIS, identifying the Application Control Number for each, or other information that will assist in identifying the pending license applications;

(iv) Name and address of the person you intend to transfer the licenses and license applications to;

(v) The facts necessitating transfer;

(vi) A statement as to whether or not any consideration has been, or will be, paid for the transfer; and

(vii) Identification by name of the legal document (certificate, agreement, etc.) or other authority by which the new firm name is legally established, the new corporation or firm created, or the assets transferred and showing the effective date of such document and the state where filed or recorded.

**(2) Information from transferee.** The person to whom you wish to transfer your license(s) must provide you a signed letter, that must be submitted with your request, containing the following:

(i) That the transferee is a principal party in interest in the transaction covered by the license, or is acting as agent for a principal party in interest;

(ii) That the transferee is subject to the jurisdiction of the United States;

(iii) That the transferee assumes all powers and responsibilities under the license for the control of the shipment of the items out of the United States;

(iv) Whether any consideration has been, has not been, or will be paid for the transfer;

(v) The name and address of the foreign principal in instances where the transferee will make the export as an agent on behalf of a foreign principal; and

(vi) If the license is to be transferred to a subsidiary or firm, or if you transfer to the

transferee all, or a substantial portion, of your assets or business, the transferee must certify that the legal authority changing the exporter imposes on the transferee the responsibility to accept and fulfill the obligations of the transferor under the transactions covered by the license; and

(vii) The following certification:

The undersigned hereby certifies that, if license number(s) \_\_\_\_\_ is (are) transferred in accordance with my (our) request, any and all documents evidencing the order covered by this(these)license(s) will be retained and made available upon request in compliance with the recordkeeping provisions contained in Part 762 of the Export Administration Regulations. The undersigned further certifies compliance with all requirements of the Export Administration Regulations regarding these licenses.

**(c) Notification of transfer and recordkeeping**

Unless instructed otherwise by BIS, you must retain the license(s) pending notification by BIS of the action taken. If the request is approved, you must forward the license(s) to the transferee and the validated letter received from BIS authorizing the transfer. If the transfer request is not approved, the license(s) must either be returned to BIS or used by you if you so choose and have retained the legal and operational capacity fully to meet the responsibilities imposed by the license(s). If your initial request is returned by BIS for additional information, after obtaining the necessary information you may resubmit your request.

**§ 750.11 SHIPPING TOLERANCES**

Under some circumstances, you may use a license issued for the export of items from the United States to export more than the value shown on

that license. This additional amount is called a shipping tolerance. This section tells you, as the licensee, when you may take advantage of a shipping tolerance and the amount of shipping tolerance you are permitted to use.

**(a)** If you have already shipped the full amount approved on your license, you may not use this shipping tolerance provision. No further shipment may be made under the license.

**(b)** If you have not shipped the full quantity of items approved on the license, the value of all of your shipments under one license, up to the full

quantity approved on the license, may exceed the total dollar value stated on that license by up to 10%, unless;

(1) Your license stipulates a specific shipping tolerance; or

(2) Your item is controlled for short supply reasons and a different tolerance has been established. (See part 754 of the EAR).

[RESERVED]

**Note:** Part 752 used to be a section dedicated to a different kind of license called "Special Comprehensive License." This type of license was eliminated as of September 25, 2015.

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### **§ 754.1 INTRODUCTION**

#### *(a) Scope*

In this part, references to the Export Administration Regulations (EAR) are references to 15 CFR chapter VII, subchapter C. This part implements the provisions of section 7, “Short

Supply Controls”, of the Export Administration Act (EAA) and similar provisions in other laws that are not based on national security and foreign policy grounds.

#### *(b) Contents*

Specifically, this part deals with the following:

(1) It sets forth the license requirements and licensing policies for commodities that contain the symbol “SS” in the “Reason for Control” part of “License Requirements” section of the applicable Export Control Classification Number (ECCN) identified on the Commerce Control List (Supplement No. 1 to part 774 of the EAR). In appropriate cases, it also provides for License Exceptions from the short supply licensing requirements described in this part. The license requirements and policies that are described in this part cover the following:

(i) [Reserved]

(ii) Petroleum products other than crude oil listed in Supplement No. 1 to this part, that were produced or derived from the Naval Petroleum Reserves (NPR) or became available for export as a result of an exchange of any NPR-produced or derived commodities described by the following ECCNs. For specific licensing requirements for these items, see §754.3 of this part.

(A) ECCN 1C980 (Inorganic chemicals);

(B) ECCN 1C982 (Other petroleum products);

(C) ECCN 1C983 (Natural gas liquids and other natural gas derivatives); and

(D) ECCN 1C984 (Manufactured gas and synthetic natural gas (except when commingled with natural gas and thus subject to export authorization from the Department of Energy).

(iii) Unprocessed western red cedar described by ECCN 1C988 (Western red cedar (*Thuja plicata*) logs and timber, and rough, dressed and worked lumber containing wane). For specific licensing requirements for these items, see §754.4 of this part.

(iv) Horses exported by sea for slaughter covered by ECCN 0A980 (Horses for export by sea). For specific licensing requirements, see §754.5 of this part.

(2) It incorporates statutory provisions for the registration of U.S. agricultural commodities for exemption from short supply limitations on export (see §754.6 of this part); and

(3) It incorporates statutory provisions for the filing and review of petitions seeking the imposition of monitoring or controls on recyclable metallic materials and procedures for related public hearings (see §754.7 of this part).

**(c) Reexports**

Reexports of items controlled by this part require a license only if such a requirement is specifically set forth in this part or is set forth on the license authorizing the export from the United States.

**(d) Additional requirements for embargoed destinations**

For exports involving embargoed destinations, you must satisfy the requirements of this part and also of part 746 of the EAR (Embargoes and Other Special Controls).

**§ 754.2 [Reserved]**

**§ 754.3 PETROLEUM PRODUCTS NOT INCLUDING CRUDE OIL**

**(a) License requirement**

As indicated by the letters “SS” in the “Reason for Control” paragraph in the “License Requirements” section of ECCNs 1C980, 1C982, 1C983, and 1C984 on the CCL (Supplement No. 1 to part 774 of the EAR), a license is required to all destinations, including Canada, for the export of petroleum products, excluding crude oil, listed in Supplement No. 1 to this part, that were produced or derived from the Naval Petroleum Reserves (NPR) or became available for export as a result of an exchange of any NPR produced or derived commodities.

**(b) License policy**

(1) Applications for the export of petroleum products listed in Supplement No. 1 to this part that were produced or derived from the Naval Petroleum Reserves, or that became available for export as a result of an exchange for a Naval Petroleum Reserves produced or derived commodity, other than crude oil, will be denied, *unless* the President makes a finding required by the Naval Petroleum Reserves Production Act (10 U.S.C. 7430).

(2) Applications that involve temporary exports or exchanges excepted from that Act will be approved.

**§ 754.4 UNPROCESSED WESTERN RED CEDAR**

**(a) License requirement**

As indicated by the letters “SS” in the “Reason for Control” paragraph in the “License Requirements” section of ECCN 1C988 on the CCL (Supplement No. 1 to part 774 of the EAR), a license is required to all destinations, including

Canada, for the export of unprocessed western red cedar covered by ECCN 1C988 (Western red cedar (*Thuja plicata*) logs and timber, and rough, dressed and worked lumber containing wane). For a non-exhaustive list of 10-digit Harmonized System-based Schedule B commodity numbers that may apply to unprocessed western red cedar products subject to the license requirements of this section, see Supplement No. 2 to part 754 of the EAR. See paragraph (c) of this section for license exceptions for timber harvested from public lands in the State of Alaska, private lands, or Indian lands, and see paragraph (d) of this section for relevant definitions.

**(b) *Licensing policy***

(1) BIS will generally deny applications for licenses to export unprocessed western red cedar harvested from Federal or State lands under harvest contracts entered into after September 30, 1979.

(2) BIS will consider, on a case-by-case basis, applications for licenses to export unprocessed western red cedar harvested from Federal or State lands under harvest contracts entered into prior to October 1, 1979.

(3) BIS will approve license applications for unprocessed western red cedar timber harvested from public lands in Alaska, private lands, and Indian lands. Applications must be submitted in accordance with the procedures set forth in paragraph (a) of this section. See paragraph (c) of this section for the availability of a License Exception.

**(c) *License Exception for western red cedar (WRC)***

(1) Subject to the requirements described in paragraph (c) of this section, License Exception WRC may be used to export without a license unprocessed western red cedar timber harvested from Federal, State and other public lands in Alaska, all private lands, and, lands held in trust

for recognized Indian tribes by Federal or State agencies.

(2) Exporters who use License Exception WRC must obtain and retain on file the following documents:

(i) A statement by the exporter (or other appropriate documentation) indicating that the unprocessed western red cedar timber exported under this License Exception was not harvested from State or Federal lands outside the State of Alaska, and did not become available for export through substitution of commodities so harvested or produced. If the exporter did not harvest or produce the timber, the records or statement must identify the harvester or producer and must be accompanied by an identical statement from the harvester or producer. If any intermediate party or parties held title to the timber between harvesting and purchase, the exporter must also obtain such a statement, or equivalent documentation, from the intermediate party or parties and retain it on file.

(ii) A certificate of inspection issued by a third party log scaling and grading organization, approved by the United States Forest Service, that:

(A) Specifies the quantity in cubic meters or board feet, scribner rule, of unprocessed western red cedar timber to be exported; and

(B) Lists each type of brand, tag, and/or paint marking that appears on any log or unprocessed lumber in the export shipment or, alternatively, on the logs from which the unprocessed timber was produced.

(3) The requirements and restrictions described in §§740.1 and 740.2 of the EAR that apply to all License Exceptions also apply to the use of License Exception WRC.

(4) A person exporting any item pursuant to this license exception must enter on any required Electronic Export Information (EEI) filing to the

Automated Export System (AES) the correct license code that corresponds to “SS-WRC.”

*(d) License Applications*

(1) Applicants requesting to export unprocessed western red cedar must apply for a license in accordance with § 748.1, 748.4 and 748.6 of the EAR, submit any other documents as may be required by BIS, and submit a statement from an authorized representative of the exporter, reading as follows:

I, (Name) (Title)\_\_\_\_\_of (Exporter) \_\_\_\_\_HEREBY CERTIFY that to the best of my knowledge and belief the (Quantity) (cubic meters or board feet) (scribner) of unprocessed western red cedar timber that (Exporter) proposes to export was not harvested from State or Federal lands under contracts entered into after October 1, 1979,

\_\_\_\_\_  
(Signature)  
\_\_\_\_\_  
(Date)

(2) In Blocks [16] and [18] of the application, “Various” may be entered when there is more than one purchaser or ultimate consignee.

(3) For each application submitted, and for each export shipment made under a license, the exporter must assemble and retain for the period described in part 762 of the EAR, and produce or make available for inspection, the following:

(i) A signed statement(s) by the harvester or producer, and each subsequent party having held title to the commodities, that the commodities in question were harvested under a contract to harvest unprocessed western red cedar from State or Federal lands, entered into before October 1, 1979; and

(ii) The Automated Export System record.

(4) A shipping tolerance of 5 percent in cubic feet or board feet scribner is allowed on the unshipped balance of a commodity listed on a license. This tolerance applies only to the final quantity remaining unshipped on a license against which more than one shipment is made and not to the original quantity authorized by such license. See §750.11 of the EAR for an explanation of shipping tolerances.

*(e) Definitions*

When used in this section, the following terms have the meaning indicated:

(1) *Unprocessed western red cedar* means western red cedar (*Thuja plicata*) timber, logs, cants, flitches, and processed lumber containing wane on one or more sides, as defined in ECCN 1C988, that has not been processed into:

(i) Lumber of American Lumber Standards Grades of Number 3 dimension or better, or Pacific Lumber Inspection Bureau Export R-List Grades of Number 3 common or better grades, with a maximum cross section of 2,000 square centimeters (310 square inches) for any individual piece of processed western red cedar (WRC) being exported, regardless of grade;

(ii) Chips, pulp, and pulp products;

(iii) Veneer and plywood;

(iv) Poles, posts, or pilings cut or treated with preservative for use as such and not intended to be further processed; and

(v) Shakes and shingles.

(2) *Federal and State lands* means Federal and State lands, excluding lands in the State of Alaska and lands held in trust by any Federal or State official or agency for a recognized Indian tribe or for any member of such tribe.

(3) *Contract harvester* means any person who, on October 1, 1979, had an outstanding con-

tractual commitment to harvest western red cedar timber from State and Federal lands and who can show by previous business practice or other means that the contractual commitment was made with the intent of exporting or selling for export in unprocessed form all or part of the commodities to be harvested.

(4) *Producer* means any person engaged in a process that transforms an unprocessed western red cedar commodity (e.g., western red cedar timber) into another unprocessed western red cedar commodity (e.g., cants) primarily through a saw mill.

#### **§ 754.5 HORSES FOR EXPORT BY SEA**

##### *(a) License requirement*

As indicated by the letters “SS” in the “Reason for Control” paragraph of the “License Requirements” section of ECCN 0A980 on the CCL (Supplement No. 1 to part 774 of the EAR) a license is required for the export of horses exported by sea to all destinations, including Canada.

##### *(b) License policy*

(1) License applications for the export of horses by sea for the purposes of slaughter will be denied.

(2) Other license applications will be approved if BIS, in consultation with the Department of Agriculture, determines that the horses are not intended for slaughter. You must provide a statement in the additional information section of the application certifying that no horse under consignment is being exported for the purpose of slaughter.

(3) Each application for export may cover only one consignment of horses.

#### **§ 754.6 REGISTRATION OF U.S. AGRICULTURAL COMMODITIES FOR EXEMPTION FROM SHORT SUPPLY LIMITATIONS ON EXPORT**

##### *(a) Scope*

Under the provisions of section 7(g) of the Export Administration Act of 1979 (EAA), agricultural commodities of U.S. origin purchased by or for use in a foreign country and stored in the United States for export at a later date may be registered with BIS for exemption from any quantitative limitations on export that may subsequently be imposed under section 7 of the EAA for reasons of short supply.

##### *(b) Applications for registration*

Applications to register agricultural commodities must be submitted by a person or firm subject to the jurisdiction of the United States who is acting as a duly authorized agent for the foreign purchaser.

##### *(c) Address*

Submit applications pursuant to the provisions of section 7(g) of the EAA, via courier, to:

Bureau of Industry and Security  
U.S. Department of Commerce  
14th and Pennsylvania Ave., NW.  
Room 2099B  
Washington, DC 20230

#### **§ 754.7 PETITIONS FOR THE IMPOSITION OF MONITORING OR CONTROLS ON RECYCLABLE METALLIC MATERIALS; PUBLIC HEARINGS**

##### *(a) Scope*

Section 7(c) of the Export Administration Act of 1979 (EAA) provides for the filing and review of

petitions seeking the imposition of monitoring or controls on recyclable metallic materials.

***(b) Eligibility for filing petitions***

Any entity, including a trade association, firm or certified or recognized union or group of workers, which is representative of an industry or a substantial segment of an industry which processes metallic materials capable of being recycled with respect to which an increase in domestic prices or a domestic shortage, either of which results from increased exports, has or may have a significant adverse effect on the national economy or any sector thereof, may submit a written petition to BIS requesting the monitoring of exports, or the imposition of export controls, or both, with respect to such materials.

***(c) Public hearings***

The petitioner may also request a public hearing. Public hearings may also be requested by an entity, including a trade association, firm, or certified or recognized union or group of workers, which is representative of an industry or a substantial segment of an industry which processes, produces or exports the metallic materials which are the subject of a petition.

***(d) Address***

Submit petitions pursuant to section 7(c) of the EAA, via courier, to:

Bureau of Industry and Security  
U.S. Department of Commerce  
14th and Pennsylvania Ave., NW.  
Room 2099B  
Washington, D.C. 20230

**SUPPLEMENT NO. 1 TO PART 754 - CRUDE PETROLEUM AND PETROLEUM PRODUCTS**

This Supplement provides relevant Schedule B numbers and commodity descriptions for crude oil (EAR99) and for petroleum products other than crude oil that are controlled by ECCN 1C980, 1C982, 1C983, or 1C984.. The 10-digit Harmonized System-based Schedule B commodity numbers and descriptions below are drawn from *Chapter 27 of the Schedule B 2014* found at and the *AES 2014 Export Concordance* (December 30, 2013) <http://www.census.gov/foreign-trade/aes/documentlibrary/expaes.txt>. If there are any discrepancies between the information in this supplement and the information in the most current Schedule B, use the most current Schedule B commodity number on your Electronic Export Information filing on the Automated Export System.

Schedule B No	Commodity description
<b>CRUDE OIL</b>	
2709001000	Petroleum oils and oils obtained from bituminous minerals, crude
2709002010	Petroleum oils and oils obtained from bituminous minerals, testing 25 degrees API or more, condensate derived wholly from natural gas, crude
2709002090	Petroleum oils and oils obtained from bituminous minerals, testing 25 degrees API or more, crude, NESOI
2714100000	Bituminous or oil shale and tar sands
<b>PETROLEUM PRODUCTS</b>	
2707999010	Carbon black feedstock
2710121510	Leaded gasoline
2710121514	Unleaded gasoline, reformulated
2710121519	Unleaded gasoline, NESOI
2710121520	Jet fuel, naphtha-type
2710121550	Motor fuels, NESOI
2710121805	Motor fuel blending stock, Reformulated Blendstock for Oxygenate Blending (RBOB)
2710121890	Motor fuel blending stock, except Reformulated Blendstock for Oxygenate Blending (RBOB)
2710122500	Naphthas, except motor fuel or motor fuel blending stock

Schedule B No	Commodity description
2710124500	Light oil and preparation, mixtures of hydrocarbons containing by weight not over 50 percent of any single hydrocarbon compound, NESOI
2710129000	Light oils and preparations obtained from bituminous minerals containing by weight 70 percent or more of petroleum oils, NESOI
2710190605	No. 4-type fuel oils, API lt 25 degrees, having a saybolt universal viscosity at 37.8 degrees C of 45-125 seconds, with not over 500 ppm of sulfur
2710190615	No. 4-type fuel oils under 25 degrees API having a saybolt universal viscosity at 37.8 degrees C of 45-125 seconds, having over 500 ppm sulfur
2710190620	Heavy fuel oils under 25 degrees API having saybolt universal viscosity at 37.8 degrees C of more than 125 seconds
2710190650	Distillate and residual fuel oils (including blended fuel oils), testing under 25 degrees API, NESOI
2710191106	Light fuel oils testing 25 degrees API or more, containing not more than 15 ppm of sulfur
2710191109	Light fuel oils testing 25 degrees API or more, containing more than 15 ppm but not more than 500 ppm of sulfur
2710191112	Light fuel oils 25 degrees API or more having a saybolt universal viscosity at 37.8 degrees C of less than 45 seconds, containing over 500 ppm sulfur
2710191115	No. 4-type fuel oils containing not more than 500 ppm of sulfur
2710191125	No. 4-type fuel oils containing more than 500 ppm of sulfur
2710191150	Heavy fuel oils 25 degrees API or more with a saybolt universal viscosity at 37.8 degrees C of more than 125 seconds
2710191600	Kerosene-type jet fuel, NESOI
2710192400	Kerosene motor fuel
2710192500	Kerosene motor fuel blending stock
2710192600	Kerosene, except motor fuel or motor fuel blending stock, NESOI
2710193010	Aviation engine lubricating oils (except jet engine lubricating oils)

Schedule B No	Commodity description
2710193020	Automotive, diesel or marine engine (except turbine) lubricating oils
2710193030	Turbine lubricating oil, including marine
2710193040	Automotive gear oils
2710193050	Steam cylinder oils
2710193070	Quenching or cutting oils
2710193080	Lubricating oils with or without additives, NESOI
2710193750	Lubricating greases with or w/out additives
2710194530	White mineral oils, medicinal grade
2710194540	White mineral oils, except medicinal grade
2710194545	Insulating or transformer oils, NESOI
2710194590	Mixtures of hydrocarbons NESOI, containing by weight not over 50 percent of any single hydrocarbon compound
2710199000	Petroleum oils or oils obtained from bituminous minerals, other than crude, containing by weight 70% or more of petroleum oils, NESOI
2710200000	Petroleum oils or oils obtained from bituminous minerals, other than crude, containing by weight 70% or more of petroleum oils, containing biodiesel
2710910000	Waste oils containing Polychlorinated Biphenyls (PCBs), Polychlorinated Terphenyls (PCTs), or Polybrominated Biphenyls (PBBs)
2710990000	Waste oils, not elsewhere specified or included
2711110000	Natural gas, liquefied
2711120000	Propane, liquefied
2711130000	Butanes, liquefied
2711140000	Ethylene, propylene, butylene and butadiene liquefied
2711190000	Petroleum gases and other gaseous hydrocarbons, liquefied, NESOI
2712200000	Paraffin wax containing less than 0.75 percent oil

Schedule B No	Commodity description
2712900000	Microcrystalline petroleum wax, slack wax, ozokerite, lignite wax, peat wax, other mineral waxes, and similar products, NESOI
2713110000	Petroleum coke, not calcined
2713120000	Petroleum coke, calcined
2713200000	Petroleum bitumen
2713900000	Residues of petroleum oils or of oils obtained from bituminous materials, NESOI
2714900000	Bitumen and asphalt, natural; asphaltites and asphaltic rocks
2715000000	Bituminous mixtures based on natural asphalt, natural bitumen, petroleum bitumen, mineral tar or mineral tar pitch
2804100000	Hydrogen
2804290010	Helium
2811210000	Carbon dioxide
2811299000	Carbon monoxide
2814100000	Anhydrous ammonia
2814200000	Ammonia in aqueous solution
3819000000	Hydraulic brake fluids and other prepared liquids for hydraulic transmission, not containing or containing less than 70 percent by weight of petroleum oils or oils obtained from bituminous minerals

**SUPPLEMENT NO. 2 TO PART 754 -UNPROCESSED WESTERN RED CEDAR**

This table is a non-exhaustive list of 10-digit Harmonized System-based Schedule B commodity numbers that may apply to unprocessed western red cedar products subject to license requirements of §754.4 of this part. The 10-digit Harmonized System-based Schedule B commodity numbers and descriptions below are drawn from *Chapter 44 of the Schedule B 2014* found at <http://www.census.gov/foreign-trade/schedules/b/2014/c44.html> and the *AES 2014 Export Concordance* (December 30, 2013) <http://www.census.gov/foreign-trade/aes/documentlibrary/expaes.txt>. If there are any discrepancies between the information in this supplement and the information in the most current Schedule B, use the most current Schedule B commodity number on your Electronic Export Information filing in the Automated Export System.

Schedule B commodity number	Description
<b>Wood in the rough</b>	
4403100030	Poles, piles and posts; ‘treated’
4403100060	Wood in the rough; ‘treated’
4403200010	Not ‘treated;’ coniferous; poles, piles and posts
4403200055	Not ‘treated;’ coniferous; logs and timber; Western Red Cedar ( <i>Thuja Plicata</i> )
<b>‘Lumber’</b>	
4407100101	Coniferous; finger-jointed
4407100102	Coniferous; except finger-jointed; ‘treated’
4407100168	Coniferous; except finger-jointed; not ‘treated;’ Western Red Cedar ( <i>Thuja Plicata</i> ); ‘rough’
4407100169	Coniferous; except finger-jointed; not ‘treated;’ Western Red Cedar ( <i>Thuja Plicata</i> ); not ‘rough’

**Note 1:** *4403 heading in the Schedule B 2014 pertains to “wood in the rough, whether or not stripped of bark or sapwood, or roughly squared (not including lumber of heading 4407).”*

**Note 2:** *The 6-digit Harmonized System subheading 4403.10 and the 10-digit Harmonized System code 4407.10.0102 in Schedule B 2014 state that ‘treated’ means “treated with paint, stain, creosote or other preservatives.”*

**Note 3:** *The 4407 heading in the Schedule B 2014 refers to ‘lumber’ as “wood sawn or chipped lengthwise, sliced or peeled, whether or not planed, sanded or end-jointed, of a thickness exceeding 6mm (.236 inch).”*

**Note 4:** *Section IX – Chapter 44 of Schedule B 2014, Statistical Note 3 states, “for the purpose of heading 4407, the term “rough” includes wood that has been edged, resawn, crosscut or trimmed to smaller sizes but it does not include wood that has been dressed or surfaced by planing on one or more edges or faces or has been edge-glued or end-glued.”*

**\*\*754-S3**

**Short Supply Controls**

**Supplement No. 3 to Part 754-page 1**

**SUPPLEMENT NO. 3 TO PART 754 – [Reserved]**

including any licensing requirements and conditions, within 30 days of the date of such determination by the President. The Secretary of Commerce shall consult with the Secretary of Energy in administering the provisions of this subsection.

(5) If the Secretary of Commerce finds that exporting oil under authority of this subsection has caused sustained material oil supply shortage or sustained oil prices significantly above world market levels and further finds that these supply shortages or price increases have caused or are likely to cause sustained material adverse employment effects in the United States, the Secretary of Commerce, in consultation with the Secretary of Energy, shall recommend, and the President may take, appropriate action concerning exports of this oil, which may include modifying or revoking authority to export such oil.

(6) Administrative action under this subsection is not subject to sections 551 and 553 through 559 of title 5, United States Code.

***MINERAL LANDS LEASING ACT***  
**30 U.S.C. 185(u)**

Limitations on export

Any domestically produced crude oil transported by pipeline over rights-of-way granted pursuant to this section, except such crude oil which is either exchanged in similar quantity for convenience or increased efficiency of transportation with persons or the government of an adjacent foreign state, or which is temporarily exported for convenience or increased efficiency of transportation across parts of an adjacent foreign state and reenters the United States, shall be subject to all of the limitations and licensing requirements of the Export Administration Act of 1979 (50 U.S.C. App. 2401 and following) and, in addition, before any crude oil subject this section may be exported

under the limitations and licensing requirements and penalty and enforcement provisions of the Export Administration Act of 1979 the President must make and publish an express finding that such exports will not diminish the total quantity or quality of petroleum available to the United States, and are in the national interest and are in accord with the provisions of the Export Administration Act of 1979: *Provided*, That the President shall submit reports to the Congress containing findings made under this section, and after the date of receipt of such report Congress shall have a period of sixty calendar days, thirty days of which Congress must have been in session, to consider whether exports under the terms of this section are in the national interest. If the Congress within this time period passes a concurrent resolution of disapproval stating disagreement with the President's finding concerning the national interest, further exports made pursuant to the aforementioned Presidential finding shall cease.

***NAVAL PETROLEUM RESERVES  
 PRODUCTION ACT***  
**10 § 7430(e)**

Any petroleum produced from the naval petroleum reserves, except such petroleum which is either exchanged in similar quantities for convenience or increased efficiency of transportation with persons or the government of an adjacent foreign state, or which is temporarily exported for convenience or increased efficiency of transportation across parts of an adjacent foreign state and reenters the United States, shall be subject to all of the limitations and licensing requirements of the Export Administration Act of 1979 (50 U.S.C. App. 2401 et seq.) and, in addition, before any petroleum subject to this section may be exported under the limitations and licensing requirement and penalty and enforcement provisions of the Export Administration Act of 1979, the President must make and publish an express finding that such exports will not diminish the total quality or

quantity of petroleum available to the United States and that such exports are in the national interest and are in accord with the Export Administration Act of 1979.

***OUTER CONTINENTAL SHELF LANDS  
ACT  
43 U.S.C. 1354***

***(a) Application of Export Administration provisions***

Except as provided in subsection (d) of this section, any oil or gas produced from the outer Continental Shelf shall be subject to the requirements and provisions of the Export Administration Act of 1969. Note that the Export Administration Act of 1969, referred to in paragraphs (a) and (b) of the Supplement, terminated on September 30, 1979, pursuant to the terms of that Act.

***(b) Condition precedent to exportation; express finding by President of no increase in reliance on imported oil or gas***

Before any oil or gas subject to this section may be exported under the requirements and provisions of the Export Administration Act of 1969, the President shall make and publish an express finding that such exports will not increase reliance on imported oil or gas, are in the national interest, and are in accord with the provisions of the Export Administration Act of 1969.

***(c) Report of findings by President to Congress; joint resolution of disagreement with findings of President***

The President shall submit reports to Congress containing findings made under this section, and after the date of receipt of such reports Congress shall have a period of sixty calendar days, thirty days of which Congress must have been in session, to consider whether export under the terms of this section are in the national interest. If the Congress within such time period passes a concurrent resolution of disapproval stating disagreement with the President's finding concerning the national interest, further exports made pursuant to such Presidential findings shall cease.

***(d) Exchange or temporary exportation of oil and gas for convenience or efficiency of transportation***

The provisions of this section shall not apply to any oil or gas which is either exchanged in similar quantity for convenience or increase efficiency of transportation with persons or the government of a foreign state, or which is temporarily exported for convenience or increased efficiency of transportation across parts of an adjacent foreign state and reenters the United States, or which is exchanged or exported pursuant to an existing international agreement.

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**§ 756.1 SCOPE**

Section 756.2 describes the procedures applicable to appeals from administrative actions taken under the Export Administration Act (EAA) or the Export Administration Regulations (EAR). (In this part, references to the EAR are references to 15 CFR chapter VII, subchapter C). Section 756.3 describes the procedures under which the Bureau of Industry and Security (BIS) can safeguard national security information when agency action is under judicial review.

**§ 756.2 APPEAL FROM AN ADMINISTRATIVE ACTION**

**(a) Scope**

Any person directly and adversely affected by an administrative action taken by BIS may appeal to the Under Secretary for reconsideration of that administrative action. The following types of administrative actions are not subject to the appeals procedures described in this part:

- (1) Issuance, amendment, revocation, or appeal of a regulation.** (These requests may be submitted to BIS at any time.)
- (2) Denial or probation orders, civil penalties, sanctions, or other actions under parts 764 and 766 of the EAR, except that, any appeal from an action taken under § 766.25 and any appeal from an action taken in accordance with § 766.23 to make an action taken under § 766.25 applicable**

to a related person shall be subject to the appeals procedures described in this part.

**(3)** A decision on a request to remove or modify an Entity List entry made pursuant to § 744.16 of the EAR, a decision on a request to remove or modify an Unverified List entry made pursuant to § 744.15 of the EAR, or a request to remove or modify a Military End User entry made pursuant to § 744.21(b) of the EAR.

**(4)** A decision on whether License Exception Strategic Trade Authorization (STA) is available for “600 series” “end items” pursuant to § 740.20(g) of the EAR.

**(b) Review and appeal officials**

The Under Secretary may delegate to the Deputy Under Secretary for Industry and Security or to another BIS official the authority to review and decide the appeal. In addition, the Under Secretary may designate any employee of the Department of Commerce to be an appeals coordinator to assist in the review and processing of an appeal under this part. If such employee is not an employee of BIS, such designation may be made only with the concurrence of the head of the operating unit in which that employee is employed. The responsibilities of an appeals coordinator may include presiding over informal hearings.

**(c) Appeal procedures**

**(1) Filing.** An appeal under this part must be received by the

Under Secretary for Industry and Security  
Bureau of Industry and Security  
U.S. Department of Commerce, Room 3898  
14th Street and Pennsylvania Avenue, N.W.  
Washington, DC 20230

not later than 45 days after the date appearing on the written notice of administrative action.

**(2) Content of appeal.** The appeal must include a full written statement in support of appellant's position. The appeal must include a precise statement of why the appellant believes the administrative action has a direct and adverse effect and should be reversed or modified. The Under Secretary may request additional information that would be helpful in resolving the appeal, and may accept additional submissions. The Under Secretary will not ordinarily accept any submission filed more than 30 days after the filing of the appeal or of any requested submission.

**(3) Request for informal hearing.** In addition to the written statement submitted in support of an appeal, an appellant may request, in writing, at the time an appeal is filed, an opportunity for an informal hearing. The Under Secretary may grant or deny a request for an informal hearing. Any hearings will be held in the District of Columbia unless the Under Secretary determines, based upon good cause shown, that another location would be better.

**(4) Informal hearing procedures.**

**(i) Presentations.** The Under Secretary shall provide an opportunity for the appellant to make an oral presentation based on the materials previously submitted by the appellant or made available by the Department in connection with the administrative action. The Under Secretary may require that any facts in controversy be covered by an affidavit or testimony given under oath or affirmation.

**(ii) Evidence.** The rules of evidence prevailing in courts of law do not apply, and all evidentiary material deemed by the Under Secretary to be relevant and material to the proceeding, and not unduly repetitious, will be received and considered.

**(iii) Procedural questions.** The Under Secretary has the authority to limit the number of people attending the hearing, to impose any time

or other limitations deemed reasonable, and to determine all procedural questions.

**(iv) Transcript.** A transcript of an informal hearing shall not be made, unless the Under Secretary determines that the national interest or other good cause warrants it, or the appellant requests a transcript. If the appellant requests a transcript, the appellant will be responsible for paying all expenses related to production of the transcript.

**(v) Report.** Any person designated by the Under Secretary to conduct an informal hearing shall submit a written report containing a summary of the hearing and recommend action to the Under Secretary.

**(d) Decisions**

**(1) Determination of appeals.** In addition to the documents specifically submitted in connection with the appeal, the Under Secretary shall consider any recommendations, reports, or relevant documents available to BIS in determining the appeal, but shall not be bound by any such recommendation, nor prevented from considering any other information, or consulting with any other person or groups, in making a determination. The Under Secretary may adopt any other procedures deemed necessary and reasonable for considering an appeal. The Under Secretary shall decide an appeal within a reasonable time after receipt of the appeal. The decision shall be issued to the appellant in writing and contain a statement of the reasons for the action.

**(2) Effect of the determination.** The decision of the Under Secretary shall be final.

**(e) Effect of appeal**

Acceptance and consideration of an appeal shall not affect any administrative action, pending or in effect, unless the Under Secretary, upon request

by the appellant and with opportunity for response, grants a stay.

**§ 756.3 JUDICIAL REVIEW OF AGENCY ACTION**

**(a) Definition**

For purposes of this section, the term *agency action* has the same meaning given such term in 5 U.S.C. 551(13), *i.e.*, includes the whole or a part of an agency rule, order, license, sanction, relief, or the equivalent or denial thereof, or failure to act.

**(b) Classified national security information**

In any judicial review of any agency action under the EAR, if such action was based in whole or in part on classified national security information as defined in Executive Order 13526 (December 29, 2009), such information may be submitted to the reviewing court *ex parte* and *in camera*. This paragraph (b) does not confer or imply any right to review in any tribunal, judicial or otherwise.

This used to say "(SED)" in an earlier version.

There are **2 types** of export transactions: "Exports" vs. "Routed Exports". Know your responsibilities in either case.

**Export Clearance Requirements and Authorities**

Part **\*\*758**-page 1

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### **§ 758.1 THE ELECTRONIC EXPORT INFORMATION (EEI) FILING TO THE AUTOMATED EXPORT SYSTEM (AES)**

#### *(a) The Electronic Export Information (EEI) filing to the Automated Export System (AES)*

The EEI is used by the Bureau of Census to collect trade statistics and by the Bureau of Industry and Security for export control purposes. The EEI collects basic information such as the names and addresses of the parties to a transaction; the Export Control Classification Number (ECCN) (when required), the Schedule B number or Harmonized Tariff Schedule of the United States (HTS) number, the description, quantity and value of the items exported; and the license authority for the export. **The EEI is a statement to the United States Government that the transaction occurred as described.**

#### *(b) When is an EEI filing required to be filed in the AES*

Except when the export of items subject to the EAR is to take place electronically or in an otherwise intangible form, you must file EEI in the AES with the United States Government for items subject to the EAR, including exports by U.S. mail, in the following situations:

- (1) For all exports of items subject to the EAR that are destined to a country in Country Group E:1 or E:2 of Supplement No. 1 to Part 740 of the EAR regardless of value;
- (2) For all exports subject to the EAR that require submission of a license application, regardless of value or destination;
- (3) For all exports of 9x515 or "600 series" items enumerated or otherwise described in paragraphs .a through .x of a 9x515 or "600 series" ECCN regardless of value or destination, including exports to Canada;

(4) For all exports under license exception Strategic Trade Authorization (STA);

(5) For all exports of commodities and mass market software subject to the EAR when the value of the commodities or mass market software classified under a single Schedule B Number (or HTS) is over \$2,500, except as exempted by the Foreign Trade Regulations (FTR) in 15 CFR Part 30 and referenced in paragraph (c) of this section;

(6) For all exports of items subject to the EAR that will be transhipped through Canada to a third destination, where the export would require EEI or license if shipped directly to the final destination from the United States (see 15 CFR 30.36(b)(2) of the FTR);

(7) For all items exported under authorization Validated End-User (VEU);

(8) For all exports of tangible items subject to the EAR where parties to the transaction, as described in § 748.5(d) through (f) of the EAR, are listed on the Unverified List (Supplement No. 6 to part 744 of the EAR), regardless of value or destination; or

(9) For all exports, except for exports authorized under License Exception BAG, as set forth in §740.14 of the EAR, of items controlled under ECCNs 0A501.a or .b, shotguns with a barrel length less than 18 inches controlled under ECCN 0A502, or ammunition controlled under ECCN 0A505 except for .c, regardless of value or destination, including exports to Canada.

(10) For all exports of items on the Commerce Control List to the People's Republic of China, Russia, or Venezuela, regardless of value, unless the export may be made under the exemption listed under paragraph (c)(4) of this section.

**NOTE 1 TO PARAGRAPH (b)(10):** Paragraph (b)(10) applies to exports to Hong Kong, as this destination is considered a part of the People's

*Republic of China under the EAR, even if the AES requirements state that the destination filed in EEI is to be listed as Hong Kong.*

→ (c) Exemptions

A complete list of exemptions from the EEI filing requirement is set forth in the 15 CFR 30.35 through 30.40 of the FTR. Some of these FTR exemptions have elements in common with certain EAR license exceptions. An FTR exemption may be narrower than an EAR license exception. The following references are provided in order to direct you to the FTR exemptions that relate to EAR license exceptions:

(1) License Exception Baggage (BAG), as set forth in §740.14 of the EAR. See 15 CFR 30.37(x) of the FTR;

*Note 1 to paragraph (c)(1): See the export clearance requirements for exports of firearms controlled under ECCNs 0A501.a or .b, shotguns with a barrel length less than 18 inches controlled under ECCN 0A502, or ammunition controlled under ECCN 0A505, authorized under License Exception BAG, as set forth in §740.14 of the EAR.*

(2) License Exception Gift Parcels and Humanitarian Donations (GFT), as set forth in § 740.12 of the EAR. See 15 CFR 30.37(h) of the FTR;

(3) License Exception Aircraft and Vessels (AVS), as set forth in § 740.15 of the EAR. See 15 CFR 30.37(o) (5) of the FTR;

(4) License Exception Governments and International Organizations (GOV), as set forth in § 740.11 of the EAR. See 15 CFR 30.39 and 30.40 of the FTR;

(5) License Exception Technology and Software Under Restriction (TSR), as set forth in § 740.6 of the EAR. See 15 CFR 30.37(f) of the FTR; or

(6) License Exception Temporary Imports, Exports, and Reexports (TMP) “tools of trade”, as set forth in § 740.9(a)(1) of the EAR. See 15 CFR 30.37(b) of the FTR.

***(d) Notation on export documents for exports exempt from EEI filing requirements***

When an exemption from filing the EEI applies, the export authority (license exception or NLR) of all the items must be entered on the loading document (e.g., Cargo Declaration, manifest, bill of lading, (master) air waybill) by the person responsible for preparing the document, see 15 CFR 30.35 of the FTR. This requirement is intended to parallel the Bureau of Census requirement, so that notations as to the basis for the EEI exemption and the license authority are entered in the same place and manner (see 15 CFR 30.45(e) and (f) of the FTR for detailed requirements). The loading document must be available for inspection by government officials, along with the items, prior to lading on the carrier.

***(e) Filing the Electronic Export Information (EEI) to the AES***

The person who files the EEI to the AES must be in the United States at the time of filing. The person who transmits the EEI to the AES must be a certified AES participant in accordance with 15 CFR 30.5 of the FTR. The person who transmits EEI to the AES, whether exporter (U.S. principal party in interest) or agent, is responsible for the truth, accuracy, and completeness of the EEI, except insofar as that person can demonstrate that he or she reasonably relied on information furnished by others.

***(f) The EEI is an export control document***

The EEI is a statement to the United States Government. The EEI is an export control document as defined in Part 772 of the EAR. False statements made thereon may be a violation of § 764.2(g) of the EAR. When EEI is filed to

the AES, the filer of the EEI represents the following:

(1) Export of the items described on the EEI filing is authorized under the terms and conditions of a license issued by BIS; is in accordance with the terms and conditions of a license exception; is authorized under “NLR” as no license is required for the shipment; or is not subject to the EAR;

(2) Statements on the EEI filing are in conformity with the contents of any license issued by BIS, with the possible exception of the USPPPI and USPPPI identification blocks in routed transactions or any name change approved by BIS in writing in accordance with § 750.7(c)(2) of the EAR; and

(3) All information shown on the EEI filing is true, accurate, and complete.

***(g) Export control information on the EEI filing in AES***

For each item on the EEI filing, you must report the license authority (license number, License Exception symbol, or No License Required (NLR) designator), the Export Control Classification Number (ECCN) (when required), and the item description in the designated blocks. The item description must be stated in Commerce Control List (CCL) terms. If those terms are inadequate to meet the Bureau of Census requirements, the FTR requires that you give enough additional detail to permit verification of the Schedule B Number (or Harmonized Tariff Schedule of the United States (HTS) number). See 15 CFR Part 30, Appendix B, Part III of the FTR for license codes.

(1) **Exports under a license.** When exporting under the authority of a license, you must report on the EEI filing to the AES the license code that corresponds to the license, license number, the ECCN, and an item description identical to the item description on the license.

Read this paragraph re AES/EEI filings carefully, and note two cases:

- "NLR" + "Subject to the EAR" but "No ECCN applies" = EAR99
- "ECCN applies" but "no license requirement"

## Export Clearance Requirements and Authorities

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**(2) Exports under a license exception.** You must report on any required EEI filing to the AES the ECCN and the correct License Exception symbol (e.g., LVS, GBS, CIV) for the License Exception(s) and the license code/license exception code that corresponds to the license exception under which you are exporting. **Items temporarily in the United States meeting the provisions of License Exception TMP, under § 740.9(b)(3), are exempted from entering the ECCN. See also § 740.1(d) of the EAR.**

**(3) No License Required (NLR) exports.** You must report on any required EEI filing to the AES the correct license code/license exception code when using the "NLR" designation for the items that are subject to the EAR but not listed on the Commerce Control List (CCL) (i.e., items are designated as EAR99) (FTR license code "C33"), and when the items to be exported are listed on the CCL but are not subject to a license requirement. In addition, you must enter the correct ECCN on any required EEI filing for all items being exported under the NLR provisions that have a reason for control other than or in addition to anti-terrorism (AT), unless the items are destined to China, Russia, or Venezuela. For items destined to China, Russia, or Venezuela, you must enter the correct ECCN on any required EEI filing regardless of reason for control.

**(4) Exports of firearms and related items.** This paragraph (g)(4) includes two separate requirements under paragraphs (g)(4)(i) and (ii) of this section that are used to better identify exports of certain end item firearms under the EAR. Paragraph (g)(4)(i) of this section is limited to certain EAR authorizations. Paragraph (g)(4)(ii) of this section applies to all EAR authorizations that require EEI filing in AES.

**(i) Identifying end item firearms by manufacturer, model, caliber, and serial number in the EEI filing in AES.** For any export authorized under License Exception TMP or a BIS license authorizing a temporary export of items controlled under ECCNs 0A501.a or .b,

or shotguns with a barrel length less than 18 inches controlled under ECCN 0A502, in addition to any other required data for the associated EEI filing, you must report the manufacturer, model, caliber, and serial number of the exported items. The requirements of this paragraph (g)(4)(i) also apply to any other export authorized under a BIS license that includes a condition or proviso on the license requiring the submission of this information specified in paragraph (g) of this section when the EEI is filed in AES.

**(ii) Identifying end item firearms by "items" level classification or other control descriptor in the EEI filing in AES.** For any export of items controlled under ECCNs 0A501.a or .b, or shotguns with a barrel length less than 18 inches controlled under ECCN 0A502, in addition to any other required data for the associated EEI filing, you must include the six character ECCN classification (i.e., 0A501.a, or 0A501.b), or for shotguns controlled under 0A502 the phrase "0A501 barrel length less than 18 inches" as the first text to appear in the Commodity description block in the EEI filing in AES. (See § 743.4(h) of the EAR for the use of this information for conventional arms reporting).

*Note 2 to paragraph (g)(4): If a commodity described in paragraph (g)(4) of this section is exported under License Exception TMP under § 740.9(a)(6) of the EAR for inspection, test, calibration, or repair is not consumed or destroyed in the normal course of authorized temporary use abroad, the commodity must be disposed of or retained in one of the ways specified in § 740.9(a)(14)(i), (ii), or (iii) of the EAR. For example, if a commodity described in paragraph (g)(4) was destroyed while being repaired after being exported under § 740.9(a)(6), the commodity described in paragraph (g)(4) would not be required to be returned. If the entity doing the repair returned a replacement of the commodity to the exporter from the United States, the import would not require an EAR authorization. The entity that*

*exported the commodity described in paragraph (g)(4) and the entity that received the commodity would need to document this as part of their recordkeeping related to this export and subsequent import to the United States.*

States Government in the manner prescribed by the Bureau of Census Foreign Trade Regulations (15 CFR Part 30).

**§ 758.2 AUTOMATED EXPORT SYSTEM (AES)**

**(h) Power of attorney or other written authorization**

In a “power of attorney” or other written authorization, authority is conferred upon an agent to perform certain specified acts or kinds of acts on behalf of a principal.

The Bureau of the Census’ Foreign Trade Regulations (FTR) (15 CFR Part 30) contain provisions for filing Electronic Export Information (EEI) using the Automated Export System (AES). In order to use AES, you must apply directly to the Bureau of the Census (Census Bureau) for certification and approval (see 15 CFR 30.5(a) of the FTR). Two electronic filing options (predeparture and postdeparture) are available for transmitting EEI. Predeparture filing requires that all information be reported in AES prior to export (15 CFR 30.4(a) and (b) of the FTR). Postdeparture filing is available only for approved companies (approved by the Census Bureau, U.S. Customs and Border Protection, and BIS) and requires no information to be transmitted prior to export with complete information reported postdeparture no later than five (5) calendar days after the date of exportation (15 CFR 30.4(c) of the FTR).

**(1)** An agent must obtain a power of attorney or other written authorization in the following circumstances:

**(a) Census Bureau’s postdeparture application process**

**(i)** An agent that represents a foreign principal party in interest in a routed transaction must obtain a power of attorney or other written authorization that sets forth his authority; and

Exporters, or agents applying on behalf of an exporter, may apply for postdeparture privileges by submitting a Letter of Intent to the Bureau of Census (Census Bureau) in accordance with 15 CFR 30.5(a) of the FTR. The Census Bureau will distribute the Letter of Intent to BIS and other agencies participating in the postdeparture approval process. Any agency may notify the Census Bureau that an applicant has failed to meet its acceptance standards, and the Census Bureau will provide a denial letter to the applicant naming the denying agency. If the Census Bureau receives neither notification of denial, nor a request for an extension from the agency within 30 days of the date of referral of the letter of intent to the agency, the applicant is

**(ii)** An agent that applies for a license on behalf of a principal party in interest must obtain a power of attorney or other written authorization that sets forth the agent’s authority to apply for the license on behalf of the principal.

**Note 3 to paragraph (h)(1):** *The Bureau of Census Foreign Trade Regulations impose additional requirements for a power of attorney or other written authorization. See 15 CFR 30.3(f) of the FTR.*

**(2)** This requirement for a power of attorney or other written authorization is a legal requirement aimed at ensuring that the parties to a transaction negotiate and understand their responsibilities. The absence of a power of attorney or other written authorization does not prevent BIS from using other evidence to establish the existence of an agency relationship for purposes of imposing liability.

**(i) Filing the Electronic Export Information (EEI).** The EEI must be filed with the United

deemed to be approved by that agency. (15 CFR 30.5(c) of the FTR).

**(b) BIS postdeparture evaluation criteria**

BIS will consider the grounds for denial of postdeparture filing status set forth in 15 CFR 30.5(c)(1) of the FTR, as well as the additional grounds for denial set forth in this paragraph.

(1) Applicants have not been approved for postdeparture filing privileges by the Census Bureau or other agency;

(2) Any party to the export transaction is contained on BIS's Denied Party, Entity Lists, [SDN], or Unverified List;

(3) Exports are destined to a country in Country Group E:1 or E:2 (Supplement No.1 to Part 740 of the EAR);

(4) Exports are made under License Exception Strategic Trade Authorization (STA); are made under Authorization Validated End User (VEU); or are of 9x515 or "600 series" items.

(5) Exports containing items that require a BIS license or have an ECCN controlled for reasons other than Anti-Terrorism only or Encryption Items.

**(c) Contacts for assistance**

(1) For additional information on the AES in general, please contact the Foreign Trade Division, U.S. Census Bureau, (800) 549-0595, ext. 1.

(2) For information about BIS's postdeparture approval process for items subject to the EAR, contact: Director, Office of Technology Evaluation, Bureau of Industry and Security, (202) 482-4933, facsimile: (202) 482-5361.

**§ 758.3 RESPONSIBILITIES OF PARTIES TO THE TRANSACTION**

All parties that participate in transactions subject to the EAR must comply with the EAR. Parties are free to structure transactions as they wish, and to delegate functions and tasks as they deem necessary, as long as the transaction complies with the EAR. However, acting through a forwarding or other agent, or delegating or re delegating authority, does not in and of itself relieve anyone of responsibility for compliance with the EAR.

**(a) Export transactions**

The U.S. principal party in interest is the exporter, except in certain routed transactions. The exporter must determine licensing authority (License, License Exception, or NLR), and obtain the appropriate license or other authorization. The exporter may hire forwarding or other agents to perform various tasks, but doing so does not necessarily relieve the exporter of compliance responsibilities.

**(b) Routed export transactions**

All provisions of the EAR, including the end-use and end-user controls found in part 744 of the EAR, and the General Prohibitions found in part 736 of the EAR, apply to routed export transactions. The U.S. principal party in interest is the exporter and must determine licensing authority (License, License Exception, or NLR), and obtain the appropriate license or other authorization, unless the U.S. principal party in interest obtains from the foreign principal party in interest a writing wherein the foreign principal party in interest expressly assumes responsibility for determining licensing requirements and obtaining license authority, making the U.S. agent of the foreign principal party in interest the exporter for EAR purposes. One writing may cover multiple transactions between the same principals. See §748.4(a)(3) of the EAR.

See §758.3(d) on following page

**(c) Information sharing requirements**

In routed export transactions where the foreign principal party in interest assumes responsibility for determining and obtaining licensing authority, the U.S. principal party in interest must, upon request, provide the foreign principal party in interest and its forwarding or other agent with the correct Export Control Classification Number (ECCN), or with sufficient technical information to determine classification. In addition, the U.S. principal party in interest must provide the foreign principal party in interest or the foreign principal's agent any information that it knows will affect the determination of license authority, see §758.1(g) of the EAR.

**(d) Power of attorney or other written authorization**

In routed export transactions, a forwarding or other agent that represents the foreign principal party in interest, or who applies for a license on behalf of the foreign principal party in interest, must obtain a power of attorney or other written authorization from the foreign principal party in interest to act on its behalf. See §748.4(b)(2) and §758.1(h) of the EAR.

**§ 758.4 USE OF EXPORT LICENSE****(a) License valid for shipment from any port**

An export license issued by BIS authorizes exports from any port of export in the United States unless the license states otherwise. Items that leave the United States at one port, cross adjacent foreign territory, and reenter the United States at another port before being exported to a foreign country, are treated as exports from the last U.S. port of export.

**(b) Shipments against expiring license**

Any item requiring a license that has not departed from the final U.S. port of export by midnight of the expiration date on an export license may not be exported under that license unless the shipment meets the requirements of paragraphs (b)(1) or (2) of this section.

**(1) BIS grants an extension; or**

**(2) Prior to midnight on the date of expiration on the license, the items:**

**(i) Were laden aboard the vessel;**

**(ii) Were located on a pier ready for loading and not for storage, and were booked for a vessel that was at the pier ready for loading; or**

**(iii) The vessel was expected to be at the pier for loading before the license expired, but exceptional and unforeseen circumstances delayed it, and BIS or the U.S. Customs Service makes a judgment that undue hardship would result if a license extension were required.**

**(c) Reshipment of undelivered items**

If the consignee does not receive an export made under a license because the carrier failed to deliver it, the exporter may reship the same or an identical item, subject to the same limitations as to quantity and value as described on the license, to the same consignee and destination under the same license. If an item is to be reshipped to any person other than the original consignee, the shipment is considered a new export and requires a new license. Before reshipping, satisfactory evidence of the original export and of the delivery failure, together with a satisfactory explanation of the delivery failure, must be submitted by the exporter to the following address:

Operations Division  
Bureau of Industry and Security  
U.S. Department of Commerce, Room 2099B  
14th Street & Pennsylvania Avenue, NW  
Washington, D.C. 20230

**(d) Exports against license with approved name changes.**

If you are exporting against a license with approved name changes under § 750.7(c)(2) of the EAR, prior to using that export license you are required to include in the respective name field in AES (e.g., in the USPPPI name field in AES), the new name followed by the original name in this format “[new name] f.k.a. [original name].” This reporting requirement would be completed by the authorized filer of the electronic export information (EEI) in AES. Although not required, the exporter may include a copy of the BIS written response approving the non-material name changes in accordance with § 750.7(c)(2) of the EAR. If the items have already been exported against the license by the time the name changes are approved, you are not required to report this additional information in AES, but you still must follow the recordkeeping requirements in part 762 of the EAR.

**§ 758.5 CONFORMITY OF DOCUMENTS AND UNLOADING OF ITEMS****(a) Purpose**

The purpose of this section is to prevent items licensed for export from being diverted while in transit or thereafter. It also sets forth the duties of the parties when the items are unloaded in a country other than that of the ultimate consignee or end user as stated on the export license.

**(b) Conformity of documents**

When a license is issued by BIS, the information entered on related export control documents (e.g., Electronic Export Information (EEI) filing, bill of lading or air waybill) must be consistent with the license.

**(c) Issuance of the bill of lading or air waybill**

**(1) Ports in the country of the ultimate consignee or end user.** No person may issue a bill of lading or air waybill that provides for delivery of licensed items to any foreign port located outside the country of an intermediate consignee, ultimate consignee, or end user named on the BIS license and in the EEI filing.

**(2) Optional ports of unloading.**

**(i) Licensed items.** No person may issue a bill of lading or air waybill that provides for delivery of licensed items to optional ports of unloading unless all the optional ports are within the country of ultimate destination or are included on the BIS license and in the EEI filing.

**(ii) Unlicensed items.** For shipments of items that do not require a license, the exporter may designate optional ports of unloading in EEI filing and on other export control documents, so long as the optional ports are in countries to which the items could also have been exported without a license.

**(d) Delivery of items**

No person may deliver items to any country other than the country of an intermediate consignee, ultimate consignee, or end user named on the BIS license and EEI filing without prior written authorization from BIS, except for reasons beyond the control of the carrier (such as acts of God, perils of the sea, damage to the carrier, strikes, war, political disturbances or insurrection).

**(e) Procedures for unscheduled unloading**

**(1) Unloading in country where no license is required.** When items are unloaded in a country to which the items could be exported without a license issued by BIS, no notification to BIS is required. However, any persons disposing of the items must continue to comply with the terms and

conditions of any License Exception, and with any other relevant provisions of the EAR.

**(2) Unloading in a country where a license is required.**

(i) When items are unloaded in a country to which the items would require a BIS license, no person may effect delivery or entry of the items into the commerce of the country where unloaded without prior written approval from BIS. The carrier, in ensuring that the items do not enter the commerce of the country, may have to place the items in custody, or under bond or other guaranty. In addition, the carrier must inform the exporter and BIS of the unscheduled unloading in a time frame that will enable the exporter to submit its report within 10 days from the date of unscheduled unloading. The exporter must within 10 days of the unscheduled unloading report the facts to and request authorization for disposition from BIS using either: mail, fax, or E-mail. The report to BIS must include:

(A) A copy of the manifest of the diverted cargo;

(B) Identification of the place of unloading;

(C) Statement that explains why the unloading was necessary; and

(D) A proposal for disposition of the items and a request for authorization for such disposition from BIS.

**(ii) Contact information.**

U.S. Department of Commerce,  
Bureau of Industry and Security,  
Office of Exporter Services,  
Room 2099B,  
14th and Pennsylvania Avenue, NW.,  
Washington, D.C. 20230;  
phone number 202-482-0436;  
facsimile number 202-482-3322; and  
E-Mail address: [rp2@bis.doc.gov](mailto:rp2@bis.doc.gov).

**§ 758.6 DESTINATION CONTROL  
STATEMENT AND OTHER  
INFORMATION FURNISHED TO  
CONSIGNEES**

(a) The exporter must incorporate the following information as an integral part of the commercial invoice whenever items on the Commerce Control List are shipped (*i.e.*, exported in tangible form), unless the shipment (*i.e.*, the tangible export) may be made under License Exception BAG or GFT (see part 740 of the EAR) or the item is designated as EAR99:

(1) The following statement: “These items are controlled by the U.S. Government and authorized for export only to the country of ultimate destination for use by the ultimate consignee or end-user(s) herein identified. They may not be resold, transferred, or otherwise disposed of, to any other country or to any person other than the authorized ultimate consignee or end-user(s), either in their original form or after being incorporated into other items, without first obtaining approval from the U.S. government or as otherwise authorized by U.S. law and regulations” and

(2) The ECCN(s) for any 9x515 or “600 series” “items” being shipped (*i.e.*, exported in tangible form).

**Note 1 to paragraph (a).** In paragraph (a)(1), the term ‘authorized’ includes exports, reexports and transfers (in-country) designated under No License Required (NLR).

**Note 2 to paragraph (a).** The phrase ‘country of ultimate destination’ means the country specified on the commercial invoice where the ultimate consignee or end user will receive the items as an “export.”

**Note 3 to paragraph (a):** The phrase ‘or as otherwise authorized by U.S. law and

regulations' is included because the EAR contain specific exemptions from licensing (e.g., EAR license exceptions and NLR designations) and do not control the reexport of foreign-made items containing less than a de minimis amount of controlled content. See § 734.4 and Supplement No. 2 to part 748.

**(b)** [Reserved]

**§758.7 AUTHORITIES OF THE BUREAU OF INDUSTRY AND SECURITY, OFFICE OF EXPORT ENFORCEMENT (OEE)**

**(a) Actions to assure compliance with export laws and regulations**

OEE officials and any other officials of the United States designated by OEE are authorized and directed to take appropriate action to enforce the authorities granted to the Secretary under the laws and regulations of the United States, including ECRA, 13 U.S.C. 305, 22 U.S.C. 401, 50 U.S.C. 1701 *et seq.*, the EAR, and the Foreign Trade Regulations (FTR) (15 CFR Part 30). This includes, but is not limited to, assuring that:

- (1) Exports, reexports, and transfers (in-country) without a license issued by BIS are either outside the scope of the license requirements of the EAR or authorized by a license exception and comply with the terms of the license exception;
- (2) Exports, reexports, transfers (in-country) purporting to be authorized by licenses issued by BIS are, in fact, so authorized and the transaction complies with the terms of the license;
- (3) Accurate EEI filings have been made for exports as required by this part, the FTR, and other federal regulations; and
- (4) The activities of U.S. persons, wherever located, which are subject to a license requirement pursuant to § 744.6 of the EAR, are authorized by and comply with the terms of a BIS license.

**(b) Types of actions**

In carrying out the authorities granted to, and exercised by, the Secretary pursuant to ECRA, 13 U.S.C. 305, 22 U.S.C. 401, 50 U.S.C. 1701 *et seq.*, the EAR, the FTR, and other applicable laws and regulations of the United States, including the authority to control the export, reexport, and transfer (in-country) of items, in any form, subject to the jurisdiction of the United States, whether by U.S. or foreign persons; control the activities of U.S. persons, wherever located, as described in § 744.6 of the EAR; ensure compliance with export controls; monitor shipments and other means of transfer; conduct investigations; and issue orders, OEE officials and any other officials of the United States designated by OEE are authorized to take the types of enforcement actions described below.

**(1) Inspection, search, and detention of items.**

**(i) Purpose of inspection, search, and detention.** All items subject to export laws and regulations administered or enforced by the Secretary that have been, are being, or are about to be exported, reexported, or transferred (in-country) are subject to inspection, search, and detention. The scope of inspection may include, but is not limited to, item identification; technical appraisal (analysis) or both; verifying the accuracy of the EEI filing, or if there is no EEI filing, the air waybill, bill of lading or other loading document covering the item about to be exported, reexported, or transferred (in-country); and verifying the value and quantity of such item.

**(ii) Place of inspection, search, and detention.** Inspection, search, and detention may take place at any location inside or outside of the United States, to include, but not limited to, the borders of the United States, all ports of exit, the premises of freight forwarders, bonded warehouses, foreign trade zones, and manufacturing, transportation, and storage facilities.

**(iii) Technical identification.** Where, in the judgment of the official making the inspection, the item cannot be properly identified, a sample may be taken for more detailed examination or for laboratory analysis.

**(A) Obtaining samples.** The sample will be obtained by the official making the inspection in accordance with the provisions for sampling imported merchandise. The size of the sample will be the minimum representative amount necessary for identification or analysis. This will depend on such factors as the physical condition of the material (whether solid, liquid, or gas) and the size and shape of the container.

**(B) Notification.** When a sample is taken, the exporter, reexporter, or transferor, or their agent(s), and the ultimate consignee will be notified by letter from an OEE official, documenting the port of export, reexport, or other place of inspection, date of sampling, BIS license number (if any) or other authorization, invoice number, quantity of sample taken, description of item, marks and packing case numbers, and manufacturer's number for the item. A copy of the letter will be placed in the container that had been opened by the inspecting official, and a copy will be retained by the inspecting official's office.

**(C) Disposal of samples.** Samples will be disposed of in accordance with the U.S. Customs and Border Protection procedure for imported commodities.

**(2) Inspection and production of books, records, and other information.** OEE officials are authorized to require any person subject to export laws and regulations administered or enforced by the Secretary, including, but not limited to, exporters, reexporters, transferors, or their agent(s), and owners and operators of carriers or their agents, as well as intermediate consignees, ultimate consignees, and end users, and their agent(s) to produce for inspection and copying any books, records and other information, including, but not limited to, invoices, orders, letters of credit, inspection reports, technical documentation, packing lists,

shipping documents and instructions, and correspondence.

**(3) Questioning of individuals.** OEE officials are authorized to question any person, including, but not limited to, the owner or operator of a carrier and the carrier's agent(s), as well as the exporter, reexporter, transferor (in-country), or their agent(s).

**(4) Prohibiting lading.** OEE officials may prevent the lading of items on a conveyance.

**(5) Inspection, search, and detention of conveyance.** OEE officials are authorized to inspect, search, and detain any conveyance at any time to determine whether items have been, are being, or are about to be exported, reexported, or transferred (in-country). Inspection, search, and detention of a conveyance may take place at any location inside or outside of the United States, to include, but not limited to, the borders of the United States, all ports of exit, the premises of freight forwarders, bonded warehouses, foreign trade zones, and manufacturing, transportation, and storage facilities.

**(6) Seizure of property.** OEE officials are authorized to seize any property, tangible or intangible, when there is probable cause to believe that such property is subject to administrative forfeiture (nonjudicial civil forfeiture or summary forfeiture), civil judicial forfeiture, or criminal forfeiture. Seizures of property subject to forfeiture may take place at any location inside or outside of the United States, to include, but not limited to, the borders of the United States, all ports of exit, the premises of freight forwarders, bonded warehouses, foreign trade zones, and manufacturing, transportation, and storage facilities.

**(7) Administrative Forfeiture Authority.** OEE is authorized to initiate administrative forfeiture (nonjudicial civil forfeiture or summary forfeiture) proceedings and forfeit property in accordance with the procedures set forth in 18 U.S.C. 981(d) and the Customs laws (19 U.S.C. 1602 *et seq.*).

**(8) Enforcement Activity.**

(i) All BIS actions taken to implement, administer, and enforce the authorities granted to the Secretary shall be conducted pursuant to the U.S. Constitution and all applicable laws and regulations, including judicially recognized exceptions to the requirement for a search warrant under the Fourth Amendment, for example, consent of the person to be searched, exigent circumstances, searches incident to a lawful arrest, and border searches.

(ii) BIS may enter into any such agreements (e.g., memoranda of understanding) with other Federal agencies as deemed necessary by BIS to execute the authorities set forth in this part in a lawful and orderly manner.

(iii) BIS shall issue additional guidance as necessary to ensure the lawful and orderly execution of the Secretary's authorities.

(iv) Nothing in this section is intended to limit or abridge BIS law enforcement officers from exercising their lawful authority in carrying out their official duties.

**§ 758.8 RETURN OR UNLOADING OF CARGO*****(a) Carrier***

As used in this section, the term "carrier" includes a connecting or on-forwarding carrier, as well as the owner, charterer, agent, master, or any other person in possession, control, or charge of the vessel, aircraft, vehicle, or other kind of conveyance, whether such person is located in the United States or in a foreign country.

***(b) Ordering return or unloading of shipment***

In order to ensure compliance with export laws and regulations administered or enforced by the

Secretary, OEE officials, or any other official of the United States designated by OEE, may, with respect to a particular export, reexport, or transfer (in-country), order any carrier to return or unload the shipment. For the purpose of this section, furnishing a copy of the order to any person included within the definition of carrier will be sufficient notice of the order to the carrier. The carrier must, as ordered:

(1) Unload the shipment and make it available to OEE officials for search and inspection; or

(2) Return the shipment to the United States or cause it to be returned; or

(3) Unload the shipment at a port of call and take steps to assure that it is placed in custody under bond or other guaranty not to enter the commerce of any foreign country without the prior approval of BIS.

***(c) Requirements regarding shipment to be unloaded***

The provisions of §§ 758.5(d) and (e) of this part, relating to reporting, notification to BIS, and the prohibition against unauthorized delivery or entry of the item into a foreign country shall apply also when items are unloaded at a port of call, as provided in paragraph (b)(3) of this section.

***(d) Notification***

Upon discovery by any person included within the term "carrier," as defined in paragraph (a) of this section, that a violation of the export laws and regulations administered or enforced by the Secretary has occurred, is occurring, or is about to occur with respect to a shipment on board, or otherwise in the possession or control of the carrier, such person must immediately notify both:

(1) The Office of Export Enforcement at the following address: Room H-4508, U.S.

Department of Commerce, 14<sup>th</sup> Street and Constitution Ave., N.W., Washington, DC 20230, Telephone: (202) 482-1208, Facsimile: (202) 482-0964; and

(2) The person in actual possession or control of the shipment.

### **§ 758.9 OTHER APPLICABLE LAWS AND REGULATIONS**

The provisions of this part 758 apply only to exports, reexports, and transfers (in-country), as well as the activities of U.S. persons described in § 744.6 of the EAR, which are subject to the export laws and regulations administered or enforced by the Secretary. Nothing contained in this part shall relieve any person from complying with any other law of the United States or rules and regulations issued thereunder, including those governing EEI filings to AES, manifests, or any other applicable rules and regulations.

### **§ 758.10 ENTRY CLEARANCE REQUIREMENTS FOR TEMPORARY IMPORTS**

**(a) Scope.** This section specifies the temporary import entry clearance requirements for firearms “subject to the EAR” that are on the United States Munitions Import List (USMIL, 27 CFR 447.21), except for firearms “subject to the EAR” that are temporarily brought into the United States by nonimmigrant aliens under the provisions of Department of Justice regulations at 27 CFR part 478 (*See* § 740.14(e) of the EAR for information on the export of these firearms “subject to the EAR”). These firearms are controlled in ECCN 0A501.a or .b or shotguns with a barrel length less than 18 inches controlled in ECCN 0A502. Items that are temporarily exported under the EAR must have met the export clearance requirements specified in § 758.1.

(1) An authorization under the EAR is *not* required for the temporary import of “items” that are “subject to the EAR,” including for “items” “subject to the EAR” that are on the USMIL. Temporary imports of firearms described in this section must meet the entry clearance requirements specified in paragraph (b) of this section.

(2) Permanent imports are regulated by the Attorney General under the direction of the Department of Justice’s Bureau of Alcohol, Tobacco, Firearms and Explosives (see 27 CFR parts 447, 478, 479, and 555).

**(b) EAR procedures for temporary imports and subsequent exports.** To the satisfaction of U.S. Customs and Border Protection, the temporary importer must comply with the following procedures:

(1) At the time of entry into the U.S. of the temporary import:

(i) Provide one of the following statements specified in paragraph (b)(1)(i)(A), (B), or (C) of this section to U.S. Customs and Border Protection:

(A) “This shipment is being temporarily imported in accordance with the EAR. This shipment will be exported in accordance with and under the authority of License Exception TMP (15 CFR 740.9(b)(5));”

(B) “This shipment is being temporarily imported in accordance with the EAR. This shipment will be exported in accordance with and under the authority of License Exception RPL (15 CFR 740.10(b));” or

(C) “This shipment is being temporarily imported in accordance with the EAR. This shipment will be exported in accordance with and under the authority of BIS license number (provide the license number) (15 CFR 750.7(a) and 758.4);”

(ii) Provide to U.S. Customs and Border Protection an invoice or other appropriate import-related documentation (or electronic equivalents) that includes a complete list and description of the firearms being temporarily imported, including their model, make, caliber, serial numbers, quantity, and U.S. dollar value;

(iii) Provide (if temporarily imported for a trade show, exhibition, demonstration, or testing) to U.S. Customs and Border Protection the relevant invitation or registration documentation for the event and an accompanying letter that details the arrangements to maintain effective control of the firearms while they are in the United States; or

(iv) Provide (if temporarily imported for servicing or replacement) to U.S. Customs and Border Protection the name, address and contact information (telephone number and/or email) of the organization or individual in the U.S. that will be receiving the item for servicing or replacement).

*Note 1 to paragraph (b)(1): In accordance with the exclusions in License Exception TMP under § 740.9(b)(5) of the EAR, the entry clearance requirements in § 758.1(b)(9) do not permit the temporary import of: firearms controlled in ECCN 0A501.a or .b that are shipped from or manufactured in a Country Group D:5 country; or that are shipped from or manufactured in Russia, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Turkmenistan, Ukraine, or Uzbekistan (except for any firearm model controlled by 0A501 that is specified under Annex A in Supplement No. 4 to part 740 of the EAR); or shotguns with a barrel length less than 18 inches controlled in ECCN 0A502 that are shipped from or manufactured in a Country Group D:5 country, or from Russia, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Turkmenistan, Ukraine, or Uzbekistan, because of the exclusions in License Exception TMP under § 740.9(b)(5).*

*Note 2 to paragraph (b)(1): In accordance with the exclusions in License Exception RPL under § 740.10(b)(4) and Supplement No. 2 to part 748, paragraph (z), of the EAR, the entry clearance requirements in § 758.1(b)(9) do not permit the temporary import of: firearms controlled in ECCN 0A501.a or .b that are shipped from or manufactured in Russia, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Turkmenistan, Ukraine, or Uzbekistan (except for any firearm model controlled by 0A501 that is specified under Annex A in Supplement No. 4 to part 740 of the EAR); or shotguns with a barrel length less than 18 inches controlled in ECCN 0A502 that are shipped from or manufactured in Russia, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Turkmenistan, Ukraine, or Uzbekistan, because of the exclusions in License Exception RPL under § 740.10(b)(4) and Supplement No. 2 to part 748, paragraph (z), of the EAR.*

(2) At the time of export, in accordance with the U.S. Customs and Border Protection procedures, the eligible exporter, or an agent acting on the filer's behalf, must as required under § 758.1(b)(9) file the export information with CBP by filing EEI in AES, noting the applicable EAR authorization as the authority for the export, and provide, upon request by CBP, the entry document number or a copy of the CBP document under which the "item" subject to the EAR" on the USMIL was temporarily imported. See also the additional requirements in § 758.1(g)(4).

### **§ 758.11 EXPORT CLEARANCE REQUIREMENTS FOR FIREARMS AND RELATED ITEMS**

(a) *Scope.* The export clearance requirements of this section apply to all exports of commodities controlled under ECCNs 0A501.a or .b, shotguns with a barrel length less than 18 inches controlled under ECCN 0A502, or ammunition controlled under ECCN 0A505 except for .c, regardless of value or destination, including exports to Canada,

that are authorized under License Exception BAG, as set forth in §740.14 of the EAR.

**(b) Required form.** Prior to making any export described in paragraph (a) of this section, the exporter is required to submit a properly completed Department of Homeland Security, CBP Form 4457, (Certificate of Registration for Personal Effects Taken Abroad) (OMB Control Number 1651-0010), to the U.S. Customs and Border Protection (CBP), pursuant to 19 CFR 148.1, and as required by this section.

**(1) Where to obtain the form?** The CBP Certification of Registration Form 4457 can be found on the following CBP website: <https://www.cbp.gov/document/forms/form-4457-certificate-registration-personal-effects-taken-abroad>.

**(2) Required “description of articles” for firearms to be included on the CBP Form 4457.** For all exports of firearms controlled under ECCNs 0A501.a or .b, or shotguns with a barrel

length less than 18 inches controlled under ECCN 0A502, the exporter must provide to CBP the serial number, make, model, and caliber for each firearm being exported by entering this information under the “Description of Articles” field of the CBP Form 4457, Certificate of Registration for Personal Effects Taken Abroad.

**(c) Where to find additional information on the CBP Form 4457?** See the following CBP website page for additional information: [https://help.cbp.gov/app/answers/detail/a\\_id/323/~travelling-outside-of-the-u.s---temporarily-taking-a-firearm%2C-rifle%2C-gun%2C](https://help.cbp.gov/app/answers/detail/a_id/323/~travelling-outside-of-the-u.s---temporarily-taking-a-firearm%2C-rifle%2C-gun%2C).

**(d) Return of items exported pursuant to this section.** The exporter when returning with a commodity authorized under License Exception BAG and exported pursuant this section, is required to present a copy of the CBP Form 4457, Certificate of Registration for Personal Effects Taken Abroad) (OMB Control Number 1651-0010), to CBP, pursuant to 19 CFR 148.1, and as required by this section.

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**§ 760.1 DEFINITIONS**

In this part, references to the EAR are references to 15 CFR chapter VII, subchapter C.

**(a) Definition of “Person”**

For purposes of this part, the term “*person*” means any individual, or any association or organization, public or private, which is organized, permanently established, resident, or registered to do business, in the United States or any foreign country. This definition of “*person*” includes both the singular and plural and, in addition, includes:

- (1) Any partnership, corporation, company, branch, or other form of association or organization, whether organized for profit or non-profit purposes;
- (2) Any government, or any department, agency, or commission of any government;
- (3) Any trade association, chamber of commerce, or labor union;
- (4) Any charitable or fraternal organization; and
- (5) Any other association or organization not specifically listed in paragraphs (a)(1) through (4) of this section.

**(b) Definition of “United States Person”**

(1) This part applies to United States persons. For purposes of this part, the term “*United States person*” means any person who is a United States resident or national, including individuals, domestic concerns, and “controlled in fact” foreign subsidiaries, affiliates, or other permanent foreign establishments of domestic concerns. This definition of “*United States*

Return to "U.S. Person" in § 772.

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*person*” includes both the singular and plural and, in addition, includes:

(i) The government of the United States or any department, agency, or commission thereof;

(ii) The government of any State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, any territory or possession of the United States, or any subdivision, department, agency, or commission of any such government;

(iii) Any partnership, corporation, company, association, or other entity organized under the laws of paragraph (b)(1)(i) or (ii) of this section;

(iv) Any foreign concern’s subsidiary, partnership, affiliate, branch, office, or other permanent establishment in any state of the United States, the District of Columbia, the Commonwealth of Puerto Rico, or any territory or possession of the United States; and

(v) Any domestic concern’s foreign subsidiary, partnership, affiliate, branch, office, or other permanent foreign establishment which is controlled in fact by such domestic concern. (See paragraph (c) of this section on “Definition of “Controlled in Fact.”)

(2) The term **“domestic concern”** means any partnership, corporation, company, association, or other entity of, or organized under the laws of, any jurisdiction named in paragraph (b)(1)(i) or (ii) of this section, or any permanent domestic establishment of a foreign concern.

(3) The term **“foreign concern”** means any partnership, corporation, company, association, or other entity of, or organized under the laws of, any jurisdiction other than those named in paragraph (b)(1)(i) or (ii) of this section.

(4) The term **“United States person”** does not include an individual United States national who is resident outside the United States and who is either employed permanently or temporarily by

a non-United States person or assigned to work as an employee for, and under the direction and control of, a non-United States person.

**EXAMPLES OF “UNITED STATES PERSON”**

The following examples are intended to give guidance in determining whether a person is a “United States person.” They are illustrative, not comprehensive.

(i) U.S. bank A has a branch office in foreign country P. Such branch office is a United States person, because it is a permanent foreign establishment of a domestic concern.

(ii) Ten foreign nationals establish a manufacturing plant, A, in the United States, incorporating the plant under New York law.

A is a United States person, because it is a corporation organized under the laws of one of the states of the United States.

(iii) A, a foreign corporation, opens an office in the United States for purposes of soliciting U.S. orders. The office is not separately incorporated.

A’s U.S. office is a United States person, because it is a permanent establishment, in the United States, of a foreign concern.

(iv) A, a U.S. individual, owns stock in foreign corporation B.

A is a United States person. However, A is not a “domestic concern,” because the term “domestic concern” does not include individuals.

(v) A, a foreign national resident in the United States, is employed by B, a foreign corporation.

A is a United States person, because he is resident in the United States.

A **\*\*United States person \*\*employee of a foreign entity is \*\*presumed \*\*compromised**

"A" is a **United States person** **employee of a foreign entity** is **presumed** **compromised**

**Controlled in Fact**

#### Restrictive Trade Practices or Boycotts

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(vi) A, a foreign national, who is resident in a foreign country and is employed by a foreign corporation, makes occasional visits to the United States, for purposes of exploring business opportunities.

A is not a United States person, because he is not a United States resident or national.

(vii) A is an association of U.S. firms organized under the laws of Pennsylvania for the purpose of expanding trade.

A is a United States person, because it is an association organized under the laws of one of the states of the United States.

(viii) At the request of country Y, A, an individual employed by U.S. company B, is assigned to company C as an employee. C is a foreign company owned and controlled by country Y. A, a U.S. national who will reside in Y, has agreed to the assignment provided he is able to retain his insurance, pension, and other benefits. Accordingly, company B has agreed to keep A as an employee in order to protect his employee benefits, and company C has agreed to pay for A's salary. At all times while he works for C, A will be under C's direction and control.

A is not a United States person while under C's direction and control, because he will be resident outside the United States and assigned as an employee to a non-United States person. The arrangement designed to protect A's insurance, pension, and other benefits does not destroy his status as an employee of C so long as he is under the direction and control of C.

(ix) A, a U.S. citizen, has resided in Europe for three years, where he is a self-employed consultant for United States and foreign companies in the communications industry.

A is a United States person, because he is a U.S. national and because he is not a resident outside the United States who is employed by other than a United States person.

#### (c) Definition of "Controlled in Fact"

(1) This part applies to any domestic concern's foreign subsidiary, partnership, affiliate, branch, office, or other permanent foreign establishment which is "controlled in fact" by such domestic concern. "Control in fact" consists of the authority or ability of a domestic concern to establish the general policies or to control day-to-day operations of its foreign subsidiary, partnership, affiliate, branch, office, or other permanent foreign establishment.

(2) A foreign subsidiary or affiliate of a domestic concern will be presumed to be controlled in fact by that domestic concern, subject to rebuttal by competent evidence, when:

(i) The domestic concern beneficially owns or controls (whether directly or indirectly) more than 50 percent of the outstanding voting securities of the foreign subsidiary or affiliate;

(ii) The domestic concern beneficially owns or controls (whether directly or indirectly) 25 percent or more of the voting securities of the foreign subsidiary or affiliate, if no other person owns or controls (whether directly or indirectly) an equal or larger percentage;

(iii) The foreign subsidiary or affiliate is operated by the domestic concern pursuant to the provisions of an exclusive management contract;

(iv) A majority of the members of the board of directors of the foreign subsidiary or affiliate are also members of the comparable governing body of the domestic concern;

(v) The domestic concern has authority to appoint the majority of the members of the board of directors of the foreign subsidiary or affiliate; or

(vi) The domestic concern has authority to appoint the chief operating officer of the foreign subsidiary or affiliate.

(3) A brokerage firm or other person which holds simple record ownership of securities for the convenience of clients will not be deemed to control the securities.

(4) A domestic concern which owns, directly or indirectly, securities that are immediately convertible at the option of the holder or owner into voting securities is presumed to own or control those voting securities.

(5) A domestic concern's foreign branch office or other unincorporated permanent foreign establishment is deemed to be controlled in fact by such domestic concern under all circumstances.

#### EXAMPLES OF "CONTROLLED IN FACT"

The following examples are intended to give guidance in determining the circumstances in which a foreign subsidiary, affiliate, or other permanent foreign establishment of a domestic concern is "controlled in fact." They are illustrative, not comprehensive.

(i) Company A is incorporated in a foreign country. Fifty-one percent of the voting stock of A is owned by U.S. company B.

A is presumed to be controlled in fact by B. This presumption may be rebutted by competent evidence showing that control does not, in fact, lie with B.

(ii) Company A is incorporated in a foreign country. Ten percent of the voting stock of A is owned by U.S. company B. A has an exclusive management contract with B pursuant to which A is operated by B.

As long as such contract is in effect, A is presumed to be controlled in fact by B. This presumption may be rebutted by competent evidence showing that control does not, in fact, lie with B.

(iii) Company A is incorporated in a foreign country. Ten percent of the voting stock of A is owned by U.S. company B. A has 10 persons on its board of directors. Six of those persons are also members of the board of directors of U.S. company B.

A is presumed to be controlled in fact by B. This presumption may be rebutted by competent evidence showing that control does not, in fact, lie with B.

(iv) Company A is incorporated in a foreign country. Thirty percent of the voting securities of A is owned by U.S. company B and no other person owns or controls an equal or larger share.

A is presumed to be controlled in fact by B. This presumption may be rebutted by competent evidence showing that control does not, in fact, lie with B.

(v) Company A is incorporated in a foreign country. In A's articles of incorporation, U.S. company B has been given authority to appoint A's board of directors.

A is presumed to be controlled in fact by B. This presumption may be rebutted by competent evidence showing that control does not, in fact, lie with B.

(vi) Company A is a joint venture established in a foreign country, with equal participation by U.S. company B and foreign company C. U.S. Company B has authority to appoint A's chief operating officer.

A is presumed to be controlled in fact by B. This presumption may be rebutted by competent evidence showing that control does not, in fact, lie with B.

(vii) Same as (vi), except that B has no authority to appoint A's chief operating officer.

B is not presumed to control A, absent other facts giving rise to a presumption of control.

(viii) Company A is incorporated in a foreign country. U.S. companies B, C, and D each own 20 percent of A's voting securities and regularly cast their votes in concert.

A is presumed to be controlled in fact by B, C, and D, because these companies are acting in concert to control A.

(ix) U.S. bank B located in the United States has a branch office, A, in a foreign country. A is not separately incorporated.

A is deemed to be controlled in fact by B, because A is a branch office of a domestic concern.

(x) Company A is incorporated in a foreign country. Fifty-one percent of the voting stock of A is owned by company B, which is incorporated in another foreign country. Fifty-one percent of the voting stock of B is owned by C, a U.S. company.

Both A and B are presumed to be controlled in fact by C. The presumption of C's control over B may be rebutted by competent evidence showing that control over B does not, in fact, lie with C. The presumption of B's control over A (and thus C's control over A) may be rebutted by competent evidence showing that control over A does not, in fact, lie with B.

(xi) B, a U.S. individual, owns 51 percent of the voting securities of A, a manufacturing company incorporated and located in a foreign country.

A is not "controlled in fact" under this part, because it is not controlled by a "domestic concern."

***(d) Definition of "Activities in the Interstate or Foreign Commerce of the United States"***

**ACTIVITIES INVOLVING UNITED STATES PERSONS LOCATED IN THE UNITED STATES**

(1) For purposes of this part, the activities of a United States person located in the United States are in the interstate or foreign commerce of the United States if they involve the sale, purchase, or transfer of goods or services (including information) between:

(i) Two or more of the several States (including the District of Columbia);

(ii) Any State (including the District of Columbia) and any territory or possession of the United States;

(iii) Two or more of the territories or possessions of the United States; or

(iv) A State (including the District of Columbia), territory or possession of the United States and any foreign country.

(2) For purposes of this part, the export of goods or services from the United States and the import of goods or services into the United States are activities in United States commerce. In addition, the action of a domestic concern in specifically directing the activities of its controlled in fact foreign subsidiary, affiliate, or other permanent foreign establishment is an activity in United States commerce.

(3) Activities of a United States person located in the United States may be in United States commerce even if they are part of or ancillary to activities outside United States commerce. However, the fact that an ancillary activity is in United States commerce does not, in and of itself, mean that the underlying or related activity is in United States commerce.

(4) Hence, the action of a United States bank located in the United States in providing financing from the United States for a foreign transaction that is not in United States commerce

is nonetheless itself in United States commerce. However, the fact that the financing is in United States commerce does not, in and of itself, make the underlying foreign transaction an activity in United States commerce, even if the underlying transaction involves a foreign company that is a “United States person” within the meaning of this part.

(5) Similarly, the action of a United States person located in the United States in providing financial, accounting, legal, transportation, or other ancillary services to its controlled in fact foreign subsidiary, affiliate, or other permanent foreign establishment in connection with a foreign transaction is in United States commerce. But the provision of such ancillary services will not, in and of itself, bring the foreign transaction of such subsidiary, affiliate, or permanent foreign establishment into United States commerce.

#### ACTIVITIES OF CONTROLLED IN FACT FOREIGN SUBSIDIARIES, AFFILIATES, AND OTHER PERMANENT FOREIGN ESTABLISHMENTS

(6) Any transaction between a controlled in fact foreign subsidiary, affiliate, or other permanent foreign establishment of a domestic concern and a person located in the United States is an activity in United States commerce.

(7) Whether a transaction between such a foreign subsidiary, affiliate, or other permanent foreign establishment and a person located outside the United States is an activity in United States commerce is governed by the following rules.

#### ACTIVITIES IN UNITED STATES COMMERCE

(8) A transaction between a domestic concern’s controlled in fact foreign subsidiary, affiliate, or other permanent foreign establishment and a

person outside the United States, involving goods or services (including information but not including ancillary services) acquired from a person in the United States is in United States commerce under any of the following circumstances:

(i) If the goods or services were acquired for the purpose of filling an order from a person outside the United States;

(ii) If the goods or services were acquired for incorporation into, refining into, reprocessing into, or manufacture of another product for the purpose of filling an order from a person outside the United States;

(iii) If the goods or services were acquired for the purpose of fulfilling or engaging in any other transaction with a person outside the United States; or

(iv) If the goods were acquired and are ultimately used, without substantial alteration or modification, in filling an order from, or fulfilling or engaging in any other transaction with, a person outside the United States (whether or not the goods were originally acquired for that purpose). If the goods are indistinguishable as to origin from similar foreign-trade goods with which they have been mingled in a stockpile or inventory, the subsequent transaction involving the goods is presumed to be in United States commerce unless, at the time of filling the order, the foreign-origin inventory on hand was sufficient to fill the order.

(9) For purposes of this section, goods or services are considered to be acquired for the purpose of filling an order from or engaging in any other transaction with a person outside the United States where:

(i) They are purchased by the foreign subsidiary, affiliate, or other permanent foreign establishment upon the receipt of an order from

or on behalf of a customer with the intention that the goods or services are to go to the customer;

(ii) They are purchased by the foreign subsidiary, affiliate, or other permanent foreign establishment to meet the needs of specified customers pursuant to understandings with those customers, although not for immediate delivery; or

(iii) They are purchased by the foreign subsidiary, affiliate, or other permanent foreign establishment based on the anticipated needs of specified customers.

(10) If any non-ancillary part of a transaction between a domestic concern's controlled foreign subsidiary, affiliate, or other permanent foreign establishment and a person outside the United States is in United States commerce, the entire transaction is in United States commerce. For example, if such a foreign subsidiary is engaged in filling an order from a non-United States customer both with goods acquired from the United States and with goods acquired elsewhere, the entire transaction with that customer is in United States commerce.

#### ACTIVITIES OUTSIDE UNITED STATES COMMERCE

(11) A transaction between a domestic concern's controlled foreign subsidiary, affiliate, or other permanent foreign establishment and a person outside the United States, not involving the purchase, sale, or transfer of goods or services (including information) to or from a person in the United States, is not an activity in United States commerce.

(12) The activities of a domestic concern's controlled foreign subsidiary, affiliate, or other permanent foreign establishment with respect to goods acquired from a person in the United States are not in United States commerce where:

(i) They were acquired without reference to a specific order from or transaction with a person outside the United States; and

(ii) They were further manufactured, incorporated into, refined into, or reprocessed into another product.

(13) The activities of a domestic concern's controlled foreign subsidiary, affiliate, or other permanent foreign establishment with respect to services acquired from a person in the United States are not in United States commerce where:

(i) They were acquired without reference to a specific order from or transaction with a person outside the United States; or

(ii) They are ancillary to the transaction with the person outside the United States.

(14) For purposes of this section, services are "ancillary services" if they are provided to a controlled foreign subsidiary, affiliate, or other permanent foreign establishment primarily for its own use rather than for the use of a third person. These typically include financial, accounting, legal, transportation, and other services, whether provided by a domestic concern or an unrelated entity.

(15) Thus, the provision of the project financing by a United States bank located in the United States to a controlled foreign subsidiary unrelated to the bank is an ancillary service which will not cause the underlying transaction to be in United States commerce. By contrast, where a domestic concern, on behalf of its controlled foreign subsidiary, gives a guaranty of performance to a foreign country customer, that is a service provided to the customer and, as such, brings that subsidiary's transaction with the customer into United States commerce. Similarly, architectural or engineering services provided by a domestic concern in connection with its controlled foreign subsidiary's construction project in a third country are

services passed through to the subsidiary's customer and, as such, bring that subsidiary's foreign transaction into United States commerce.

#### GENERAL

(16) Regardless of whether the subsequent disposition of goods or services from the United States is in United States commerce, the original acquisition of goods or services from a person in the United States is an activity in United States commerce subject to this part. Thus, if a domestic concern's controlled foreign subsidiary engages in a prohibited refusal to do business in stocking its inventory with goods from the United States, that action is subject to this part whether or not subsequent sales from that inventory are.

(17) In all the above, goods and services will be considered to have been acquired from a person in the United States whether they were acquired directly or indirectly through a third party, where the person acquiring the goods or services knows or expects, at the time he places the order, that they will be delivered from the United States.

#### LETTERS OF CREDIT

(18) Implementation of a letter of credit in the United States by a United States person located in the United States, including a permanent United States establishment of a foreign concern, is an activity in United States commerce.

(19) Implementation of a letter of credit outside the United States by a United States person located outside the United States is in United States commerce where the letter of credit (a) specifies a United States address for the beneficiary, (b) calls for documents indicating shipment from the United States, or (c) calls for documents indicating that the goods are of United States origin.

(20) See §760.2(f) of this part on "Letters of Credit" to determine the circumstances in which paying, honoring, confirming, or otherwise implementing a letter of credit is covered by this part.

#### EXAMPLES OF ACTIVITIES IN THE INTERSTATE OR FOREIGN COMMERCE OF THE UNITED STATES

The following examples are intended to give guidance in determining the circumstances in which an activity is in the interstate or foreign commerce of the United States. They are illustrative, not comprehensive.

##### UNITED STATES PERSON LOCATED IN THE UNITED STATES

(i) U.S. company A exports goods from the United States to a foreign country. A's activity is in U.S. commerce, because A is exporting goods from the United States.

(ii) U.S. company A imports goods into the United States from a foreign country. A's activity is in U.S. commerce, because A is importing goods into the United States.

(iii) U.S. engineering company A supplies consulting services to its controlled foreign subsidiary, B. A's activity is in U.S. commerce, because A is exporting services from the United States.

(iv) U.S. company A supplies consulting services to foreign company B. B is unrelated to A or any other U.S. person.

A's activity is in U.S. commerce even though B, a foreign-owned company located outside the United States, is not subject to this part, because A is exporting services from the United States.

(v) Same as (iv), except A is a bank located in the United States and provides a construction loan to B.

A's activity is in U.S. commerce even though B is not subject to this part, because A is exporting financial services from the United States.

(vi) U.S. company A issues policy directives from time to time to its controlled foreign subsidiary, B, governing the conduct of B's activities with boycotting countries.

A's activity in directing the activities of its foreign subsidiary, B, is an activity in U.S. commerce.

**FOREIGN SUBSIDIARIES, AFFILIATES,  
AND OTHER PERMANENT FOREIGN  
ESTABLISHMENTS OF DOMESTIC  
CONCERNS**

(i) A, a controlled foreign subsidiary of U.S. company B, purchases goods from the United States.

A's purchase of goods from the United States is in U.S. commerce, because A is importing goods from the United States. Whether A's subsequent disposition of these goods is in U.S. commerce is irrelevant. Similarly, the fact that A purchased goods from the United States does not, in and of itself, make any subsequent disposition of those goods an activity in U.S. commerce.

(ii) A, a controlled foreign subsidiary of U.S. company B, receives an order from boycotting country Y for construction materials. A places an order with U.S. company B for the materials.

A's transaction with Y is an activity in U.S. commerce, because the materials are purchased from the United States for the purpose of filling the order from Y.

(iii) A, a controlled foreign subsidiary of U.S. company B, receives an order from boycotting country Y for construction materials. A places an order with U.S. company B for some of the

materials, and with U.S. company C, an unrelated company, for the rest of the materials.

A's transaction with Y is an activity in U.S. commerce, because the materials are purchased from the United States for the purpose of filling the order from Y. It makes no difference whether the materials are ordered from B or C.

(iv) A, a controlled foreign subsidiary of U.S. company B, is in the wholesale and retail appliance sales business. A purchases finished air conditioning units from the United States from time to time in order to stock its inventory. A's inventory is also stocked with air conditioning units purchased outside the United States. A receives an order for air conditioning units from Y, a boycotting country. The order is filled with U.S.-origin units in A's inventory.

A's transaction with Y is in U.S. commerce, because its U.S.-origin goods are resold without substantial alteration.

(v) Same as (iv), except that A is in the chemicals distribution business. Its U.S.-origin goods are mingled in inventory with foreign-origin goods.

A's sale to Y of unaltered goods from its general inventory is presumed to be in U.S. commerce unless A can show that at the time of the sale the foreign-origin inventory on hand was sufficient to cover the shipment to Y.

(vi) A, a foreign subsidiary of U.S. company B, receives an order from boycotting country Y for computers. A places an order with U.S. company B for some of the components; with U.S. company C, an unrelated company, for other components; and with foreign company D for the rest of the components. A then assembles the computers and ships them to Y.

A's transaction with Y is an activity in U.S. commerce, because some of the components are acquired from the United States for purposes of filling an order from Y.

(vii) Same as (vi), except A purchases all the components from non-U.S. sources.

A's transaction with Y is not an activity in U.S. commerce, because it involves no export of goods from the United States. It makes no difference whether the technology A uses to manufacture computers was originally acquired from its U.S. parent.

(viii) A, a controlled foreign subsidiary of U.S. company B, manufactures computers. A stocks its general components and parts inventory with purchases made at times from the United States and at times from foreign sources. A receives an order from Y, a boycotting country, for computers. A fills that order by manufacturing the computers using materials from its general inventory.

A's transaction with Y is not in U.S. commerce, because the U.S.-origin components are not acquired for the purpose of meeting the anticipated needs of specified customers in Y. It is irrelevant that A's operations may be based on U.S.-origin technology.

(ix) Same as (viii), except that in anticipation of the order from Y, A orders and receives the necessary materials from the United States.

A's transaction with Y is in U.S. commerce, because the U.S.-origin goods were acquired for the purpose of filling an anticipated order from Y.

(x) A, a controlled foreign subsidiary of U.S. company B, manufactures typewriters. It buys typewriter components both from the United States and from foreign sources. A sells its output in various places throughout the world, including boycotting country Y. Its sales to Y vary from year to year, but have averaged approximately 20 percent of sales for the past five years. A expects that its sales to Y will remain at approximately that level in the years

ahead although it has no contracts or orders from Y on hand.

A's sales of typewriters to Y are not in U.S. commerce, because the U.S. components are not acquired for the purpose of filling an order from Y. A general expectancy of future sales is not an "order" within the meaning of this section.

(xi) U.S. company A's corporate counsel provides legal advice to B, its controlled foreign subsidiary, on the applicability of this Part to B's transactions.

While provision of this legal advice is itself an activity in U.S. commerce, it does not, in and of itself, bring B's activities into U.S. commerce.

(xii) A, a controlled foreign subsidiary of U.S. company B, is in the general construction business. A enters into a contract with boycotting country Y to construct a power plant in Y. In preparing engineering drawings and specifications, A uses the advice and assistance of B.

A's transaction with Y is in U.S. commerce, because B's services are used for purposes of fulfilling the contract with Y. B's services are not ancillary services, because the engineering services in connection with construction of the power plant are part of the services ultimately provided to Y by A.

(xiii) Same as (xii), except that A gets no engineering advice or assistance from B. However, B's corporate counsel provides legal advice to A regarding the structure of the transaction. In addition, B's corporate counsel draws up the contract documents.

A's transaction with Y is not in U.S. commerce. The legal services provided to A are ancillary services, because they are not part of the services provided to Y by A in fulfillment of its contract with Y.

(xiv) A, a controlled foreign subsidiary of U.S. company B, enters into a contract to construct an apartment complex in boycotting country Y. A will fulfill its contract completely with goods and services from outside the United States. Pursuant to a provision in the contract, B guarantees A's performance of the contract.

A's transaction with Y is in U.S. commerce, because B's guaranty of A's performance involves the acquisition of services from the United States for purposes of fulfilling the transaction with Y, and those services are part of the services ultimately provided to Y.

(xv) Same as (xiv), except that the guaranty of A's performance is supplied by C, a non-U.S. person located outside the United States. However, unrelated to any particular transaction, B from time to time provides general financial, legal, and technical services to A.

A's transaction with Y is not in U.S. commerce, because the services acquired from the United States are not acquired for purposes of fulfilling the contract with Y.

(xvi) A, a foreign subsidiary of U.S. company B, has a contract with boycotting country Y to conduct oil drilling operations in that country. In conducting these operations, A from time to time seeks certain technical advice from B regarding the operation of the drilling rigs.

A's contract with Y is in U.S. commerce, because B's services are sought for purposes of fulfilling the contract with Y and are part of the services ultimately provided to Y.

(xvii) A, a controlled foreign subsidiary of U.S. company B, enters into a contract to sell typewriters to boycotting country Y. A is located in non-boycotting country P. None of the components are acquired from the United States. A engages C, a U.S. shipping company, to transport the typewriters from P to Y.

A's sales to Y are not in U.S. commerce, because in carrying A's goods, C is providing an ancillary service to A and not a service to Y.

(xviii) Same as (xvii), except that A's contract with Y calls for title to pass to Y in P. In addition, the contract calls for A to engage a carrier to make delivery to Y.

A's sales to Y are in U.S. commerce, because in carrying Y's goods, C is providing a service to A which is ultimately provided to Y.

(xix) A, a controlled foreign subsidiary of U.S. company B, has general product liability insurance with U.S. company C. Foreign-origin goods sold from time to time by A to boycotting country Y are covered by the insurance policy.

A's sales to Y are not in U.S. commerce, because the insurance provided by C is an ancillary service provided to A which is not ultimately provided to Y.

(xx) A, a controlled foreign subsidiary of U.S. company B, manufactures automobiles abroad under a license agreement with B. From time to time, A sells such goods to boycotting country Y.

A's sales to Y are not in U.S. commerce, because the rights conveyed by the license are not acquired for the specific purpose of engaging in transactions with Y.

**(e) "Intent"**

**(1)** This part prohibits a United States person from taking or knowingly agreeing to take certain specified actions with intent to comply with, further, or support an unsanctioned foreign boycott.

**(2)** A United States person has the intent to comply with, further, or support an unsanctioned foreign boycott when such a boycott is at least one of the reasons for that person's decision whether to take a particular prohibited action.

So long as that is at least one of the reasons for that person's action, a violation occurs regardless of whether the prohibited action is also taken for non-boycott reasons. Stated differently, the fact that such action was taken for legitimate business reasons does not remove that action from the scope of this part if compliance with an unsanctioned foreign boycott was also a reason for the action.

(3) Intent is a necessary element of any violation of any of the prohibitions under §760.2. It is not sufficient that one take action that is specifically prohibited by this part. It is essential that one take such action with intent to comply with, further, or support an unsanctioned foreign boycott. Accordingly, a person who inadvertently, without boycott intent, takes a prohibited action, does not commit any violation of this part.

(4) Intent in this context means the reason or purpose for one's behavior. It does not mean that one has to agree with the boycott in question or desire that it succeed or that it be furthered or supported. But it does mean that the reason why a particular prohibited action was taken must be established.

(5) Reason or purpose can be proved by circumstantial evidence. For example, if a person receives a request to supply certain boycott information, the furnishing of which is prohibited by this part, and he knowingly supplies that information in response, he clearly intends to comply with that boycott request. It is irrelevant that he may disagree with or object to the boycott itself. Information will be deemed to be furnished with the requisite intent if the person furnishing the information knows that it was sought for boycott purposes. On the other hand, if a person refuses to do business with someone who happens to be blacklisted, but the reason is because that person produces an inferior product, the requisite intent does not exist.

(6) Actions will be deemed to be taken with intent to comply with an unsanctioned foreign boycott if the person taking such action knew that such action was required or requested for boycott reasons. On the other hand, the mere absence of a business relationship with a blacklisted person or with or in a boycotted country does not indicate the existence of the requisite intent.

(7) In seeking to determine whether the requisite intent exists, all available evidence will be examined.

#### EXAMPLES OF "INTENT"

The following examples are intended to illustrate the factors which will be considered in determining whether the required intent exists. They are illustrative, not comprehensive.

(i) U.S. person A does business in boycotting country Y. In selecting firms to supply goods for shipment to Y, A chooses supplier B because B's products are less expensive and of higher quality than the comparable products of supplier C. A knows that C is blacklisted, but that is not a reason for A's selection of B.

A's choice of B rather than C is not action with intent to comply with Y's boycott, because C's blacklist status is not a reason for A's action.

(ii) Same as (i), except that A chooses B rather than C in part because C is blacklisted by Y.

Since C's blacklist status is a reason for A's choice, A's action is taken with intent to comply with Y's boycott.

(iii) U.S. person A bids on a tender issued by boycotting country Y. A inadvertently fails to notice a prohibited certification which appears in the tender document. A's bid is accepted.

A's action in bidding was not taken with intent to comply with Y's boycott, because the boycott was not a reason for A's action.

(iv) U.S. bank A engages in letter of credit transactions, in favor of U.S. beneficiaries, involving the shipments of U.S. goods to boycotting country Y. As A knows, such letters of credit routinely contain conditions requiring prohibited certifications. A fails to take reasonable steps to prevent the implementation of such letters of credit. A receives for implementation a letter of credit which in fact contains a prohibited condition but does not examine the letter of credit to determine whether it contains such a condition.

Although Y's boycott may not be a specific reason for A's action in implementing the letter of credit with a prohibited condition, all available evidence shows that A's action was taken with intent to comply with the boycott, because A knows or should know that its procedures result in compliance with the boycott.

(v) U.S. bank A engages in letter of credit transactions, in favor of U.S. beneficiaries, involving the shipment of U.S. goods to boycotting country Y. As A knows, the documentation accompanying such letters of credit sometimes contains prohibited certifications. In accordance with standard banking practices applicable to A, it does not examine such accompanying documentation. A receives a letter of credit in favor of a U.S. beneficiary. The letter of credit itself contains no prohibited conditions. However, the accompanying documentation, which A does not examine, does contain such a condition.

All available evidence shows that A's action in implementing the letter of credit was not taken with intent to comply with the boycott, because A has no affirmative obligation to go beyond applicable standard banking practices in implementing letters of credit.

(vi) A, a U.S. company, is considering opening a manufacturing facility in boycotted country X. A already has such a facility in boycotting country Y. After exploring the possibilities in X, A concludes that the market does not justify the move. A is aware that if it did open a plant in X, Y might object because of Y's boycott of X. However Y's possible objection is not a reason for A's decision not to open a plant in X.

A's decision not to proceed with the plant in X is not action with intent to comply with Y's boycott, because Y's boycott of X is not a reason for A's decision.

(vii) Same as (vi), except that after exploring the business possibilities in X, A concludes that the market does justify the move to X. However, A does not open the plant because of Y's possible objections due to Y's boycott of X.

A's decision not to proceed with the plant in X is action taken with intent to comply with Y's boycott, because Y's boycott is a reason for A's decision.

(viii) A, a U.S. chemical manufacturer, receives a "boycott questionnaire" from boycotting country Y asking, among other things, whether A has any plants located in boycotted country X. A, which has never supported Y's boycott of X, responds to Y's questionnaire, indicating affirmatively that it does have plants in X and that it intends to continue to have plants in X.

A's responding to Y's questionnaire is deemed to be action with intent to comply with Y's boycott because A knows that the questionnaire is boycott-related. It is irrelevant that A does not also wish to support Y's boycott.

(ix) U.S. company A has a manufacturing facility in boycotted country X. A receives an invitation to bid on a construction project in boycotting country Y. The invitation states that all bidders must complete a boycott questionnaire and send it in with the bid. The

questionnaire asks for information about A's business relationships with X. Regardless of whether A's bid is successful, A intends to continue its business in X undiminished and in fact is exploring and intends to continue exploring an expansion of its activities in X without regard to Y's boycott.

A may not answer the questionnaire, because, despite A's intentions with regard to its business operations in X, Y's request for completion of the questionnaire is for boycott purposes and by responding, A's action would be taken with intent to comply with Y's boycott.

## **§ 760.2 PROHIBITIONS**

### *(a) Refusals to do business*

#### PROHIBITION AGAINST REFUSALS TO DO BUSINESS

(1) No United States person may: refuse, knowingly agree to refuse, require any other person to refuse, or knowingly agree to require any other person to refuse, to do business with or in a boycotted country, with any business concern organized under the laws of a boycotted country, with any national or resident of a boycotted country, or with any other person, when such refusal is pursuant to an agreement with the boycotting country, or a requirement of the boycotting country, or a request from or on behalf of the boycotting country.

(2) Generally, a refusal to do business under this section consists of action that excludes a person or country from a transaction for boycott reasons. This includes a situation in which a United States person chooses or selects one person over another on a boycott basis or takes action to carry out another person's boycott-based selection when he knows or has reason to know that the other person's selection is boycott-based.

(3) Refusals to do business which are prohibited by this section include not only specific refusals, but also refusals implied by a course or pattern of conduct. There need not be a specific offer and refusal to constitute a refusal to do business; a refusal may occur when a United States person has a financial or commercial opportunity and declines for boycott reasons to consider or accept it.

(4) A United States person's use of either a boycott-based list of persons with whom he will not deal (a so-called "blacklist") or a boycott-based list of persons with whom he will deal (a so-called "whitelist") constitutes a refusal to do business.

(5) An agreement by a United States person to comply generally with the laws of the boycotting country with which it is doing business or an agreement that local laws of the boycotting country shall apply or govern is not, in and of itself, a refusal to do business. Nor, in and of itself, is use of a contractual clause explicitly requiring a person to assume the risk of loss of non-delivery of his products a refusal to do business with any person who will not or cannot comply with such a clause. (But see §760.4 of this part on "Evasion.")

(6) If, for boycott reasons, a United States general manager chooses one supplier over another, or enters into a contract with one supplier over another, or advises its client to do so, then the general manager's actions constitute a refusal to do business under this section. However, it is not a refusal to do business under this section for a United States person to provide management, procurement, or other pre-award services for another person so long as the provision of such pre-award services is customary for that firm (or industry of which the firm is a part), without regard to the boycotting or non-boycotting character of the countries in which they are performed, and the United States person, in providing such services, does not act to exclude a person or country from the transaction for boycott reasons, or otherwise

take actions that are boycott-based. For example, a United States person under contract to provide general management services in connection with a construction project in a boycotting country may compile lists of qualified bidders for the client if that service is a customary one and if persons who are qualified are not excluded from that list because they are blacklisted.

(7) With respect to post-award services, if a client makes a boycott-based selection, actions taken by the United States general manager or contractor to carry out the client's choice are themselves refusals to do business if the United States contractor knows or has reason to know that the client's choice was boycott-based. (It is irrelevant whether the United States contractor also provided pre-award services.) Such actions include entering into a contract with the selected supplier, notifying the supplier of the client's choice, executing a contract on behalf of the client, arranging for inspection and shipment of the supplier's goods, or taking any other action to effect the client's choice. (But see §760.3(d) on "Compliance with Unilateral Selection" as it may apply to post-award services.)

(8) An agreement is not a prerequisite to a violation of this section since the prohibition extends to actions taken pursuant not only to agreements but also to requirements of, and requests from or on behalf of, a boycotting country.

(9) Agreements under this section may be either express or implied by a course or pattern of conduct. There need not be a direct request from a boycotting country for action by a United States person to have been taken pursuant to an agreement with or requirement of a boycotting country.

(10) This prohibition, like all others, applies only with respect to a United States person's activities in the interstate or foreign commerce of the United States and only when such activities are undertaken with intent to comply

with, further, or support an unsanctioned foreign boycott. The mere absence of a business relationship with or in the boycotted country, with any business concern organized under the laws of the boycotted country, with national(s) or resident(s) of the boycotted country, or with any other person does not indicate the existence of the required intent.

#### EXAMPLES OF REFUSALS AND AGREEMENTS TO REFUSE TO DO BUSINESS

The following examples are intended to give guidance in determining the circumstances in which, in a boycott situation, a refusal to do business or an agreement to refuse to do business is prohibited. They are illustrative, not comprehensive.

#### REFUSALS TO DO BUSINESS

(i) A, a U.S. manufacturer, receives an order for its products from boycotting country Y. To fill that order, A solicits bids from U.S. companies B and C, manufacturers of components used in A's products. A does not, however, solicit bids from U.S. companies D or E, which also manufacture such components, because it knows that D and E are restricted from doing business in Y and that their products are, therefore, not importable into that country.

Company A may not refuse to solicit bids from D and E for boycott reasons, because to do so would constitute a refusal to do business with those persons.

(ii) A, a U.S. exporter, uses company B, a U.S. insurer, to insure the shipment of its goods to all its overseas customers. For the first time, A receives an order for its products from boycotting country Y. Knowing that B is on the blacklist of Y, A arranges with company C, a non-blacklisted

U.S. insurer, to insure the shipment of its goods to Y.

A's action constitutes a refusal to do business with B.

(iii) A, a U.S. exporter, purchases all its liability insurance from company B, a U.S. company that does business in boycotted country X. A wishes to expand its operations into country Y, the boycotting country. Before doing so, A decides to switch from insurer B to insurer C in anticipation of a request from Y that A sever its relations with B as a condition of doing business in Y.

A may not switch insurers for this reason, because doing so would constitute a refusal to do business with B.

(iv) U.S. company A exports goods to boycotting country Y. In selecting vessels to transport the goods to Y, A chooses only from among carriers which call at ports in Y.

A's action is not a refusal to do business with carriers which do not call at ports in Y.

(v) A, a U.S. bank with a branch office in boycotting country Y, sends representatives to boycotted country X to discuss plans for opening a branch office in X. Upon learning of these discussions, an official of the local boycott office in Y advises A's local branch manager that if A opens an office in X it will no longer be allowed to do business in Y. As a result of this notification, A decides to abandon its plans to open a branch in X.

Bank A may not abandon its plans to open a branch in X as a result of Y's notification, because doing so would constitute a refusal to do business in boycotted country X.

(vi) A, a U.S. company that manufactures office equipment, has been restricted from doing business in boycotting country Y because of its business dealings with boycotted country X. In

an effort to have itself removed from Y's blacklist, A ceases its business in X.

A's action constitutes a refusal to do business in boycotted country X.

(vii) A, a U.S. computer company, does business in boycotting country Y. A decides to explore business opportunities in boycotted country X. After careful analysis of possible business opportunities in X, A decides, solely for business reasons, not to market its products in X.

A's decision not to proceed is not a refusal to do business, because it is not based on boycott considerations. A has no affirmative obligation to do business in X.

(viii) A, a U.S. oil company with operations in boycotting country Y, has regularly purchased equipment from U.S. petroleum equipment suppliers B, C, and D, none of whom is on the blacklist of Y. Because of its satisfactory relationship with B, C, and D, A has not dealt with other suppliers, including supplier E, who is blacklisted by Y.

A's failure affirmatively to seek or secure business with blacklisted supplier E is not a refusal to do business with E.

(ix) Same as (viii), except U.S. petroleum equipment supplier E, a company on boycotting country Y's blacklist, offers to supply U.S. oil company A with goods comparable to those provided by U.S. suppliers B, C, and D. A, because it has satisfactory, established relationships with suppliers B, C, and D, does not accept supplier E's offer.

A's refusal of supplier E's offer is not a refusal to do business, because it is based solely on non-boycott considerations. A has no affirmative obligation to do business with E.

(x) A, a U.S. construction company, enters into a contract to build an office complex in

boycotting country Y. A receives bids from B and C, U.S. companies that are equally qualified suppliers of electrical cable for the project. A knows that B is blacklisted by Y and that C is not. A accepts C's bid, in part because C is as qualified as the other potential supplier and in part because C is not blacklisted.

A's decision to select supplier C instead of blacklisted supplier B is a refusal to do business, because the boycott was one of the reasons for A's decision.

(xi) A, a U.S. general contractor, has been retained to construct a highway in boycotting country Y. A circulates an invitation to bid to U.S. manufacturers of road-building equipment. One of the conditions listed in the invitation to bid is that, in order for A to obtain prompt service, suppliers will be required to maintain a supply of spare parts and a service facility in Y. A includes this condition solely for commercial reasons unrelated to the boycott. Because of this condition, however, those suppliers on Y's blacklist do not bid, since they would be unable to satisfy the parts and services requirements.

A's action is not a refusal to do business, because the contractual condition was included solely for legitimate business reasons and was not boycott-based.

(xii) Company A, a U.S. oil company, purchases drill bits from U.S. suppliers for export to boycotting country Y. In its purchase orders, A includes a provision requiring the supplier to make delivery to A's facilities in Y and providing that title to the goods does not pass until delivery has been made. As is customary under such an arrangement, the supplier bears all risks of loss, including loss from fire, theft, perils of the sea, and inability to clear customs, until title passes.

Insistence on such an arrangement does not constitute a refusal to do business, because this requirement is imposed on all suppliers whether

they are blacklisted or not. (But see §760.4 on "Evasion".)

(xiii) A, a U.S. engineering and construction company, contracts with a government agency in boycotting country Y to perform a variety of services in connection with the construction of a large industrial facility in Y. Pursuant to this contract, A analyzes the market of prospective suppliers, compiles a suggested bidders list, analyzes the bids received, and makes recommendations to the client. The client independently selects and awards the contract to supplier C for boycott reasons. All of A's services are performed without regard to Y's blacklist or any other boycott considerations, and are the type of services A provides clients in both boycotting and non-boycotting countries.

A's actions do not constitute a refusal to do business, because, in the provision of pre-award services, A has not excluded the other bidders and because A customarily provides such services to its clients.

(xiv) Same as (xiii), except that in compiling a list of prospective suppliers, A deletes suppliers he knows his client will refuse to select because they are blacklisted. A knows that including the names of blacklisted suppliers will neither enhance their chances of being selected nor provide his client with a useful service, the function for which he has been retained.

A's actions, which amount to furnishing a so-called "whitelist", constitute refusals to do business, because A's pre-award services have not been furnished without regard to boycott considerations.

(xv) A, a U.S. construction firm, provides its boycotting country client with a permissible list of prospective suppliers, B, C, D, and E. The client independently selects and awards the contract to C, for boycott reasons, and then requests A to advise C of his selection, negotiate the contract with C, arrange for the shipment,

and inspect the goods upon arrival. A knows that C was chosen by the client for boycott reasons.

A's action in complying with his client's direction is a refusal to do business, because A's post-award actions carry out his client's boycott-based decision. (Note: Whether A's action comes within the unilateral selection exception depends upon factors discussed in §760.3(d) of this part).

(xvi) Same as (xv), except that A is building the project on a turnkey basis and will retain title until completion. The client instructs A to contract only with C.

A's action in contracting with C constitutes a refusal to do business, because it is action that excludes blacklisted persons from the transaction for boycott reasons. (Note: Whether A's action comes within the unilateral selection exception depends upon factors discussed in §760.3(d) of this part).

(xvii) A, a U.S. exporter of machine tools, receives an order for drill presses from boycotting country Y. The cover letter from Y's procurement official states that A was selected over other U.S. manufacturers in part because A is not on Y's blacklist.

A's action in filling this order is not a refusal to do business, because A has not excluded anyone from the transaction.

(xviii) A, a U.S. engineering firm under contract to construct a dam in boycotting country Y, compiles, on a non-boycott basis, a list of potential heavy equipment suppliers, including information on their qualifications and prior experience. A then solicits bids from the top three firms on its list--B, C, and D--because they are the best qualified. None of them happens to be blacklisted. A does not solicit bids from E, F, or G, the next three firms on the list, one of whom is on Y's blacklist.

A's decision to solicit bids from only B, C, and D, is not a refusal to do business with any person, because the solicited bidders were not selected for boycott reasons.

(xix) U.S. bank A receives a letter of credit in favor of U.S. beneficiary B. The letter of credit requires B to certify that he is not blacklisted. B meets all other conditions of the letter of credit but refuses to certify as to his blacklist status. A refuses to pay B on the letter of credit solely because B refuses to certify as to his blacklist status.

A has refused to do business with another person pursuant to a boycott requirement or request.

(xx) U.S. bank A receives a letter of credit in favor of U.S. beneficiary B. The letter of credit requires B to provide a certification from the steamship line that the vessel carrying the goods is not blacklisted. B seeks payment from A and meets all other conditions of the letter of credit but refuses or is unable to provide the certification from the steamship line about the vessel's blacklist status. A refuses to pay B on the letter of credit solely because B cannot or will not provide the certification.

A has required another person to refuse to do business pursuant to a boycott requirement or request by insisting that B obtain such a certificate. (Either A or B may request an amendment to the letter of credit substituting a certificate of vessel eligibility, however. See Example (xxi) below).

(xxi) U.S. bank A receives a letter of credit from a bank in boycotting country Y in favor of U.S. beneficiary B. The letter of credit requires B to provide a certification from the steamship line that the vessel carrying the goods is eligible to enter the ports in Y. B seeks payment from A and meets all other conditions of the letter of credit. A refuses to pay B solely because B cannot or will not provide the certification.

A has neither refused, nor required another person to refuse, to do business with another person pursuant to a boycott requirement or request because a request for a vessel eligibility certificate to be furnished by the steamship line is not a prohibited condition. (See Supplement No. 1 to this part, paragraph (I)(B), “Shipping Certificate”.)

(xxii) U.S. bank A confirms a letter of credit in favor of U.S. beneficiary B. The letter of credit contains a requirement that B certify that he is not blacklisted. B presents the letter of credit to U.S. bank C, a correspondent of bank A. B does not present the certificate of blacklist status to bank C, but, in accordance with these rules, bank C pays B, and then presents the letter of credit and documentation to bank A for reimbursement. Bank A refuses to reimburse bank C because the blacklist certification of B is not included in the documentation.

A has required another person to refuse to do business with a person pursuant to a boycott requirement or request by insisting that C obtain the certificate from B.

(xxiii) U.S. bank A receives a letter of credit in favor of U.S. beneficiary B. The letter of credit requires B to certify that he is not blacklisted. B fails to provide such a certification when he presents the documents to A for payment. A notifies B that the certification has not been submitted.

A has not refused to do business with another person pursuant to a boycott requirement by notifying B of the omitted certificate. A may not refuse to pay on the letter of credit, however, if B states that B will not provide such a certificate.

(xxiv) U.S. bank A receives a letter of credit in favor of U.S. beneficiary B from the issuing bank for the purpose of confirmation, negotiation or payment. The letter of credit requires B to certify that he is not blacklisted. A notifies B that it is contrary to the policy of A to

handle letters of credit containing this condition and that, unless an amendment is obtained deleting this condition, A will not implement the letter of credit. A has not refused to do business with another person pursuant to a boycott requirement, because A has indicated its policy against implementing the letter of credit containing the term without regard to B’s ability or willingness to furnish such a certificate.

#### AGREEMENTS TO REFUSE TO DO BUSINESS

(i) A, a U.S. construction firm, is retained by an agency of boycotting country Y to build a primary school. The proposed contract contains a clause stating that A “may not use goods or services in the project that are produced or provided by any person restricted from having a business relationship with country Y by reason of Y’s boycott against country X”.

A’s action in entering into such a contract would constitute an agreement to refuse to do business, because it is an agreement to exclude blacklisted persons from the transaction. A may, however, renegotiate this clause so that it does not contain terms prohibited by this part.

(ii) A, a U.S. manufacturer of commercial refrigerators and freezers, receives an invitation to bid from boycotting country Y. The tender states that the bidder must agree not to deal with companies on Y’s blacklist. A does not know which companies are on the blacklist; however, A submits a bid without taking exception to the boycott conditions. A’s bid makes no commitment regarding not dealing with certain companies.

At the point when A submits its bid without taking exception to the boycott request in Y’s tender, A has agreed to refuse to do business with blacklisted persons, because the terms of Y’s tender require A to agree to refuse to do business.

(iii) A, a U.S. construction firm, is offered a contract to perform engineering and construction services in connection with a project located in boycotting country Y. The contract contains a clause stating that, in the event of a contract dispute, the laws of Y will apply.

A may enter into the contract. Agreement that the laws of boycotting country Y will control in resolving a contract dispute is not an agreement to refuse to do business.

(iv) Same as (iii), except that the contract contains a clause that A and its employees will comply with the laws of boycotting country Y. A knows that Y has a number of boycott laws.

Such an agreement is not, in and of itself, an agreement to refuse to do business. If, however, A subsequently refuses to do business with someone because of the laws of Y, A's action would be a refusal to do business.

(v) Same as (iv), except that the contract contains a clause that A and its employees will comply with the laws of boycotting country Y, "including boycott laws."

A's agreeing, without qualification, to comply with local boycott laws constitutes an agreement to refuse to do business.

(vi) Same as (v), except that A inserts a proviso "except insofar as Y's laws conflict with U.S. laws," or words to that effect. Such an agreement is not an agreement to refuse to do business.

(vii) A, a U.S. general contractor, is retained to construct a pipeline in boycotting country Y. A provision in the proposed contract stipulates that in purchasing equipment, supplies, and services A must give preference to companies located in host country Y. A may agree to this contract provision. Agreeing to a "buy local" contract provision is not an agreement to refuse to do business, because A's agreement is not made for boycott reasons.

(viii) A, a U.S. exporter planning to sell retail goods to customers in boycotting country Y, enters into a contract to purchase goods wholesale from B, a U.S. appliance manufacturer. A's contract with B includes a provision stipulating that B may not use components or services of blacklisted companies in the manufacture of its appliances.

A's contract constitutes a refusal to do business, because it would require another person, B, to refuse to do business with other persons for boycott reasons. B may not agree to such a contract, because it would be agreeing to refuse to do business with other persons for boycott reasons.

(ix) Same as (viii), except that A and B reach an implicit understanding that B will not use components or services of blacklisted companies in the manufacture of goods to be exported to Y. In the manufacture of appliances to be sold to A for export to non-boycotting countries, B uses components manufactured by blacklisted companies. The actions of both A and B constitute agreement to refuse to do business. The agreement is implied by their pattern of conduct.

(x) Boycotting country Y orders goods from U.S. company B. Y opens a letter of credit with foreign bank C in favor of B. The letter of credit specifies that negotiation of the letter of credit with a bank that appears on the country X boycott blacklist is prohibited. U.S. bank A, C's correspondent bank, advises B of the letter of credit. B presents documentation to bank A seeking to be paid on the letter of credit, without amending or otherwise taking exception to the boycott condition. B has agreed to refuse to do business with blacklisted banks because, by presenting the letter of credit for payment, B has accepted all of its terms and conditions.

*(b) Discriminatory actions*

PROHIBITIONS AGAINST TAKING

## DISCRIMINATORY ACTIONS

(1) No United States person may:

(i) Refuse to employ or otherwise discriminate against any individual who is a United States person on the basis of race, religion, sex, or national origin;

(ii) Discriminate against any corporation or other organization which is a United States person on the basis of the race, religion, sex, or national origin of any owner, officer, director, or employee of such corporation or organization;

(iii) Knowingly agree to take any of the actions described in paragraph (b)(1)(i) and (ii) of this section; or

(iv) Require or knowingly agree to require any other person to take any of the actions described in paragraph (b)(1)(i) and (ii) of this section.

(2) This prohibition shall apply whether the discriminatory action is taken by a United States person on its own or in response to an agreement with, request from, or requirement of a boycotting country. This prohibition, like all others, applies only with respect to a United States person's activities in the interstate or foreign commerce of the United States and only when such activities are undertaken with intent to comply with, further, or support an unsanctioned foreign boycott.

(3) The section does not supersede or limit the operation of the civil rights laws of the United States.

EXAMPLES OF  
DISCRIMINATORY ACTIONS

The following examples are intended to give guidance in determining the circumstances in which the taking of particular discriminatory actions is prohibited. They are illustrative, not comprehensive.

(i) U.S. construction company A is awarded a contract to build an office complex in boycotting country Y. A, believing that employees of a particular religion will not be permitted to work in Y because of Y's boycott against country X, excludes U.S. persons of that religion from consideration for employment on the project.

A's refusal to consider qualified U.S. persons of a particular religion for work on the project in Y constitutes a prohibited boycott-based discriminatory action against U.S. persons on the basis of religion.

(ii) Same as (i), except that a clause in the contract provides that "no persons of country X origin are to work on this project."

A's agreement constitutes a prohibited boycott-based agreement to discriminate against U.S. persons, among others, on the basis of national origin.

(iii) Same as (i), except that a clause in the contract provides that "no persons who are citizens, residents, or nationals of country X are to work on this project."

A's agreement does not constitute a boycott-based agreement to discriminate against U.S. persons on the basis of race, religion, sex, or national origin, because the clause requires exclusion on the basis of citizenship, residency, and nationality only.

(iv) U.S. construction company A enters into a contract to build a school in boycotting country Y. Y's representative orally tells A that no persons of country X origin are to work on the project.

A may not comply, because to do so would constitute discrimination on the basis of national origin. It makes no difference that A learned of Y's requirement orally. It makes no difference how A learns about Y's discriminatory requirement.

(v) Boycotting country Y tenders an invitation to bid on a construction project in Y. The tender requires that the successful bidder's personnel will be interviewed and that persons of a particular religious faith will not be permitted to work on the project. Y's requirement is based on its boycott of country X, the majority of whose citizens are of that particular faith.

Agreement to this provision in the tender document by a U.S. person would constitute a prohibited agreement to engage in boycott-based discrimination against U.S. persons of a particular religion.

(vi) Same as (v), except that the tender specifies that "women will not be allowed to work on this project."

Agreement to this provision in the tender by a U.S. person does not constitute a prohibited agreement to engage in boycott-based discrimination, because the restriction against employment of women is not boycott-based. Such an agreement may, however, constitute a violation of U.S. civil rights laws.

(vii) A is a U.S. investment banking firm. As a condition of participating in an underwriting of securities to be issued by boycotting country Y, A is required to exclude investment banks owned by persons of a particular faith from participation in the underwriting. Y's requirement is based on its boycott of country X, the majority of whose citizens are of that particular faith. A's agreement to such a provision constitutes a prohibited agreement to engage in boycott-based discrimination against U.S. persons on the basis of religion. Further, if A requires others to agree to such a condition, A would be acting to require another person to engage in such discrimination.

(viii) U.S. company A is asked by boycotting country Y to certify that A will not use a six-pointed star on the packaging of its products to be imported into Y. The requirement is part

of the enforcement effort by Y of its boycott against country X. A may not so certify. The six-pointed star is a religious symbol, and the certification by A that it will not use such a symbol constitutes a statement that A will not ship products made or handled by persons of that religion.

(ix) Same as (viii), except that A is asked to certify that no symbol of boycotted country X will appear on the packaging of its products imported into Y. Such a certification conveys no statement about any person's religion and, thus, does not come within this prohibition.

**(c) *Furnishing information about race, religion, sex, or national origin***

**PROHIBITION AGAINST FURNISHING INFORMATION ABOUT RACE, RELIGION, SEX, OR NATIONAL ORIGIN**

**(1) No United States person may:**

(i) Furnish information about the race, religion, sex, or national origin of any United States person;

(ii) Furnish information about the race, religion, sex, or national origin of any owner, officer, director, or employee of any corporation or other organization which is a United States person;

(iii) Knowingly agree to furnish information about the race, religion, sex, or national origin of any United States person; or

(iv) Knowingly agree to furnish information about the race, religion, sex, or national origin of any owner, officer, director, or employee of any corporation or other organization which is a United States person.

**(2) This prohibition shall apply whether the information is specifically requested or is offered voluntarily by the United States person. It shall also apply whether the information**

requested or volunteered is stated in the affirmative or the negative.

(3) Information about the place of birth of or the nationality of the parents of a United States person comes within this prohibition, as does information in the form of code words or symbols which could identify a United States person's race, religion, sex, or national origin.

(4) This prohibition, like all others, applies only with respect to a United States person's activities in the interstate or foreign commerce of the United States and only when such activities are undertaken with intent to comply with, further, or support an unsanctioned foreign boycott.

#### EXAMPLES OF THE PROHIBITION AGAINST FURNISHING DISCRIMINATORY INFORMATION

The following examples are intended to give guidance in determining the circumstances in which the furnishing of discriminatory information is prohibited. They are illustrative, not comprehensive.

(i) U.S. company A receives a boycott questionnaire from boycotting country Y asking whether it is owned or controlled by persons of a particular faith, whether it has any persons on its board of directors who are of that faith, and what the national origin of its president is. The information is sought for purposes of enforcing Y's boycott against country X, and A knows or has reason to know that the information is sought for that reason.

A may not answer the questionnaire, because A would be furnishing information about the religion and national origin of U.S. persons for purposes of complying with or supporting Y's boycott against X.

(ii) U.S. company A, located in the United States, is asked by boycotting country Y to certify that A has no persons of a particular

national origin on its board of directors. A knows that Y's purpose in asking for the certification is to enforce its boycott against country X.

A may not make such a certification, because A would be furnishing information about the national origin of U.S. persons for purposes of complying with or supporting Y's boycott against X.

(iii) U.S. company A believes that boycotting country Y will select A's bid over those of other bidders if A volunteers that it has no shareholders, officers, or directors of a particular national origin. A's belief is based on its knowledge that Y generally refuses, as part of its boycott against country X, to do business with companies owned, controlled, or managed by persons of this particular national origin.

A may not volunteer this information, because it would be furnishing information about the national origin of U.S. persons for purposes of complying with or supporting Y's boycott against X.

(iv) U.S. company A has a contract to construct an airport in boycotting country Y. Before A begins work, A is asked by Y to identify the national origin of its employees who will work on the site. A knows or has reason to know that Y is seeking this information in order to enforce its boycott against X.

A may not furnish this information, because A would be providing information about the national origin of U.S. persons for purposes of complying with or supporting Y's boycott against X.

(v) Same as (iv), except that in order to assemble its work force on site in Y, A sends visa forms to its employees and asks that the forms be returned to A for transmittal to Y's consulate or embassy. A, itself, furnishes no information about its employees, but merely transmits the visa forms back and forth.

In performing the ministerial function of transmitting visa forms, A is not furnishing information about any U.S. person's race, religion, sex, or national origin.

(vi) Same as (iv), except that A is asked by Y to certify that none of its employees in Y will be women, because Y's laws prohibit women from working.

Such a certification does not constitute a prohibited furnishing of information about any U.S. person's sex, since the reason the information is sought has nothing to do with Y's boycott of X.

(vii) U.S. company A is considering establishing an office in boycotting country Y. In order to register to do business in Y, A is asked to furnish information concerning the nationalities of its corporate officers and board of directors.

A may furnish the information about the nationalities of its officers and directors, because in so doing A would not be furnishing information about the race, religion, sex, or national origin of any U.S. person.

***(d) Furnishing information about business relationships with boycotted countries or black-listed persons***

**PROHIBITION AGAINST FURNISHING  
INFORMATION ABOUT BUSINESS  
RELATIONSHIPS WITH BOYCOTTED  
COUNTRIES OR BLACKLISTED PERSONS**

(1) No United States person may furnish or knowingly agree to furnish information concerning his or any other person's past, present or proposed business relationships:

- (i) With or in a boycotted country;
- (ii) With any business concern organized under the laws of a boycotted country;

(iii) With any national or resident of a boycotted country; or

(iv) With any other person who is known or believed to be restricted from having any business relationship with or in a boycotting country.

(2) This prohibition shall apply:

(i) Whether the information pertains to a business relationship involving a sale, purchase, or supply transaction; legal or commercial representation; shipping or other transportation transaction; insurance; investment; or any other type of business transaction or relationship; and

(ii) Whether the information is directly or indirectly requested or is furnished on the initiative of the United States person.

(3) This prohibition does not apply to the furnishing of normal business information in a commercial context. Normal business information may relate to factors such as financial fitness, technical competence, or professional experience, and may be found in documents normally available to the public such as annual reports, disclosure statements concerning securities, catalogs, promotional brochures, and trade and business handbooks. Such information may also appear in specifications or statements of experience and qualifications.

(4) Normal business information furnished in a commercial context does not cease to be such simply because the party soliciting the information may be a boycotting country or a national or resident thereof. If the information is of a type which is generally sought for a legitimate business purpose (such as determining financial fitness, technical competence, or professional experience), the information may be furnished even if the information could be used, or without the knowledge of the person supplying the information is intended to be used,

for boycott purposes. However, no information about business relationships with blacklisted persons or boycotted countries, their residents or nationals, may be furnished in response to a boycott request, even if the information is publicly available. Requests for such information from a boycott office will be presumed to be boycott-based.

(5) This prohibition, like all others, applies only with respect to a United States person's activities in the interstate or foreign commerce of the United States and only when such activities are undertaken with intent to comply with, further, or support an unsanctioned foreign boycott.

#### EXAMPLES CONCERNING FURNISHING OF INFORMATION

The following examples are intended to give guidance in determining the circumstances in which the furnishing of information is prohibited. They are illustrative, not comprehensive.

(i) U.S. contractor A is considering bidding for a contract to build a dam in boycotting country Y. The invitation to bid, which appears in a trade journal, specifies that each bidder must state that he does not have any offices in boycotted country X. A knows or has reason to know that the requirement is boycott-based.

A may not make this statement, because it constitutes information about A's business relationships with X.

(ii) U.S. contractor A is considering bidding for a contract to construct a school in boycotting country Y. Each bidder is required to submit copies of its annual report with its bid. Since A's annual report describes A's worldwide operations, including the countries in which it does business, it necessarily discloses whether A has business relations with boycotted country X. A has no reason to know that its report is being sought for boycott purposes.

A, in furnishing its annual report, is supplying ordinary business information in a commercial context.

(iii) Same as (ii), except that accompanying the invitation to bid is a questionnaire from country Y's boycott office asking each bidder to supply a copy of its annual report.

A may not furnish the annual report despite its public availability, because it would be furnishing information in response to a questionnaire from a boycott office.

(iv) U.S. company A is on boycotting country Y's blacklist. For reasons unrelated to the boycott, A terminates its business relationships with boycotted country X. In exploring other marketing areas, A determines that boycotting country Y offers great potential. A is requested to complete a questionnaire from a central boycott office which inquires about A's business relations with X.

A may not furnish the information, because it is information about A's business relationships with a boycotted country.

(v) U.S. exporter A is seeking to sell its products to boycotting country Y. A is informed by Y that, as a condition of sale, A must certify that it has no salesmen in boycotted country X. A knows or has reason to know that the condition is boycott-based.

A may not furnish the certification, because it is information about A's business relationships in a boycotted country.

(vi) U.S. engineering company A receives an invitation to bid on the construction of a dam in boycotting country Y. As a condition of the bid, A is asked to certify that it does not have any offices in boycotted country X. A is also asked to furnish plans for other dams it has designed.

A may not certify that it has no office in X, because this is information about its business relationships in a boycotted country. A may submit plans for other dams it has designed, because this is furnishing normal business information, in a commercial context, relating to A's technical competence and professional experience.

(vii) U.S. company A, in seeking to expand its exports to boycotting country Y, sends a sales representative to Y for a one week trip. During a meeting in Y with trade association representatives, A's representative desires to explain that neither A nor any companies with which A deals has any business relationship with boycotted country X. The purpose of supplying such information is to ensure that A does not get blacklisted.

A's representative may not volunteer this information even though A, for reasons unrelated to the boycott, does not deal with X, because A's representative would be volunteering information about A's business relationships with X for boycott reasons.

(viii) U.S. company A is asked by boycotting country Y to furnish information concerning its business relationships with boycotted country X. A, knowing that Y is seeking the information for boycott purposes, refuses to furnish the information asked for directly, but proposes to respond by supplying a copy of its annual report which lists the countries with which A is presently doing business. A does not happen to be doing business with X.

A may not respond to Y's request by supplying its annual report, because A knows that it would be responding to a boycott-based request for information about its business relationships with X.

(ix) U.S. company A receives a letter from a central boycott office asking A to "clarify" A's operations in boycotted country X. A intends to continue its operations in X, but fears that not

responding to the request will result in its being placed on boycotting country Y's blacklist. A knows or has reason to know that the information is sought for boycott reasons.

A may not respond to this request, because the information concerns its business relationships with a boycotted country.

(x) U.S. company A, in the course of negotiating a sale of its goods to a buyer in boycotting country Y, is asked to certify that its supplier is not on Y's blacklist.

A may not furnish the information about its supplier's blacklist status, because this is information about A's business relationships with another person who is believed to be restricted from having any business relationship with or in a boycotting country.

(xi) U.S. company A has a manufacturing plant in boycotted country X and is on boycotting country Y's blacklist. A is seeking to establish operations in Y, while expanding its operations in X. A applies to Y to be removed from Y's blacklist. A is asked, in response, to indicate whether it has manufacturing facilities in X.

A may not supply the requested information, because A would be furnishing information about its business relationships in a boycotted country.

(xii) U.S. bank A plans to open a branch office in boycotting country Y. In order to do so, A is required to furnish certain information about its business operations, including the location of its other branch offices. Such information is normally sought in other countries where A has opened a branch office, and A does not have reason to know that Y is seeking the information for boycott reasons.

A may furnish this information, even though in furnishing it A would disclose information about its business relationships in a boycotted country,

because it is being furnished in a normal business context and A does not have reason to know that it is sought for boycott reasons.

(xiii) U.S. architectural firm A responds to an invitation to submit designs for an office complex in boycotting country Y. The invitation states that all bidders must include information concerning similar types of buildings they have designed. A has not designed such buildings in boycotted country X. Clients frequently seek information of this type before engaging an architect.

A may furnish this information, because this is furnishing normal business information, in a commercial context, relating to A's technical competence and professional experience.

(xiv) U.S. oil company A distributes to potential customers promotional brochures and catalogs which give background information on A's past projects. A does not have business dealings with boycotted country X. The brochures, which are identical to those which A uses throughout the world, list those countries in which A does or has done business. In soliciting potential customers in boycotting country Y, A desires to distribute copies of its brochures.

A may do so, because this is furnishing normal business information, in a commercial context, relating to professional experience.

(xv) U.S. company A is interested in doing business with boycotting country Y. A wants to ask Y's Ministry of Trade whether, and if so why, A is on Y's blacklist or is otherwise restricted for boycott reasons from doing business with Y.

A may make this limited inquiry, because it does not constitute furnishing information.

(xvi) U.S. company A is asked by boycotting country Y to certify that it is not owned by subjects or nationals of boycotted country X and that it is not resident in boycotted country X.

A may not furnish the certification, because it is information about A's business relationships with or in a boycotted country, or with nationals of a boycotted country.

(xvii) U.S. company A, a manufacturer of certain patented products, desires to register its patents in boycotting country Y. A receives a power of attorney form required to register its patents. The form contains a question regarding A's business relationships with or in boycotted country X. A has no business relationships with X and knows or has reason to know that the information is sought for boycott reasons.

A may not answer the question, because A would be furnishing information about its business relationships with or in a boycotted country.

(xviii) U.S. company A is asked by boycotting country Y to certify that it is not the mother company, sister company, subsidiary, or branch of any blacklisted company, and that it is not in any way affiliated with any blacklisted company.

A may not furnish the certification, because it is information about whether A has a business relationship with another person who is known or believed to be restricted from having any business relationship with or in a boycotting country.

**(e) Information concerning association with charitable and fraternal organizations**

PROHIBITION AGAINST FURNISHING  
INFORMATION ABOUT ASSOCIATIONS  
WITH CHARITABLE AND FRATERNAL  
ORGANIZATIONS

(1) No United States person may furnish or knowingly agree to furnish information about whether any person is a member of, has made contributions to, or is otherwise associated with or involved in the activities of any charitable or

fraternal organization which supports a boycotted country.

(2) This prohibition shall apply whether:

(i) The information concerns association with or involvement in any charitable or fraternal organization which (a) has, as one of its stated purposes, the support of a boycotted country through financial contributions or other means, or (b) undertakes, as a major organizational activity, to offer financial or other support to a boycotted country;

(ii) The information is directly or indirectly requested or is furnished on the initiative of the United States person; or

(iii) The information requested or volunteered concerns membership in, financial contributions to, or any other type of association with or involvement in the activities of such charitable or fraternal organization.

(3) This prohibition does not prohibit the furnishing of normal business information in a commercial context as defined in paragraph (d) of this section.

(4) This prohibition, like all others, applies only with respect to a United States person's activities in the interstate or foreign commerce of the United States and only when such activities are undertaken with intent to comply with, further, or support an unsanctioned foreign boycott.

#### EXAMPLES OF PROHIBITION AGAINST FURNISHING INFORMATION ABOUT ASSOCIATIONS WITH CHARITABLE OR FRATERNAL ORGANIZATIONS

The following examples are intended to give guidance in determining the circumstances in which the furnishing of information concerning associations with charitable or fraternal organizations is prohibited. They are illustrative, not comprehensive.

(i) U.S. engineering firm A receives an invitation to bid from boycotting country Y. The invitation includes a request to supply information concerning any association which A's officers have with charitable organization B, an organization which is known by A to contribute financial support to boycotted country X. A knows or has reason to know that the information is sought for boycott reasons.

A may not furnish the information.

(ii) U.S. construction company A, in an effort to establish business dealings with boycotting country Y, proposes to furnish information to Y showing that no members of its board of directors are in any way associated with charitable organizations which support boycotted country X. A's purpose is to avoid any possibility of its being blacklisted by Y.

A may not furnish the information, because A's purpose in doing so is boycott-based. It makes no difference that no specific request for the information has been made by Y.

(iii) A, a citizen of the United States, is applying for a teaching position in a school in boycotting country Y. In connection with his application, A furnishes a resume which happens to disclose his affiliation with charitable organizations. A does so completely without reference to Y's boycott and without knowledge of any boycott requirement of Y that pertains to A's application for employment.

The furnishing of a resume by A is not a boycott-related furnishing of information about his association with charitable organizations which support boycotted country X.

#### **(f) Letters of credit**

#### PROHIBITION AGAINST IMPLEMENTING LETTERS OF CREDIT CONTAINING PROHIBITED CONDITIONS OR REQUIREMENTS

(1) No United States person may pay, honor, confirm, or otherwise implement a letter of credit which contains a condition or requirement compliance with which is prohibited by this part, nor shall any United States person, as a result of the application of this section, be obligated to pay, honor or otherwise implement such a letter of credit.

(2) For purposes of this section, “implementing” a letter of credit includes:

(i) Issuing or opening a letter of credit at the request of a customer;

(ii) Honoring, by accepting as being a valid instrument of credit, any letter of credit;

(iii) Paying, under a letter of credit, a draft or other demand for payment by the beneficiary;

(iv) Confirming a letter of credit by agreeing to be responsible for payment to the beneficiary in response to a request by the issuer;

(v) Negotiating a letter of credit by voluntarily purchasing a draft from a beneficiary and presenting such draft for reimbursement to the issuer or the confirmer of the letter of credit; and

(vi) Taking any other action to implement a letter of credit.

(3) In the standard international letter of credit transaction facilitating payment for the export of goods from the United States, a bank in a foreign country may be requested by its customer to issue a revocable or irrevocable letter of credit in favor of the United States exporter. The customer usually requires, and the letter of credit provides, that the issuing (or a confirming) bank will make payment to the beneficiary against the bank’s receipt of the documentation specified in the letter of credit. Such documentation usually includes commercial and consular invoices, a bill of

lading, and evidence of insurance, but it may also include other required certifications or documentary assurances such as the origin of the goods and information relating to the carrier or insurer of the shipment.

Banks usually will not accept drafts for payment unless the documents submitted therewith comply with the terms and conditions of the letter of credit.

(4) A United States person is not prohibited under this section from advising a beneficiary of the existence of a letter of credit in his favor, or from taking ministerial actions to dispose of a letter of credit which it is prohibited from implementing.

(5) Compliance with this section shall provide an absolute defense in any action brought to compel payment of, honoring of, or other implementation of a letter of credit, or for damages resulting from failure to pay or otherwise honor or implement the letter of credit. This section shall not otherwise relieve any person from any obligations or other liabilities he may incur under other laws or regulations, except as may be explicitly provided in this section.

#### LETTERS OF CREDIT TO WHICH THIS SECTION APPLIES

(6) This prohibition, like all others, applies only with respect to a United States person’s activities taken with intent to comply with, further, or support an unsanctioned foreign boycott. In addition, it applies only when the transaction to which the letter of credit applies is in United States commerce and the beneficiary is a United States person.

#### IMPLEMENTATION OF LETTERS OF CREDIT IN THE UNITED STATES

(7) A letter of credit implemented in the United States by a United States person located in the United States, including a permanent United

States establishment of a foreign bank, will be presumed to apply to a transaction in United States commerce and to be in favor of a United States beneficiary where the letter of credit specifies a United States address for the beneficiary. These presumptions may be rebutted by facts which could reasonably lead the bank to conclude that the beneficiary is not a United States person or that the underlying transaction is not in United States commerce.

(8) Where a letter of credit implemented in the United States by a United States person located in the United States does not specify a United States address for the beneficiary, the beneficiary will be presumed to be other than a United States person. This presumption may be rebutted by facts which could reasonably lead the bank to conclude that the beneficiary is a United States person despite the foreign address.

#### IMPLEMENTATION OF LETTERS OF CREDIT OUTSIDE THE UNITED STATES

(9) A letter of credit implemented outside the United States by a United States person located outside the United States will be presumed to apply to a transaction in United States commerce and to be in favor of a United States beneficiary where the letter of credit specifies a United States address for the beneficiary and calls for documents indicating shipment from the United States or otherwise indicating that the goods are of United States origin. These presumptions may be rebutted by facts which could reasonably lead the bank to conclude that the beneficiary is not a United States person or that the underlying transaction is not in United States commerce.

(10) Where a letter of credit implemented outside the United States by a United States person located outside the United States does not specify a United States address for the beneficiary, the beneficiary will be presumed to be other than a United States person. In addition, where such a letter of credit does not call for documents indicating shipment from the United States or otherwise indicating that the

goods are of United States origin, the transaction to which it applies will be presumed to be outside United States commerce. The presumption that the beneficiary is other than a United States person may be rebutted by facts which could reasonably lead the bank to conclude that the beneficiary is a United States person. The presumption that the transaction to which the letter of credit applies is outside United States commerce may be rebutted by facts which could reasonably lead the bank to conclude that the underlying transaction is in United States commerce.

#### EXAMPLES OF THE PROHIBITION AGAINST IMPLEMENTING LETTERS OF CREDIT

The following examples are intended to give guidance in determining the circumstances in which this section applies to the implementation of a letter of credit and in which such implementation is prohibited. They are illustrative, not comprehensive.

#### IMPLEMENTATION OF LETTERS OF CREDIT IN UNITED STATES COMMERCE

(i) A, a U.S. bank located in the United States, opens a letter of credit in the United States in favor of B, a foreign company located outside the United States. The letter of credit specifies a non-U.S. address for the beneficiary.

The beneficiary is presumed to be other than a U.S. person, because it does not have a U.S. address. The presumption may be rebutted by facts showing that A could reasonably conclude that the beneficiary is a U.S. person despite the foreign address.

(ii) A, a branch of a foreign bank located in the United States, opens a letter of credit in favor of B, a foreign company located outside the United States. The letter of credit specifies a non-U.S. address for the beneficiary.

The beneficiary is presumed to be other than a U.S. person, because it does not have a U.S. address. The presumption may be rebutted by facts showing that A could reasonably conclude that the beneficiary is a U.S. person despite the foreign address.

(iii) A, a U.S. bank branch located outside the United States, opens a letter of credit in favor of B, a person with a U.S. address. The letter of credit calls for documents indicating shipment of goods from the United States.

The letter of credit is presumed to apply to a transaction in U.S. commerce and to be in favor of a U.S. beneficiary because the letter of credit specifies a U.S. address for the beneficiary and calls for documents indicating that the goods will be shipped from the United States. These presumptions may be rebutted by facts showing that A could reasonably conclude that the beneficiary is not a U.S. person or that the underlying transaction is not in U.S. commerce.

(iv) A, a U.S. bank branch located outside the United States, opens a letter of credit which specifies a beneficiary, B, with an address outside the United States and calls for documents indicating that the goods are of U.S.-origin. A knows or has reason to know that although B has an address outside the United States, B is a U.S. person.

The letter of credit is presumed to apply to a transaction in U.S. commerce, because the letter of credit calls for shipment of U.S.-origin goods. In addition, the letter of credit is presumed to be in favor of a beneficiary who is a U.S. person, because A knows or has reason to know that the beneficiary is a U.S. person despite the foreign address.

(v) A, a U.S. bank branch located outside the United States, opens a letter of credit which specifies a beneficiary with a U.S. address. The letter of credit calls for documents indicating shipment of foreign-origin goods.

The letter of credit is presumed to be in favor of a U.S. beneficiary but to apply to a transaction outside U.S. commerce, because it calls for documents indicating shipment of foreign-origin goods. The presumption of non-U.S. commerce may be rebutted by facts showing that A could reasonably conclude that the underlying transaction involves shipment of U.S.-origin goods or goods from the United States.

#### PROHIBITION AGAINST IMPLEMENTING LETTERS OF CREDIT

(i) Boycotting country Y orders goods from U.S. company B. Y opens a letter of credit with foreign bank C in favor of B. The letter of credit specifies as a condition of payment that B certify that it does not do business with boycotted country X. Foreign bank C forwards the letter of credit it has opened to U.S. bank A for confirmation.

A may not confirm or otherwise implement this letter of credit, because it contains a condition with which a U.S. person may not comply.

(ii) Same as (i), except U.S. bank A desires to advise the beneficiary, U.S. company B, of the letter of credit.

A may do so, because advising the beneficiary of the letter of credit (including the term which prevents A from implementing it) is not implementation of the letter of credit.

(iii) Same as (i), except foreign bank C sends a telegram to U.S. bank A stating the major terms and conditions of the letter of credit. The telegram does not reflect the boycott provision. Subsequently, C mails to A documents setting forth the terms and conditions of the letter of credit, including the prohibited boycott condition.

A may not further implement the letter of credit after it receives the documents, because they reflect the prohibited boycott condition in the letter of credit. A may advise the beneficiary

and C of the existence of the letter of credit (including the boycott term), and may perform any essentially ministerial acts necessary to dispose of the letter of credit.

(iv) Same as (iii), except that U.S. company B, based in part on information received from U.S. bank A, desires to obtain an amendment to the letter of credit which would eliminate or nullify the language in the letter of credit which prevents A from paying or otherwise implementing it.

Either company B or bank A may undertake, and the other may cooperate and assist in, this endeavor. A could then pay or otherwise implement the revised letter of credit, so long as the original prohibited boycott condition is of no force or effect.

(v) Boycotting country Y requests a foreign bank in Y to open a letter of credit to effect payment for goods to be shipped by U.S. supplier B, the beneficiary of the letter of credit. The letter of credit contains prohibited boycott clauses. The foreign bank forwards a copy of the letter of credit to its branch office A, in the United States.

A may advise the beneficiary but may not implement the letter of credit, because it contains prohibited boycott conditions.

(vi) Boycotting country Y orders goods from U.S. company B. U.S. bank A is asked to implement, for the benefit of B, a letter of credit which contains a clause requiring documentation that the goods shipped are not of boycotted country X origin.

A may not implement the letter of credit with a prohibited condition, and may accept only a positive certificate of origin as satisfactory documentation. (See §760.3(c) on “Import and Shipping Document Requirements.”)

(vii) [Reserved]

(viii) B is a foreign bank located outside the United States. B maintains an account with U.S. bank A, located in the United States. A letter of credit issued by B in favor of a U.S. beneficiary provides that any negotiating bank may obtain reimbursement from A by certifying that all the terms and conditions of the letter of credit have been met and then drawing against B’s account. B notifies A by cable of the issuance of a letter of credit and the existence of reimbursement authorization; A does not receive a copy of the letter of credit.

A may reimburse any negotiating bank, even when the underlying letter of credit contains a prohibited boycott condition, because A does not know or have reason to know that the letter of credit contains a prohibited boycott condition.

(ix) Same as (viii), except that foreign bank B forwards a copy of the letter of credit to U.S. bank A, which then becomes aware of the prohibited boycott clause.

A may not thereafter reimburse a negotiating bank or in any way further implement the letter of credit, because it knows of the prohibited boycott condition.

(x) Boycotting country Y orders goods from U.S. exporter B and requests a foreign bank in Y to open a letter of credit in favor of B to cover the cost. The letter of credit contains a prohibited boycott clause. The foreign bank asks U.S. bank A to advise and confirm the letter of credit. Through inadvertence, A does not notice the prohibited clause and confirms the letter of credit. A thereafter notices the clause and then refuses to honor B’s draft against the letter of credit. B sues bank A for payment.

A has an absolute defense against the obligation to make payment under this letter of credit. (Note: Examples (ix) and (x) do not alter any other obligations or liabilities of the parties under appropriate law.)

(xi) [Reserved]

(xii) Boycotting country Y orders goods from U.S. company B. A letter of credit which contains a prohibited boycott clause is opened in favor of

B by a foreign bank in Y. The foreign bank asks U.S. bank A to advise and confirm the letter of credit, which it forwards to A.

A may advise B that it has received the letter of credit (including the boycott term), but may not confirm the letter of credit with the prohibited clause.

(xiii) Same as (xii), except U.S. bank A fails to tell B that it cannot process the letter of credit. B requests payment.

A may not pay. If the prohibited language is eliminated or nullified as the result of renegotiation, A may then pay or otherwise implement the revised letter of credit.

(xiv) U.S. bank A receives a letter of credit in favor of U.S. beneficiary B. The letter of credit requires B to certify that he is not blacklisted.

A may implement such a letter of credit, but it may not insist that the certification be furnished, because by so insisting it would be refusing to do business with a blacklisted person in compliance with a boycott.

(xv) A, a U.S. bank located in the U.S. opens a letter of credit in favor of U.S. beneficiary B for B's sale of goods to boycotting country Y. The letter of credit contains no boycott conditions, but A knows that Y customarily requires the seller of goods to certify that it has dealt with no blacklisted supplier. A, therefore, instructs B that it will not make payment under the letter of credit unless B makes such a certification.

A's action in requiring the certification from B constitutes action to require another person to refuse to do business with blacklisted persons.

(xvi) A, a U.S. bank located in the U.S., opens a letter of credit in favor of U.S. beneficiary B for B's sale of goods to boycotting country Y. The letter of credit contains no boycott conditions, but A has actual knowledge that B has agreed to supply a certification to Y that it has not dealt with blacklisted firms, as a condition of receiving the letter of credit in its favor.

A may not implement the letter of credit, because it knows that an implicit condition of the credit is a condition with which B may not legally comply.

(xvii) Boycotting country Y orders goods from U.S. company B. Y opens a letter of credit with foreign bank C in favor of B. The letter of credit includes the statement, "Do not negotiate with blacklisted banks." C forwards the letter of credit it has opened to U.S. bank A for confirmation.

A may not confirm or otherwise implement this letter of credit, because it contains a condition with which a U.S. person may not comply.

### **§ 760.3 EXCEPTIONS TO PROHIBITIONS**

#### ***(a) Import requirements of a boycotting country***

#### **COMPLIANCE WITH IMPORT REQUIREMENTS OF A BOYCOTTING COUNTRY**

(1) A United States person, in supplying goods or services to a boycotting country, or to a national or resident of a boycotting country, may comply or agree to comply with requirements of such boycotting country which prohibit the import of:

(i) Goods or services from the boycotted country;

(ii) Goods produced or services provided by any business concern organized under the laws of the boycotted country; or

(iii) Goods produced or services provided by nationals or residents of the boycotted country.

(2) A United States person may comply or agree to comply with such import requirements whether or not he has received a specific request to comply. By its terms, this exception applies only to transactions involving imports into a boycotting country. A United States person may not, under this exception, refuse on an across-the-board basis to do business with a boycotted country or a national or resident of a boycotted country.

(3) In taking action within the scope of this exception, a United States person is limited in the types of boycott-related information he can supply. (See §760.2(d) of this part on “Furnishing Information About Business Relationships with Boycotted Countries or Blacklisted Persons” and paragraph (c) of this section on “Import and Shipping Document Requirements.”)

#### EXAMPLES OF COMPLIANCE WITH IMPORT REQUIREMENTS OF A BOYCOTTING COUNTRY

The following examples are intended to give guidance in determining the circumstances in which compliance with the import requirements of a boycotting country is permissible. They are illustrative, not comprehensive.

(i) A, a U.S. manufacturer, receives an order from boycotting country Y for its products. Country X is boycotted by country Y, and the import laws of Y prohibit the importation of goods produced or manufactured in X. In filling this type of order, A would usually include some component parts produced in X.

For the purpose of filling this order, A may substitute comparable component parts in place

of parts produced in X, because the import laws of Y prohibit the importation of goods manufactured in X.

(ii) Same as (i), except that A’s contract with Y expressly provides that in fulfilling the contract A “may not include parts or components produced or manufactured in boycotted country X.”

A may agree to and comply with this contract provision, because Y prohibits the importation of goods from X. However, A may not furnish negative certifications regarding the origin of components in response to import and shipping document requirements.

(iii) A, a U.S. building contractor, is awarded a contract to construct a plant in boycotting country Y. A accepts bids on goods required under the contract, and the lowest bid is made by B, a business concern organized under the laws of X, a country boycotted by Y. Y prohibits the import of goods produced by companies organized under the laws of X.

For purposes of this contract, A may reject B’s bid and accept another, because B’s goods would be refused entry into Y because of Y’s boycott against X.

(iv) Same as (iii), except that A also rejects the low bid by B for work on a construction project in country M, a country not boycotted by Y.

This exception does not apply, because A’s action is not taken in order to comply with Y’s requirements prohibiting the import of products from boycotted country X.

(v) A, a U.S. management consulting firm, contracts to provide services to boycotting country Y. Y requests that A not employ residents or nationals of boycotted country X to provide those services.

A may agree, as a condition of the contract, not to have services furnished by nationals or residents of X, because importation of such services is prohibited by Y.

(vi) A, a U.S. company, is negotiating a contract to supply machine tools to boycotting country Y. Y insists that the contract contain a provision whereby A agrees that none of the machine tools will be produced by any business concern owned by nationals of boycotted country X, even if the business concern is organized under the laws of a non-boycotted country.

A may not agree to this provision, because it is a restriction on the import of goods produced by business concerns owned by nationals of a boycotted country even if the business concerns themselves are organized under the laws of a non-boycotted country.

***(b) Shipment of goods to a boycotting country***

**COMPLIANCE WITH REQUIREMENTS  
REGARDING THE SHIPMENT OF GOODS  
TO A BOYCOTTING COUNTRY**

(1) A United States person, in shipping goods to a boycotting country, may comply or agree to comply with requirements of that country which prohibit the shipment of goods:

(i) On a carrier of the boycotted country; or

(ii) By a route other than that prescribed by the boycotting country or the recipient of the shipment.

(2) A specific request that a United States person comply or agree to comply with requirements concerning the use of carriers of a boycotted country is not necessary if the United States person knows, or has reason to know, that the use of such carriers for shipping goods to the boycotting country is prohibited by requirements of the boycotting country. This exception applies

whether a boycotting country or the purchaser of the shipment:

(i) Explicitly states that the shipment should not pass through a port of the boycotted country; or

(ii) Affirmatively describes a route of shipment that does not include a port in the boycotted country.

(3) For purposes of this exception, the term “carrier of a boycotted country” means a carrier which flies the flag of a boycotted country or which is owned, chartered, leased, or operated by a boycotted country or by nationals or residents of a boycotted country.

**EXAMPLES OF COMPLIANCE WITH THE  
SHIPPING REQUIREMENTS  
OF A BOYCOTTING COUNTRY**

The following examples are intended to give guidance in determining the circumstances in which compliance with import and shipping document requirements of a boycotting country is permissible. They are illustrative, not comprehensive.

(i) A is a U.S. exporter from whom boycotting country Y is importing goods. Y directs that the goods not pass through a port of boycotted country X.

A may comply with Y’s shipping instructions, because they pertain to the route of shipment of goods being shipped to Y.

(ii) A, a U.S. fertilizer manufacturer, receives an order from boycotting country Y for fertilizer. Y specifies in the order that A may not ship the fertilizer on a carrier of boycotted country X.

A may comply with this request, because it pertains to the carrier of a boycotted country.

(iii) B, a resident of boycotting country Y, orders textile goods from A, a U.S. distributor, specifying that the shipment must not be made on a carrier owned or leased by nationals of boycotted country X and that the carrier must not pass through a port of country X enroute to Y.

A may comply or agree to comply with these requests, because they pertain to the shipment of goods to Y on a carrier of a boycotted country and the route such shipment will take.

(iv) Boycotting country Y orders goods from A, a U.S. retail merchant. The order specifies that the goods shipped by A “may not be shipped on a carrier registered in or owned by boycotted country X.”

A may agree to this contract provision, because it pertains to the carrier of a boycotted country.

(v) Boycotting country Y orders goods from A, a U.S. pharmaceutical company, and requests that the shipment not pass through a port of country P, which is not a country boycotted by Y.

This exception does not apply in a non-boycotting situation. A may comply with the shipping instructions of Y, because in doing so he would not violate any prohibition of this part.

(vi) Boycotting country Y orders goods from A, a U.S. manufacturer. The order specifies that goods shipped by A “must not be shipped on vessels blacklisted by country Y”.

A may not agree to comply with the this condition because it is not a restriction limited to the use of carriers of the boycotted country.

***(c) Import and shipping document requirements***

**COMPLIANCE WITH IMPORT AND SHIPPING DOCUMENT REQUIREMENTS**

**OF A BOYCOTTING COUNTRY**

(1) A United States person, in shipping goods to a boycotting country, may comply or agree to comply with import and shipping document requirements of that country, with respect to:

(i) The country or origin of the goods;

(ii) The name and nationality of the carrier;

(iii) The route of the shipment;

(iv) The name, residence, or address of the supplier of the shipment;

(v) The name, residence, or address of the provider of other services.

(2) Such information must be stated in positive, non-blacklisting, non-exclusionary terms except for information with respect to the names or nationalities of carriers or routes of shipment, which may continue to be stated in negative terms in conjunction with shipments to a boycotting country, in order to comply with precautionary requirements protecting against war risks or confiscation.

**EXAMPLES OF COMPLIANCE WITH IMPORT AND SHIPPING DOCUMENT REQUIREMENTS**

The following examples are intended to give guidance in determining the circumstances in which compliance with the import requirements of a boycotting country is permissible. They are illustrative, not comprehensive.

(i) Boycotting country Y contracts with A, a U.S. petroleum equipment manufacturer, for certain equipment. Y requires that goods being imported into Y must be accompanied by a certification that the goods being supplied did not originate in boycotted country X.

A may not supply such a certification in negative terms but may identify instead the

country of origin of the goods in positive terms only.

(ii) Same as (i), except that Y requires that the shipping documentation accompanying the goods specify the country of origin of the goods.

A may furnish the information.

(iii) [Reserved]

(iv) A, a U.S. apparel manufacturer, has contracted to sell certain of its products to B, a national of boycotting country Y. The form that must be submitted to customs officials of Y requires the shipper to certify that the goods contained in the shipment have not been supplied by “blacklisted” persons.

A may not furnish the information in negative terms but may certify, in positive terms only, the name of the supplier of the goods.

(v) Same as (iv), except the customs form requires certification that the insurer and freight forwarder used are not “blacklisted.”

(viii) Same as (vi), except that the contract requires that the shipping documents certify the name of the carrier being used.

A may, at any time, supply or agree to supply the requested documentation regarding the name of the carrier, either in negative or positive terms.

(ix) Same as (vi), except that the contract requires a certification that the carrier will not call at a port in boycotted country X before making delivery in Y.

Such a certification, which is a reasonable requirement to protect against war risks or confiscation, may be furnished at any time.

(x) Same as (vi), except that the contract requires that the shipping documents indicate the name of the insurer and freight forwarder.

A may not comply with the request but may supply a certification stating, in positive terms only, the names of the insurer and freight forwarder.

(vi) A, a U.S. petrochemical manufacturer, executes a sales contract with B, a resident of boycotting country Y. A provision of A’s contract with B requires that the bill of lading and other shipping documents contain certifications that the goods have not been shipped on a “blacklisted” carrier.

A may not agree to supply a certification that the carrier is not “blacklisted” but may certify the name of the carrier in positive terms only.

(vii) Same as (vi), except that the contract requires certification that the goods will not be shipped on a carrier which flies the flag of, or is owned, chartered, leased, or operated by boycotted country X, or by nationals or residents of X.

Such a certification, which is a reasonable requirement to protect against war risks or confiscation, may be furnished at any time.

A may comply at any time, because the statement is not required to be made in negative or blacklisting terms.

(xi) A, a U.S. exporter, is negotiating a contract to sell bicycles to boycotting country Y. Y insists that A agree to certify that the goods will not be shipped on a vessel which has ever called at a port in boycotted country X.

As distinguished from a certification that goods will not be shipped on a vessel which will call enroute at a port of boycotted country X, such a certification is not a reasonable requirement to protect against war risks or confiscation, and, hence, may not be supplied.

(xii) Same as (xi), except that Y insists that A agree to certify that the goods will not be

shipped on a carrier that is ineligible to enter Y's waters.

Such a certification, which is not a reasonable requirement to protect against war risks or confiscation may not be supplied.

*(d) Unilateral and Specific Selection*

COMPLIANCE WITH UNILATERAL AND  
SPECIFIC SELECTION

(1) A United States person may comply or agree to comply in the normal course of business with the unilateral and specific selection by a boycotting country, a national of a boycotting country, or a resident of a boycotting country (including a United States person who is a bona fide resident of a boycotting country) of carriers, insurers, suppliers of services to be performed within the boycotting country, or specific goods, provided that with respect to services, it is necessary and customary that a not insignificant part of the services be performed within the boycotting country. With respect to goods, the items, in the normal course of business, must be identifiable as to their source or origin at the

(3) In order for this exception to apply, the selection with which a United States person wishes to comply must be unilateral and specific.

(4) A "specific" selection is one which is stated in the affirmative and which specifies a particular supplier of goods or services.

(5) A "unilateral" selection is one in which the discretion in making the selection is exercised by the boycotting country buyer. If the United States person who receives a unilateral selection has provided the buyer with any boycott-based assistance (including information for purposes of helping the buyer select someone on a boycott basis), then the buyer's selection is not unilateral, and compliance with that selection by a United States person does not come within this exception.

time of their entry into the boycotting country by (a) uniqueness of design or appearance or (b) trademark, trade name, or other identification normally on the items themselves, including their packaging.

(2) This exception pertains to what is permissible for a United States person who is the recipient of a unilateral and specific selection of goods or services to be furnished by a third person. It does not pertain to whether the act of making such a selection is permitted; that question is covered, with respect to United States persons, in paragraph (g) of this section on "Compliance with Local Law." Nor does it pertain to the United States person who is the recipient of an order to supply its own goods or services. Nothing in this part prohibits or restricts a United States person from filling an order himself, even if he is selected by the buyer on a boycott basis (e.g., because he is not blacklisted), so long as he does not himself take any action prohibited by this part.

UNILATERAL AND SPECIFIC CHARACTER  
OF THE SELECTION

(6) The provision of so-called "pre-selection" or "pre-award" services, such as providing lists of qualified suppliers, subcontractors, or bidders, does not, in and of itself, destroy the unilateral character of a selection, provided such services are not boycott-based. Lists of qualified suppliers, for example, must not exclude anyone because he is blacklisted. Moreover, such services must be of the type customarily provided in similar transactions by the firm (or industry of which the firm is a part) as measured by the practice in non-boycotting as well as boycotting countries. If such services are not customarily provided in similar transactions or such services are provided in such a way as to exclude blacklisted persons from participating in a transaction or diminish their opportunity for such participation, then the services may not be provided without destroying the unilateral character of any subsequent selection.

### SELECTION TO BE MADE BY BOYCOTTING COUNTRY RESIDENT

(7) In order for this exception to be available, the unilateral and specific selection must have been made by a boycotting country, or by a national or resident of a boycotting country. Such a resident may be a United States person. For purposes of this exception, a United States person will be considered a resident of a boycotting country only if he is a bona fide resident. A United States person may be a bona fide resident of a boycotting country even if such person's residency is temporary.

(8) Factors that will be considered in determining whether a United States person is a bona fide resident of a boycotting country include:

- (i) Physical presence in the country;
- (ii) Whether residence is needed for legitimate business reasons;
- (iii) Continuity of the residency;
- (iv) Intent to maintain the residency;
- (v) Prior residence in the country;
- (vi) Size and nature of presence in the country;
- (vii) Whether the person is registered to do business or incorporated in the country;
- (viii) Whether the person has a valid work visa; and
- (ix) Whether the person has a similar presence in both boycotting and non-boycotting foreign countries in connection with similar business activities.

Note to paragraph (d)(8) of this section: No one of the factors is dispositive. All the circumstances will be examined closely to

ascertain whether there is, in fact, a bona fide residency. Residency established solely for purposes of avoidance of the application of this part, unrelated to legitimate business needs, does not constitute bona fide residency.

(9) The boycotting country resident must be the one actually making the selection. If a selection is made by a non-resident agent, parent, subsidiary, affiliate, home office or branch office of a boycotting country resident, it is not a selection by a resident within the meaning of this exception.

(10) A selection made solely by a bona fide resident and merely transmitted by another person to a United States person for execution is a selection by a bona fide resident within the meaning of this exception.

### DUTY OF INQUIRY

(11) If a United States person receives, from another person located in the United States, what may be a unilateral selection by a boycotting country customer, and knows or has reason to know that the selection is made for boycott reasons, he has a duty to inquire of the transmitting person to determine who actually made the selection. If he knows or has reason to know that the selection was made by other than a boycotting country, or a national or resident of a boycotting country, he may not comply. A course or pattern of conduct which a United States person recognizes or should recognize as consistent with boycott restrictions will create a duty to inquire.

(12) If the United States person does not know or have reason to know that the selection it receives is boycott-based, its compliance with such a selection does not offend any prohibition and this exception is not needed.

### SELECTION OF SERVICES

(13) This exception applies only to compliance with selections of certain types of suppliers of

services-carriers, insurers, and suppliers of services to be performed “within the boycotting country.” Services to be performed wholly within the United States or wholly within any country other than the boycotting country are not covered.

(14) For purposes of this part, services are to be performed “within the boycotting country” only if they are of a type which would customarily be performed by suppliers of those services within the country of the recipient of those services, and if the part of the services performed within the boycotting country is a necessary and not insignificant part of the total services performed.

(15) What is “customary and necessary” for these purposes depends on the usual practice of the supplier of the services (or the industry of which he is a part) as measured by the practice in non-boycotting as well as boycotting countries, except where such practices are instituted to accommodate this part.

#### SELECTION OF GOODS

(16) This exception applies only to compliance with selections of certain types of goods--goods that, in the normal course of business, are identifiable as to their source or origin at the time of their entry into the boycotting country. The definition of “specifically identifiable goods” is the same under this section as it is in paragraph (g) of this section on “Compliance with Local Law.”

(17) Goods “specifically identifiable” in the normal course of business are those items which at the time of their entry into a boycotting country are identifiable as to source or origin by uniqueness of design or appearance; or trademark, trade name, or other identification normally on the items themselves, including their packaging. Goods are “specifically identifiable” in the normal course of business if their source or origin is ascertainable by inspection of the items themselves, including their packaging, regardless of whether

inspection takes place. Goods are not considered to be “specifically identifiable” in the normal course of business if a trademark, trade name, or other form of identification not normally present is added to the items themselves, including their packaging, to accommodate this part.

#### GENERAL

(18) If a unilateral selection meets the conditions described in paragraph (d) of this section, the United States person receiving the unilateral selection may comply or agree to comply, even if he knows or has reason to know that the selection was boycott-based. However, no United States person may comply or agree to comply with any unilateral selection if he knows or has reason to know that the purpose of the selection is to effect discrimination against any United States person on the basis of race, religion, sex, or national origin.

#### EXAMPLES OF COMPLIANCE WITH A UNILATERAL SELECTION

The following examples are intended to give guidance in determining what constitutes a unilateral selection and the circumstances in which compliance with such a selection is permissible. They are illustrative, not comprehensive.

#### SPECIFIC AND UNILATERAL SELECTION

(i) A, a U.S. manufacturer of road-grading equipment, is asked by boycotting country Y to ship goods to Y on U.S. vessel B, a carrier which is not blacklisted by Y. A knows or has reason to know that Y’s selection of B is boycott-based.

A may comply with Y’s request, or may agree to comply as a condition of the contract, because the selection is specific and unilateral.

(ii) A, a U.S. contractor building an industrial facility in boycotting country Y is asked by B, a

resident of Y, to use C as the supplier of air conditioning equipment to be used in the facility. C is not blacklisted by country Y. A knows or has reason to know that B's request is boycott-based.

A may comply with B's request, or may agree to comply as a condition of the contract, because the selection of C is specific and unilateral.

(iii) A, a U.S. manufacturer of automotive equipment, is asked by boycotting country Y not to ship its goods to Y on U.S. carriers, B, C, or D. Carriers B, C, and D are blacklisted by boycotting country Y. A knows or has reason to know that Y's request is boycott-based.

A may not comply or agree to comply with Y's request, because no specific selection of any particular carrier has been made.

(iv) A, a U.S. exporter shipping goods ordered by boycotting country Y, is provided by Y with a list of eligible U.S. insurers from which A may choose in insuring the shipment of its goods. A knows or has reason to know that the list was compiled on a boycott basis.

A may not comply or agree to comply with Y's request that A choose from among the eligible insurers, because no specific selection of any particular insurer has been made.

(v) A, a U.S. aircraft manufacturer, is negotiating to sell aircraft to boycotting country Y. During the negotiations, Y asks A to identify the company which normally manufactures the engines for the aircraft. A responds that they are normally manufactured by U.S. engine manufacturer B. B is blacklisted by Y. In making the purchase, Y specifies that the engines for the aircraft should be supplied by U.S. engine manufacturer C.

A may comply or agree to comply with Y's selection of C, because Y's selection is unilateral and specific.

(vi) A, a U.S. construction firm, is retained by an agency of boycotting country Y to build a pipeline. Y requests A to suggest qualified engineering firms to be used on-site in the construction of the pipeline. It is customary for A, regardless of where it conducts its operations, to identify qualified engineering firms to its customers so that its customers may make their own selection of the firm to be engaged. Choice of engineering firm is customarily a prerogative of the customer. A provides a list of five engineering firms, B-F, excluding no firm because it may be blacklisted, and then confers with and gives its recommendations to Y. A recommends C, because C is the best qualified. Y then selects B, because C is blacklisted.

A may comply with Y's selection of B, because the boycott-based decision is made by Y and is unilateral and specific. Since A's pre-award services are of the kind customarily provided in these situations, and since they are provided without reference to the boycott, they do not destroy the unilateral character of Y's selection.

(vii) A, a U.S. aircraft manufacturer, has an order to supply a certain number of planes to boycotting country Y. In connection with the order, Y asks A to supply it with a list of qualified aircraft tire manufacturers so that Y can select the tires to be placed on the planes. This is a highly unusual request, since, in A's worldwide business operations, choice of tires is customarily made by the manufacturer, not the customer. Nonetheless, A supplies a list of tire manufacturers, B, C, D, and E. Y chooses tire manufacturer B because B is not blacklisted. Had A, as is customary, selected the tires, company C would have been chosen. C happens to be blacklisted, and A knows that C's blacklist status was the reason for Y's selection of B.

A's provision of a list of tire manufacturers for Y to choose from destroys the unilateral character of Y's selection, because such a pre-selection service is not customary in A's worldwide business operations.

(viii) A, a U.S. aircraft manufacturer, receives an order from U.S. company C, which is located in the United States, for the sale of aircraft to company D, a U.S. affiliate of C. D is a bona fide resident of boycotting country Y. C instructs A that “in order to avoid boycott problems,” A must use engines that are manufactured by company B, a company that is not blacklisted by Y. Engines built by B are unique in design and also bear B’s trade name.

Since A has reason to know that the selection is boycott-based, he must inquire of C whether the selection was in fact made by D. If C informs A that the selection was made by D, A may comply.

(ix) Same as (viii), except that C initially states that the designation was unilaterally and specifically made by D.

A may accept C’s statement without further investigation and may comply with the selection, because C merely transmitted D’s unilateral and specific selection.

(x) Same as (ix), except that C informs A that it, C, has selected B on behalf of or as an agent of its affiliated company resident in the boycotting country.

A may not comply with this selection, because the decision was not made by a resident of the boycotting country.

(xi) A, a U.S. management consulting firm, is advising boycotting country Y on the selection of a contracting firm to construct a plant for the manufacture of agricultural chemicals. As is customary in its business, A compiles a list of potential contractors on the basis of its evaluation of the capabilities of the respective candidates to perform the job. A has knowledge that company B is blacklisted, but provides Y with the names of companies B, C, D, and E, listing them in order of their qualifications. Y instructs A to negotiate with C.

A may comply with Y’s instruction, because Y’s selection is unilateral and specific.

(xii) A, a U.S. exporter, is asked by boycotting country Y not to ship goods on carriers B, C, or D, which are owned by nationals of and are registered in country P, a country not boycotted by Y.

A may comply or agree to comply with Y’s request even though the selection is not specific, because A does not know or have reason to know that the request is boycott-based. (NOTE: In example (xii), A has violated no prohibition, because it does not know or have reason to know that Y’s instruction is boycott-based. Therefore, A could not act with the requisite intent to comply with the boycott.)

(xiii) A, a U.S. construction company, receives a contract to construct a hotel in boycotting country Y. As part of the contract, A is required to furnish Y with lists of qualified suppliers of various specifically identifiable items. A compiles lists of various qualified suppliers wholly without reference to the boycott, and thereafter Y instructs A to negotiate with, enter into contracts with, and arrange for delivery from each of the suppliers which Y designates. A knows that Y’s choices are made on a boycott basis.

A may comply with Y’s selections and carry out these post-award services for Y, because Y’s selections were unilateral and specific and A’s pre-award services were provided without reference to Y’s boycott.

#### EXAMPLES OF BOYCOTTING COUNTRY BUYER

(The factors in determining whether a United States person is a “bona fide resident” of a boycotting country are the same as in paragraph (g) of this section on “Compliance with Local Law.” See also the examples in that section.)

(i) A, a U.S. exporter, is asked by B, a U.S. person who is a bona fide resident of boycotting country Y, to ship goods on U.S. carrier C. C is not blacklisted by Y, and A knows that B has chosen on a boycott basis in order to comply with Y's boycott laws.

A may comply or agree to comply with B's request, because B is a bona fide resident of Y.

(ii) A is a U.S. computer company whose subsidiary, B, is a bona fide resident of boycotting country Y. A receives an order from B for specific, identifiable products manufactured by company C in connection with a computer which B is installing in Y.

A may comply or agree to comply with B's unilateral and specific selection, so long as the discretion was in fact exercised by B, not A. (NOTE: Unilateral selection transactions involving related United States persons will be scrutinized carefully to ensure that the selection was in fact made by the bona fide resident of the boycotting country.)

(iii) A, a U.S. engineering firm, has chief engineer B as its resident engineer on a dam construction site in boycotting country Y. B's presence at the site is necessary in order to ensure proper supervision of the project. In order to comply with local law, B selects equipment supplier C rather than D, who is blacklisted, and directs A to purchase certain specific equipment from C for use in the project.

A may comply with this unilateral selection, because the decision was made by a bona fide resident of Y.

(As noted above, unilateral selections involving related United States persons will be scrutinized carefully to ensure that the selection was in fact made by the bona fide resident of the boycotting country.)

(iv) B, a branch of U.S. bank A, is located in boycotting country Y. B is in need of office supplies and asks the home office in New York

to make the necessary purchases. A contacts C, a U.S. company in the office supply business, and instructs C to purchase various items from certain specific companies and ship them directly to B. In order to avoid any difficulties for B with respect to Y's boycott laws, A is careful to specify only non-blacklisted companies or suppliers. C knows that that was A's purpose. C may not comply with A's instruction, because the selection of suppliers was not made by a resident of a boycotting country.

(v) Same as (iv), except that A has given standing instructions to B that whenever it needs office supplies, it should specify certain suppliers designated by A. To avoid running afoul of Y's boycott laws, A's designations consist exclusively of non-blacklisted firms. A receives an order from B with the suppliers designated in accordance with A's instructions.

A may not comply with B's selection, because the selection was not in fact made by a bonafide resident of the boycotting country, but by a person located in the United States.

#### EXAMPLES OF SUPPLIERS OF SERVICES

(i) A, a U.S. manufacturer, is asked by boycotting country Y to ship goods to Y on U.S. vessel B, a carrier which is not blacklisted by Y.

A may comply or agree to comply with Y's request, because compliance with the unilateral and specific selection of carriers is expressly permitted under this exception.

(ii) A, a U.S. exporter shipping goods ordered by C, a national of boycotting country Y, is asked by C to insure the shipment through U.S. insurer B.

A may comply or agree to comply with C's request, because compliance with the unilateral and specific selection of an insurer is expressly permitted under this exception.

(iii) A, a U.S. construction company, is hired by C, an agency of the government of boycotting country Y, to build a power plant in Y. C specifies that A should subcontract the foundation work to U.S. contractor B. Part of the foundation design work will be done by B in the United States.

A may comply or agree to comply with Y's designation, because a necessary and not insignificant part of B's services are to be performed within the boycotting country, and such services are customarily performed on-site.

(iv) A, a U.S. contractor, is engaged by boycotting country Y to build a power plant. Y specifies that U.S. architectural firm B should be retained by A to design the plant. In order to design the plant, it is essential that B's personnel visit and become familiar with the site, although the bulk of the design and drawing work will be done in the United States.

A may comply or agree to comply with Y's unilateral and specific selection of architectural firm B, because a necessary and not insignificant part of B's services are to be performed within Y, and such on-site work is customarily involved in the provision of architectural services. The fact that the bulk of the actual work may be performed in the United States is irrelevant since the part to be performed within Y is necessary to B's effective performance.

(v) Same as (iv), except that Y specifies that the turbine for the power plant should be designed by U.S. engineer C. It is neither customary nor necessary for C to visit the site in order to do any of his work, but C has informed A that he would probably want to visit the site in Y if he were selected for the job.

A may not comply or agree to comply with Y's request, because, in the normal course of business, it is neither customary nor necessary for engineer C's services to be performed in Y.

(vi) A, a U.S. aircraft manufacturer, receives a contract from boycotting country Y to manufacture jet engines for Y's use. Y specifies that the engines should be designed by U.S. industrial engineering firm B.

A may not comply or agree to comply with Y's request, because, in the normal course of business, the services will not be performed in Y.

(vii) U.S. company A has a contract to supply specially designed road graders to boycotting country Y. Y has instructed A that it should engage engineering firm B in the design work rather than engineering firm C, which A normally uses, because C is blacklisted. When A contacts B, B informs A that one of B's personnel customarily visits the location in which any equipment B designs is used after it is in use, in order to determine how good a design job B has done. Such visits are necessary from B's point of view to provide a check on the quality of its work, and they are necessary from Y's point of view because they make it possible for Y to discuss possible design changes should deficiencies be detected.

A may not comply with Y's selection of B, because the services which B would perform in Y are an insignificant part of the total services to be performed by B.

#### EXAMPLES OF SPECIFICALLY IDENTIFIABLE GOODS

(The test of what constitutes "specifically identifiable goods" under this exception also applies to the term "specifically identifiable goods" as used in paragraph (g) of this section on "Compliance with Local Law.")

(i) A, a U.S. contractor, is constructing an apartment complex, on a turnkey basis, for boycotting country Y. Y instructs A to use only kitchen appliances manufactured by U.S. company B in completing the project. The

appliances normally bear the manufacturer's name and trademark.

A may comply with Y's selection of B, because Y's unilateral and specific selection is of goods identifiable as to source or origin in the normal course of business at the time of their entry into Y.

(ii) Same as (i), except that Y directs A to use lumber manufactured only by U.S. company C. In the normal course of business, C neither stamps its name on the lumber nor identifies itself as the manufacturer on the packaging. In addition, normal export packaging does not identify the manufacturer.

A may not comply with Y's selection, because the goods selected are not identifiable by source or origin in the normal course of business at the time of their entry into Y.

(iii) B, a U.S. contractor who is a bona fide resident of boycotting country Y, is engaged in building roads. B retains the services of A, a U.S. engineering firm, to assist it in procuring construction equipment. B directs A to purchase road graders only from manufacturer C because other road grader manufacturers which A might use are blacklisted. C's road graders normally bear C's insignia.

A may comply with B's selection of C, because the goods selected are identifiable by source or origin in the normal course of business at the time of their entry into Y.

(iv) A, a U.S. company, manufactures computer-operated machine tools. The computers are mounted on a separate bracket on the side of the equipment and are readily identifiable by brand name imprinted on the equipment. There are five or six U.S. manufacturers of such computers which will function interchangeably to operate the machine tools manufactured by A. B, a resident of boycotting country Y, contracts to buy the machine tools manufactured by A on the

condition that A incorporate, as the computer drive, a computer manufactured by U.S. company C. B's designation of C is made to avoid boycott problems which could be caused if computers manufactured by some other company were used.

A may comply with B's designation of C, because the goods selected are identifiable by source or origin in the normal course of business at the time of their entry into Y.

(v) A, a U.S. wholesaler of electronic equipment, receives an order from B, a U.S. manufacturer of radio equipment, who is a bona fide resident of boycotting country Y. B orders a variety of electrical components and specifies that all transistors must be purchased from company C, which is not blacklisted by Y. The transistors requested by B do not normally bear the name of the manufacturer; however, they are typically shipped in cartons, and C's name and logo appear on the cartons.

A may comply with B's selection, because the goods selected by B are identifiable as to source or origin in the normal course of business at the time of their entry into Y by virtue of the containers or packaging used.

(vi) A, a U.S. computer manufacturer, receives an order for a computer from B, a university in boycotting country Y. B specifies that certain integrated circuits incorporated in the computer must be supplied by U.S. electronics company C. These circuits are incorporated into the computer and are not visible without disassembling the computer.

A may not comply or agree to comply with B's specific selection of these components, because they are not identifiable as to their source or origin in the normal course of business at the time of their entry into Y.

(vii) A, a U.S. clothing manufacturer, receives an order for shirts from B, a retailer resident in boycotting country Y. B specifies that the shirts

are to be manufactured from cotton produced by U.S. farming cooperative C. Such shirts will not identify C or the source of the cotton.

A may not comply or agree to comply with B's designation, because the cotton is not identifiable as to source or origin in the normal course of business at the time of entry into Y.

(viii) A, a U.S. contractor, is retained by B, a construction firm located in and wholly-owned by boycotting country Y, to assist B in procuring construction materials. B directs A to purchase a range of materials, including hardware, tools, and trucks, all of which bear the name of the manufacturer stamped on the item. In addition, B directs A to purchase steel beams manufactured by U.S. company C. The name of manufacturer C normally does not appear on the steel itself or on its export packaging.

A may comply with B's selection of the hardware, tools, and trucks, because they are identifiable as to source or origin in the normal course of business at the time of entry into Y. A may not comply with B's selection of steel beams, because the goods are not identifiable as to source or origin by trade name, trademark, uniqueness or packaging at the time of their entry into Y.

#### EXAMPLE OF DISCRIMINATION ON BASIS OF RACE, RELIGION, SEX, OR NATIONAL ORIGIN

(i) A, a U.S. paper manufacturer, is asked by boycotting country Y to ship goods to Y on U.S. vessel B. Y states that the reason for its choice of B is that, unlike U.S. vessel C, B is not owned by persons of a particular faith.

A may not comply or agree to comply with Y's request, because A has reason to know that the purpose of the selection is to effect religious discrimination against a United States person.

#### *(e) Shipment and transshipment of exports pursuant to a boycotting country's requirements*

#### COMPLIANCE WITH A BOYCOTTING COUNTRY'S REQUIREMENTS REGARDING SHIPMENT AND TRANS-SHIPMENT OF EXPORTS

(1) A United States person may comply or agree to comply with the export requirements of a boycotting country with respect to shipments or transshipments of exports to:

- (i) A boycotted country;
- (ii) Any business concern of a boycotted country;
- (iii) Any business concern organized under the laws of a boycotted country; or
- (iv) Any national or resident of a boycotted country.

(2) This exception permits compliance with restrictions which a boycotting country may place on direct exports to a boycotted country; on indirect exports to a boycotted country (i.e., those that pass via third parties); and on exports to residents, nationals, or business concerns of, or organized under the laws of, a boycotted country, including those located in third countries.

(3) This exception also permits compliance with restrictions which a boycotting country may place on the route of export shipments when the restrictions are reasonably related to preventing the export shipments from coming into contact with or under the jurisdiction of the boycotted country. This exception applies whether a boycotting country or the vendor of the shipment:

- (i) Explicitly states that the shipment should not pass through the boycotted country enroute to its final destination; or

(ii) Affirmatively describes a route of shipment that does not include the boycotted country.

(4) A United States person may not, under this exception, refuse on an across-the-board basis to do business with a boycotted country or a national or resident of a boycotted country.

EXAMPLES OF COMPLIANCE  
WITH A BOYCOTTING COUNTRY'S  
REQUIREMENTS REGARDING SHIPMENT  
OR TRANSSHIPMENT OF EXPORTS

The following examples are intended to give guidance in determining the circumstances in which compliance with the export requirements of a boycotting country is permissible. They are illustrative, not comprehensive.

(i) A, a U.S. petroleum company, exports petroleum products to 20 countries, including the United States, from boycotting country Y. Country Y's export regulations require that products not be exported from Y to boycotted country X.

A may agree to and comply with Y's regulations with respect to the export of goods from Y to X.

(ii) Same as (i), except that Y's export regulations require that goods not be exported from boycotting country Y to any business concern organized under the laws of boycotted country X.

A may agree to and comply with Y's regulations with respect to the export of goods from Y to a business concern organized under the laws of X, even if such concern is located in a country not involved in Y's boycott of X.

(iii) B, the operator of a storage facility in country M, contracts with A, a U.S. carrier, for the shipment of certain goods manufactured in boycotting country Y. A's contract with B contains a provision stating that the goods to be

transported may not be shipped or transshipped to boycotted country X. B informs A that this provision is a requirement of C, the manufacturer of goods who is a resident of boycotting country Y. Country M is not boycotted by Y.

A may agree to and comply with this provision, because such a provision is required by the export regulations of boycotting country Y in order to prevent shipment of Y-origin goods to a country boycotted by Y.

(iv) A, a U.S. petroleum refiner located in the United States, purchases crude oil from boycotting country Y. A has a branch operation in boycotted country X. Y requires, as a condition of sale, that A agree not to ship or transship the crude oil or products refined in Y to A's branch in X.

A may agree to and comply with these requirements, because they are export requirements of Y designed to prevent Y-origin products from being shipped to a boycotted country.

(v) A, a U.S. company, has a petrochemical plant in boycotting country Y. As a condition of securing an export license from Y, A must agree that it will not ship or permit transshipment of any of its output from the plant in Y to any companies which Y lists as being owned by nationals of boycotted country X.

A may agree to this condition, because it is a restriction designed to prevent Y-origin products from being exported to a business concern of boycotted country X or to nationals of boycotted country X.

(vi) Same as (v), except that the condition imposed on A is that Y-origin goods may not be shipped or permitted to be transshipped to any companies which Y lists as being owned by persons whose national origin is X.

A may not agree to this condition, because it is a restriction designed to prevent Y-origin goods from being exported to persons of a particular national origin rather than to residents or nationals of a particular boycotted country.

(vii) A, a U.S. petroleum company, exports petroleum products to 20 countries, including the United States, from boycotting country Y. Y requires, as a condition of sale, that A not ship the products to be exported from Y to or through boycotted country X.

A may agree to and comply with this requirement because it is an export requirement of Y designed to prevent Y-origin products from coming into contact with or under the jurisdiction of a boycotted country.

(viii) Same as (vii), except that boycotting country Y's export regulations require that products to be exported from Y not pass through a port of boycotted country X.

A may agree to and comply with Y's regulations prohibiting Y-origin exports from passing through a port at boycotted country X, because they are export requirements of Y designed to prevent Y-origin products from coming into contact with or under the jurisdiction of a boycotted country.

(ix) Same as (vii), except that Y's export regulations require that A not transship the exported products "in or at" boycotted country X.

A may agree to and comply with Y's regulations with respect to the transshipment of goods "in or at" X, because they are export requirements of Y designed to prevent Y-origin products from coming into contact with or under the jurisdiction of a boycotted country.

***(f) Immigration, passport, visa, or employment requirements of a boycotting country***

COMPLIANCE WITH IMMIGRATION,

PASSPORT, VISA,  
OR EMPLOYMENT REQUIREMENTS  
OF A BOYCOTTING COUNTRY

(1) A United States individual may comply or agree to comply with the immigration, passport, visa, or employment requirements of a boycotting country, and with requests for information from a boycotting country made to ascertain whether such individual meets requirements for employment within the boycotting country, provided that he furnishes information only about himself or a member of his family, and not about any other United States individual, including his employees, employers, or co-workers.

(2) For purposes of this section, a "United States individual" means a person who is a resident or national of the United States. "Family" means immediate family members, including parents, siblings, spouse, children, and other dependents living in the individual's home.

(3) A United States person may not furnish information about its employees or executives, but may allow any individual to respond on his own to any request for information relating to immigration, passport, visa, or employment requirements. A United States person may also perform any ministerial acts to expedite processing of applications by individuals. These include informing employees of boycotting country visa requirements at an appropriate time; typing, translation, messenger and similar services; and assisting in or arranging for the expeditious processing of applications. All such actions must be undertaken on a non-discriminatory basis.

(4) A United States person may proceed with a project in a boycotting country even if certain of its employees or other prospective participants in a transaction are denied entry for boycott reasons. But no employees or other participants may be selected in advance in a manner designed to comply with a boycott.

EXAMPLES OF COMPLIANCE WITH  
IMMIGRATION, PASSPORT, VISA, OR  
EMPLOYMENT REQUIREMENTS OF A  
BOYCOTTING COUNTRY

The following examples are intended to give guidance in determining the circumstances in which compliance with immigration, passport, visa, or employment requirements is permissible. They are illustrative, not comprehensive.

•(i) A, a U.S. individual employed by B, a U.S. manufacturer of sporting goods with a plant in boycotting country Y, wishes to obtain a work visa so that he may be assigned to the plant in Y. Country Y's immigration laws specify that anyone wishing to enter the country or obtain a visa to work in the country must supply information about his religion. This information is required for boycott purposes.

A may furnish such information, because it is required by Y's immigration laws.

(ii) Same as (i), except that A is asked to supply such information about other employees of B.

A may not supply this information, because it is not information about himself or his family.

(iii) A, a U.S. building contractor, has been awarded a construction contract to be performed in boycotting country Y. Y's immigration laws require that individuals applying for visas must indicate race, religion, and place of birth. The information is sought for boycott purposes. To avoid repeated rejections of applications for work visas by A's employees, A desires to furnish to country Y a list of its prospective and current employees and required information about each so that Y can make an initial screening.

A may not furnish such a list, because A would be furnishing information about the race, religion, and national origin of its employees.

(iv) Same as (iii), except that A selects for work on the project those of its current employees whom it believes will be granted work visas from boycotting country Y.

A may not make a selection from among its employees in a manner designed to comply with the boycott-based visa requirements of Y, but must allow all eligible employees to apply for visas. A may later substitute an employee who obtains the necessary visa for one who has had his application rejected.

(v) Same as (iii), except that A selects employees for the project and then allows each employee individually to apply for his own visa. Two employees' applications are rejected, and A then substitutes two other employees who, in turn, submit their own visa applications.

A may take such action, because in so doing A is not acting in contravention of any prohibition of this part.

(vi) Same as (v), except that A arranges for the translation, typing and processing of its employees' applications, and transmits all the applications to the consulate of boycotting country Y.

A may take such ministerial actions, because in so doing A is not itself furnishing information with respect to race, religion, sex, or national origin, but is merely transmitting information furnished by its individual employees.

(vii) A, a U.S. contractor, selects U.S. subcontractor B to perform certain engineering services in connection with A's project in boycotting country Y. The work visa application submitted by the employee whom B has proposed as chief engineer of this project is rejected by Y because his national origin is of boycotted country X. Subcontractor B thereupon withdraws.

A may continue with the project and select another subcontractor, because A is not acting in contravention of any prohibition of this part.

**(g) Compliance with local law**

(1) This exception contains two parts. The first covers compliance with local law with respect to a United States person's activities exclusively within a foreign country; the second covers compliance with local import laws by United States persons resident in a foreign country. Under both parts of this exception, local laws are laws of the host country, whether derived from statutes, regulations, decrees, or other official sources having the effect of law in the host country. This exception is not available for compliance with presumed policies or understandings of policies unless those policies are reflected in official sources having the effect of law.

(2) Both parts of this exception apply only to United States persons resident in a foreign country. For purposes of this exception, a United States person will be considered to be a resident of a foreign country only if he is a bona fide resident. A United States person may be a bona fide resident of a foreign country even if such person's residency is temporary.

(3)(i) Factors that will be considered in determining whether a United States person is a bona fide resident of a foreign country include:

- (A) Physical presence in the country;
- (B) Whether residence is needed for legitimate business reasons;
- (C) Continuity of the residency;
- (D) Intent to maintain the residency;
- (E) Prior residence in the country;
- (F) Size and nature of presence in the country;

(G) Whether the person is registered to do business or incorporated in the country;

(H) Whether the person has a valid work visa; and

(I) Whether the person has a similar presence in both boycotting and non-boycotting foreign countries in connection with similar business activities.

(ii) No one of the factors in paragraph (g)(3) of this section is dispositive. All the circumstances involved will be closely examined to ascertain whether there is, in fact, bona fide residency. Residency established solely for purposes of avoidance of the application of this part, unrelated to legitimate business needs, does not constitute bona fide residency.

**EXAMPLES OF BONA FIDE RESIDENCY**

The following examples are intended to give guidance in determining the circumstances in which a United States person may be a bona fide resident of a foreign country. For purposes of illustration, each example discusses only one or two factors, instead of all relevant factors. They are illustrative, not comprehensive.

(i) A, a U.S. radio manufacturer located in the United States, receives a tender to bid on a contract to supply radios for a hotel to be built in boycotting country Y. After examining the proposal, A sends a bid from its New York office to Y.

A is not a resident of Y, because it is not physically present in Y.

(ii) Same as (i), except that after receiving the tender, A sends its sales representative to Y. A does not usually have sales representatives in countries when it bids from the United States, and this particular person's presence in Y is not necessary to enable A to make the bid.

A is not a bona fide resident of Y, because it has no legitimate business reasons for having its sales representative resident in Y.

(iii) A, a U.S. bank, wishes to establish a branch office in boycotting country Y. In pursuit of that objective, A's personnel visit Y to make the necessary arrangements. A intends to establish a permanent branch office in Y after the necessary arrangements are made.

A's personnel in Y are not bona fide residents of Y, because A does not yet have a permanent business operation in Y.

(iv) Same as (iii), except A's personnel are required by Y's laws to furnish certain non-discriminatory boycott information in order to establish a branch in Y.

In these limited circumstances, A's personnel may furnish the non-discriminatory boycott information necessary to establish residency to the same extent a U.S. person who is a bona fide resident in that country could. If this information could not be furnished in such limited circumstances, the exception would be available only to firms resident in a boycotting country before January 18, 1978.

(v) A, a U.S. construction company, receives an invitation to build a power plant in boycotting country Y. After receipt of the invitation, A's personnel visit Y in order to survey the site and make necessary analyses in preparation for submitting a bid. The invitation requires that otherwise prohibited boycott information be furnished with the bid.

A's personnel in Y are not bona fide residents of Y, because A has no permanent business operation in Y. Therefore, A's personnel may not furnish the prohibited information.

(vi) Same as (v), except that A is considering establishing an office in boycotting country Y. A's personnel visit Y in order to register A to do business in that country. A intends to establish

ongoing construction operations in Y. A's personnel are required by Y's laws to furnish certain non-discriminatory boycott information in order to register A to do business or incorporate a subsidiary in Y.

In these limited circumstances, A's personnel may furnish non-discriminatory boycott information necessary to establish residency to the same extent a U.S. person who is a bona fide resident in that country could. If this information could not be furnished in such limited circumstances, the exception would be available only to firms resident in a boycotting country before January 18, 1978.

(vii) A, a subsidiary of U.S. oil company B, is located in boycotting country Y. A has been engaged in oil explorations in Y for a number of years.

A is a bona fide resident of Y, because of its pre-existing continuous presence in Y for legitimate business reasons.

(viii) Same as (vii), except that A has just been established in Y and has not yet begun operations.

A is a bona fide resident of Y, because it is present in Y for legitimate business reasons and it intends to reside continuously.

(ix) U.S. company A is a manufacturer of prefabricated homes. A builds a plant in boycotting country Y for purposes of assembling components made by A in the United States and shipped to Y.

A's personnel in Y are bona fide residents of Y, because A's plant in Y is established for legitimate business reasons, and it intends to reside continuously.

(x) U.S. company A has its principal place of business in the United States. A's sales agent visits boycotting country Y from time to time for purposes of soliciting orders.

A's sales agent is not a bona fide resident of Y, because such periodic visits to Y are insufficient to establish a bona fide residency.

(xi) A, a branch office of U.S. construction company B, is located in boycotting country Y. The branch office has been in existence for a number of years and has been performing various management services in connection with B's construction operations in Y.

A is a bona fide resident of Y, because of its longstanding presence in Y and its conduct of ongoing operations in Y.

(xii) U.S. construction company A has never done any business in boycotting country Y. It is awarded a contract to construct a hospital in Y, and preparatory to beginning construction, sends its personnel to Y to set up operations.

A's personnel are bona fide residents of Y, because they are present in Y for the purposes of carrying out A's legitimate business purposes; they intend to reside continuously; and residency is necessary to conduct their business.

(xiii) U.S. company A manufactures furniture. All its sales in foreign countries are conducted from its offices in the United States. From time to time A has considered opening sales offices abroad, but it has concluded that it is more efficient to conduct sales operations from the United States. Shortly after the effective date of this part, A sends a sales representative to boycotting country Y to open an office in and solicit orders from Y. It is more costly to conduct operations from that office than to sell directly from the United States, but A believes that if it establishes a residence in Y, it will be in a better position to avoid conflicts with U.S. law in its sales to Y.

A's sales representative is not a bona fide resident of Y, because the residency was established to avoid the application of this part and not for legitimate business reasons.

(xiv) Same as (xiii), except that it is in fact more efficient to have a sales office in Y. In fact, without a sales office in Y, A would find it difficult to explore business opportunities in Y. A is aware, however, that residency in Y would permit its sales representative to comply with Y's boycott laws.

A's sales representative is a bona fide resident of Y, because A has a legitimate business reason for establishing a sales office in Y.

(xv) U.S. company B is a computer manufacturer. B sells computers and related programming services tailored to the needs of individual clients. Because of the complex nature of the product, B must have sales representatives in any country where sales are made. B has a sales representative, A, in boycotting country Y. A spends two months of the year in Y, and the rest of the year in other countries. B has a permanent sales office from which A operates while in Y, and the sales office is stocked with brochures and other sales materials.

A is a bona fide resident of Y, because his presence in Y is necessary to carry out B's legitimate business purposes; B maintains a permanent office in Y; and B intends to continue doing business in Y in the future.

(xvi) A, a U.S. construction engineering company, is engaged by B, a U.S. general contracting company, to provide services in connection with B's contract to construct a hospital complex in boycotting country Y. In order to perform those services, A's engineers set up a temporary office in a trailer on the construction site in Y. A's work is expected to be completed within six months.

A's personnel in Y are bona fide residents of Y, because A's on-site office is necessary to the performance of its services for B, and because A's personnel are continuously there.

(xvii) A, a U.S. company, sends one of its representatives to boycotting country Y to explore new sales possibilities for its line of transistor radios. After spending several weeks in Y, A's representative rents a post office box in Y, to which all persons interested in A's products are directed to make inquiry.

A is not a bona fide resident of Y, because rental of a post office box is not a sufficient presence in Y to constitute residency.

(xviii) A, a U.S. computer company, has a patent and trademark registered in the United States. In order to obtain registration of its patent and trademark in boycotting country Y, A is required to furnish certain non-discriminatory boycott information.

A may not furnish the information, because A is not a bona fide resident of Y.

***(h) Activities exclusively within a foreign country***

(1) Any United States person who is a bona fide resident of a foreign country, including a boycotting country, may comply or agree to comply with the laws of that country with respect to his activities exclusively within that country. These activities include:

(i) Entering into contracts which provide that local law applies or governs, or that the parties will comply with such laws;

(ii) Employing residents of the host country;

(iii) Retaining local contractors to perform work within the host country;

(iv) Purchasing or selling goods or services from or to residents of the host country; and

(v) Furnishing information within the host country.

(2) Activities exclusively within the country do not include importing goods or services from outside the host country, and, therefore, this part of the exception does not apply to compliance with import laws in connection with importing goods or services.

**EXAMPLES OF PERMISSIBLE COMPLIANCE WITH LOCAL LAW WITH RESPECT TO ACTIVITIES EXCLUSIVELY WITHIN A FOREIGN COUNTRY**

The following examples are intended to give guidance in determining the circumstances in which compliance with local law is permissible. They are illustrative, not comprehensive.

**ACTIVITIES EXCLUSIVELY WITHIN A FOREIGN COUNTRY**

(i) U.S. construction company A, a bona fide resident of boycotting country Y, has a contract to build a school complex in Y. Pursuant to Y's boycott laws, the contract requires A to refuse to purchase supplies from certain local merchants. While Y permits such merchants to operate within Y, their freedom of action in Y is constrained because of their relationship with boycotted country X.

A may enter into the contract, because dealings with local merchants are activities exclusively within Y.

(ii) A, a banking subsidiary of U.S. bank B, is a bona fide resident of boycotting country Y. From time to time, A purchases office supplies from the United States.

A's purchase of office supplies is not an activity exclusively within Y, because it involves the import of goods from abroad.

(iii) A, a branch of U.S. bank B, is a bona fide resident of boycotting country Y. Under Y's boycott laws, A is required to supply information about whether A has any dealings with boycotted country X. A compiles and

furnishes the information within Y and does so of its own knowledge.

A may comply with that requirement, because in compiling and furnishing the information within Y, based on its own knowledge, A is engaging in an activity exclusively within Y.

(iv) Same as (iii), except that A is required to supply information about B's dealings with X. From its own knowledge and without making any inquiry of B, A compiles and furnishes the information.

A may comply with that requirement, because in compiling and furnishing the information within Y, based on its own knowledge, A is engaging in an activity exclusively within Y.

(v) Same as (iv), except that in making its responses, A asks B to compile some of the information.

A may not comply, because the gathering of the necessary information takes place partially outside Y.

(vi) U.S. company A has applied for a license to establish a permanent manufacturing facility in boycotting country Y. Under Y's boycott law, A must agree, as a condition of the license, that it will not sell any of its output to blacklisted foreign firms.

A may not comply, because the agreement would govern activities of A which are not exclusively within Y.

#### DISCRIMINATION AGAINST UNITED STATES PERSONS

(i) A, a subsidiary of U.S. company B, is a bona fide resident of boycotting country Y. A manufactures air conditioners in its plant in Y. Under Y's boycott laws, A must agree not to hire nationals of boycotted country X.

A may agree to the restriction and may abide by it with respect to its recruitment of individuals within Y, because the recruitment of such individuals is an activity exclusively within Y. However, A cannot abide by this restriction with respect to its recruitment of individuals outside Y, because this is not an activity exclusively within Y.

(ii) Same as (i), except that pursuant to Y's boycott laws, A must agree not to hire anyone who is of a designated religion.

A may not agree to this restriction, because the agreement calls for discrimination against U.S. persons on the basis of religion. It makes no difference whether the recruitment of the U.S. persons occurs within or without Y. (NOTE: The exception for compliance with local law does not apply to boycott-based refusals to employ U.S. persons on the basis of race, religion, sex, or national origin even if the activity is exclusively within the boycotting country.)

#### (i) *Compliance with local import law*

(1) Any United States person who is a bona fide resident of a foreign country, including a boycotting country, may, in importing goods, materials or components into that country, comply or agree to comply with the import laws of that country, provided that:

(i) The items are for his own use or for his use in performing contractual services within that country; and

(ii) In the normal course of business, the items are identifiable as to their source or origin at the time of their entry into the foreign country by:

(a) Uniqueness of design or appearance; or

(b) Trademark, trade name, or other identification normally on the items themselves, including their packaging.

(2) The factors that will be considered in determining whether a United States person is a bona fide resident of a foreign country are those set forth in paragraph (g) of this section. Bona fide residence of a United States company's subsidiary, affiliate, or other permanent establishment in a foreign country does not confer such residence on such United States company. Likewise, bona fide residence of a United States company's employee in a foreign country does not confer such residence on the entire company.

(3) A United States person who is a bona fide resident of a foreign country may take action under this exception through an agent outside the country, but the agent must act at the direction of the resident and not exercise his own discretion. Therefore, if a United States person resident in a boycotting country takes action to comply with a boycotting country's import law with respect to the importation of qualified goods, he may direct his agent in the United States on the action to be taken, but the United States agent himself may not exercise any discretion.

(4) For purposes of this exception, the test that governs whether goods or components of goods are specifically identifiable is identical to the test applied in paragraph (d) of this section on "Compliance With Unilateral and Specific Selection" to determine whether they are identifiable as to their source or origin in the normal course of business.

(5) The availability of this exception for the import of goods depends on whether the goods are intended for the United States person's own use at the time they are imported. It does not depend upon who has title to the goods at the time of importation into a foreign country.

(6) Goods are for the United States person's own use (including the performance of contractual services within the foreign country) if:

(i) They are to be consumed by the United States person;

(ii) They are to remain in the United States person's possession and to be used by that person;

(iii) They are to be used by the United States person in performing contractual services for another;

(iv) They are to be further manufactured, incorporated into, refined into, or reprocessed into another product to be manufactured for another; or

(v) They are to be incorporated into, or permanently affixed as a functional part of, a project to be constructed for another.

(7) Goods acquired to fill an order for such goods from another are not for the United States person's own use. Goods procured for another are not for one's own use, even if the furnishing of procurement services is the business in which the United States person is customarily engaged. Nor are goods obtained for simple resale acquired for one's own use, even if the United States person is engaged in the retail business. Likewise, goods obtained for inclusion in a turnkey project are not for one's own use if they are not customarily incorporated into, or do not customarily become permanently affixed as a functional part of the project.

(8) This part of the local law exception does not apply to the import of services, even when the United States person importing such services is a bona fide resident of a boycotting country and is importing them for his own use. In addition, this exception is available for a United States person who is a bona fide resident of a foreign country only when the individual or entity actually present within that country takes action through the exercise of his own discretion.

(9) Use of this exception will be monitored and continually reviewed to determine whether its

continued availability is consistent with the national interest. Its availability may be limited or withdrawn as appropriate. In reviewing the continued availability of this exception, the effect that the inability to comply with local import laws would have on the economic and other relations of the United States with boycotting countries will be considered.

**(10)** A United States person who is a bona fide resident of a foreign country may comply or agree to comply with the host country's import laws even if he knows or has reason to know that particular laws are boycott-related. However, no United States person may comply or agree to comply with any host country law which would require him to discriminate against any United States person on the basis of race, religion, sex, or national origin, or to supply information about any United States person's race, religion, sex, or national origin.

#### EXAMPLES OF PERMISSIBLE COMPLIANCE WITH LOCAL IMPORT LAW

The following examples are intended to give guidance in determining the circumstances in which compliance with local import law is permissible. They are illustrative, not comprehensive.

##### COMPLIANCE BY A BONA FIDE RESIDENT

(i) A, a subsidiary of U.S. company B, is a bona fide resident of boycotting country Y and is engaged in oil drilling operations in Y. In acquiring certain large, specifically identifiable products for carrying out its operations in Y, A chooses only from non-blacklisted firms because Y's import laws prohibit the importation of goods from blacklisted firms. However, with respect to smaller items, B makes the selection on behalf of A and sends them to A in Y.

A may choose from non-blacklisted firms, because it is a U.S. person who is a bona fide resident in Y. However, because B is not

resident in Y, B cannot make boycott-based selections to conform with Y's import laws prohibiting the importation of goods from blacklisted firms.

(ii) Same as (i), except that after making its choices on the larger items, A directs B to carry out its instructions by entering into appropriate contracts and making necessary shipping arrangements.

B may carry out A's instructions provided that A, a bona fide resident of Y, has in fact made the choice and B is exercising no discretion, but is acting only as A's agent. (NOTE: Such transactions between related companies will be scrutinized carefully. A must in fact exercise the discretion and make the selections. If the discretion is exercised by B, B would be in violation of this part.)

(iii) U.S. construction company A has a contract to build a school in boycotting country Y. A's employees set up operations in Y for purposes of commencing construction. A's employees in Y advise A's headquarters in the United States that Y's import laws prohibit importation of goods manufactured by blacklisted firms. A's headquarters then issues invitations to bid only to non-blacklisted firms for certain specifically identifiable goods.

A's headquarters' choice of non-blacklisted suppliers is not a choice made by a U.S. person who is a bona fide resident of Y, because the discretion in issuing the bids was exercised in the United States, not in Y.

(iv) Same as (iii), except that A's employees in Y actually make the decision regarding to whom the bids should be issued.

The choices made by A's employees are choices made by U.S. persons who are bona fide residents of Y, because the discretion in choosing was exercised solely in Y. (NOTE: Choices purportedly made by employees of U.S. companies who are resident in boycotting

countries will be carefully scrutinized to ensure that the discretion was exercised entirely in the boycotting country.)

#### SPECIFICALLY IDENTIFIABLE GOODS

The test and examples as to what constitutes specifically identifiable goods are identical to those applicable under paragraph (d) of this section on “Compliance With Unilateral Selection.”

#### IMPORTS FOR U.S. PERSON’S OWN USE WITHIN BOYCOTTING COUNTRY

(i) A, a subsidiary of U.S. company B, is a bona fide resident of boycotting country Y. A plans to import computer operated machine tools to be installed in its automobile plant in boycotting country Y. The computers are mounted on a separate bracket on the side of the equipment and are readily identifiable by brand name. A orders the tools from U.S. supplier C and specifies that C must incorporate computers manufactured by D, a non-blacklisted company. A would have chosen computers manufactured by E, except that E is blacklisted, and Y’s import laws prohibit the importation of goods manufactured by blacklisted firms.

A may refuse to purchase E’s computers, because A is importing the computers for its own use in its manufacturing operations in Y.

(ii) A, a subsidiary of U.S. company B, is a bona fide resident of boycotting country Y. To meet the needs of its employees in Y, A imports certain specifically identifiable commissary items for sale, such as cosmetics; and canteen items, such as candy. In selecting such items for importation into Y, A chooses items made only by non-blacklisted firms, because Y’s import laws prohibit importation of goods from blacklisted firms.

A may import these items only from non-blacklisted firms, because the importation

of goods for consumption by A’s employees is an importation for A’s own use.

(iii) A, a U.S. construction company which is a bona fide resident of boycotting country Y, has a contract to build a hospital complex for the Ministry of Health in Y. Under the contract, A will be general manager of the project with discretion to choose all subcontractors and suppliers. The complex is to be built on a turnkey basis, with A retaining title to the property and bearing all financial risk until the complex is conveyed to Y. In choosing specifically identifiable goods for import, such as central air conditioning units and plate glass, A excludes blacklisted suppliers in order to comply with Y’s import laws. These goods are customarily incorporated into, or permanently affixed as a functional part of, the project.

A may refuse to deal with blacklisted suppliers of specifically identifiable goods, because importation of goods by a general contractor to be incorporated into a construction project in Y is an importation of goods for A’s own use.

(iv) Same as (iii), except that, in addition, in choosing U.S. architects and engineers to work on the project, A excludes blacklisted firms, because Y’s import laws prohibit the use of services rendered by blacklisted persons.

A may not refuse to deal with blacklisted architectural or engineering firms, because this exception does not apply to the import of services. It is irrelevant that, at some stage, the architectural or engineering drawings or plans may be brought to the site in Y. This factor is insufficient to transform such services into “goods” for purposes of this exception.

(v) Same as (iii), except that the project is to be completed on a “cost plus” basis, with Y making progress payments to A at various stages of completion.

A may refuse to deal with blacklisted suppliers of specifically identifiable goods, because the

importation of goods by A to be incorporated in a project A is under contract to complete is an importation of goods for its own use. The terms of payment are irrelevant.

(vi) A, a U.S. construction company which is a bona fide resident of boycotting country Y, has a contract for the construction of an office building in Y on a turnkey basis. In choosing goods to be used or included in the office complex, A orders wallboard, office partitions, and lighting fixtures from non-blacklisted manufacturers. A likewise orders desks, office chairs, typewriters, and office supplies from non-blacklisted manufacturers.

Because they are customarily incorporated into or permanently affixed as a functional part of an office building, the wallboard, office partitions, and lighting fixtures are for A's own use, and A may select non-blacklisted suppliers of these goods in order to comply with Y's import laws. Because they are not customarily incorporated into or permanently affixed to the project, the desks, office chairs, typewriters, and office supplies are not for A's own use, and A may not make boycott-based selections of the suppliers of these goods.

(vii) A, a U.S. company engaged in the business of selling automobiles, is a bona fide resident of boycotting country Y. In ordering automobiles from time to time for purposes of stocking its inventory, A purchases from U.S. manufacturer B, but not U.S. manufacturer C, because C is blacklisted. Retail sales are subsequently made from this inventory.

A's import of automobiles from B is not an import for A's own use, because the importation of items for general inventory in a retail sales operation is not an importation for one's own use.

(viii) A, a U.S. company engaged in the manufacture of pharmaceutical products, is a bona fide resident of boycotting country Y. In importing chemicals for incorporation into the

pharmaceutical products, A purchases from U.S. supplier B, but not U.S. supplier C, because C is blacklisted.

A may import chemicals from B rather than C, because the importation of specifically identifiable items for incorporation into another product is an importation for one's own use.

(ix) A, a U.S. management company which is a bona fide resident of boycotting country Y, has a contract with the Ministry of Education in Y to purchase supplies for Y's school system. From time to time, A purchases goods from abroad for delivery to various schools in Y.

A's purchase of goods for Y's school system does not constitute an importation of goods for A's own use, because A is acting as a procurement agent for another. A, therefore, cannot make boycott-based selections of suppliers of such school supplies.

(x) A, a U.S. company which is a bona fide resident of boycotting country Y, has a contract to make purchases for Y in connection with a construction project in Y. A is not engaged in the construction of, or in any other activity in connection with, the project. A's role is merely to purchase goods for Y and arrange for their delivery to Y.

A is not purchasing goods for its own use, because A is acting as a procurement agent for Y. A, therefore, cannot make boycott selections of suppliers of such goods.

(xi) A, a U.S. company which is a bona fide resident of boycotting country Y, imports specifically identifiable goods into Y for exhibit by A at a trade fair in Y. In selecting goods for exhibit, A excludes items made by blacklisted firms.

A's import of goods for its exhibit at a trade fair constitutes an import for A's own use. However, A may not sell in Y those goods it imported for exhibit.

(xii) A is a bona fide resident of boycotting countries Y and Z. In compliance with Y's boycott laws, A chooses specifically identifiable goods for its oil drilling operations in Y and Z by excluding blacklisted suppliers. The goods are first imported into Y. Those purchased for A's use in Z are then transhipped to Z.

In selecting those goods for importation into Y, A is making an import selection for its own use, even though A may use some of the imported goods in Z. Further, the subsequent shipment from Y to Z of those goods purchased for use in Z is an import into Z for A's own use.

#### **§ 760.4 EVASION**

(a) No United States person may engage in any transaction or take any other action, either independently or through any other person, with intent to evade the provisions of this part. Nor may any United States person assist another United States person to violate or evade the provisions of this part.

(b) The exceptions set forth in §760.3(a) through (i) do not permit activities or agreements (express or implied by a course of conduct, including a pattern of responses) which are otherwise prohibited by this part and which are not within the intent of such exceptions. However, activities within the coverage and intent of the exceptions set forth in this part do not constitute evasion regardless of how often such exceptions are utilized.

(c) Use of any artifice, device or scheme which is intended to place a person at a commercial disadvantage or impose on him special burdens because he is blacklisted or otherwise restricted for boycott reasons from having a business relationship with or in a boycotting country will be regarded as evasion for purposes of this part.

(d) Unless permitted under one of the exceptions, use of risk of loss provisions that expressly impose a financial risk on another

because of the import laws of a boycotting country may constitute evasion. If they are introduced after January 18, 1978, their use will be presumed to constitute evasion. This presumption may be rebutted by a showing that such a provision is in customary usage without distinction between boycotting and non-boycotting countries and that there is a legitimate non-boycott reason for its use. On the other hand, use of such a provision by a United States person subsequent to January 18, 1978 is presumed not to constitute evasion if the provision had been customarily used by that person prior to January 18, 1978.

(e) Use of dummy corporations or other devices to mask prohibited activity will also be regarded as evasion. Similarly, it is evasion under this part to divert specific boycotting country orders from a United States parent to a foreign subsidiary for purposes of complying with prohibited boycott requirements. However, alteration of a person's structure or method of doing business will not constitute evasion so long as the alteration is based on legitimate business considerations and is not undertaken solely to avoid the application of the prohibitions of this part. The facts and circumstances of an arrangement or transaction will be carefully scrutinized to see whether appearances conform to reality.

#### **EXAMPLES**

The following examples are intended to give guidance to persons in determining circumstances in which this section will apply. They are illustrative, not comprehensive.

(i) A, a U.S. insurance company, receives a request from boycotting country Y asking whether it does business in boycotted country X. Because furnishing such information is prohibited, A declines to answer and as a result is placed on Y's blacklist. The following year, A's annual report contains new information about A's worldwide operations, including a list of all countries in which A does business. A

then mails a copy of its annual report, which has never before contained such information, to officials of the government of country Y.

Absent some business justification unrelated to the boycott for changing the annual report in this fashion, A's action constitutes evasion of this part.

(ii) A, a U.S. construction firm resident in boycotting country Y, orders lumber from U.S. company B. A unilaterally selects B in part because U.S. lumber producer C is blacklisted by Y and C's products are therefore not importable. In placing its order with B, A requests that B stamp its name or logo on the lumber so that A "can be certain that it is, in fact, receiving B's products." B does not normally so stamp its lumber, and A's purpose in making the request is to appear to fit within the unilateral selection exception of this part.

Absent additional facts justifying A's action, A's action constitutes evasion of this part.

(iii) A, a U.S. company, has been selling sewing machines to boycotting country Y for a number of years. A receives a request for a negative certificate of origin from a new customer. A is aware that furnishing such certificates are prohibited; therefore, A arranges to have all future shipments run through a foreign corporation in a third country which will affix the necessary negative certificate before forwarding the machines on to Y.

A's action constitutes evasion of this part, because it is a device to mask prohibited activity carried out on A's behalf.

(iv) A, a U.S. company, has been selling calculators to distributor B in country C for a number of years and routinely supplies positive certificates of origin. A receives an order from country Y which requires negative certificates of origin. A arranges to make all future sales to distributor B in country C. A knows B will step in and make the sales to Y which A would

otherwise have made directly. B will make the necessary negative certifications. A's warranty, which it will continue to honor, runs to the purchaser in Y.

A's action constitutes evasion, because the diverting of orders to B is a device to mask prohibited activity carried out on A's behalf.

(v) A, a U.S. company, is negotiating a long-term contract with boycotting country Y to meet all Y's medical supply needs. Y informs A that before such a contract can be concluded, A must complete Y's boycott questionnaire. A knows that it is prohibited from answering the questionnaire so it arranges for a local agent in Y to supply the necessary information.

A's action constitutes evasion of this part, because it is a device to mask prohibited activity carried out on A's behalf.

(vi) A, a U.S. contractor which has not previously dealt with boycotting country Y, is awarded a construction contract by Y. Because it is customary in the construction industry for a contractor to establish an on-site facility for the duration of the project, A establishes such an office, which satisfies the requirements for bona fide residency. Thereafter, A's office in Y takes a number of actions permitted under the compliance with local law exception.

A's actions do not constitute evasion, because A's facility in Y was established for legitimate business reasons.

(vii) A, a controlled foreign subsidiary of U.S. company B, is located in non-boycotting country M. A and B both make machine tools for sale in their respective marketing regions. B's marketing region includes boycotting country Y. After assessing the requirements of this part, B decides that it can no longer make machines for sale in Y. Instead, A decides to expand its facilities in M in order to service the Y market.

The actions of A and B do not constitute evasion, because there is a legitimate business reason for their actions. It is irrelevant that the effect may be to place sales which would otherwise have been subject to this part beyond the reach of this part.

(viii) A, a U.S. manufacturer, from time to time receives purchase orders from boycotting country Y which A fills from its plant in the United States. A knows that it is about to receive an order from Y which contains a request for a certification which A is prohibited from furnishing under this part. In order to permit the certification to be made, A diverts the purchase order to its foreign subsidiary.

A's diversion of the purchase order constitutes evasion of this part, because it is a device to mask prohibited activity carried out on A's behalf.

(ix) A, a U.S. company, is engaged in assembling drilling rigs for shipment to boycotting country Y. Because of potential difficulties in securing entry into Y of materials supplied by blacklisted firms, A insists that blacklisted firms take a 15 percent discount on all materials which they supply to A. As a result, no blacklisted firms are willing to transact with A.

A's insistence on the discount for materials supplied by blacklisted firms constitutes evasion of this part, because it is a device or scheme which is intended to place a special burden on blacklisted firms because of Y's boycott.

(x) Same as (ix), except that shortly after January 18, 1978, A, a U.S. company, insists that its suppliers sign contracts which provide that even after title passes from the supplier to A, the supplier will bear the risk of loss and indemnify A if goods which the supplier has furnished are denied entry into Y for boycott reasons.

A's action constitutes evasion of this part, because it is a device or scheme which is intended to place a special burden on blacklisted persons because of Y's boycott.

(xi) Same as (x), except that A customarily insisted on such an arrangement with its supplier prior to January 18, 1978.

A's action is presumed not to constitute evasion, because use of this contractual arrangement was customary for A prior to January 18, 1978.

(xii) A, a U.S. company, has a contract to supply automobile sub-assembly units to boycotting country Y. Shortly after January 18, 1978, A insists that its suppliers sign contracts which provide that even after title passes to A, the supplier will bear the risk of loss and indemnify A if goods which the supplier has furnished are denied entry into boycotting country Y for any reason.

A's insistence on this arrangement is presumed to constitute evasion, because it is a device which is intended to place a special burden on blacklisted firms because of Y's boycott. The presumption may be rebutted by competent evidence showing that use of such an arrangement is customary without regard to the boycotting or non-boycotting character of the country to which it relates and that there is a legitimate non-boycott business reason for its use.

(xiii) Same as (vii), except that A requires that all suppliers make in-country delivery.

A's action does not constitute evasion, because it is an ordinary commercial practice to require in-country delivery of goods.

(xiv) Same as (xii), except that A requires that title remain with the supplier until delivery in Y has been made.

A's action does not constitute evasion, because it is ordinary commercial practice to require that title remain with the supplier until delivery has been made. This example is distinguishable from example (xii), because in example (xii) A had insisted on an extraordinary arrangement designed to require that the risk of loss remain with the supplier even after title had passed to A.

(xv) U.S. bank A is contacted by U.S. company B to finance B's transaction with boycotting country Y. Payment will be effected through a letter of credit in favor of B at its U.S. address. A knows that the letter of credit will contain restrictive boycott conditions which would bar its implementation by A if the beneficiary were a U.S. person. A advises B of the boycott condition and suggests to B that the beneficiary should be changed to C, a shell corporation in non-boycotting country M. The beneficiary is changed accordingly.

The actions of both A and B constitute evasion of this part, because the arrangement is a device to mask prohibited activities.

(xvi) Same as (xv), except that U.S. company B, the beneficiary of the letter of credit, arranges to change the beneficiary to B's foreign subsidiary so that A can implement the letter of credit. A knows that this has been done.

A's implementation of the letter of credit in the face of its knowledge of B's action constitutes evasion of this part, because A's action is part of a device to mask prohibited activity by both parties.

(xvii) U.S. bank A, located in the United States, is contacted by foreign company B to finance B's transaction with boycotting country Y. B is a controlled subsidiary of a U.S. company. The transaction which is to be financed with a letter of credit payable to B at its foreign address, requires B to certify that none of its board members are of a particular religious faith. Since B cannot legally furnish the certificate, it asks A to convey the necessary

information to Y through A's bank branch in Y. Such information would be furnished wholly outside the letter of credit transaction.

A's action constitutes evasion of this part, because it is undertaken to assist B's violation of this part.

(xviii) U.S. bank A is asked by foreign corporation B to implement a letter of credit in favor of B so that B might perform under its long-term contract with boycotting country Y. Under the terms of the letter of credit, B is required to certify that none of its suppliers is blacklisted. A knows that it cannot implement a letter of credit with this condition, so it tells B to negotiate the elimination of this requirement from the letter of credit and instead supply the certification to Y directly.

A's suggestion to B that it provide the negative certification to Y directly constitutes evasion of this part, because A is taking an action through another person to mask prohibited activity on A's part.

## **§ 760.5 REPORTING REQUIREMENTS**

### *(a) Scope of reporting requirements*

(1) A United States person who receives a request to take any action which has the effect of furthering or supporting a restrictive trade practice or boycott fostered or imposed by a foreign country against a country friendly to the United States or against any United States person must report such request to the Department of Commerce in accordance with the requirements of this section. Such a request may be either written or oral and may include a request to furnish information or enter into or implement an agreement. It may also include a solicitation, directive, legend or instruction that asks for information or that asks that a United States person take or refrain from taking a particular action. Such a request shall be reported regardless of whether the action requested is prohibited or permissible under this

part, except as otherwise provided by this section.

(2) For purposes of this section, a request received by a United States person is reportable if he knows or has reason to know that the purpose of the request is to enforce, implement, or otherwise further, support, or secure compliance with an unsanctioned foreign boycott or restrictive trade practice.

(i) A request received by a United States person located in the United States is reportable if it is received in connection with a transaction or activity in the interstate or foreign commerce of the United States, as determined under §760.1(d)(1) through (5) and (18) of this part.

(ii) A request received by a United States person located outside the United States (that is, a foreign subsidiary, partnership, affiliate, branch, office, or other permanent foreign establishment which is controlled in fact by any domestic concern, as determined under §760.1(c) of this part) is reportable if it is received in connection with a transaction or activity in the interstate or foreign commerce of the United States, as determined under §760.1(d)(6) through (17) and (19) of this part.

(iii) A request such as a boycott questionnaire, unrelated to a particular transaction or activity, received by any United States person is reportable when such person has or anticipates a business relationship with or in a boycotting country involving the sale, purchase or transfer of goods or services (including information) in the interstate or foreign commerce of the United States, as determined under §760.1(d) of this part.

(3) These reporting requirements apply to all United States persons. They apply whether the United States person receiving the request is an exporter, bank or other financial institution, insurer, freight forwarder, manufacturer, or any other United States person subject to this part.

(4) The acquisition of information about a boycotting country's boycott requirements through the receipt or review of books, pamphlets, legal texts, exporters' guidebooks and other similar publications does not constitute receipt of a reportable request for purposes of this section. In addition, a United States person who receives an unsolicited invitation to bid, or similar proposal, containing a boycott request has not received a reportable request for purposes of this section where he does not respond to the invitation to bid or other proposal.

(5) Because of the use of certain terms for boycott and non-boycott purposes; because of Congressional mandates to provide clear and precise guidelines in areas of inherent uncertainty; and because of the Department's commitment to minimize paperwork and reduce the cost of reporting where it will not impair the Department's ability to continue to monitor foreign boycotts, the following specific requests are not reportable:

(i) A request to refrain from shipping goods on a carrier which flies the flag of a particular country or which is owned, chartered, leased or operated by a particular country or by nationals or residents of a particular country, or a request to certify to that effect.

(ii) A request to ship goods via a prescribed route, or a request to refrain from shipping goods via a proscribed route, or a request to certify to either effect.

(iii) A request to supply an affirmative statement or certification regarding the country of origin of goods.

(iv) A request to supply an affirmative statement or certification regarding the name of the supplier or manufacturer of the goods shipped or the name of the provider of services.

(v) A request to comply with the laws of another country except where the request

expressly requires compliance with that country's boycott laws.

(vi) A request to an individual to supply information about himself or a member of his family for immigration, passport, visa, or employment purposes.

(vii) A request to supply an affirmative statement or certification indicating the destination of exports or confirming or otherwise indicating that such cargo will be unloaded or discharged at a particular destination.

(viii) A request to supply a certificate by the owner, master, charterer, or any employee thereof, that a vessel, aircraft, truck or any other mode of transportation is eligible, otherwise eligible, permitted, or allowed to enter, or not restricted from entering, a particular port, country, or group of countries pursuant to the laws, rules, or regulations of that port, country, or group of countries.

(ix) A request to supply a certificate from an insurance company stating that the insurance company has a duly authorized agent or representative within a boycotting country and/or the name and address of such agent.

(x) A request to comply with a term or condition of a transaction that provides that the vendor bear the risk of loss and indemnify the purchaser if the vendor's goods are denied entry into a country for any reason ("risk of loss clause") if such clause was in use by the purchaser prior to January 18, 1978.

(6) No United States person may engage in any transaction or take any other action, either independently or through any other person, with intent to evade the provisions of this part.

(7) From time to time the Department will survey domestic concerns for purposes of determining the worldwide scope of boycott requests received by their controlled foreign

subsidiaries and affiliates with respect to their activities outside United States commerce. This pertains to requests which would be reportable under this section but for the fact that the activities to which the requests relate are outside United States commerce. The information requested will include the number and nature of non-reportable boycott requests received, the action(s) requested, the actions(s) taken in response and the countries in which the requests originate. The results of such surveys, including the names of those surveyed, will be made public.

*(b) Manner of reporting*

(1) Each reportable request must be reported. However, if more than one document (such as an invitation to bid, purchase order, or letter of credit) containing the same boycott request is received as part of the same transaction, only the first such request need be reported. Individual shipments against the same purchase order or letter of credit are to be treated as part of the same transaction. Each different boycott request associated with a given transaction must be reported, regardless of how or when the request is received.

(2) Each United States person actually receiving a reportable request must report that request. However, such person may designate someone else to report on his behalf. For example, a United States company, if authorized, may report on behalf of its controlled foreign subsidiary or affiliates; a freight forwarder, if authorized, may report on behalf of the exporter; and a bank, if authorized, may report on behalf of the beneficiary of a letter of credit. If a person designated to report a request received by another receives an identical request directed to him in connection with the same transaction, he may file one report on behalf of himself and the other person.

(3) Where a person is designated to report on behalf of another, the person receiving the request remains liable for any failure to report or

for any representations made on his behalf. Further, anyone reporting on behalf of another is not relieved of his own responsibility for reporting any boycott request which he receives, even if it is an identical request in connection with the same transaction.

(4) Reports may be submitted by mail or electronically. Mailed paper reports must be submitted in duplicate to:

Report Processing Staff  
Office of Antiboycott Compliance  
U.S. Department of Commerce, Room 6098  
Washington, D.C. 20230

Electronic reports must be submitted in duplicate, by following the prompts on the screen, through the Office of Antiboycott Compliance webpage of the BIS website, <http://bis.doc.gov/index.php/enforcement/oac?id=300>.

Each submission, whether paper or electronic, must be made in accordance with the following requirements:

(i) Where the person receiving the request is a United States person located in the United States, each report of requests must be postmarked or electronically date-stamped by the last day of the month following the calendar quarter in which the request was received (e.g., April 30 for the quarter consisting of January, February, and March).

(ii) Where the person receiving the request is a United States person located outside the United States, each report of requests must be postmarked or electronically date-stamped by the last day of the second month following the calendar quarter in which the request was received (e.g., May 31 for the quarter consisting of January, February, and March).

(5) Mailed paper reports may, at the reporting person's option, be submitted on either a single transaction form (Form BIS-621P, Report of

Request for Restrictive Trade Practice or Boycott, Single Transaction, (revised 10-89)) or on a multiple transaction form (Form BIS-6051P, Report of Request for Restrictive Trade Practice or Boycott, Multiple Transactions, (revised 10-89)).

Electronic reports may be submitted only on the single transaction form, which will electronically reproduce the reporting person's identifying information to facilitate reporting of multiple transactions.

(6) Reports, whether submitted on the paper single transaction form or on the paper multiple transaction form, or submitted electronically, must contain entries for every applicable item on the form, including whether the reporting person intends to take or has taken the action requested. If the reporting person has not decided what action he will take by the time the report is required to be filed, he must later report the action he decides to take within 10 business days after deciding. In addition, anyone filing a report on behalf of another must so indicate and identify that other person.

(7) Each report of a boycott request, whether submitted by mail or electronically, must be accompanied by two copies of the relevant page(s) of any document(s) in which the request appears (*see*, paragraph (c)(2) of this section). For mail submissions, the relevant pages shall be attached in paper format to the report form; for electronic submissions, the relevant pages shall be attached in PDF format to the electronic submission. Reports, whether paper or electronic, may also be accompanied by any additional information relating to the request as the reporting person desires to provide concerning his response to the request. For electronic submissions, such additional information should be provided as a PDF attachment.

(8) Records containing information relating to a reportable boycott request, including a copy of any document(s) in which the request appears, must be maintained by the recipient for a five-year period after receipt of the request. The Department may require that these materials be submitted to it or that it have access to them at any time within that period. (See part 762 of the EAR for additional recordkeeping requirements.)

*(c) Disclosure of information.*

(1) Reports of requests received on or after October 7, 1976, as well as any accompanying documents filed with the reports, have been and will continue to be made available for public inspection and copying, except for certain proprietary information. With respect to reports of requests received on or after August 1, 1978, if the person making the report certifies that a United States person to whom the report relates would be placed at a competitive disadvantage because of the disclosure of information regarding the quantity, description, or value of any articles, materials, and supplies, including related technical data and other information, whether contained in a report or in any accompanying document(s), such information will not be publicly disclosed except upon failure by the reporting entity to edit the public inspection copy of the accompanying document(s) as provided by paragraph (c)(2) of this section, unless the Secretary of Commerce determines that the disclosure would not place the United States person involved at a competitive disadvantage or that it would be contrary to the national interest to withhold the information. In the event the Secretary of Commerce considers making such a determination concerning competitive disadvantage, appropriate notice and an opportunity for comment will be given before any such proprietary information is publicly disclosed. In no event will requests of reporting persons to withhold any information contained

in the report other than that specified in this paragraph be honored.

(2) Because a copy of any document(s) accompanying the report will be made available for public inspection and copying, one copy must be submitted intact and another copy must be edited by the reporting entity to delete the same information which it certified in the report would place a United States person at a competitive disadvantage if disclosed. In addition, the reporting entity may delete from this copy information that is considered confidential and that is not required to be contained in the report (e.g., information related to foreign consignee). This copy should be conspicuously marked with the legend “Public Inspection Copy.” With respect to documents accompanying reports received by the Department on or after July 1, 1979, the public inspection copy will be made available as submitted whether or not it has been appropriately edited by the reporting entity as provided by this paragraph.

(3) Reports and accompanying documents which are available to the public for inspection and copying are located in the:

BIS Freedom of Information Records  
Inspection Facility, Room 4525  
Department of Commerce  
14th Street and Constitution Avenue, N.W.  
Washington, D.C. 20230

Requests to inspect such documents should be addressed to that facility.

(4) The Secretary of Commerce will periodically transmit summaries of the information contained in the reports to the Secretary of State for such action as the Secretary of State, in consultation with the Secretary of Commerce, may deem appropriate for carrying out the policies in section 8(b)(2) of the Export Administration Act of 1979.

EXAMPLES

The following examples are intended to give guidance in determining what is reportable. They are illustrative, not comprehensive.

(i) A, a U.S. manufacturer, is shipping goods to boycotting country Y and is asked by Y to certify that it is not blacklisted by Y's boycott office. The request to A is reportable, because it is a request to A to comply with Y's boycott requirements.

(ii) A, a U.S. manufacturing company, receives an order for tractors from boycotting country Y. Y's order specifies that the tires on the tractors be made by B, another U.S. company. A believes Y has specified B as the tire supplier because otherwise A would have used tires made by C, a blacklisted company, and Y will not take shipment of tractors containing tires made by blacklisted companies.

A must report Y's request for tires made by B, because A has reason to know that B was chosen for boycott reasons.

(iii) Same as (ii), except A knows that Y's request has nothing to do with the boycott but simply reflects Y's preference for tires made by B.

Y's request is not reportable, because it is unrelated to Y's boycott.

(iv) Same as (ii), except A neither knows nor has reason to know why Y has chosen B.

Y's request is not reportable, because A neither knows nor has reason to know that Y's request is based on Y's boycott.

(v) A, a controlled foreign subsidiary of U.S. company B, is a resident of boycotting country Y. A is a general contractor. After being supplied by A with a list of competent subcontractors, A's customer instructs A to use subcontractor C on the project. A believes that

C was chosen because, among other things, the other listed subcontractors are blacklisted.

The instruction to A by its customer that C be used on the project is reportable, because it is a request to comply with Y's boycott requirements.

(vi) A, a controlled foreign subsidiary of U.S. company B, is located in non-boycotting country P. A receives an order for washing machines from boycotting country Y. Y instructs A that a negative certificate of origin must accompany the shipment. The washing machines are made wholly in P, without U.S. components.

Y's instruction to A regarding the negative certificate of origin is not reportable, because the transaction to which it relates is not in U.S. commerce.

(vii) Same as (vi), except that A obtains components from the United States for the purpose of filling the order from Y. Y's instruction to A regarding the negative certificate of origin is reportable, because the transaction to which it relates is in U.S. commerce.

(viii) A, a U.S. construction company, receives in the mail an unsolicited invitation to bid on a construction project in boycotting country Y. The invitation to bid requires those who respond to certify that they do not have any plants or branch offices in boycotted country X. A does not respond.

A's receipt of the unsolicited invitation to bid is not reportable, because the request does not relate to any present or anticipated business of A with or in Y.

(ix) Same as (viii), except that A receives a boycott questionnaire from a central boycott office. A does not do business in any of the boycotting countries involved, and does not anticipate doing any business in those countries. A does not respond.

A's receipt of the boycott questionnaire is not reportable, because it does not relate to any present or anticipated business by A with or in a boycotting country.

(x) A, a U.S. manufacturer, is seeking markets in which to expand its exports. A sends a representative to boycotting country Y to explore Y's potential as a market for A's products. A's representative discusses its products but does not enter into any contracts on that trip. A does, however, hope that sales will materialize in the future. Subsequently, A receives a boycott questionnaire from Y.

A's receipt of the boycott questionnaire is reportable, because the request relates to A's anticipated business with or in a boycotting country. For purposes of determining whether a report is required, it makes no difference whether A responds to the questionnaire, and it makes no difference that actual sales contracts are not in existence or do not materialize.

(xi) Same as (x), except that A's representative enters into a contract to sell A's products to a buyer in boycotting country Y. Subsequently, A receives a boycott questionnaire from Y.

A's receipt of the boycott questionnaire is reportable, because it relates to A's present business with or in a boycotting country. For purposes of determining whether a report is required, it makes no difference whether A responds to the questionnaire.

(xii) A, a U.S. freight forwarder, purchases an exporter's guidebook which includes the import requirements of boycotting country Y. The guidebook contains descriptions of actions which U.S. exporters must take in order to make delivery of goods to Y.

A's acquisition of the guidebook is not reportable, because he has not received a request from anyone.

(xiii) A, a U.S. freight forwarder, is arranging for the shipment of goods to boycotting country Y at the request of B, a U.S. exporter. B asks A to assume responsibility to assure that the documentation accompanying the shipment is in compliance with Y's import requirements. A examines an exporters' guidebook, determines that Y's import regulations require a certification that the insurer of the goods is not blacklisted and asks U.S. insurer C for such a certification.

B's request to A is reportable by A, because it constitutes a request to comply with Y's boycott as of the time A takes action to comply with Y's boycott requirements in response to the request. A's request to C is reportable by C.

(xiv) A, a U.S. freight forwarder, is arranging for the shipment of U.S. goods to boycotting country Y. The manufacturer supplies A with all the necessary documentation to accompany the shipment. Among the documents supplied by the manufacturer is his certificate that he himself is not blacklisted. A transmits the documentation supplied by the manufacturer.

A's action in merely transmitting documents received from the manufacturer is not reportable, because A has received no request to comply with Y's boycott.

(xv) Same as (xiv), except that A is asked by U.S. exporter B to assume the responsibility to assure that the necessary documentation accompanies the shipment whatever that documentation might be. B forwards to A a letter of credit which requires that a negative certificate of origin accompany the bill of lading. A supplies a positive certificate of origin.

Both A and B must report receipt of the letter of credit, because it contains a request to both of them to comply with Y's boycott.

(xvi) Same as (xiv), except that the manufacturer fails to supply a required negative certificate of origin, and A is subsequently asked by a consular official of Y to see to it that the certificate is supplied. A supplies a positive certificate of origin.

The consular official's request to A is reportable by A, because A was asked to comply with Y's boycott requirements by supplying the negative certificate of origin.

(xvii) A, a U.S. manufacturer, is shipping goods to boycotting country Y. Arrangements have been made for freight forwarder B to handle the shipment and secure all necessary shipping certifications. B notes that the letter of credit requires that the manufacturer supply a negative certificate of origin and B asks A to do so. A supplies a positive certificate of origin.

B's request to A is reportable by A, because A is asked to comply with Y's boycott requirements by providing the negative certificate.

(xviii) A, a controlled foreign subsidiary of U.S. company B, is a resident of boycotting country Y. A is engaged in oil exploration and drilling operations in Y. In placing orders for drilling equipment to be shipped from the United States, A, in compliance with Y's laws, selects only those suppliers who are not blacklisted.

A's action in choosing non-blacklisted suppliers is not reportable, because A has not received a request to comply with Y's boycott in making these selections.

(xix) A, a controlled foreign subsidiary of U.S. company B, is seeking permission to do business in boycotting country Y. Before being granted such permission, A is asked to sign an agreement to comply with Y's boycott laws.

The request to A is reportable, because it is a request that expressly requires compliance with Y's boycott law and is received in connection with A's anticipated business in Y.

(xx) A, a U.S. bank, is asked by a firm in boycotting country Y to confirm a letter of credit in favor of B, a U.S. company. The letter of credit calls for a certificate from B that the goods to be supplied are not produced by a firm blacklisted by Y. A informs B of the letter of credit, including its certification condition, and sends B a copy.

B must report the certification request contained in the letter of credit, and A must report the request to confirm the letter of credit containing the boycott condition, because both are being asked to comply with Y's boycott.

(xxi) Same as (xx), except that the letter of credit calls for a certificate from the beneficiary that the goods will not be shipped on a vessel that will call at a port in boycotted country X before making delivery in Y.

The request is not reportable, because it is a request of a type deemed by this section to be in common use for non-boycott purposes.

(xxii) A, a U.S. company, receives a letter of credit from boycotting country Y stating that on no condition may a bank blacklisted by Y be permitted to negotiate the credit.

A's receipt of the letter of credit is reportable, because it contains a request to A to comply with Y's boycott requirements.

(xxiii) A, a U.S. bank, receives a demand draft from B, a U.S. company, in connection with B's shipment of goods to boycotting country Y. The draft contains a directive that it is valid in all countries except boycotted country X.

A's receipt of the demand draft is reportable, because it contains a request to A to comply with Y's boycott requirements.

(xxiv) A, a U.S. exporter, receives an order from boycotting country Y. On the order is a

legend that A's goods, invoices, and packaging must not bear a six-pointed star or other symbol of boycotted country X.

A's receipt of the order is reportable, because it contains a request to comply with Y's boycott requirements.

(xxv) Same as (xxiv), except the order contains a statement that goods exported must not represent part of war reparations to boycotted country X.

A's receipt of the order is reportable, because it contains a request to A to comply with Y's boycott requirements.

(xxvi) A, a U.S. contractor, is negotiating with boycotting country Y to build a school in Y. During the course of the negotiations, Y suggests that one of the terms of the construction contract be that A agree not to import materials produced in boycotted country X. It is A's company policy not to agree to such a contractual clause, and A suggests that instead it agree that all of the necessary materials will be obtained from U.S. suppliers. Y agrees to A's suggestion and a contract is executed.

A has received a reportable request, but, for purposes of reporting, the request is deemed to be received when the contract is executed.

(xxvii) Same as (xxvi), except Y does not accept A's suggested alternative clause and negotiations break off.

A's receipt of Y's request is reportable. For purposes of reporting, it makes no difference that A was not successful in the negotiations. The request is deemed to be received at the time the negotiations break off.

(xxviii) A, a U.S. insurance company, is insuring the shipment of drilling equipment to boycotting country Y. The transaction is being financed by a letter of credit which requires that A certify that it is not blacklisted by Y. Freight

forwarder B asks A to supply the certification in order to satisfy the requirements of the letter of credit.

The request to A is reportable by A, because it is a request to comply with Y's boycott requirements.

(xxix) A, a U.S. manufacturer, is engaged from time-to-time in supplying drilling rigs to company B in boycotting country Y. B insists that its suppliers sign contracts which provide that, even after title passes from the supplier to B, the supplier will bear the risk of loss and indemnify B if goods which the supplier has furnished are denied entry into Y for whatever reason. A knows or has reason to know that this contractual provision is required by B because of Y's boycott, and that B has been using the provision since 1977. A receives an order from B which contains such a clause.

B's request is not reportable by A, because the request is deemed to be not reportable by these regulations if the provision was in use by B prior to January 18, 1978.

(xxx) Same as (xxix), except that A does not know when B began using the provision.

Unless A receives information from B that B introduced the term prior to January 18, 1978, A must report receipt of the request.

(xxxi) A, a U.S. citizen, is a shipping clerk for B, a U.S. manufacturing company. In the course of his employment, A receives an order for goods from boycotting country Y. The order specifies that none of the components of the goods is to be furnished by blacklisted firms.

B must report the request received by its employee, A, acting in the scope of his employment. Although A is a U.S. person, such an individual does not have a separate obligation to report requests received by him in his capacity as an employee of B.

(xxxii) U.S. exporter A is negotiating a transaction with boycotting country Y. A knows that at the conclusion of the negotiations he will be asked by Y to supply certain boycott-related information and that such a request is reportable. In an effort to forestall the request and thereby avoid having to file a report, A supplies the information in advance.

A is deemed to have received a reportable request.

(xxxiii) A, a controlled foreign affiliate of U.S. company B, receives an order for computers from boycotting country Y and obtains components from the United States for the purpose of filling the order. Y instructs A that a negative certificate of origin must accompany the shipment.

Y's instruction to A regarding the negative certificate of origin is reportable by A. Moreover, A may designate B or any other person to report on its behalf. However, A remains liable for any failure to report or for any representations made on its behalf.

(xxxiv) U.S. exporter A, in shipping goods to boycotting country Y, receives a request from the customer in Y to state on the bill of lading that the vessel is allowed to enter Y's ports. The request further states that a certificate from the owner or master of the vessel to that effect is acceptable.

The request A received from his customer in Y is not reportable because it is a request of a type deemed to be not reportable by these regulations. (A may not make such a statement on the bill of lading himself, if he knows or has reason to know it is requested for a boycott purpose.)

(xxxv) U.S. exporter A, in shipping goods to boycotting country Y, receives a request from the customer in Y to furnish a certificate from the owner of the vessel that the vessel is permitted to call at Y's ports.

The request A received from his customer in Y is not reportable because it is a request of a type deemed to be not reportable by these regulations.

(xxxvi) U.S. exporter A, in shipping goods to boycotting country Y, receives a request from the customer in Y to furnish a certificate from the insurance company indicating that the company has a duly authorized representative in country Y and giving the name of that representative.

The request A received from his customer in Y is not reportable if it was received after the effective date of these rules, because it is a request of a type deemed to be not reportable by these regulations.

**SUPPLEMENT NO. 1 TO PART 760 - INTERPRETATIONS**

It has come to the Department's attention that some U.S. persons are being or may be asked to comply with new boycotting country requirements with respect to shipping and insurance certifications and certificates of origin. It has also come to the Department's attention that some U.S. persons are being or may be asked to agree to new contractual provisions in connection with certain foreign government or foreign government agency contracts. In order to maximize its guidance with respect to section 8 of the Export Administration Act of 1979, as amended (50 U.S.C. app. 2407) and part 760 of the EAR, the Department hereby sets forth its views on these certifications and contractual clauses.<sup>1</sup>

I. CERTIFICATIONS

§760.2(d) of this part prohibits a U.S. person from furnishing or knowingly agreeing to furnish:

“Information concerning his or any other person's past, present or proposed business relationships:

- (i) With or in a boycotted country;
- (ii) With any business concern organized under the laws of a boycotted country;
- (iii) With any national or resident of a boycotted country; or
- (iv) With any other person who is known or believed to be restricted from having any business relationship with or in a boycotting country.”

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<sup>1</sup> The Department originally issued this interpretation pursuant to the Export Administration Amendments Act of 1979 (Public Law 95-52) and the regulations on restrictive trade practices and boycotts (15 CFR 369) published on January 25, 1978 (43 FR 3508) and contained in the 15 CFR edition revised as of January 1, 1979.

This prohibition, like all others under part 760, applies only with respect to a U.S. person's activities in the interstate or foreign commerce of the United States and only when such activities are undertaken with intent to comply with, further, or support an unsanctioned foreign boycott. (§760.2(d)(5) of this part.)

This prohibition does not apply to the furnishing of normal business information in a commercial context. (§760.2(d)(3) of this part). Normal business information furnished in a commercial context does not cease to be such simply because the party soliciting the information may be a boycotting country or a national or resident thereof. If the information is of a type which is generally sought for a legitimate business purpose (such as determining financial fitness, technical competence, or professional experience), the information may be furnished even if the information could be used, or without the knowledge of the person supplying the information is intended to be used, for boycott purposes. (§760.2(d)(4) of this part).

The new certification requirements and the Department's interpretation of the applicability of part 760 thereto are as follows:

A. *Certificate of origin.* A certificate of origin is to be issued by the supplier or exporting company and authenticated by the exporting country, attesting that the goods exported to the boycotting country are of purely indigenous origin, and stating the name of the factory or the manufacturing company. To the extent that the goods as described on the certificate of origin are not solely and exclusively products of their country of origin indicated thereon, a declaration must be appended to the certificate of origin giving the name of the supplier/manufacturer and declaring:

“The undersigned, \_\_\_\_\_, does hereby declare on behalf of the above-named

supplier/manufacturer, that certain parts or components of the goods described in the attached certificate of origin are the products of such country or countries, other than the country named therein as specifically indicated hereunder:

*Country of origin and percentage of value of parts or components relative to total shipment*

- 1. \_\_\_\_\_.
- 2. \_\_\_\_\_.
- 3. \_\_\_\_\_.

Dated: \_\_\_\_\_.

Signature \_\_\_\_\_.

Sworn to before me, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_. Notary Seal.”

INTERPRETATION

It is the Department’s position that furnishing a positive certificate of origin, such as the one set out above, falls within the exception contained in §760.3(c) of this part for compliance with the import and shipping document requirements of a boycotting country. See §760.3(c) of this part and examples (i) and (ii) thereunder.

*B. Shipping certificate.* A certificate must be appended to the bill of lading stating: (1) Name of vessel; (2) Nationality of vessel; and (3) Owner of vessel, and declaring:

“The undersigned does hereby declare on behalf of the owner, master, or agent of the above-named vessel that said vessel is not registered in the boycotted country or owned by nationals or residents of the boycotted country and will not call at or pass through

any boycotted country port enroute to its boycotting country destination.

“The undersigned further declares that said vessel is otherwise eligible to enter into the ports of the boycotting country in conformity with its laws and regulations.

Sworn to before me, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_. Notary Seal.”

INTERPRETATION

It is the Department’s position that furnishing a certificate, such as the one set out above, stating: (1) The name of the vessel, (2) The nationality of the vessel, and (3) The owner of the vessel and further declaring that the vessel: (a) Is not registered in a boycotted country, (b) Is not owned by nationals or residents of a boycotted country, and (c) Will not call at or pass through a boycotted country port enroute to its destination in a boycotting country falls within the exception contained in §760.3(c) for compliance with the import and shipping document requirements of a boycotting country. See §760.3(c) and examples (vii), (viii), and (ix) thereunder.

It is also the Department’s position that the owner, charterer, or master of a vessel may certify that the vessel is “eligible” or “otherwise eligible” to enter into the ports of a boycotting country in conformity with its laws and regulations. Furnishing such a statement pertaining to one’s own eligibility offends no prohibition under this part 760. See §760.2(f), example (xiv).

On the other hand, where a boycott is in force, a declaration that a vessel is “eligible” or “otherwise eligible” to enter the ports of the boycotting country necessarily conveys the information that the vessel is not blacklisted or otherwise restricted from having a business relationship with the boycotting country. See §760.3(c), examples (vi), (xi), and (xii). Where a person other than the vessel’s owner, charterer, or master furnishes such a statement, that is

tantamount to his furnishing a statement that he is not doing business with a blacklisted person or is doing business only with non-blacklisted persons. Therefore, it is the Department's position that furnishing such a certification (which does not reflect customary international commercial practice) by anyone other than the owner, charterer, or master of a vessel would fall within the prohibition set forth in §760.2(d) unless it is clear from all the facts and circumstances that the certification is not required for a boycott reason. See §760.2(d)(3) and (4). See also Part A., "Permissible Furnishing of Information," of Supplement No. 5 to this part.

*C. Insurance certificate.* A certificate must be appended to the insurance policy stating: (1) Name of insurance company; (2) Address of its principal office; and (3) Country of its incorporation, and declaring:

"The undersigned, \_\_\_\_\_, does hereby certify on behalf of the above-named insurance company that the said company has a duly qualified and appointed agent or representative in the boycotting country whose name and address appear below:

Name of agent/representative and address in the boycotting country.

Sworn to before me this \_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_. Notary Seal."

#### INTERPRETATION

It is the Department's position that furnishing the name of the insurance company falls within the exception contained in §760.3(c) for compliance with the import and shipping document requirements of a boycotting country. See §760.3(c)(1)(v) and examples (v) and (x) thereunder. In addition, it is the Department's position that furnishing a certificate, such as the one set out above, stating the address of the

insurance company's principal office and its country of incorporation offends no prohibition under this part 760 unless the U.S. person furnishing the certificate knows or has reason to know that the information is sought for the purpose of determining that the insurance company is neither headquartered nor incorporated in a boycotted country. See §760.2(d)(1)(i).

It is also the Department's position that the insurer, himself, may certify that he has a duly qualified and appointed agent or representative in the boycotting country and may furnish the name and address of his agent or representative. Furnishing such a statement pertaining to one's own status offends no prohibition under this part 760. See §760.2(f), example (xiv).

On the other hand, where a boycott is in force, a declaration that an insurer "has a duly qualified and appointed agent or representative" in the boycotting country necessarily conveys the information that the insurer is not blacklisted or otherwise restricted from having a business relationship with the boycotting country. See §760.3(c), example (v). Therefore, it is the Department's position that furnishing such a certification by anyone other than the insurer would fall within the prohibition set forth in §760.2(d) unless it is clear from all the facts and circumstances that the certification is not required for a boycott reason. See §760.2(d)(3) and (4).

#### II. CONTRACTUAL CLAUSES

The new contractual requirements and the Department's interpretation of the applicability of part 760 thereto are as follows:

*A. Contractual clause regarding import laws of boycotting country.* "In connection with the performance of this contract the Contractor/Supplier acknowledges that the import and customs laws and regulations of the boycotting country shall apply to the furnishing and shipment of any products or components

thereof to the boycotting country. The Contractor/Supplier specifically acknowledges that the aforementioned import and customs laws and regulations of the boycotting country prohibit, among other things, the importation into the boycotting country of products or components thereof: (1) Originating in the boycotted country; (2) Manufactured, produced, or furnished by companies organized under the laws of the boycotted country; and (3) Manufactured, produced, or furnished by nationals or residents of the boycotted country.”

#### INTERPRETATION

It is the Department’s position that an agreement, such as the one set out in the first sentence above, that the import and customs requirements of a boycotting country shall apply to the performance of a contract does not, in and of itself, offend any prohibition under this part 760. See §760.2(a)(5) and example (iii) under “Examples of Agreements To Refuse To Do Business.” It is also the Department’s position that an agreement to comply generally with the import and customs requirements of a boycotting country does not, in and of itself, offend any prohibition under this part 760. See §760.2(a)(5) and examples (iv) and (v) under “Examples of Agreements To Refuse To Do Business.” In addition, it is the Department’s position that an agreement, such as the one set out in the second sentence above, to comply with the boycotting country’s import and customs requirements prohibiting the importation of products or components: (1) Originating in the boycotted country; (2) Manufactured, produced, or furnished by companies organized under the laws of the boycotted country; or (3) Manufactured, produced, or furnished by nationals or residents of the boycotted country falls within the exception contained in §760.3(a) for compliance with the import requirements of a boycotting country. See §760.3(a) and example (ii) thereunder.

The Department notes that a United States person may not furnish a negative certification regarding the origin of goods or their components even though the certification is furnished in response to the import and shipping document requirements of the boycotting country. See §760.3(c) and examples (i) and (ii) thereunder, and §760.3(a) and example (ii) thereunder.

B. *Contractual clause regarding unilateral and specific selection.* “The Government of the boycotting country (or the First Party), in its exclusive power, reserves its right to make the final unilateral and specific selection of any proposed carriers, insurers, suppliers of services to be performed within the boycotting country, or of specific goods to be furnished in accordance with the terms and conditions of this contract.”

#### INTERPRETATION

It is the Department’s position that an agreement, such as the one set out above, falls within the exception contained in §760.3(d) of this part for compliance with unilateral selections. However, the Department notes that whether a U.S. person may subsequently comply or agree to comply with any particular selection depends upon whether that selection meets all the requirements contained in §760.3(d) of this part for compliance with unilateral selections. For example, the particular selection must be unilateral and specific, particular goods must be specifically identifiable as to their source or origin at the time of their entry into the boycotting country, and all other requirements contained in §760.3(d) of this part must be observed.

**SUPPLEMENT NO. 2 TO PART 760 - INTERPRETATION**

The Department hereby sets forth its views on whether the furnishing of certain shipping and insurance certificates in compliance with boycotting country requirements violates the provisions of section 8 of the Export Administration Act of 1979, as amended (50 U.S.C. app. 2407) and part 760 of the EAR<sup>1</sup>, as follows:

(i) “The owner, charterer or master of a vessel may certify that the vessel is ‘eligible’ or ‘otherwise eligible’ to enter into the ports of a boycotting country in conformity with its laws and regulations;”

(ii) “The insurer, himself, may certify that he has a duly qualified and appointed agent or representative in the boycotting country and may furnish the name and address of his agent or representative.”

Furnishing such certifications by anyone other than:

(i) The owner, charterer or master of a vessel, or

(ii) The insurer would fall within the prohibition set forth in §760.2(d) of this part, “unless it is clear from all the facts and circumstances that these certifications are not required for a boycott reason.” See §760.2(d)(3) and (4) of this part.

The Department has received from the Kingdom of Saudi Arabia a clarification that the shipping and insurance certifications are required by Saudi Arabia in order to:

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<sup>1</sup> The Department originally issued this interpretation on April 21, 1978 (43 FR 16969) pursuant to the Export Administration Amendments Act of 1977 (Public Law 95-52) and the regulations on restrictive trade practices and boycotts (15 CFR 369) published on January 25, 1978 (43 FR 3508) and contained in the 15 CFR edition revised as of January 1, 1979.

(i) Demonstrate that there are no applicable restrictions under Saudi laws or regulations pertaining to maritime matters such as the age of the ship, the condition of the ship, and similar matters that would bar entry of the vessel into Saudi ports; and

(ii) Facilitate dealings with insurers by Saudi Arabian importers whose ability to secure expeditious payments in the event of damage to insured goods may be adversely affected by the absence of a qualified agent or representative of the insurer in Saudi Arabia. In the Department’s judgment, this clarification constitutes sufficient facts and circumstances to demonstrate that the certifications are not required by Saudi Arabia for boycott reasons.

On the basis of this clarification, it is the Department’s position that any United States person may furnish such shipping and insurance certificates required by Saudi Arabia without violating §760.2(d) of this part. Moreover, under these circumstances, receipts of requests for such shipping and insurance certificates from Saudi Arabia are not reportable.

It is still the Department’s position that furnishing such a certificate pertaining to one’s own eligibility offends no prohibition under part 760. See §760.2(f) of this part, example (xiv). However, absent facts and circumstances clearly indicating that the certifications are required for ordinary commercial reasons as demonstrated by the Saudi clarification, furnishing certifications about the eligibility or blacklist status of any other person would fall within the prohibition set forth in §760.2(d) of this part, and receipts of requests for such certifications are reportable.

It also remains the Department’s position that where a United States person asks an insurer or carrier of the exporter’s goods to self-certify, such request offends no prohibition under this part. However, where a United States person asks anyone other than an insurer or carrier of

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the exporter's goods to self-certify, such requests will be considered by the Department as evidence of the requesting person's refusal to do business with those persons who cannot or will not furnish such a self-certification. For example, if an exporter-beneficiary of a letter of credit asks his component suppliers to self-certify, such a request will be considered as evidence of his refusal to do business with those component suppliers who cannot or will not furnish such a self-certification.

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The Department wishes to emphasize that notwithstanding the fact that self-certifications are permissible, it will closely scrutinize the activities of all United States persons who provide such self-certifications, including insurers and carriers, to determine that such persons have not taken any prohibited actions or entered into any prohibited agreements in order to be able to furnish such certifications.

**SUPPLEMENT NO. 3 TO PART 760 - INTERPRETATION**

Pursuant to Article 2, Annex II of the Peace Treaty between Egypt and Israel, Egypt's participation in the Arab economic boycott of Israel was formally terminated on January 25, 1980. On the basis of this action, it is the Department's position that certain requests for information, action or agreement which were considered boycott-related by implication now cannot be presumed boycott-related and thus would not be prohibited or reportable under the Regulations. For example, a request that an exporter certify that the vessel on which it is shipping its goods is eligible to enter Arab Republic of Egypt ports has been considered a boycott-related request that the exporter could not comply with because Egypt has a boycott in force against Israel (see 43 FR 16969, April 21, 1978 or the 15 CFR edition revised as of January 1, 1979). Such a request after January 25, 1980 would not be presumed boycott-related because the underlying boycott requirement/basis for the

certification has been eliminated. Similarly, a U.S. company would not be prohibited from complying with a request received from Egyptian government officials to furnish the place of birth of employees the company is seeking to take to Egypt, because there is no underlying boycott law or policy that would give rise to a presumption that the request was boycott-related.

U.S. persons are reminded that requests that are on their face boycott-related or that are for action obviously in furtherance or support of an unsanctioned foreign boycott are subject to the Regulations, irrespective of the country or origin. For example, requests containing references to "blacklisted companies", "Israel boycott list", "non-Israeli goods" or other phrases or words indicating boycott purpose would be subject to the appropriate provisions of the Department's antiboycott regulations.

**SUPPLEMENT NO. 4 TO PART 760 - INTERPRETATION**

The question has arisen how the definition of U.S. commerce in the antiboycott regulations (15 CFR part 760) applies to a shipment of foreign-made goods when U.S.-origin spare parts are included in the shipment. Specifically, if the shipment of foreign goods falls outside the definition of U.S. commerce, will the inclusion of U.S.-origin spare parts bring the entire transaction into U.S. commerce?

Section 760.1(d)(12) provides the general guidelines for determining when U.S.-origin goods shipped from a controlled in fact foreign subsidiary are outside U.S. commerce. The two key tests of that provision are that the goods were “(i) ... acquired without reference to a specific order from or transaction with a person outside the United States; and (ii) ... further manufactured, incorporated into, refined into, or reprocessed into another product.” Because the application of these two tests to spare parts does not conclusively answer the U.S. commerce question, the Department is presenting this clarification.

In the cases brought to the Department's attention, an order for foreign-origin goods was placed with a controlled in fact foreign subsidiary of a United States company. The foreign goods contained components manufactured in the United States and in other countries, and the order included a request for extras of the U.S. manufactured components (spare parts) to allow the customer to repair the item. Both the foreign manufactured product and the U.S. spare parts were to be shipped from the general inventory of the foreign subsidiary. Since the spare parts, if shipped by themselves, would be in U.S. commerce as that term is defined in the Regulations, the question was whether including them with the foreign manufactured item would bring the entire shipment into U.S. commerce. The Department has decided that it will not and presents the following specific guidance.

As used above, the term “spare parts” refers to parts of the quantities and types normally and customarily ordered with a product and kept on hand in the event they are needed to assure prompt repair of the product. Parts, components or accessories that improve or change the basic operations or design characteristics, for example, as to accuracy, capability or productivity, are not spare parts under this definition.

Inclusion of U.S.-origin spare parts in a shipment of products which is otherwise outside U.S. commerce will not bring the transaction into U.S. commerce if the following conditions are met:

- (I) The parts included in the shipment are acquired from the United States by the controlled in fact foreign subsidiary without reference to a specific order from or transaction with a person outside the United States;
- (II) The parts are identical to the corresponding United States-origin parts which have been manufactured, incorporated into or reprocessed into the completed product;
- (III) The parts are of the quantity and type normally and customarily ordered with the completed product and kept on hand by the firm or industry of which the firm is a part to assure prompt repair of the product; and
- (IV) The parts are covered by the same order as the completed product and are shipped with or at the same time as the original product.

The Department emphasizes that unless each of the above conditions is met, the inclusion of United States-origin spare parts in an order for a foreign-manufactured or assembled product will bring the entire transaction into the interstate or foreign commerce of the United States for purposes of part 760.

**SUPPLEMENT NO. 5 TO PART 760 - INTERPRETATION***A. Permissible Furnishing of Information*

The information outlined below may be furnished in response to boycott-related requests from boycotting countries or others. This information is, in the view of the Department, not prohibited by the Regulations. Thus, a person does not have to qualify under any of the exceptions to be able to make the following statements. Such statements can be made, however, only by the person indicated and under the circumstances described. These statements should not be used as a point of departure or analogy for determining the permissibility of other types of statements. The Department's view that these statements are not contrary to the prohibitions contained in antiboycott provisions of the Regulations is limited to the specific statement in the specific context indicated.

1. A U.S. person may always provide its own name, address, place of incorporation (“nationality”), and nature of business.

2. A U.S. person may state that it is not on a blacklist, or restricted from doing business in a boycotting country. A company may not make that statement about its subsidiaries or affiliates--only about itself. A U.S. person may not say that there is no reason for it to be blacklisted. To make that statement would provide directly or by implication information that may not be provided. A U.S. person may inquire about the reasons it is blacklisted if it learns that it is on a blacklist (see §760.2(d) of this part example (xv)).

3. A U.S. person may describe in detail its past dealings with boycotting countries; may state in which boycotting countries its trademarks are registered; and may specify in which boycotting countries it is registered or qualified to do business. In general, a U.S. person is free to furnish any information it wishes about the nature and extent of its commercial dealings with boycotting countries.

4. A U.S. person may state that many U.S. firms or individuals have similar names and that it believes that it may be confused with a similarly named entity. A U.S. person may not state that it does or does not have an affiliation or relationship with such similarly named entity.

5. A U.S. person may state that the information requested is a matter of public record in the United States. However, the person may not direct the inquirer to the location of that information, nor may the U.S. person provide or cause to be provided such information.

*B. Availability of the Compliance with Local Law Exception to Establish a Foreign Branch*

Section 760.3(g), the Compliance With Local Law exception, permits U.S. persons, who are bona fide residents of a boycotting country, to take certain limited, but otherwise prohibited, actions, if they are required to do so in order to comply with local law.

Among these actions is the furnishing of non-discriminatory information. Examples (iv) through (vi) under “Examples of Bona Fide Residency” indicate that a company seeking to become a bona fide resident within a boycotting country may take advantage of the exception for the limited purpose of furnishing information required by local law to obtain resident status. Exactly when and how this exception is available has been the subject of a number of inquiries. It is the Department's view that the following conditions must be met for a non-resident company to be permitted to furnish otherwise prohibited information for the limited purpose of seeking to become a bona fide resident:

1. The company must have a legitimate business reason for seeking to establish a branch or other resident operation in the boycotting country.

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(Removal from the blacklist does not constitute such a reason.)

2. The local operation it seeks to establish must be similar or comparable in nature and operation to ones the company operates in other parts of the world, unless local law or custom dictates a significantly different form.
3. The person who visits the boycotting country to furnish the information must be the official whose responsibility ordinarily includes the creation and registration of foreign operations (i.e., the chairman of the board cannot be flown in to answer boycott questions unless the chairman of the board is the corporate official who ordinarily goes into a country to handle foreign registrations).
4. The information provided must be that which is ordinarily known to the person establishing

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the foreign branch. Obviously, at the time of establishment, the foreign branch will have no information of its own knowledge. Rather, the information should be that which the responsible person has of his own knowledge, or that he would have with him as incidental and necessary to the registration and establishment process. As a general rule, such information would not include such things as copies of agreements with boycotted country concerns or detailed information about the person's dealings with blacklisted concerns.

5. It is not necessary that documents prepared in compliance with this exception be drafted or executed within the boycotting country. The restrictions on the type of information which may be provided and on who may provide it apply regardless of where the papers are prepared or signed.

**SUPPLEMENT NO. 6 TO PART 760 - INTERPRETATION**

The antiboycott regulations prohibit knowing agreements to comply with certain prohibited requests and requirements of boycotting countries, regardless of how these terms are stated. Similarly, the reporting rules require that a boycott related “solicitation, directive, legend or instruction that asks for information or that asks that a United States person take or refrain from taking a particular action” be reported. Questions have frequently arisen about how particular requirements in the form of directive or instructions are viewed under the antiboycott regulations, and we believe that it will add clarity to the regulations to provide a written interpretation of how three of these terms are treated under the law. The terms in question appear frequently in letters of credit, but may also be found on purchase orders or other shipping or sale documents. They have been brought to the attention of the Department by numerous persons. The terms are, or are similar to, the following: (1) Goods of boycotted country origin are prohibited; (2) No six-pointed stars may be used on the goods, packing or cases; (3) Neither goods nor packing shall bear any symbols prohibited in the boycotting country.

***(a) Goods of boycotted country origin prohibited***

This term is very common in letters of credit from Kuwait and may also appear from time-to-time in invitations to bid, contracts, or other trade documents. It imposes a condition or requirement compliance with which is prohibited, but permitted by an exception under the Regulations (see §760.2(a) and §760.3(a)). It is reportable by those parties to the letter of credit or other transaction that are required to take or refrain from taking some boycott related action by the request. Thus the bank must report the request because it is a term or condition of the letter of credit that it is handling, and the exporter-beneficiary must report the request because the exporter determines the origin of the

goods. The freight forwarder does not have to report this request because the forwarder has no role or obligation in selecting the goods. However, the freight forwarder would have to report a request to furnish a certificate that the goods do not originate in or contain components from a boycotted country. See §760.5, examples (xii)-(xvii).

***(b) No six-pointed stars may be used on the goods, packing or cases***

This term appears from time-to-time on documents from a variety of countries. The Department has taken the position that the six-pointed star is a religious symbol. See §760.2(b), example (viii) of this part. Agreeing to this term is prohibited by the Regulations and not excepted because it constitutes an agreement to furnish information about the religion of a U.S. person. See §760.2(c) of this part. If a person proceeds with a transaction in which this is a condition at any stage of the transaction, that person has agreed to the condition in violation of the Regulations. It is not enough to ignore the condition. Exception must affirmatively be taken to this term or it must be stricken from the documents of the transaction. It is reportable by all parties to the transaction that are restricted by it. For example, unlike the situation described in (a) above, the freight forwarder would have to report this request because his role in the transaction would involve preparation of the packing and cases. The bank and exporter would both have to report, of course, if it were a term in a letter of credit. Each party would be obligated affirmatively to seek an amendment or deletion of the term.

***(c) Neither goods nor packaging shall bear any symbols prohibited in the boycotting country***

This term appears from time-to-time in letters of credit and shipping documents from Saudi Arabia. In our view, it is neither prohibited, nor

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reportable because it is not boycott-related. There is a wide range of symbols that are prohibited in Saudi Arabia for a variety of reasons, many having to do with that nation's cultural and religious beliefs. On this basis, we

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do not interpret the term to be boycott related. See §760.2(a)(5) and §760.5(a)(5)(v) of this part.

**SUPPLEMENT NO. 7 TO PART 760 - INTERPRETATION***Prohibited refusal to do business.*

When a boycotting country rejects for boycott-related reasons a shipment of goods sold by a United States person, the United States person selling the goods may return them to its inventory or may re-ship them to other markets (the United States person may not return them to the original supplier and demand restitution). The U.S. person may then make a non-boycott based selection of another supplier and provide the goods necessary to meet its obligations to the boycotting customer in that particular transaction without violating §760.2(a) of this part. If the United States person receives another order from the same boycotting country for similar goods, the Department has determined that a boycott-based refusal by a United States person to ship goods from the supplier whose goods were previously rejected would constitute a prohibited refusal to do business under §760.2(a) of this part. The Department will presume that filling such an order with alternative goods is evidence of the person's refusal to deal with the original supplier.

The Department recognizes the limitations this places on future transactions with a boycotting country once a shipment of goods has been rejected. Because of this, the Department wishes to point out that, when faced with a boycotting country's refusal to permit entry of the particular goods, a United States person may state its obligation to abide by the requirements of United States law and indicate its readiness to comply with the unilateral and specific selection of goods by the boycotting country in accordance with §760.3(d). That section provides, in pertinent part, as follows:

“A United States person may comply or agree to comply in the normal course of business with the unilateral and specific selection by a boycotting country ... of ... specific goods, ... provided that ... with respect to goods, the items,

in the normal course of business, are identifiable as to their source or origin at the time of their entry into the boycotting country by (a) uniqueness of design or appearance or (b) trademark, trade name, or other identification normally on the items themselves, including their packaging.”

The United States person may also provide certain services in advance of the unilateral selection by the boycotting country, such as the compilation of lists of qualified suppliers, so long as such services are customary to the type of business the United States person is engaged in, and the services rendered are completely non-exclusionary in character (i.e., the list of qualified suppliers would have to include the supplier whose goods had previously been rejected by the boycotting country, if they were fully qualified). See §760.2(a)(6) of this part for a discussion of the requirements for the provision of these services.

The Department wishes to emphasize that the unilateral selection exception in §760.3(d) of this part will be construed narrowly, and that all its requirements and conditions must be met, including the following:

- Discretion for the selection must be exercised by a boycotting country; or by a national or resident of a boycotting country;
- The selection must be stated in the affirmative specifying a particular supplier of goods;
- While a permissible selection may be boycott based, if the United States person knows or has reason to know that the purpose of the selection is to effect discrimination against any United States person on the basis of race, religion, sex, or national origin, the person may not comply under any circumstances.

The Department cautions United States persons confronted with the problem or concern over the

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boycott-based rejection of goods shipped to a boycotting country that the adoption of devices such as “risk of loss” clauses, or conditions that make the supplier financially liable if his or her goods are rejected by the boycotting country for boycott reasons are presumed by the Department

to be evasion of the statute and regulations, and as such are prohibited by §760.4 of this part, unless adopted prior to January 18, 1978. See §760.4(d) of this part.

**SUPPLEMENT NO. 8 TO PART 760 - INTERPRETATION***Definition of Interstate or Foreign Commerce of the United States*

When United States persons (as defined by the antiboycott regulations) located within the United States purchase or sell goods or services located outside the United States, they have engaged in an activity within the foreign commerce of the United States. Although the goods or services may never physically come within the geographic boundaries of the several states or territories of the United States, legal ownership or title is transferred from a foreign nation to the United States person who is located in the United States. In the case of a purchase, subsequent resale would also be within United States commerce.

It is the Department's view that the terms “sale” and “purchase” as used in the regulations are not limited to those circumstances where the goods or services are physically transferred to the person who acquires title. The EAR define the activities that serve as the transactional basis for U.S. commerce as those involving the “sale, purchase, or transfer” of goods or services. In the Department's view, as used in the antiboycott regulations, “transfer” contemplates physical

movement of the goods or services between the several states or territories and a foreign country, while “sale” and “purchase” relate to the movement of ownership or title.

**This interpretation applies only to those circumstances in which the person located within the United States buys or sells goods or services for its own account.** Where the United States person is engaged in the brokerage of foreign goods, i.e., bringing foreign buyers and sellers together and assisting in the transfer of the goods, the sale or purchase itself would not ordinarily be considered to be within U.S. commerce. The brokerage service, however, would be a service provided from the United States to the parties and thus an activity within U.S. commerce and subject to the antiboycott laws. See §760.1(d)(3).

The Department cautions that United States persons who alter their normal pattern of dealing to eliminate the passage of ownership of the goods or services to or from the several states or territories of the United States in order to avoid the application of the antiboycott regulations would be in violation of §760.4 of this part.

**SUPPLEMENT NO. 9 TO PART 760 - INTERPRETATION***Activities Exclusively Within a Boycotting Country--Furnishing Information*

§760.3(h) of this part provides that a United States person who is a bona fide resident of a boycotting country may comply with the laws of that country with respect to his or her activities exclusively within the boycotting country. Among the types of conduct permitted by this exception is “furnishing information within the host country” §760.3(h)(1)(v) of this part. For purposes of the discussion which follows, the Department is assuming that the person in question is a bona fide resident of the boycotting country as defined in §760.3(g), and that the information to be provided is required by the laws or regulations of the boycotting country, as also defined in §760.3(g) of this part. The only issue this interpretation addresses is under what circumstances the provision of information is “an activity exclusively within the boycotting country.”

The activity of “furnishing information” consists of two parts, the acquisition of the information and its subsequent transmittal. Under the terms of this exception, the information may not be acquired outside the country for the purpose of responding to the requirement for information imposed by the boycotting country. Thus, if an American company which is a bona fide resident of a boycotting country is required to provide information about its dealings with other U.S. firms, the company may not ask its parent corporation in the United States for that information, or make any other inquiry outside the boundaries of the boycotting country. The information must be provided to the boycotting country authorities based on information or knowledge available to the company and its personnel located within the boycotting country at the time the inquiry is received. See §760.3, (h) of this part, examples (iii), (iv), and (v).. Much of the information in the company's possession (transaction and corporate records) may have actually originated outside the

boycotting country, and much of the information known to the employees may have been acquired outside the boycotting country. This will not cause the information to fall outside the coverage of this exception, if the information was sent to the boycotting country or acquired by the individuals in normal commercial context prior to and unrelated to a boycott inquiry or purpose. It should be noted that if prohibited information (about business relations with a boycotted country, for example) has been forwarded to the affiliate in the boycotting country in anticipation of a possible boycott inquiry from the boycotting country government, the Department will not regard this as information within the knowledge of the bona fide resident under the terms of the exception. However, if the bona fide resident possesses the information prior to receipt of a boycott-related inquiry and obtained it in a normal commercial context, the information can be provided pursuant to this exception notwithstanding the fact that, at some point, the information came into the boycotting country from the outside.

The second part of the analysis of “furnishing information” deals with the limitation on the transmittal of the information. It can only be provided within the boundaries of the boycotting country. The bona fide resident may only provide the information to the party that the boycotting country law requires (directly or through an agent or representative within the country) so long as that party is located within the boycotting country. This application of the exception is somewhat easier, since it is relatively simple to determine if the information is to be given to somebody within the country.

Note that in discussing what constitutes furnishing information “exclusively within” the boycotting country, the Department does not address the nature of the transaction or activity that the information relates to. It is the Department's position that the nature of the transaction, including the inception or

completion of the transaction, is not material in analyzing the availability of this exception.

For example, if a shipment of goods imported into a boycotting country is held up at the time of entry, and information from the bona fide resident within that country is legally required to free those goods, the fact that the information may relate to a transaction that began outside the boycotting country is not material. The availability of the exception will be judged based on the activity of the bona fide resident within the country. If the resident provides that information of his or her own knowledge, and provides it to appropriate parties located exclusively within the country, the exception permits the information to be furnished.

Factual variations may raise questions about the application of this exception and the effect of this interpretation. In an effort to anticipate some of these, the Department has set forth below a number of questions and answers. They are incorporated as a part of this interpretation.

1. Q Under this exception, can a company which is a U.S. person and a bona fide resident of the boycotting country provide information to the local boycott office?

A Yes, if local law requires the company to provide this information to the boycott office and all the other requirements are met.

2. Q If the company knows that the local boycott office will forward the information to the Central Boycott Office, may it still provide the information to the local boycott office?

A Yes, if it is required by local law to furnish the information to the local boycott office and all the other requirements are met. The

company has no control over what happens to the information after it is provided to the proper authorities. (There is obvious potential for evasion here, and the Department will examine such occurrences closely.)

3. Q Can a U.S. person who is a bona fide resident of Syria furnish information to the Central Boycott Office in Damascus?

A No, unless the law in Syria specifically requires information to be provided to the Central Boycott Office the exception will not apply. Syria has a local boycott office responsible for enforcing the boycott in that country.

4. Q If a company which is a U.S. person and a bona fide resident of the boycotting country has an import shipment held up in customs of the boycotting country, and is required to provide information about the shipment to get it out of customs, may the company do so?

A Yes, assuming all other requirements are met. The act of furnishing the information is the activity taking place exclusively within the boycotting country. The fact that the information is provided corollary to a transaction that originates or terminates outside the boycotting country is not material.

5. Q If the U.S. person and bona fide resident of the boycotting country is shipping goods out of the boycotting country, and is required to certify to customs officials of the country at the time of export that the goods are not of Israeli origin, may he do so even though the certification relates to an export transaction?

A Yes, assuming all other requirements are met. See number 4 above.

**SUPPLEMENT NO. 10 TO PART 760 - INTERPRETATION**

(a) The words “Persian Gulf” cannot appear on the document.

This term is common in letters of credit from Kuwait and may be found in letters of credit from Bahrain. Although more commonly appearing in letters of credit, the term may also appear in other trade documents.

It is the Department’s view that this term reflects a historical dispute between the Arabs and the Iranians over geographic place names which in no way relates to existing economic boycotts. Thus, the term is neither prohibited nor reportable under the Regulations.

(b) Certify that goods are of U.S.A. origin and *contain no foreign parts*.

This term appears periodically on documents from a number of Arab countries. It is the Department’s position that the statement is a positive certification of origin and, as such, falls within the exception contained in §760.3(c) of this part for compliance with the import and shipping document requirements of a boycotting country. Even though a negative phrase is

contained within the positive clause, the phrase is a non-exclusionary, non-blacklisting statement. In the Department’s view, the additional phrase does not affect the permissible status of the positive certificate, nor does it make the request reportable §760.5(a)(5)(iii) of this part.

(c) Legalization of documents by any Arab consulate except Egyptian Consulate permitted.

This term appears from time to time in letters of credit but also may appear in various other trade documents requiring legalization and thus is not prohibited, and a request to comply with the statement is not reportable. Because a number of Arab states do not have formal diplomatic relations with Egypt, they do not recognize Egyptian embassy actions. The absence of diplomatic relations is the reason for the requirement. In the Department’s view this does not constitute an unsanctioned foreign boycott or embargo against Egypt under the terms of the Export Administration Act. Thus the term is not prohibited, and a request to comply with the statement is not reportable.

**SUPPLEMENT NO. 11 TO PART 760 - INTERPRETATION***Definition of Unsolicited Invitation to Bid*

§760.5(a)(4) of this part states in part:

“In addition, a United States person who receives an unsolicited invitation to bid, or similar proposal, containing a boycott request has not received a reportable request for purposes of this section where he does not respond to the invitation to bid or other proposal.”

The Regulations do not define “unsolicited” in this context. Based on review of numerous situations, the Department has developed certain criteria that it applies in determining if an invitation to bid or other proposal received by a U.S. person is in fact unsolicited.

The invitation is not unsolicited if, during a commercially reasonable period of time preceding the issuance of the invitation, a representative of the U.S. person contacted the company or agency involved for the purpose of promoting business on behalf of the company.

The invitation is not unsolicited if the U.S. person has advertised the product or line of products that are the subject of the invitation in periodicals or publications that ordinarily circulate to the country issuing the invitation during a commercially reasonable period of time preceding the issuance of the invitation.

The invitation is not unsolicited if the U.S. person has sold the same or similar products to the company or agency issuing the invitation within a commercially reasonable period of time before the issuance of the current invitation.

The invitation is not unsolicited if the U.S. person has participated in a trade mission to or trade fair in the country issuing the invitation within a commercially reasonable period of time before the issuance of the invitation.

Under §760.5(a)(4) of this part, the invitation is regarded as not reportable if the U.S. person receiving it does not respond. The Department has determined that a simple acknowledgment of the invitation does not constitute a response for purposes of this rule. However, an acknowledgment that requests inclusion for future invitations will be considered a response, and a report is required.

Where the person in receipt of an invitation containing a boycott term or condition is undecided about a response by the time a report would be required to be filed under the regulations, it is the Department’s view that the person must file a report as called for in the Regulations. The person filing the report may indicate at the time of filing that he has not made a decision on the boycott request but must file a supplemental report as called for in the regulations at the time a decision is made (§760.5(b)(6)).

**SUPPLEMENT NO. 12 TO PART 760 - INTERPRETATION**

The Department has taken the position that a U.S. person as defined by §760.1(b) of this part may not make use of an agent to furnish information that the U.S. person is prohibited from furnishing pursuant to §760.2(d) of this part.

Example (v) under §760.4 of this part (Evasion) provides:

“A, a U.S. company, is negotiating a long-term contract with boycotting country Y to meet all of Y’s medical supply needs. Y informs A that before such a contract can be concluded, A must complete Y’s boycott questionnaire. A knows that it is prohibited from answering the questionnaire so it arranges for a local agent in Y to supply the necessary information.

A’s action constitutes evasion of this part, because it is a device to mask prohibited activity carried out on A’s behalf.”

This interpretation deals with the application of the Regulations to a commercial agent registration requirement imposed by the government of Saudi Arabia. The requirement provides that nationals of Saudi Arabia seeking to register in Saudi Arabia as commercial agents or representatives of foreign concerns must furnish certain boycott-related information about the foreign concern prior to obtaining approval of the registration.

The requirement has been imposed by the Ministry of Commerce of Saudi Arabia, which is the government agency responsible for regulation of commercial agents and foreign commercial registrations. The Ministry requires the agent or representative to state the following:

“Declaration: I, the undersigned, hereby declare, in my capacity as (blank) that (name and address of foreign principal) is not presently on the blacklist of the Office for the Boycott of Israel and that it and all its branches, if any, are bound

by the decisions issued by the Boycott Office and do not (1) participate in the capital of, (2) license the manufacture of any products or grant trademarks or tradeware license to, (3) give experience or technical advice to, or (4) have any other relationship with other companies which are prohibited to be dealt with by the Boycott Office. Signed (name of commercial agent/representative/distributor).”

It is the Department’s view that under the circumstances specifically outlined in this interpretation relating to the nature of the requirement, a U.S. person will not be held responsible for a violation of this part when such statements are provided by its commercial agent or representative, even when such statements are made with the full knowledge of the U.S. person.

*Nature of the requirement.* For a boycott-related commercial registration requirement to fall within the coverage of this interpretation it must have the following characteristics:

1. The requirement for information imposed by the boycotting country applies to a national or other subject of the boycotting country qualified under the local laws of that country to function as a commercial representative within that country;
2. The registration requirement relates to the registration of the commercial agent’s or representative’s authority to sell or distribute goods within the boycotting country acquired from the foreign concern;
3. The requirement is a routine part of the registration process and is not applied selectively based on boycott-related criteria;
4. The requirement applies only to a commercial agent or representative in the boycotting country and does not apply to the foreign concern itself; and

5. The requirement is imposed by the agency of the boycotting country responsible for regulating commercial agencies.

The U.S. person whose agent is complying with the registration requirement continues to be subject to all the terms of the Regulations, and may not provide any prohibited information to the agent for purposes of the agent's compliance with the requirement.

In addition, the authority granted to the commercial agent or representative by the U.S. person must be consistent with standard commercial practices and not involve any grants of authority beyond those incidental to the commercial sales and distributorship responsibilities of the agent.

Because the requirement does not apply to the U.S. person, no reporting obligation under §760.5 of this part would arise.

This interpretation, like all others issued by the Department discussing applications of the antiboycott provisions of the Export Administration Regulations, should be read narrowly. Circumstances that differ in any material way from those discussed in this notice will be considered under the applicable provisions of the Regulations. Persons are particularly advised not to seek to apply this interpretation to circumstances in which U.S. principals seek to use agents to deal with boycott-related or potential blacklisting situations.

**SUPPLEMENT NO. 13 TO PART 760 - INTERPRETATION**

**SUMMARY**

This interpretation considers boycott-based contractual language dealing with the selection of suppliers and subcontractors. While this language borrows terms from the “unilateral and specific selection” exception contained in §760.3(d), it fails to meet the requirements of that exception. Compliance with the requirements of the language constitutes a violation of the regulatory prohibition of boycott-based refusals to do business.

**REGULATORY BACKGROUND**

Section 760.2(a) of this part prohibits U.S. persons from refusing or knowingly agreeing to refuse to do business with other persons when such refusal is pursuant to an agreement with, requirement of, or request of a boycotting country. That prohibition does not extend to the performance of management, procurement or other pre-award services, however, notwithstanding knowledge that the ultimate selection may be boycott-based. To be permissible such services: (1) must be customary for the firm or industry involved and (2) must not exclude others from the transaction or involve other actions based on the boycott. See §760.2(a)(6) of this part, “Refusals to Do Business”, and example (xiii).

A specific exception is also made in the Regulations for compliance (and agreements to comply) with a unilateral and specific selection of suppliers or subcontractors by a boycotting country buyer. See §760.3(d) of this part. In Supplement No. 1 to part 760, the following form of contractual language was said to fall within that exception for compliance with unilateral and specific selection:

“The Government of the boycotting country (or the First Party), in its exclusive power, reserves its right to make the final unilateral and specific selection of any proposed carriers,

insurers, suppliers of services to be performed within the boycotting country, or of specific goods to be furnished in accordance with the terms and conditions of this contract.”

The Department noted that the actual steps necessary to comply with any selection made under this agreement would also have to meet the requirements of §760.3(d) to claim the benefit of that exception. In other words, the discretion in selecting would have to be exercised exclusively by the boycotting country customer and the selection would have to be stated in the affirmative, naming a particular supplier. See §760.3(d)(4) and (5) of this part.

**ANALYSIS OF ADDITIONAL CONTRACTUAL LANGUAGE**

The Office of Antiboycott Compliance has learned of the introduction of a contractual clause into tender documents issued by boycotting country governments. This clause is, in many respects, similar to that dealt with in Supplement No. 1 to part 760, but several critical differences exist.

The clause states:

*BOYCOTT OF  
[NAME OF BOYCOTTED COUNTRY]*

In connection with the performance of this Agreement, Contractor acknowledges that the import and customs laws and regulations of boycotting country apply to the furnishing and shipment of any products or components thereof to boycotting country. The Contractor specifically acknowledges that the aforementioned import and customs laws and regulations of boycotting country prohibit, among other things, the importation into boycotting country of products or components thereof: (A) Originating in boycotted country (B) Manufactured, produced and furnish by companies organized under the laws of

boycotted country and (C) Manufactured, produced or furnished by Nationals or Residents of boycotted country.

The Government, in its exclusive power, reserves its right to make the final unilateral and specific selection of any proposed Carriers, Insurers, Suppliers of Services to be performed within boycotting country or of specific goods to be furnished in accordance with the terms and conditions of this Contract.

To assist the Government in exercising its right under the preceding paragraph, Contractor further agrees to provide a complete list of names and addresses of all his Sub-Contractors, Suppliers, Vendors and Consultants and any other suppliers of the service for the project.

The title of this clause makes clear that its provisions are intended to be boycott-related. The first paragraph acknowledges the applicability of certain boycott-related requirements of the boycotting country's laws in language reviewed in part 760, Supplement No. 1, Part II.B. and found to constitute a permissible agreement under the exception contained in §760.3(a) of this part for compliance with the import requirements of a boycotting country. The second and third paragraphs together deal with the procedure for selecting subcontractors and suppliers of services and goods and, in the context of the clause as a whole, must be regarded as motivated by boycott considerations and intended to enable the boycotting country government to make boycott-based selections, including the elimination of blacklisted subcontractors and suppliers.

The question is whether the incorporation into these paragraphs of some language from the "unilateral and specific selection" clause approved in Supplement No. 1 to part 760 suffices to take the language outside §760.2(a) of this part's prohibition on boycott-based agreements to refuse to do business. While the first sentence of this clause is consistent with the

language discussed in Supplement No. 1 to part 760, the second sentence significantly alters the effect of this clause. The effect is to draw the contractor into the decision-making process, thereby destroying the unilateral character of the selection by the buyer. By agreeing to submit the names of the suppliers it plans to use, the contractor is agreeing to give the boycotting country buyer, who has retained the right of final selection, the ability to reject, for boycott-related reasons, any supplier the contractor has already chosen. Because the requirement appears in the contractual provision dealing with the boycott, the buyer's rejection of any supplier whose name is given to the buyer pursuant to this provision would be presumed to be boycott-based. By signing the contract, and thereby agreeing to comply with all of its provisions, the contractor must either accept the buyer's rejection of any supplier, which is presumed to be boycott-based because of the context of this provision, or breach the contract.

In these circumstances, the contractor's method of choosing its subcontractors and suppliers, in anticipation of the buyer's boycott-based review, cannot be considered a permissible pre-award service because of the presumed intrusion of boycott-based criteria into the selection process. Thus, assuming all other jurisdictional requirements necessary to establish a violation of part 760 are met, the signing of the contract by the contractor constitutes a violation of §760.2(a) of this part because he is agreeing to refuse to do business for boycott reasons.

The apparent attempt to bring this language within the exception for compliance with unilateral and specific selections is ineffective. The language does not place the discretion to choose suppliers in the hands of the boycotting country buyer but divides this discretion between the buyer and his principal contractor. Knowing that the buyer will not accept a boycotted company as supplier or subcontractor, the contractor is asked to use his discretion in selecting a single supplier or subcontractor for each element of the contract. The boycotting

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country buyer exercises discretion only through accepting or rejecting the selected supplier or contractor as its boycott policies require. In these circumstances it cannot be said that the buyer is exercising right of unilateral and specific selection which meets the criteria of

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§760.3(d). For this reason, agreement to the contractual language discussed here would constitute an agreement to refuse to do business with any person rejected by the buyer and would violate §760.2(a) of this part.

**SUPPLEMENT NO. 14 TO PART 760 - INTERPRETATION**

*(a) Contractual clause concerning import, customs and boycott laws of a boycotting country*

The following language has appeared in tender documents issued by a boycotting country:

“Supplier declares his knowledge of the fact that the import, Customs and boycott laws, rules and regulations of [name of boycotting country] apply in importing to [name of boycotting country].”

Supplier declares his knowledge of the fact that under these laws, rules and regulations, it is prohibited to import into [name of the boycotting country] any products or parts thereof that originated in [name of boycotted country]; were manufactured, produced or imported by companies formed under the laws of [name of boycotted country]; or were manufactured, produced or imported by nationals or residents of [name of boycotted country].”

Agreeing to the above contractual language is a prohibited agreement to refuse to do business, under §760.2(a) of this part. The first paragraph requires broad acknowledgment of the application of the boycotting country’s boycott laws, rules and regulations. Unless this language is qualified to apply only to boycott restrictions with which U.S. persons may comply, agreement to it is prohibited. See §760.2(a) of this part, examples (v) and (vi) under “Agreements to Refuse to Do Business.”

The second paragraph does not limit the scope of the boycott restrictions referenced in the first paragraph. It states that the boycott laws include restrictions on goods originating in the boycotted country; manufactured, produced or supplied by companies organized under the laws of the boycotted country; or manufactured, produced or supplied by nationals or residents of the boycotted country. Each of these restrictions

is within the exception for compliance with the import requirements of the boycotting country (§760.3(a) of this part). However, the second paragraph’s list of restrictions is not exclusive. Since the boycott laws generally include more than what is listed and permissible under the antiboycott law, U.S. persons may not agree to the quoted clause. For example, a country’s boycott laws may prohibit imports of goods manufactured by blacklisted firms. Except as provided by §760.3(g) of this part, agreement to and compliance with this boycott restriction would be prohibited under the antiboycott law.

The above contractual language is distinguished from the contract clause determined to be permissible in supplement 1, Part II, A, by its acknowledgment that the boycott requirements of the boycotting country apply. Although the first sentence of the Supplement 1 clause does not exclude the possible application of boycott laws, it refers only to the import and customs laws of the boycotting country without mentioning the boycott laws as well. As discussed fully in Supplement No. 1 to part 760, compliance with or agreement to the clause quoted there is, therefore, permissible.

The contract clause quoted above, as well as the clause dealt with in Supplement No. 1 to part 760, part II, A, is reportable under §760.5(a)(1) of this part.

*(b) Letter of credit terms removing blacklist certificate requirement if specified vessels used*

The following terms frequently appear on letters of credit covering shipment to Iraq:

“Shipment to be effected by Iraqi State Enterprise for Maritime Transport Vessels or by United Arab Shipping Company (SAB) vessels, if available.

If shipment is effected by any of the above company's [sic] vessels, black list certificate or evidence to that effect is not required."

These terms are not reportable and compliance with them is permissible.

The first sentence, a directive to use Iraqi State Enterprise for Maritime Transport or United Arab Shipping vessels, is neither reportable nor prohibited because it is not considered by the Department to be boycott-related. The apparent reason for the directive is Iraq's preference to have cargo shipped on its own vessels (or, as in the case of United Arab Shipping, on vessels owned by a company in part established and owned by the Iraqi government). Such "cargo preference" requirements, calling for the use of an importing or exporting country's own ships, are common throughout the world and are imposed for non-boycott reasons. (See §760.2(a) of this part, example (vii) AGREEMENTS TO REFUSE TO DO BUSINESS.)

In contrast, if the letter of credit contains a list of vessels or carriers that appears to constitute a boycott-related whitelist, a directive to select a vessel from that list would be both reportable and prohibited. When such a directive appears in conjunction with a term removing the blacklist certificate requirement if these vessels are used, the Department will presume that beneficiaries, banks and any other U.S. person receiving the letter of credit know that there is a boycott-related purpose for the directive.

The second sentence of the letter of credit language quoted above does not, by itself, call for a blacklist certificate and is not therefore, reportable. If a term elsewhere on the letter of credit imposes a blacklist certificate requirement, then that other term would be reportable.

***(c) Information not related to a particular transaction in U.S. commerce***

Under §760.2 (c), (d) and (e), of this part U.S. persons are prohibited, with respect to their activities in U.S. commerce, from furnishing certain information. It is the Department's position that the required nexus with U.S. commerce is established when the furnishing of information itself occurs in U.S. commerce. Even when the furnishing of information is not itself in U.S. commerce, however, the necessary relationship to U.S. commerce will be established if the furnishing of information relates to particular transactions in U.S. commerce or to anticipated transactions in U.S. commerce. See, e.g. §760.2(d), examples (vii), (ix) and (xii) of this part.

The simplest situation occurs where a U.S. person located in the United States furnishes information to a boycotting country. The transfer of information from the United States to a foreign country is itself an activity in U.S. commerce. See §760.1(d)(1)(iv) of this part. In some circumstances, the furnishing of information by a U.S. person located outside the United States may also be an activity in U.S. commerce. For example, the controlled foreign subsidiary of a domestic concern might furnish to a boycotting country information the subsidiary obtained from the U.S.-located parent for that purpose. The subsidiary's furnishing would, in these circumstances, constitute an activity in U.S. commerce. See §760.1(d)(8) of this part.

Where the furnishing of information is not itself in U.S. commerce, the U.S. commerce requirement may be satisfied by the fact that the furnishing is related to an activity in U.S. foreign or domestic commerce. For example, if a shipment of goods by a controlled-in-fact foreign subsidiary of a U.S. company to a boycotting country gives rise to an inquiry from the boycotting country concerning the subsidiary's relationship with another firm, the Department regards any responsive furnishing of information by the subsidiary as related to the shipment giving rise to the inquiry. If the shipment is in U.S. foreign or domestic

commerce, as defined by the regulations, then the Department regards the furnishing to be related to an activity in U.S. commerce and subject to the antiboycott regulations, whether or not the furnishing itself is in U.S. commerce.

In some circumstances, the Department may regard a furnishing of information as related to a broader category of present and prospective transactions. For example, if a controlled-in-fact foreign subsidiary of a U.S. company is requested to furnish information about its commercial dealings and it appears that failure to respond will result in its blacklisting, any responsive furnishing of information will be regarded by the Department as relating to all of the subsidiary's present and anticipated business activities with the inquiring boycotting country. Accordingly, if any of these present or anticipated business activities are in U.S. commerce, the Department will regard the furnishing as related to an activity in U.S. commerce and subject to the antiboycott regulations.

In deciding whether anticipated business activities will be in U.S. commerce, the

Department will consider all of the surrounding circumstances. Particular attention will be given to the history of the U.S. person's business activities with the boycotting country and others, the nature of any activities occurring after a furnishing of information occurs and any relevant economic or commercial factors which may affect these activities.

For example, if a U.S. person has no activities with the boycotting country at present but all of its other international activities are in U.S. commerce, as defined by the Regulations, then the Department is likely to regard any furnishing of information by that person for the purpose of securing entry into the boycotting country's market as relating to anticipated activities in U.S. commerce and subject to the antiboycott regulations. Similarly, if subsequent to the furnishing of information to the boycotting country for the purpose of securing entry into its markets, the U.S. person engages in transactions with that country which are in U.S. commerce, the Department is likely to regard the furnishing as related to an activity in U.S. commerce and subject to the antiboycott regulations.

**SUPPLEMENT NO. 15 TO PART 760 - INTERPRETATION**

Sections 760.2 (c), (d), and (e) of this part prohibit United States persons from furnishing certain types of information with intent to comply with, further, or support an unsanctioned foreign boycott against a country friendly to the United States. The Department has been asked whether prohibited information may be transmitted--that is, passed to others by a United States person who has not directly or indirectly authored the information--without such transmission constituting a furnishing of information in violation of §760.2 (c), (d), and (e) of this part. Throughout this interpretation, "transmission" is defined as the passing on by one person of information initially authored by another. The Department believes that there is no distinction in the EAR between transmitting (as defined above) and furnishing prohibited information under the EAR and that the transmission of prohibited information with the requisite boycott intent is a furnishing of information violative of the EAR. At the same time, however, the circumstances relating to the transmitting party's involvement will be carefully considered in determining whether that party intended to comply with, further, or support an unsanctioned foreign boycott.

The EAR does not deal specifically with the relationship between transmitting and furnishing. However, the restrictions in the EAR on responses to boycott-related conditions, both by direct and indirect actions and whether by primary parties or intermediaries, indicate that U.S. persons who simply transmit prohibited information are to be treated the same under the EAR as those who both author and furnish prohibited information. This has been the Department's position in enforcement actions it has brought.

The few references in the EAR to the transmission of information by third parties are consistent with this position. Two examples, both relating to the prohibition against the furnishing of information about U.S. persons'

race, religion, sex, or national origin (§760.2(c) of this part), deal explicitly with transmitting information. These examples (§760.2(c) of this part, example (v), and §760.3(f) of this part, example (vi)) show that, in certain cases, when furnishing certain information is permissible, either because it is not within a prohibition or is excepted from a prohibition, transmitting it is also permissible. These examples concern information that may be furnished by individuals about themselves or their families. The examples show that employers may transmit to a boycotting country visa applications or forms containing information about an employee's race, religion, sex, or national origin if that employee is the source of the information and authorizes its transmission. In other words, within the limits of ministerial action set forth in these examples, employees' actions in transmitting information are protected by the exception available to the employee. The distinction between permissible and prohibited behavior rests not on the definitional distinction between furnishing and transmitting, but on the excepted nature of the information furnished by the employee. The information originating from the employee does not lose its excepted character because it is transmitted by the employer.

The Department's position regarding the furnishing and transmission of certificates of one's own blacklist status rests on a similar basis and does not support the contention that third parties may transmit prohibited information authored by another. Such self-certifications do not violate any prohibitions in the EAR (see Supplement Nos. 1(I)(B), 2, and 5(A)(2); §760.2(f), example (xiv)). It is the Department's position that it is not prohibited for U.S. persons to transmit such self-certifications completed by others. Once again, because furnishing the self-certification is not prohibited, third parties who transmit the self-certifications offend no prohibition. On the other hand, if a third party authored information about another's blacklist

status, the act of transmitting that information would be prohibited.

A third example in the EAR (§760.5, example (xiv) of this part), which also concerns a permissible transmission of boycott-related information, does not support the theory that one may transmit prohibited information authored by another. This example deals with the reporting requirements in §760.5 of this part--not the prohibitions--and merely illustrates that a person who receives and transmits a self-certification has not received a reportable request.

It is also the Department's position that a U.S. person violates the prohibitions against furnishing information by transmitting prohibited information even if that person has received no reportable request in the transaction. For example, where documents accompanying a letter of credit contain prohibited information, a negotiating bank that transmits the documents, with the requisite boycott intent, to an issuing bank has not received a reportable request, but has furnished prohibited information.

While the Department does not regard the suggested distinction between transmitting and

furnishing information as meaningful, the facts relating to the third party's involvement may be important in determining whether that party furnished information with the required intent to comply with, further, or support an unsanctioned foreign boycott. For example, if it is a standard business practice for one participant in a transaction to obtain and pass on, without examination, documents prepared by another party, it might be difficult to maintain that the first participant intended to comply with a boycott by passing on information contained in the unexamined documents. Resolution of such intent questions, however, depends upon an analysis of the individual facts and circumstances of the transaction and the Department will continue to engage in such analysis on a case-by-case basis.

This interpretation, like all others issued by the Department discussing applications of the antiboycott provisions of the EAR, should be read narrowly. Circumstances that differ in any material way from those discussed in this interpretation will be considered under the applicable provisions of the Regulations.

**SUPPLEMENT NO. 16 TO PART 760 - INTERPRETATION**

Pursuant to Articles 5, 7, and 26 of the Treaty of Peace between the State of Israel and the Hashemite Kingdom of Jordan and implementing legislation enacted by Jordan, Jordan's participation in the Arab economic boycott of Israel was formally terminated on August 16, 1995.

On the basis of this action, it is the Department's position that certain requests for information, action or agreement from Jordan which were considered boycott-related by implication now cannot be presumed boycott-related and thus would not be prohibited or reportable under the regulations. For example, a request that an exporter certify that the vessel on which it is shipping its goods is eligible to enter Hashemite Kingdom of Jordan ports has been considered a boycott-related request that the exporter could not comply with because Jordan has had a boycott in force against Israel. Such a request from Jordan after August 16, 1995 would not be presumed boycott-related because the

underlying boycott requirement/basis for the certification has been eliminated. Similarly, a U.S. company would not be prohibited from complying with a request received from Jordanian government officials to furnish the place of birth of employees the company is seeking to take to Jordan because there is no underlying boycott law or policy that would give rise to a presumption that the request was boycott-related.

U.S. persons are reminded that requests that are on their face boycott-related or that are for action obviously in furtherance or support of an unsanctioned foreign boycott are subject to the regulations, irrespective of the country of origin. For example, requests containing references to "blacklisted companies", "Israel boycott list", "non-Israeli goods" or other phrases or words indicating boycott purpose would be subject to the appropriate provisions of the Department's antiboycott regulations.

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### § 762.1 SCOPE

In this part, references to the EAR are references to 15 CFR chapter VII, subchapter C.

#### (a) **Transactions subject to this part**

The recordkeeping provisions of this part apply to the following transactions:

- (1) Transactions involving restrictive trade practices or boycotts described in part 760 of the EAR;
- (2) Exports of commodities, software, or technology from the United States and any known reexports, transshipment, or diversions of items exported from the United States;
- (3) Exports to Canada, if, at any stage in the transaction, it appears that a person in a country other than the United States or Canada has an interest therein, or that the item involved is to be reexported, transshipped, or diverted from Canada to another foreign country; or
- (4) Any other transactions subject to the EAR, including, but not limited to, the prohibitions against servicing, forwarding and other actions

for or on behalf of end-users of proliferation concern contained in §§736.2(b)(7) and 744.6 of the EAR. This part also applies to all negotiations connected with those transactions, except that for export control matters a mere preliminary inquiry or offer to do business and negative response thereto shall not constitute negotiations, unless the inquiry or offer to do business proposes a transaction that a reasonably prudent exporter would believe likely lead to a violation of the EAA, the EAR or any order, license or authorization issued thereunder.

#### (b) **Persons subject to this part**

Any person subject to the jurisdiction of the United States who, as principal or agent (including a forwarding agent), participates in any transaction described in paragraph (a) of this section, and any person in the United States or abroad who is required to make and maintain records under any provision of the EAR, shall keep and maintain all records described in §762.2 of this part that are made or obtained by that person and shall produce them in a manner provided by §762.7 of this part.

### § 762.2 RECORDS TO BE RETAINED

#### (a) **Records required to be retained**

The records required to be retained under this part 762 include the following:

- (1) Export control documents as defined in part 772 of the EAR, except parties submitting documents electronically to BIS via the SNAP-R system are not required to retain copies of documents so submitted;
- (2) Memoranda;
- (3) Notes;
- (4) Correspondence;
- (5) Contracts;
- (6) Invitations to bid;
- (7) Books of account;
- (8) Financial records;

The term "subject to the EAR" includes goods classified under either an ECCN or under EAR99

(9) Restrictive trade practice or boycott documents and reports;

(10) Notification from BIS of an application being returned without action; notification by BIS of an application being denied; notification by BIS of the results of a commodity classification or encryption review request conducted by BIS;

(11) The serial number, make, model, and caliber for any firearm controlled in ECCN 0A501.a and for shotguns with barrel length less than 18 inches controlled in 0A502 that have been exported. The “exporter” or any other party to the transaction (*see* § 758.3 of the EAR), that creates or receives such records is a person responsible for retaining this record; and

(12) Other records pertaining to the types of transactions described in §762.1(a) of this part, which are made or obtained by a person described in §762.1(b) of this part.

**(b) Records retention references**

Paragraph (a) of this section describes records that are required to be retained. Other parts, sections, or supplements of the EAR which require the retention of records or contain recordkeeping provisions, include, but are not limited to the following:

- (1) §732.6, Steps for other requirements;
- (2) §734.4(g), *de minimis* calculation (method);
- (3) Part 736, General Prohibitions;
- (4) §740.1, Introduction (to License Exceptions);
- (5) § 740.9(a)(3)(i)(B), Tools of trade: temporary exports, reexports, and transfers (in country) of technology by U.S. persons (TMP);
- (6) §740.10(c), Servicing and replacement of parts and equipment (RPL);
- (7) § 740.11(b)(2)(iii) and (iv), Exports, reexports and transfers (in-country) made for or on behalf of a department or agency of the U.S. Government and Items exported

at the direction of the U.S. Department of Defense (GOV);

- (8) §740.12, Humanitarian donations (GFT);
- (9) §740.13(h), Technology and software—unrestricted (TSU);
- (10) § 740.20(g), Responses to License Exception STA eligibility requests for “600 series” end items (STA);
- (11) §743.1, Wassenaar reports;
- (12) §743.2, High Performance Computers;
- (13) § 743.4(c)(1) and (c)(2), Conventional arms reporting;
- (14) §745.1, Annual reports;
- (15) §745.2, End-use certificates;
- (16) §746.3 Iraq;
- (17) [Reserved];
- (18) §748.1(d)(2), Procedure for requesting authorization to file paper applications, notifications, or requests;
- (19) §748.4(b), Disclosure of parties on license applications and the power of attorney;
- (20) §748.6, General instructions for license applications;
- (21) §748.9, Support documents for license applications;
- (22) §748.10, PRC End-User Statement;
- (23) §748.11, Statement by Ultimate Consignee and Purchaser;
- (24) §748.12, Firearms Convention (FC) Import Certificate;
- (25) [RESERVED]
- (26) Supplement No. 2 to Part 748 paragraph (c)(2), Security Safeguard Plan requirement;
- (27) §750.7, Issuance of license and acknowledgment of conditions;
- (28) §750.8, Revocation or suspension of license;
- (29) §750.9, Duplicate licenses;
- (30) §750.10, Transfer of licenses for export;
- (31) – (39) [Reserved]
- (40) §754.4, Unprocessed western red cedar;
- (41) §758.1 and §758.2, Automated Export System record;
- (42) §758.1(h), Record and proof of agent's authority;
- (43) §758.3(b), Routed Export Transactions;
- (44) §758.6, Destination control statements;

- (45) §760.5, Reporting requirements;
- (46) §762.2, Records to be retained;
- (47) §764.2, Violations;
- (48) §764.5, Voluntary self-disclosure;
- (49) §766.10, Subpoenas;
- (50) § 772.2, “Specially designed” definition, note to paragraphs (b)(4), (b)(5), and (b)(6);
- (51) § 740.20, note to paragraph (c)(1), License Exception STA prior approval on a BIS or DDTTC license (STA);
- (52) § 744.15(b), UVL statement as well as any logs or records created for multiple exports, reexports, and transfers (in-country);
- (53) § 750.7(c)(2), Notification of name change by advisory opinion request; and
- (54) § 748.13 Certain Hong Kong import and export licenses.

*(c) Special recordkeeping requirement*

**(1) Libya.** Persons in receipt of a specific license granted by the Department of the Treasury’s Office of Foreign Assets Control (OFAC) for the export to Libya of any item subject to the EAR must maintain a record of those items transferred to Libya pursuant to such specific license and record when the items are consumed or destroyed in the normal course of their use in Libya, reexported to a third country not requiring further authorization from BIS, or returned to the United States. This requirement applies only to items subject to a license requirement under the EAR for export to Libya as of April 29, 2004. These records must include the following information:

- (i) Date of export or reexport and related details (including means of transport);
- (ii) Description of items (including ECCN) and value of items in U.S. Dollars;
- (iii) Description of proposed end-use and locations in Libya where items are intended to be used;

(iv) Parties other than specific OFAC licensee who may be given temporary access to the items; and

(v) Date of consumption or destruction, if the items are consumed or destroyed in the normal course of their use in Libya, or the date of reexport to a third country not requiring further authorization from BIS, or return to the United States.

(2) [RESERVED].

**§ 762.3 RECORDS EXEMPT FROM RECORDKEEPING REQUIREMENTS**

(a) The following types of records have been determined to be exempt from the recordkeeping requirement procedures:

- (1) Export information page;
- (2) Special export file list;
- (3) Vessel log from freight forwarder;
- (4) Inspection certificate;
- (5) Warranty certificate, except for a warranty certificate issued for an address located outside the United States for any firearm controlled in ECCN 0A501.a and for shotguns with barrel length less than 18 inches controlled in 0A502;
- (6) Guarantee certificate;
- (7) Packing material certificate;
- (8) Goods quality certificate;
- (9) Notification to customer of advance meeting;
- (10) Letter of indemnity;
- (11) Financial release form;
- (12) Financial hold form;
- (13) Export parts shipping problem form;
- (14) Draft number log;
- (15) Expense invoice mailing log;
- (16) Financial status report;
- (17) Bank release of guarantees;
- (18) Cash sheet;
- (19) Commission payment back-up;
- (20) Commissions payable worksheet;

- (21) Commissions payable control;
- (22) Check request forms;
- (23) Accounts receivable correction form;
- (24) Check request register;
- (25) Commission payment printout;
- (26) Engineering fees invoice;
- (27) Foreign tax receipt;
- (28) Individual customer credit status;
- (29) Request for export customers code forms;
- (30) Acknowledgement for receipt of funds;
- (31) Escalation development form;
- (32) Summary quote;
- (33) Purchase order review form;
- (34) Proposal extensions;
- (35) Financial proposal to export customers; and
- (36) Sales summaries.

(b) [RESERVED]

#### § 762.4 ORIGINAL RECORDS REQUIRED

The regulated person must maintain the original records in the form in which that person receives or creates them unless that person meets all of the conditions of §762.5 of this part relating to reproduction of records. If the original record does not meet the standards of legibility and readability described in §762.5 of this part and the regulated person intends to rely on that record to meet the recordkeeping requirements of the EAR, that person must retain the original record. With respect to documents that BIS issues to a party in SNAP-R, either an electronically stored copy in a format that makes the document readable with software possessed by that party or a paper print out of the complete document is deemed to be an original record for purposes of this section.

#### § 762.5 REPRODUCTION OF ORIGINAL RECORDS

(a) The regulated person may maintain reproductions instead of the original records

provided all of the requirements of paragraph (b) of this section are met.

(b) In order to maintain the records required by §762.2 of this part, the regulated persons defined in §762.1 of this part may use any photographic, photostatic, miniature photographic, micrographic, automated archival storage, or other process that completely, accurately, legibly and durably reproduces the original records (whether on paper, microfilm, or through electronic digital storage techniques). The process must meet all of the following requirements, which are applicable to all systems:

(1) The system must be capable of reproducing all records on paper.

(2) The system must record and be able to reproduce all marks, information, and other characteristics of the original record, including both obverse and reverse sides of paper documents in legible form.

(3) When displayed on a viewer, monitor, or reproduced on paper, the records must exhibit a high degree of legibility and readability. (For purposes of this section, legible and legibility mean the quality of a letter or numeral that enable the observer to identify it positively and quickly to the exclusion of all other letters or numerals. Readable and readability mean the quality of a group of letters or numerals being recognized as complete words or numbers.)

(4) The system must preserve the initial image (including both obverse and reverse sides of paper documents) and record all changes, who made them and when they were made. This information must be stored in such a manner that none of it may be altered once it is initially recorded.

(5) The regulated person must establish written procedures to identify the individuals who are responsible for the operation, use and maintenance of the system.

(6) The regulated person must establish written procedures for inspection and quality assurance of records in the system and document the implementation of those procedures.

(7) The system must be complete and contain all records required to be kept by this part or the regulated person must provide a method for correlating, identifying and locating records relating to the same transaction(s) that are kept in other record keeping systems.

(8) The regulated person must keep a record of where, when, by whom, and on what equipment the records and other information were entered into the system.

(9) Upon request by the Office of Export Enforcement, the Office of Antiboycott Compliance, or any other agency of competent jurisdiction, the regulated person must furnish, at the examination site, the records, the equipment and, if necessary, knowledgeable personnel for locating, reading, and reproducing any record in the system.

**(c) *Requirements applicable to systems based on the storage of digital images***

For systems based on the storage of digital images, the system must provide accessibility to any digital image in the system. With respect to records of transactions, including those involving restrictive trade practices or boycott requirements or requests. The system must be able to locate and reproduce all records relating to a particular transaction based on any one of the following criteria:

- (1) The name(s) of the parties to the transaction;
- (2) Any country(ies) connected with the transaction; or
- (3) A document reference number that was on any original document.

**(d) *Requirements applicable to a system based on photographic processes***

For systems based on photographic, photostatic, or miniature photographic processes, the regulated person must maintain a detailed index of all records in the system that is arranged in such a manner as to allow immediate location of any particular record in the system.

**§ 762.6 PERIOD OF RETENTION**

**(a) *Five year retention period***

All records required to be kept by the EAR must be retained for five years from the latest of the following times:

- (1) The export from the United States of the item involved in the transaction to which the records pertain or the provision of financing, transporting or other service for or on behalf of end-users of proliferation concern as described in §§736.2(b)(7) and 744.6 of the EAR;
- (2) Any known reexport, transshipment, or diversion of such item;
- (3) Any other termination of the transaction, whether formally in writing or by any other means; or
- (4) In the case of records of pertaining to transactions involving restrictive trade practices or boycotts described in part 760 of the EAR, the date the regulated person receives the boycott-related request or requirement.

**(b) *Destruction or disposal of records***

If the Bureau of Industry and Security or any other government agency makes a formal or informal request for a certain record or records, such record or records may not be destroyed or disposed of without the written authorization of the agency concerned. This prohibition applies to records pertaining to voluntary disclosures

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made to BIS in accordance with § 764.5(c)(4)(ii) and other records even if such records have been retained for a period of time exceeding that required by paragraph (a) of this section.

Office of Antiboycott Compliance are authorized to issue subpoenas requiring persons to appear and testify, or to produce books, records, and other writings. In instances where a person does not comply with a subpoena, the Department of Commerce may petition a district court to have the subpoena enforced.

**§ 762.7 PRODUCING AND INSPECTING RECORDS**

**(a) *Persons located in the United States***

**(b) *Persons located outside of the United States***

Persons located in the United States may be asked to produce books, records, and other information that are required to be kept by any provision of the EAR, or any license, order, or authorization issued thereunder and to make them available for inspection and copying by any authorized official of the BIS, or any other official of the United States designated by BIS, without any charge or expense to such official. OEE and the Office of Antiboycott Compliance encourage voluntary cooperation with such requests. When voluntary cooperation is not forthcoming, OEE and the

Persons located outside of the United States that are required to keep books, records, and other information by any provision of the EAR or by any license, order, or authorization issued thereunder shall produce all books, records, and other information required to be kept, or reproductions thereof, and make them available for inspection and copying upon request by an authorized official of BIS without any charge or expense to such official. BIS may designate any other official of the United States to exercise the authority of BIS under this subsection.

Enforcement and Protective Measures

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**§ 764.1 INTRODUCTION**

In this part, references to the EAR are references to [15 CFR chapter VII](#), subchapter C. This part specifies conduct that constitutes a violation of the ECRA and/or the EAR and the sanctions that may be imposed for such violations. Antiboycott violations are described in part 760 of the EAR, and the violations and sanctions specified in part 764 also apply to conduct relating to part 760, unless otherwise stated. This part describes administrative sanctions that may be imposed by BIS. This part also describes criminal sanctions that may be imposed by a [United States](#) court and other sanctions that are neither administrative nor criminal pursuant to sections 11A, B, and C of the Export Administration Act EAA and other statutes. Information is provided on how to report and disclose violations. Finally, this part

identifies protective administrative measures that BIS may take in the exercise of its regulatory authority.

**§ 764.2 VIOLATIONS**

*(a) Engaging in prohibited conduct*

No person may engage in any transaction or take any other action prohibited by or contrary to, or refrain from engaging in any transaction or take any other action required by ECRA, the EAR, or any order, license or authorization issued thereunder.

*(b) Causing, aiding, or abetting a violation*

No person may cause or aid, abet, counsel, command, induce, procure, permit, or approve the doing of any act prohibited, or the omission of any act required, by ECRA, the EAR, or any order, license or authorization issued thereunder.

*(c) Solicitation and attempt*

No person may solicit or attempt a violation of ECRA, the EAR, or any order, license, or authorization issued thereunder.

*(d) Conspiracy*

No person may conspire or act in concert with one or more persons in any manner or for any purpose to bring about or to do any act that constitutes a violation of ECRA, the EAR, or any order, license, or authorization issued thereunder.

*(e) Acting with knowledge of a violation*

No person may order, buy, remove, conceal, store, use, sell, loan, dispose of, transfer, transport, finance, forward, or otherwise service, in whole or in part, or conduct negotiations to facilitate such activities with respect to, any item that has been, is being, or is about to be exported, reexported, or transferred (in-country), or that is otherwise subject to the EAR, with knowledge that a violation of ECRA, the EAR, or any order, license, or authorization issued thereunder, has occurred, is about to occur, or is intended to occur in connection with the item.

**\*\*must disclose any \*\*material fact in any application. Also see p. 828.**

**\*\*Penalties \*\*Penalty  
\*\*Fines \*\*Sanctions**

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**(f) [RESERVED]**

**(g) Misrepresentation and concealment of facts**

**(1) No person may make any false or misleading representation, statement, or certification, or falsify or conceal any material fact, either directly to BIS or an official of any other United States agency, or indirectly through any other person:**

**(i) In the course of an investigation or other action subject to the EAR; or**

**(ii) In connection with the preparation, submission, issuance, use, or maintenance of any "export control document" or any report filed or required to be filed pursuant to the EAR; or**

**(iii) For the purpose of or in connection with effecting an export, reexport, transfer (in-country) or other activity subject to the EAR.**

**(2) All representations, statements, and certifications made by any person are deemed to be continuing in effect. Every person who has made any representation, statement, or certification must notify BIS, and any other relevant agency, in writing, of any change of any material fact or intention from that previously represented, stated, or certified, immediately upon receipt of any information that would lead a reasonably prudent person to know that a change of material fact or intention has occurred or may occur in the future.**

**(h) Evasion**

No person may engage in any transaction or take any other action with intent to evade the provisions of ECRA, the EAR, or any order, license or authorization issued thereunder.

**(i) Failure to comply with reporting, recordkeeping requirements**

No person may fail or refuse to comply with any reporting or recordkeeping requirement of ECRA, the EAR, or of any order, license, or authorization issued thereunder.

**(j) License alteration**

Except as specifically authorized in the EAR or in writing by BIS, no person may alter any license, authorization, export control document, or order issued under ECRA or the EAR.

**(k) Acting contrary to the terms of a denial order**

No person may take any action that is prohibited by a denial order or a temporary denial order issued by BIS to prevent imminent violations of ECRA, the EAR, or any order, license or authorization issued thereunder.

**§ 764.3 SANCTIONS**

**(a) Administrative**

Violations of ECRA, the EAR, or any order, license or authorization issued thereunder are subject to the administrative sanctions described in this section and to any other liability, sanction, or penalty available under law. The protective administrative measures that are described in § 764.6 of this part are distinct from administrative sanctions.

**(1) Civil monetary penalty.**

**(i)** A civil monetary penalty not to exceed the amount set forth in ECRA may be imposed for each violation, and in the event that any provision of the EAR is continued or revised by IEEPA or any other authority, the maximum monetary civil penalty for each violation shall be that provided by such other authority.

**(ii)** The payment of any civil penalty may be made a condition, for a period not exceeding two years after the imposition of such penalty, to the granting, restoration, or continuing validity of any export license, license exception, permission, or privilege granted or to be granted to the person upon whom such penalty is imposed.

**(iii)** The payment of any civil penalty may be deferred or suspended in whole or in part during any probation period that may be imposed. Such deferral or suspension shall not bar the collection

**All \*\*representations and \*\*statements by an applicant are \*\*binding and deemed by BIS to be \*\*continuing in effect".**

**Note:** Compared to the previous version of "Criminal penalties," (from Oct 15, 2013), this is MUCH simpler, a short paragraph vs the previous whole page.

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of the penalty if the conditions of the deferral, suspension, or probation are not fulfilled.

**(2) Denial of export privileges.** An order may be issued that restricts the ability of the named persons to engage in exports, reexports, and transfers (in-country) involving items subject to the EAR, or that restricts access by named persons to items subject to the EAR. An order denying export privileges may be imposed either as a sanction for a violation of ECRA, the EAR, or any other statute set forth at 50 U.S.C. 4819(e)(1)(B); or as a protective administrative measure described in §§ 764.6(c) or (d) of this part. An order denying export privileges may suspend or revoke any or all outstanding licenses issued under the EAR to a person named in the denial order or in which such person has an interest; may deny or restrict exports, reexports, and transfers (in-country) by or to such person of any item subject to the EAR; and may restrict dealings in which that person may benefit from any export, reexport, or transfer (in-country) of such items. The standard terms of a denial order are set forth in supplement no. 1 to this part. A non-standard denial order, narrower in scope, may be issued. Authorization to engage in actions otherwise prohibited by a denial order may be given by the Office of Exporter Services, in consultation with the Office of Export Enforcement, upon a written request by a person named in the denial order or by a person seeking permission to deal with a named person. Submit such requests to: Bureau of Industry and Security, Office of Exporter Services, Room 2099b, U.S. Department of Commerce, 14<sup>th</sup> Street and Pennsylvania, Ave., NW, Washington, DC 20230.

**(3) Exclusion from practice.** Any person acting as an attorney, accountant, consultant, freight forwarder, or in any other representative capacity for any license application or other matter before BIS may be excluded by order from any or all such activities before BIS.

### **(b) Criminal**

Whoever willfully commits, willfully attempts to commit, or willfully conspires to commit, or aids and abets in the commission of, an unlawful act described in 50 U.S.C. 4819(a) shall be fined not more than \$1,000,000; and in the case of the individual, shall be imprisoned for not more than 20 years, or both.

### **(c) Other sanctions**

Conduct that violates ECRA, the EAR, or any order, license, or authorization issued thereunder, and other conduct specified in §§ 11A, B, and C of the EAA may be subject to sanctions or other measures in addition to criminal and administrative sanctions under ECRA or the EAR. These include, but are not limited to, the following:

**(1) Statutory sanctions.** Statutorily-mandated sanctions may be imposed on account of specified conduct related to weapons proliferation. Such statutory sanctions are not civil or criminal penalties, but restrict imports and procurement (See § 11A of the EAA, Multilateral Export Control Violations, and § 11C of the EAA, Chemical and Biological Weapons Proliferation), or restrict export licenses (See § 11B of the EAA, Missile Proliferation Violations, and the [Iran-Iraq Arms Non-Proliferation Act of 1992](#)).

#### **(2) Other sanctions and measures.**

**(i) Seizure and forfeiture.** Any property seized pursuant to export laws and regulations administered or enforced by the Secretary is subject to forfeiture. (50 U.S.C. 4819(d) and 4820(j); 22 U.S.C. 401; and 13 U.S.C. 305).

#### **(ii) Actions by other agencies.**

**(A)** The Department of State may not issue licenses or approvals for the export or reexport of defense articles and defense services controlled under the Arms Export Control Act to persons convicted of criminal offenses specified at 22 U.S.C. 2778(g)(1)(A), or to persons denied export privileges by BIS or another agency; and may deny such licenses or approvals where the applicant is indicted for, or any party to the export

is convicted of, those specified criminal offenses. (22 CFR 126.7(a) and 127.11(a)).

(B) The Department of Defense, among other agencies, may suspend the right of any person to contract with the United States Government based on export control violations. (Federal Acquisition Regulations § 9.407-2).

**§ 764.4 REPORTING OF VIOLATIONS**

*(a) Where to report*

If a person learns that an export control violation of the EAR has occurred or may occur, that person may notify:

Office of Export Enforcement  
 Bureau of Industry and Security  
 U.S. Department of Commerce  
 14th Street and Constitution Avenue, N.W.  
 Room H-4520  
 Washington, D.C. 20230  
 Tel: (202) 482-1208  
 Fax: (202) 482-0964

or, for violations of part 760 of the EAR:

Office of Antiboycott Compliance  
 Bureau of Industry and Security  
 U.S. Department of Commerce  
 14th Street and Constitution Avenue, N.W.  
 Room H-6099C  
 Washington, D.C. 20230  
 Tel: (202) 482-2381  
 Fax: (202) 482-0913

*(b) Failure to report violations*

Failure to report potential violations may result in the unwarranted issuance of licenses or exports without the required licenses to the detriment of the interests of the United States.

*(c) Reporting requirement distinguished*

The reporting provisions in paragraph (a) of this section are not “reporting requirements” within the meaning of §764.2(i) of this part.

*(d) Formerly embargoed destinations.*

Reporting requirements for activities within the scope of §764.2(e) that involve items subject to the EAR which may have been illegally exported or reexported to Libya prior to the lifting of the comprehensive embargo on Libya are found in §764.7 of the EAR.

**§ 764.5 VOLUNTARY SELF-DISCLOSURE**

*(a) General policy*

BIS strongly encourages disclosure to OEE if you believe that you may have violated the EAR, or any order, license or authorization issued thereunder. Voluntary self-disclosure is a mitigating factor in determining what administrative sanctions, if any, will be sought by OEE.

*(b) Limitations*

- (1) The provisions of this section do not apply to disclosures of violations relating to part 760 of the EAR.
- (2) The provisions of this section apply only when information is provided to OEE for its review in determining whether to take administrative action under part 766 of the EAR for violations of the export control provisions of the EAR.
- (3) The provisions of this section apply only when information is received by OEE for review prior to the time that OEE, or any other agency of the United States Government, has learned the same or substantially similar information from another source and has commenced an investigation or inquiry in connection with that information.

**\*\*VSD  
 general  
 violations**

The "Narrative Account" (i.e. Phase II final report) due with 180 days of the date of the "Initial Notification" (i.e. Phase I preliminary notification).

## Enforcement and Protective Measures

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(4) While voluntary self-disclosure is a mitigating factor in determining what administrative sanctions, if any, will be sought by OEE, it is a factor that is considered together with all other factors in a case. The weight given to voluntary self-disclosure is solely within the discretion of OEE, and the mitigating effect of voluntary self-disclosure may be outweighed by aggravating factors. Voluntary self-disclosure does not prevent transactions from being referred to the Department of Justice for criminal prosecution. In such a case, OEE would notify the Department of Justice of the voluntary self-disclosure, but the consideration of that factor is within the discretion of the Department of Justice.

(5) A firm will not be deemed to have made a disclosure under this section unless the individual making the disclosure did so with the full knowledge and authorization of the firm's senior management.

(6) The provisions of this section do not, nor should they be relied on to, create, confer, or grant any rights, benefits, privileges, or protection enforceable at law or in equity by any person, business, or entity in any civil, criminal, administrative, or other matter.

### (c) Information to be provided

**(1) General.** Any person wanting to disclose information that constitutes a voluntary self-disclosure should, in the manner outlined below, initially notify OEE as soon as possible after violations are discovered, and then conduct a thorough review of all export-related transactions where violations are suspected.

### (2) Initial notification.

#### (i) Manner and content of initial notification.

The initial notification should be in writing and be sent to the address in paragraph (c)(7) of this section. The notification should include the name

of the person making the disclosure and a brief description of the suspected violations, and should designate a contact person regarding the initial notification and provide that contact person's current business street address, email address, and telephone number. The notification should describe the general nature and extent of the violations. OEE recognizes that there may be situations where it will not be practical to make an initial notification in writing. For example, written notification may not be practical if a shipment leaves the United States without the required license, yet there is still an opportunity to prevent acquisition of the items by unauthorized persons. In such situations, OEE should be contacted promptly at the office listed in paragraph (c)(7) of this section.

**(ii) Initial notification date.** For purposes of calculating when a complete narrative account must be submitted under paragraph (c)(2)(iii) of this section, the initial notification date is the date the notification is received by OEE. OEE will notify the disclosing party in writing of the date that it receives the initial notification. At OEE's discretion, such writing from OEE may be on paper, or in an email message or facsimile transmission from OEE, or by any other method for the transmission of written communications. Where it is not practical to make an initial notification in writing, the person making the notification should confirm the oral notification in writing as soon as possible.

#### (iii) Timely completion of narrative accounts.

The narrative account required by paragraph (c)(3) of this section must be received by OEE within 180 days of the initial notification date for purposes of paragraph (b)(3) of this section, absent an extension from the Director of OEE. If the person making the initial notification subsequently completes and submits to OEE the narrative account required by paragraph (c)(3) of this section such that OEE receives it within 180 days of the initial notification date, or within the additional time, if any, granted by the Director of OEE pursuant to paragraph (c)(2)(iv) of this

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Account" at §

section, the disclosure, including violations disclosed in the narrative account that were not expressly mentioned in the initial notification, will be deemed to have been made on the initial notification date for purposes of paragraph (b)(3) of this section if the initial notification was made in compliance with paragraphs (c)(1) and (2) of this section. Failure to meet the deadline (either the initial 180-day deadline or an extended deadline granted by the Director of OEE) would not be an additional violation of the EAR, but such failure may reduce or eliminate the mitigating impact of the voluntary disclosure under Supplement No. 1 to this part. For purposes of determining whether the deadline has been met under this paragraph, a complete narrative account must contain all of the pertinent information called for in paragraphs (c)(3), (c)(4), and (c)(5) of this section, and the voluntary self-disclosure must otherwise meet the requirements of this section.

**(iv) *Deadline extensions.*** The Director of OEE may extend the 180-day deadline upon a determination in his or her discretion that U.S. Government interests would be served by an extension or that the person making the initial notification has shown that more than 180 days is reasonably needed to complete the narrative account.

**(A) *Conditions for extension.*** The Director of OEE in his or her discretion may place conditions on the approval of an extension. For example, the Director of OEE may require that the disclosing person agree to toll the statute of limitations with respect to violations disclosed in the initial notification or discovered during the review for or preparation of the narrative account, and/or require the disclosing person to undertake specified interim remedial compliance measures.

**(B) *Contents of Request.***

**(I)** In most instances 180 days should be adequate to complete the narrative account. Requests to extend the 180-day deadline set forth

in paragraph (c)(2)(iii) of this section will be determined by the Director of OEE pursuant to his or her authority under this paragraph (c)(2)(iv) based upon his consideration and evaluation of U.S. Government interests and the facts and circumstances surrounding the request and any related investigations. Such requests should show specifically that the person making the request:

**(i)** Began its review promptly after discovery of the violations;

**(ii)** Has been conducting its review and preparation of the narrative account as expeditiously as can be expected, consistent with the need for completeness and accuracy;

**(iii)** Reasonably needs the requested extension despite having begun its review promptly after discovery of the violations and having conducted its review and preparation of the narrative account as expeditiously as can be expected consistent with the need for completeness and accuracy; and

**(iv)** Has considered whether interim compliance or other corrective measures may be needed and has undertaken such measures as appropriate to prevent recurring or additional violations.

**(2)** Such requests also should set out a proposed timeline for completion and submission of the narrative account that is reasonable under the applicable facts and circumstances, and should also designate a contact person regarding the request and provide that contact person's current business street address, email address, and telephone number. Requests may also include additional information that the person making the request reasonably believes is pertinent to the request under the applicable facts and circumstances.

**(C) *Timing of requests.*** Requests for an extension should be made before the 180-day deadline and as soon as possible once a disclosing

person determines that it will be unable to meet the deadline or the extended deadline where an extension previously has been granted, and possesses the information needed to prepare an extension request in accordance with paragraph (c)(2)(iv)(B) of this section. Requests for extension that are not received before the deadline for completing the narrative account has passed will not be considered. Parties who request an extension shortly before the deadline incur the risk that the Director of OEE will be unable to consider the request, determine whether or not to grant the extension, and communicate his or her decision before the deadline, and that any subsequently submitted narrative account will be considered untimely under paragraph (c)(2)(iii) of this section.

**(3) Narrative account.** After the initial notification, a thorough review should be conducted of all export-related transactions where possible violations are suspected. OEE recommends that the review cover a period of five years prior to the date of the initial notification. **If your review goes back less than five years, you risk failing to discover violations that may later become the subject of an investigation. Any violations not voluntarily disclosed do not receive consideration under this section.** However, the failure to make such disclosures will not be treated as a separate violation unless some other section of the EAR or other provision of law requires disclosure. Upon completion of the review, OEE should be furnished with a narrative account that sufficiently describes the suspected violations so that their nature and gravity can be assessed. The narrative account should also describe the nature of the review conducted and measures that may have been taken to minimize the likelihood that violations will occur in the future. The narrative account should include:

(i) The kind of violation involved, for example a shipment without the required license or dealing with a party denied export privileges;

(ii) An explanation of when and how the violations occurred;

(iii) The complete identities and addresses of all individuals and organizations, whether foreign or domestic, involved in the activities giving rise to the violations;

(iv) License numbers;

(v) The description, quantity, value in U.S. dollars and ECCN or other classification of the items involved; and

(vi) A description of any mitigating circumstances.

#### **(4) Supporting documentation.**

(i) The narrative account should be accompanied by copies of documents that explain and support it, including:

(A) Licensing documents such as licenses, license applications, import certificates and end-user statements;

(B) Shipping documents such as Shipper's Export Declarations, air waybills and bills of lading; and

(C) Other documents such as letters, facsimiles, telexes and other evidence of written or oral communications, internal memoranda, purchase orders, invoices, letters of credit and brochures.

(ii) Any relevant documents not attached to the narrative account must be retained by the person making the disclosure until OEE requests them, or until a final decision on the disclosed information has been made. After a final decision, the documents should be maintained in accordance with the recordkeeping rules in part 762 of the EAR.

**(5) Certification.** A certification must be submitted stating that all of the representations

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made in connection with the voluntary self-disclosure are true and correct to the best of that person's knowledge and belief. Certifications made by a corporation or other organization should be signed by an official of the corporation or other organization with the authority to do so. Section 764.2(g) of this part, relating to false or misleading representations, applies in connection with the disclosure of information under this section.

**(6) Oral presentations.** OEE believes that oral presentations are generally not necessary to augment the written narrative account and supporting documentation. If the person making the disclosure believes otherwise, a request for a meeting should be included with the disclosure.

**(7) Where to make voluntary self-disclosures.** The information constituting a voluntary self-disclosure or any other correspondence pertaining to a voluntary self-disclosure may be submitted to:

Director, Office of Export Enforcement  
1401 Constitution, Ave.  
Room H4514  
Washington, DC 20230  
Tel: (202) 482 5036  
Facsimile: (202) 482-5889

**(d) Action by the Office of Export Enforcement**

After OEE has been provided with the required narrative and supporting documentation, it will acknowledge the disclosure by letter, provide the person making the disclosure with a point of contact, and take whatever additional action, including further investigation, it deems appropriate. As quickly as the facts and circumstances of a given case permit, OEE may take any of the following actions:

(1) Inform the person making the disclosure that, based on the facts disclosed, it plans to take no action;

(2) Issue a warning letter;

(3) Issue a proposed charging letter pursuant to §766.18 of the EAR and attempt to settle the matter;

(4) Issue a charging letter pursuant to §766.3 of the EAR if a settlement is not reached; and/or

(5) Refer the matter to the Department of Justice for criminal prosecution.

**(e) Criteria**

Supplement No. 1 to part 766 describes how BIS typically exercises its discretion regarding whether to pursue an administrative enforcement case under part 766 and what administrative sanctions to seek in settling such a case.

**(f) Treatment of unlawfully exported items after voluntary self-disclosure**

(1) Any person taking certain actions with knowledge that a violation of the EAA or the EAR has occurred has violated §764.2(e) of this part. Any person who has made a voluntary self-disclosure knows that a violation may have occurred. Therefore, at the time that a voluntary self-disclosure is made, the person making the disclosure may request permission from BIS to engage in the activities described in §764.2(e) of this part that would otherwise be prohibited. If the request is granted by the Office of Exporter Services in consultation with OEE, future activities with respect to those items that would otherwise violate §764.2(e) of this part will not constitute violations. However, even if permission is granted, the person making the voluntary self-disclosure is not absolved from liability for any violations disclosed nor relieved of the obligation to obtain any required reexport authorizations.

(2) A license to reexport items that are the subject of a voluntary self-disclosure, and that have been exported contrary to the provisions of the EAA or

the EAR, may be requested from BIS in accordance with the provisions of part 748 of the EAR. If the applicant for reexport authorization knows that the items are the subject of a voluntary self-disclosure, the request should state that a voluntary self-disclosure was made in connection with the export of the commodities for which reexport authorization is sought.

### **§ 764.6 PROTECTIVE ADMINISTRATIVE MEASURES**

#### ***(a) License Exception limitation***

As provided in §740.2(b) of the EAR, all License Exceptions are subject to revision, suspension, or revocation.

#### ***(b) Revocation or suspension of licenses***

As provided in §750.8 of the EAR, all licenses are subject to revision, suspension, or revocation.

#### ***(c) Temporary denial orders***

BIS may, in accordance with §766.24 of the EAR, issue an order temporarily denying export privileges when such an order is necessary in the public interest to prevent the occurrence of an imminent violation.

#### ***(d) Denial based on criminal conviction***

BIS may, in accordance with §766.25 of the EAR, issue an order denying the export privileges of any person who has been convicted of an offense specified in §11(h) of the EAA.

### **§ 764.7 ACTIVITIES INVOLVING ITEMS THAT MAY HAVE BEEN ILLEGALLY EXPORTED OR REEXPORTED TO LIBYA.**

#### ***(a) Introduction.***

As set forth in §764.2(e) of this part, and restated in General Prohibition Ten at §736.2(b)(10) of the EAR, no person (including a non-U.S. Third Party) may order, buy, remove, conceal, store, use, sell, loan, dispose of, transfer, finance, forward, or otherwise service, in whole or in part, any item subject to the EAR with knowledge that a violation has occurred, or will occur, in connection with the item. This section addresses the application of §764.2(e) of this part to activities involving items subject to the EAR that may have been illegally exported or reexported to Libya before the comprehensive embargo on Libya ended (April 29, 2004) (“installed base” items).

#### ***(b) Libya***

**(1) Activities involving installed base items in Libya for which no license is required.** Subject to the reporting requirement set forth in paragraph (b)(1)(ii) of this section, activities within the scope of §764.2(e) of this part involving installed base items described in paragraph (b)(1)(i) of this section that are located in Libya and that were exported or reexported before April 29, 2004 do not require a license from BIS.

**(i) Scope.** An installed base item is within the scope of paragraph (b)(1) of this section if:

**(A)** It is not on the Commerce Control List in Supplement No.1 to Part 774 of the EAR;

**(B)** It is on the Commerce Control List, but is authorized for export or reexport pursuant to a License Exception to Libya; or

**(C)** It is on the Commerce Control List and controlled only for AT reasons or for NS and AT reasons only, and is not listed on the Wassenaar Arrangement’s Sensitive List (Annex 1) or Very Sensitive List (Annex 2) posted on the Wassenaar Arrangement’s web site ([www.wassenaar.org](http://www.wassenaar.org)) at the Control Lists web page.

**NOTE 1 TO PARAGRAPH (b)(1)(i):** An item being exported or reexported to Libya may require

*a license based on the classification of the item to be exported or reexported regardless of whether the item will be used in connection with an installed base item. See paragraph (b)(4) of this section.*

**NOTE 2 TO PARAGRAPH (b)(1)(i):** *Not all items listed on the Wassenaar Arrangement's Annex 1, Sensitive List, and Annex 2, Very Sensitive List, fall under the export licensing jurisdiction of the Department of Commerce. Please refer to the Commerce Control List for additional jurisdictional information related to those items. Also, if you do not have access to the internet to review the Wassenaar Arrangement's Sensitive List and Very Sensitive List, please contact the Office of Exporter Services, Division of Exporter Counseling for assistance at telephone number (202) 482-4811.*

**(ii) Reporting requirement.** Any person engaging in activity described in paragraph (b)(1) of this section must submit to BIS's Office of Export Enforcement (OEE) a report including all known material facts with respect to how the installed base item arrived in Libya. The report must be submitted to OEE at the address identified in §764.4(a) of the EAR within ninety (90) days of the first activity relating to the installed base item in Libya. A report may address more than one activity and/or more than one installed base item. An additional report must be submitted if any new material information regarding the export or reexport to Libya of the installed base item is discovered.

**(2) Licensing procedure for activities involving installed base items in Libya.**

**(i) License requirement.** Any person seeking to undertake activities within the scope of §764.2(e) of the EAR with respect to any installed base item located in Libya and not described in paragraph (b)(1)(i) of this section must obtain a license from BIS prior to engaging in any such activities. License applications should be submitted in accordance with §§ 748.1, 748.4 and

748.6 of the EAR and should fully describe the relevant activity within the scope of §764.2(e) of this part which is the basis of the application. License applications should include all known material facts as to how the installed base item originally was exported or reexported to Libya. This section also applies if you know that an item to be exported or reexported to a third party will be used on an installed base item not described in paragraph (b)(1)(i) of this section.

**(ii) Licensing policy.** BIS will review license applications submitted pursuant to paragraph (b)(2)(i) of this section on a case-by-case basis. Favorable consideration will be given for those applications related to civil end-uses in Libya. Applications related to military, police, intelligence, or other sensitive end-uses in Libya will be subject to a general policy of denial.

**(3) Exclusion.** The provisions of this section are not applicable to any activities within the scope of §764.2(e) of the EAR undertaken with respect to an installed base item in Libya by a person who was party to the original illegal export or reexport of the related installed base item to Libya. Such persons should voluntarily self-disclose violations pursuant to the procedures set forth in §764.5 of this part, which in some cases may allow activities related to unlawfully exported or reexported items to be undertaken based on permission from BIS.

**(4) Relationship to other Libya License Requirements.** Notwithstanding this section, a license may be required pursuant to another provision of the EAR to engage in activity involving Libya. If a license is required pursuant to another section of the EAR, and the transaction also involves activity within the scope of §764.2(e) of this part related to an installed base item in Libya, this information should be specified on the license application. Such applications must also include all known information as to how the installed base item originally arrived in Libya. If granted, the license for the proposed transaction will also authorize the related activity within the scope of §764.2(e) of this part.

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## **§ 764.8 VOLUNTARY SELF-DISCLOSURES FOR BOYCOTT VIOLATIONS.**

This section sets forth procedures for disclosing violations of part 760 of the EAR - Restrictive Trade Practices or Boycotts and violations of part 762 - Recordkeeping - with respect to records related to part 760. In this section, these provisions are referred to collectively as the “antiboycott provisions”. This section also describes BIS’s policy regarding such disclosures.

### **(a) General policy**

BIS strongly encourages disclosure to the Office of Antiboycott Compliance (OAC) if you believe that you may have violated the antiboycott provisions. Voluntary self-disclosures are a mitigating factor with respect to any enforcement action that OAC might take.

### **(b) Limitations**

**(1)** This section does not apply to disclosures of violations relating to provisions of the EAR other than the antiboycott provisions. Section 764.5 of this part describes how to prepare disclosures of violations of the EAR other than the antiboycott provisions.

**(2)** The provisions of this section apply only when information is provided to OAC for its review in determining whether to take administrative action under parts 764 and 766 of the EAR for violations of the antiboycott provisions.

**(3) Timing.** The provisions of this section apply only if OAC receives the voluntary self-disclosure as described in paragraph (c)(2) of this section before it commences an investigation or inquiry in connection with the same or

substantially similar information it received from another source.

**(i) Mandatory Reports.** For purposes of this section, OAC’s receipt of a report required to be filed under § 760.5 of the EAR that discloses that a person took an action prohibited by part 760 of the EAR constitutes the receipt of information from another source.

**(ii) Requests for Advice.** For purposes of this section, a violation that is revealed to OAC by a person who is seeking advice, either by telephone or e-mail, about the antiboycott provisions does not constitute the receipt of information from another source. Such revelation also does not constitute a voluntary self-disclosure or initial notification of a voluntary self-disclosure for purposes of this section.

**(4)** Although a voluntary self-disclosure is a mitigating factor in determining what administrative sanctions, if any, will be sought by BIS, it is a factor that is considered together with all other factors in a case. The weight given to voluntary self-disclosure is solely within the discretion of BIS, and the mitigating effect of voluntary self-disclosure may be outweighed by aggravating factors. Voluntary self-disclosure does not prevent transactions from being referred to the Department of Justice for criminal prosecution. In such a case, BIS would notify the Department of Justice of the voluntary self-disclosure, but the decision as to how to consider that factor is within the discretion of the Department of Justice.

**(5)** A firm will not be deemed to have made a disclosure under this section unless the individual making the disclosure did so with the full knowledge and authorization of the firm’s senior management or of a person with authority to make such disclosures on behalf of the firm.

**(6)** The provisions of this section do not, nor should they be relied on to, create, confer, or grant any rights, benefits, privileges, or protection

enforceable at law or in equity by any person, business, or entity in any civil, criminal, administrative, or other matter.

**(c) Information to be provided**

**(1) General.** Any person wanting to disclose information that constitutes a voluntary self-disclosure should, in the manner outlined below, initially notify OAC as soon as possible after violations are discovered, and then conduct a thorough review of all transactions where violations of the antiboycott provisions are suspected.

**(2) Initial notification.** The initial notification must be in writing and be sent to the address in § 764.8(c)(7) of this part. The notification should include the name of the person making the disclosure and a brief description of the suspected violations. The notification should describe the general nature and extent of the violations. If the person making the disclosure subsequently completes the narrative account required by § 764.8(c)(3) of this part, the disclosure will be deemed to have been made on the date of the initial notification for purposes of § 764.8(b)(3) of this part.

**(3) Narrative account.** After the initial notification, a thorough review should be conducted of all business transactions where possible antiboycott provision violations are suspected. OAC recommends that the review cover a period of five years prior to the date of the initial notification. If your review goes back less than five years, you risk failing to discover violations that may later become the subject of an investigation. Any violations not voluntarily disclosed do not receive the same mitigation as the violations voluntarily self-disclosed under this section. However, the failure to make such disclosures will not be treated as a separate violation unless some other section of the EAR or other provision of law enforced by BIS requires disclosure. Upon completion of the review, OAC should be furnished with a narrative account that

sufficiently describes the suspected violations so that their nature and gravity can be assessed. The narrative account should also describe the nature of the review conducted and measures that may have been taken to minimize the likelihood that violations will occur in the future. The narrative account should include:

(i) The kind of violation involved, for example, the furnishing of a certificate indicating that the goods supplied did not originate in a boycotted country;

(ii) An explanation of when and how the violations occurred, including a description of activities surrounding the violations (*e.g.*, contract negotiations, sale of goods, implementation of letter of credit, bid solicitation);

(iii) The complete identities and addresses of all individuals and organizations, whether foreign or domestic, involved in the activities giving rise to the violations; and

(iv) A description of any mitigating factors.

**(4) Supporting documentation.**

(i) The narrative account should be accompanied by copies of documents that explain and support it, including:

(A) Copies of boycott certifications and declarations relating to the violation, or copies of documents containing prohibited language or prohibited requests for information;

(B) Other documents relating to the violation, such as letters, facsimiles, telexes and other evidence of written or oral communications, negotiations, internal memoranda, purchase orders, invoices, bid requests, letters of credit and brochures;

(ii) Any relevant documents not attached to the narrative account must be retained by the person making the disclosure until the latest of the following: the documents are supplied to OAC;

BIS informs the disclosing party that it will take no action; BIS issues a warning letter for the violation; BIS issues an order that constitutes the final agency action in the matter and all avenues for appeal are exhausted; or the documents are no longer required to be kept under part 762 of the EAR.

**(5) Certification.** A certification must be submitted stating that all of the representations made in connection with the voluntary self-disclosure are true and correct to the best of that person's knowledge and belief. Certifications made by a corporation or other organization should be signed by an official of the corporation or other organization with the authority to do so. Section 764.2(g) of this part relating to false or misleading representations applies in connection with the disclosure of information under this section.

**(6) Oral presentations.** OAC believes that oral presentations are generally not necessary to augment the written narrative account and supporting documentation. If the person making the disclosure believes otherwise, a request for a meeting should be included with the disclosure.

**(7) Where to make voluntary self-disclosures.** The information constituting a voluntary self-disclosure or any other correspondence pertaining to a voluntary self-disclosure should be submitted to: Office of Antiboycott Compliance, 14<sup>th</sup> and Pennsylvania Ave., NW., Room 6098, Washington, DC 20230, tel: (202) 482-2381, facsimile: (202) 482-0913.

**(d) Action by the Office of Antiboycott Compliance.**

After OAC has been provided with the required narrative and supporting documentation, it will acknowledge the disclosure by letter, provide the person making the disclosure with a point of contact, and take whatever additional action, including further investigation, it deems appropriate. As quickly as the facts and circumstances of a given case permit, BIS may take any of the following actions:

- (1) Inform the person making the disclosure that, based on the facts disclosed, it plans to take no action;
- (2) Issue a warning letter;
- (3) Issue a proposed charging letter and attempt to settle the matter pursuant to § 766.18 of the EAR;
- (4) Issue a charging letter pursuant to § 766.3 of the EAR if a settlement is not reached or BIS otherwise deems appropriate; and/or
- (5) Refer the matter to the Department of Justice for criminal prosecution.

**(e) Criteria.**

Supplement No. 2 to part 766 of the EAR describes how BIS typically exercises its discretion regarding whether to pursue an antiboycott administrative enforcement case under part 766 and what administrative sanctions to seek in settling such a case.

**SUPPLEMENT NO. 1 TO PART 764 - STANDARD TERMS OF ORDERS DENYING EXPORT PRIVILEGES**

*(a) General*

(1) Orders denying export privileges may be “standard” or “non-standard.” This Supplement specifies terms of the standard order denying export privilege with respect to denial orders issued after March 25, 1996. Denial orders issued prior to March 25, 1996 are to be construed, insofar as possible, as having the same scope and effect as the standard denial order. All denial orders are published in the *Federal Register*. The failure by any person to comply with any denial order is a violation of the Export Administration Regulations (EAR) (see §764.2(k) of this part). BIS provides a list of persons currently subject to denial orders on its Web site at <http://www.bis.doc.gov>.

(2) Each denial order shall include:

(i) The name and address of any denied persons and any related persons subject to the denial order;

(ii) The basis for the denial order, such as final decision following charges of violation, settlement agreement, section 11(h) of the EAA, or temporary denial order request;

(iii) The period of denial, the effective date of the order, whether and for how long any portion of the denial of export privileges is suspended, and any conditions of probation; and

(iv) Whether any or all outstanding licenses issued under the EAR to the person(s) named in the denial order or in which such person(s) has an interest, are suspended or revoked.

Denial orders issued prior to March 25, 1996, are to be construed, insofar as possible, as having the same scope and effect as the standard denial order.

The introduction to each denial order shall be specific to that order, and shall include: (1) The name and address of any denied persons and any related persons subject to the denial order; (2) the basis for the denial order, such as final decision following charges of violation, settlement agreement, §11(h) of the EAA, or temporary denial order request; (3) the period of denial, the effective date of the order, whether and for how long any portion of the denial of export privileges is suspended, and any conditions of probation; and (4) whether any or all outstanding licenses issued under the EAR to the person(s) named in the denial order or in which such person(s) has an interest, are suspended or revoked.

*(b) Standard Denial Order Terms*

The following are the standard terms for imposing periods of export denial. Some orders also contain other terms, such as those that impose civil penalties, or that suspend all or part of the penalties or period of denial.

“It is therefore ordered:

First, that [the denied person(s)] may not, directly or indirectly, participate in any way in any transaction involving any commodity, software or technology (hereinafter collectively referred to as “item”) exported or to be exported from the United States that is subject to the Export Administration Regulations (EAR), or in any other activity subject to the EAR, including, but not limited to:

- A. Applying for, obtaining, or using any license, license exception, or export control document;
- B. Carrying on negotiations concerning, or ordering, buying, receiving, using, selling, delivering, storing, disposing of,

forwarding, transporting, financing, or otherwise servicing in any way, any transaction involving any item exported or to be exported from the United States that is subject to the EAR, or in any other activity subject to the EAR; or

- C. Benefiting in any way from any transaction involving any item exported or to be exported from the United States that is subject to the EAR, or in any other activity subject to the EAR.

Second, that no person may, directly or indirectly, do any of the following:

- A. Export, reexport, or transfer (in-country) to or on behalf of the denied person any item subject to the EAR;
- B. Take any action that facilitates the acquisition or attempted acquisition by a denied person of the ownership, possession, or control of any item subject to the EAR that has been or will be exported from the United States, including financing or other support activities related to a transaction whereby a denied person acquires or attempts to acquire such ownership, possession or control;
- C. Take any action to acquire from or to facilitate the acquisition or attempted acquisition from the denied person of any item subject to the EAR that has been exported from the United States;

- D. Obtain from the denied person in the United States any item subject to the EAR with knowledge or reason to know that the item will be, or is intended to be, exported from the United States; or

- E. Engage in any transaction to service any item subject to the EAR that has been or will be exported from the United States and which is owned, possessed or controlled by a denied person, or service any item, of whatever origin, that is owned, possessed or controlled by a denied person if such service involves the use of any item subject to the EAR that has been or will be exported from the United States. For purposes of this paragraph, servicing means installation, maintenance, repair, modification or testing.

Third, that, after notice and opportunity for comment as provided in § 766.23 of the EAR, any person, firm, corporation, or business organization related to the denied person by affiliation, ownership, control, or position of responsibility in the conduct of trade or related services may also be made subject to the provisions of this order.

This order, which constitutes the final agency action in this matter, is effective [DATE OF ISSUANCE].”

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**§ 766.1 SCOPE**

In this part, references to the EAR are references to 15 CFR chapter VII, subchapter C. This part describes the procedures for imposing administrative sanctions for violations of the Export Administration Act of 1979, as amended (the EAA), the Export Administration Regulations (EAR), or any order, license or authorization issued thereunder. Parts 760 and 764 of the EAR specify those actions that constitute violations, and part 764 describes the

sanctions that apply. In addition to describing the procedures for imposing sanctions, this part describes the procedures for imposing temporary denial orders to prevent imminent violations of the EAA, the EAR, or any order, license or authorization issued thereunder. This part also describes the procedures for taking the discretionary protective administrative action of denying the export privileges of persons who have been convicted of violating any of the statutes, including the EAA, listed in section 11(h) of the EAA. Nothing in this part shall be construed as applying to or limiting other administrative or enforcement action relating to the EAA or the EAR, including the exercise of any investigative authorities conferred by the EAA. This part does not confer any procedural rights or impose any requirements based on the Administrative Procedure Act for proceedings charging violations under the EAA, except as expressly provided for in this part.

## § 766.2 DEFINITIONS

As used in this part, the following definitions apply:

*Administrative law judge.* The person authorized to conduct hearings in administrative enforcement proceedings brought under the EAA or to hear appeals from the imposition of temporary denial orders. The term “judge” may be used for brevity when it is clear that the reference is to the administrative law judge.

*Assistant Secretary.* The Assistant Secretary for Export Enforcement, Bureau of Industry and Security.

*Bureau of Industry and Security (BIS).* Bureau of Industry and Security, U.S. Department of Commerce (formerly the Bureau of Export Administration) and all of its component units, including, in particular for purposes of this part, the Office of Antiboycott Compliance, the Office

of Export Enforcement, and the Office of Exporter Services.

*Final decision.* A decision or order assessing a civil penalty, denial of export privileges or other sanction, or otherwise disposing of or dismissing a case, which is not subject to further review under this part, but which is subject to collection proceedings or judicial review in an appropriate Federal district court as authorized by law.

*Initial decision.* A decision of the administrative law judge in proceedings involving violations relating to part 760 of the EAR, which is subject to appellate review by the Under Secretary of Commerce for Industry and Security, but which becomes the final decision in the absence of such an appeal.

*Party.* BIS and any person named as a respondent under this part.

*Recommended decision.* A decision of the administrative law judge in proceedings involving violations other than those relating to part 760 of the EAR, which is subject to review by the Under Secretary of Commerce for Industry and Security, who issues a written order affirming, modifying or vacating the recommended decision.

*Respondent.* Any person named as the subject of a charging letter, proposed charging letter, temporary denial order, or other order proposed or issued under this part.

*Under Secretary.* The Under Secretary for Industry and Security, United States Department of Commerce.

## § 766.3 INSTITUTION OF ADMINISTRATIVE ENFORCEMENT PROCEEDINGS

### (a) Charging letters

The Director of the Office of Export Enforcement (OEE) or the Director of the Office of Antiboycott Compliance (OAC), as appropriate, or such other Department of Commerce official as may be designated by the Assistant Secretary of Commerce for Export Enforcement, may begin administrative enforcement proceedings under this part by issuing a charging letter in the name of BIS. Supplements Nos. 1 and 2 to this part describe how BIS typically exercises its discretion regarding the issuance of charging letters. The charging letter shall constitute the formal complaint and will state that there is reason to believe that a violation of the EAA, the EAR, or any order, license or authorization issued thereunder, has occurred. It will set forth the essential facts about the alleged violation, refer to the specific regulatory or other provisions involved, and give notice of the sanctions available under part 764 of the EAR. The charging letter will inform the respondent that failure to answer the charges as provided in §766.6 of this part will be treated as a default under §766.7 of this part, that the respondent is entitled to a hearing if a written demand for one is requested with the answer, and that the respondent may be represented by counsel, or by other authorized representative who has a power of attorney to represent the respondent. A copy of the charging letter shall be filed with the administrative law judge, which filing shall toll the running of the applicable statute of limitations. Charging letters may be amended or supplemented at any time before an answer is filed, or, with permission of the administrative law judge, afterwards. BIS may unilaterally withdraw charging letters at any time, by notifying the respondent and the administrative law judge.

***(b) Notice of issuance of charging letter instituting administrative enforcement proceeding***

A respondent shall be notified of the issuance of a charging letter, or any amendment or supplement thereto:

- (1) By sending a copy by registered or certified mail or by express mail or commercial courier or delivery service addressed to the respondent at the respondent's last known address;
  - (2) By leaving a copy with the respondent or with an officer, a managing or general agent, or any other agent authorized by appointment or by law to receive service of process for the respondent; or
  - (3) By leaving a copy with a person of suitable age and discretion who resides at the respondent's last known dwelling.
- (4) Delivery of a copy of the charging letter, if made in the manner described in paragraph (b)(2) or (3) of this section, shall be evidenced by a certificate of service signed by the person making such service, stating the method of service and the identity of the person with whom the charging letter was left. The certificate of service shall be filed with the administrative law judge.
- (c) The date of service of notice of the issuance of a charging letter instituting an administrative enforcement proceeding, or service of notice of the issuance of a supplement or amendment to a charging letter, is the date of its delivery, or of its attempted delivery, by any means described in paragraph (b)(1) of this section.

#### **§ 766.4 REPRESENTATION**

A respondent individual may appear and participate in person, a corporation by a duly authorized officer or employee, and a partnership by a partner. If a respondent is represented by counsel, counsel shall be a member in good standing of the bar of any State, Commonwealth or Territory of the United States, or of the District of Columbia, or be licensed to practice law in the

country in which counsel resides if not the United States. A respondent personally, or through counsel or other representative, shall file a notice of appearance with the administrative law judge. BIS will be represented by the Office of Chief Counsel for Industry and Security, U.S. Department of Commerce.

### **§ 766.5 FILING AND SERVICE OF PAPERS OTHER THAN CHARGING LETTER**

#### ***(a) Filing***

All papers to be filed shall be addressed to:

EAR Administrative Enforcement Proceedings  
U.S. Coast Guard, ALJ Docketing Center  
40 S. Gay Street  
Baltimore, Maryland 21202-4022

or such other place as the administrative law judge may designate. Filing by United States mail, first class postage prepaid, by express or equivalent parcel delivery service, or by hand delivery, is acceptable. Filing by mail from a foreign country shall be by airmail. In addition, the administrative law judge may authorize filing of papers by facsimile or other electronic means, provided that a hard copy of any such paper is subsequently filed. A copy of each paper filed shall be simultaneously served on each party.

#### ***(b) Service***

Service shall be made by personal delivery or by mailing one copy of each paper to each party in the proceeding. Service by delivery service or facsimile, in the manner set forth in paragraph (a) of this section, is acceptable. Service on BIS shall be addressed to the

Chief Counsel for Industry and Security  
Room H-3839  
U.S. Department of Commerce

14th Street and Constitution Avenue, N.W.  
Washington, D.C. 20230

Service on a respondent shall be to the address to which the charging letter was sent or to such other address as respondent may provide. When a party has appeared by counsel or other representative, service on counsel or other representative shall constitute service on that party.

#### ***(c) Date***

The date of filing or service is the day when the papers are deposited in the mail or are delivered in person, by delivery service, or by facsimile.

#### ***(d) Certificate of service***

A certificate of service signed by the party making service, stating the date and manner of service, shall accompany every paper, other than the charging letter, filed and served on parties.

#### ***(e) Computing period of time***

In computing any period of time prescribed or allowed by this part or by order of the administrative law judge or the Under Secretary, the day of the act, event, or default from which the designated period of time begins to run is not to be included. The last day of the period so computed is to be included unless it is a Saturday, a Sunday, or a legal holiday (as defined in Rule 6(a) of the Federal Rules of Civil Procedure), in which case the period runs until the end of the next day which is neither a Saturday, a Sunday, nor a legal holiday. Intermediate Saturdays, Sundays, and legal holidays are excluded from the computation when the period of time prescribed or allowed is seven days or less.

### **§ 766.6 ANSWER AND DEMAND FOR HEARING**

#### ***(a) When to answer***

The respondent must answer the charging letter within 30 days after being served with notice of the issuance of a charging letter instituting an administrative enforcement proceeding, or within 30 days of notice of any supplement or amendment to a charging letter, unless time is extended under §766.16 of this part.

***(b) Contents of answer***

The answer must be responsive to the charging letter and must fully set forth the nature of the respondent's defense or defenses. The answer must admit or deny specifically each separate allegation of the charging letter; if the respondent is without knowledge, the answer must so state and will operate as a denial. Failure to deny or controvert a particular allegation will be deemed an admission of that allegation. The answer must also set forth any additional or new matter the respondent believes supports a defense or claim of mitigation. Any defense or partial defense not specifically set forth in the answer shall be deemed waived, and evidence thereon may be refused, except for good cause shown.

***(c) Demand for hearing***

If the respondent desires a hearing, a written demand for one must be submitted with the answer. Any demand by BIS for a hearing must be filed with the administrative law judge within 30 days after service of the answer. Failure to make a timely written demand for a hearing shall be deemed a waiver of the party's right to a hearing, except for good cause shown. If no party demands a hearing, the matter will go forward in accordance with the procedures set forth in §766.15 of this part.

***(d) English language required***

The answer, all other papers, and all documentary evidence must be submitted in English, or translations into English must be filed and served at the same time.

## § 766.7 DEFAULT

***(a) General***

Failure of the respondent to file an answer within the time provided constitutes a waiver of the respondent's right to appear and contest the allegations in the charging letter. In such event, the administrative law judge, on BIS's motion and without further notice to the respondent, shall find the facts to be as alleged in the charging letter and render an initial or recommended decision containing findings of fact and appropriate conclusions of law and issue or recommend an order imposing appropriate sanctions. The decision and order shall be subject to review by the Under Secretary in accordance with the applicable procedures set forth in §766.21 or §766.22 of this part.

***(b) Petition to Set Aside Default***

**(1) Procedure.** Upon petition filed by a respondent against whom a default order has been issued, which petition is accompanied by an answer meeting the requirements of §766.6(b) of this part, the Under Secretary may, after giving all parties an opportunity to comment, and for good cause shown, set aside the default and vacate the order entered thereon and remand the matter to the administrative law judge for further proceedings.

**(2) Time limits.** A petition under this section must be made within one year of the date of entry of the order which the petition seeks to have vacated.

## § 766.8 SUMMARY DECISION

At any time after a proceeding has been initiated, a party may move for a summary decision disposing of some or all of the issues. The administrative law judge may render an initial or recommended decision and issue or recommend

an order if the entire record shows, as to the issue(s) under consideration:

- (a) That there is no genuine issue as to any material fact; and
- (b) That the moving party is entitled to a summary decision as a matter of law.

## § 766.9 DISCOVERY

### *(a) General*

The parties are encouraged to engage in voluntary discovery regarding any matter, not privileged, which is relevant to the subject matter of the pending proceeding. The provisions of the Federal Rules of Civil Procedure relating to discovery apply to the extent consistent with this part and except as otherwise provided by the administrative law judge or by waiver or agreement of the parties. The administrative law judge may make any order which justice requires to protect a party or person from annoyance, embarrassment, oppression, or undue burden or expense. These orders may include limitations on the scope, method, time and place of discovery, and provisions for protecting the confidentiality of classified or otherwise sensitive information.

### *(b) Interrogatories and requests for admission or production of documents*

A party may serve on any party interrogatories, requests for admission, or requests for production of documents for inspection and copying, and a party concerned may apply to the administrative law judge for such enforcement or protective order as that party deems warranted with respect to such discovery. The service of a discovery request shall be made at least 20 days before the scheduled date of the hearing unless the administrative law judge specifies a shorter time

period. Copies of interrogatories, requests for admission and requests for production of documents and responses thereto shall be served on all parties, and a copy of the certificate of service shall be filed with the administrative law judge. Matters of fact or law of which admission is requested shall be deemed admitted unless, within a period designated in the request (at least 10 days after service, or within such additional time as the administrative law judge may allow), the party to whom the request is directed serves upon the requesting party a sworn statement either denying specifically the matters of which admission is requested or setting forth in detail the reasons why the party to whom the request is directed cannot truthfully either admit or deny such matters.

### *(c) Depositions*

Upon application of a party and for good cause shown, the administrative law judge may order the taking of the testimony of any person by deposition and the production of specified documents or materials by the person at the deposition. The application shall state the purpose of the deposition and set forth the facts sought to be established through the deposition.

### *(d) Enforcement*

The administrative law judge may order a party to answer designated questions, to produce specified documents or things or to take any other action in response to a proper discovery request. If a party does not comply with such an order, the administrative law judge may make a determination or enter any order in the proceeding as the judge deems reasonable and appropriate. The judge may strike related charges or defenses in whole or in part or may take particular facts relating to the discovery request to which the party failed or refused to respond as being established for purposes of the proceeding in accordance with the contentions of the party seeking discovery. In addition, enforcement by a

district court of the United States may be sought under section 12(a) of the EAA.

## § 766.10 SUBPOENAS

### *(a) Issuance*

Upon the application of any party, supported by a satisfactory showing that there is substantial reason to believe that the evidence would not otherwise be available, the administrative law judge will issue subpoenas requiring the attendance and testimony of witnesses and the production of such books, records or other documentary or physical evidence for the purpose of the hearing, as the judge deems relevant and material to the proceedings, and reasonable in scope.

### *(b) Service*

Subpoenas issued by the administrative law judge may be served in any of the methods set forth in §766.5(b) of this part.

### *(c) Timing*

Applications for subpoenas must be submitted at least 10 days before the scheduled hearing or deposition, unless the administrative law judge determines, for good cause shown, that extraordinary circumstances warrant a shorter time.

## § 766.11 MATTER PROTECTED AGAINST DISCLOSURE

### *(a) Protective measures*

It is often necessary for BIS to receive and consider information and documents that are sensitive from the standpoint of national security, foreign policy, business confidentiality, or investigative concern, and that are to be protected against disclosure. Accordingly, and without limiting the discretion of the administrative law judge to give effect to any other applicable

privilege, it is proper for the administrative law judge to limit discovery or introduction of evidence or to issue such protective or other orders as in the judge's judgment may be consistent with the objective of preventing undue disclosure of the sensitive documents or information. Where the administrative law judge determines that documents containing the sensitive matter need to be made available to a respondent to avoid prejudice, the judge may direct BIS to prepare an unclassified and nonsensitive summary or extract of the documents. The administrative law judge may compare the extract or summary with the original to ensure that it is supported by the source document and that it omits only so much as must remain classified or undisclosed. The summary or extract may be admitted as evidence in the record.

### *(b) Arrangements for access*

If the administrative law judge determines that this procedure is unsatisfactory and that classified or otherwise sensitive matter must form part of the record in order to avoid prejudice to a party, the judge may provide the parties opportunity to make arrangements that permit a party or a representative to have access to such matter without compromising sensitive information. Such arrangements may include obtaining security clearances, obtaining a national interest determination under §12(c) of the EAA, or giving counsel for a party access to sensitive information and documents subject to assurances against further disclosure, including a protective order, if necessary.

## § 766.12 PREHEARING CONFERENCE

*(a)* The administrative law judge, on the judge's own motion or on request of a party, may direct the parties to participate in a prehearing conference, either in person or by telephone, to consider:

- (1) Simplification of issues;
- (2) The necessity or desirability of amendments to pleadings;
- (3) Obtaining stipulations of fact and of documents to avoid unnecessary proof; or
- (4) Such other matters as may expedite the disposition of the proceedings.

(b) The administrative law judge may order the conference proceedings to be recorded electronically or taken by a reporter, transcribed and filed with the judge.

(c) If a prehearing conference is impracticable, the administrative law judge may direct the parties to correspond with the judge to achieve the purposes of such a conference.

(d) The administrative law judge will prepare a summary of any actions agreed on or taken pursuant to this section. The summary will include any written stipulations or agreements made by the parties.

## § 766.13 HEARINGS

### (a) *Scheduling*

The administrative law judge, by agreement with the parties or upon notice to all parties of not less than 30 days, will schedule a hearing. All hearings will be held in Washington, D.C., unless the administrative law judge determines, for good cause shown, that another location would better serve the interests of justice.

### (b) *Hearing procedure*

Hearings will be conducted in a fair and impartial manner by the administrative law judge, who may limit attendance at any hearing or portion thereof to the parties, their representatives and witnesses if the judge deems this necessary or advisable in

order to protect sensitive matter (see §766.11 of this part) from improper disclosure. The rules of evidence prevailing in courts of law do not apply, and all evidentiary material deemed by the administrative law judge to be relevant and material to the proceeding and not unduly repetitious will be received and given appropriate weight.

### (c) *Testimony and record*

Witnesses will testify under oath or affirmation. A verbatim record of the hearing and of any other oral proceedings will be taken by reporter or by electronic recording, transcribed and filed with the administrative law judge. A respondent may examine the transcript and may obtain a copy by paying any applicable costs. Upon such terms as the administrative law judge deems just, the judge may direct that the testimony of any person be taken by deposition and may admit an affidavit or declaration as evidence, provided that any affidavits or declarations have been filed and served on the parties sufficiently in advance of the hearing to permit a party to file and serve an objection thereto on the grounds that it is necessary that the affiant or declarant testify at the hearing and be subject to cross-examination.

### (d) *Failure to appear*

If a party fails to appear in person or by counsel at a scheduled hearing, the hearing may nevertheless proceed, and that party's failure to appear will not affect the validity of the hearing or any proceedings or action taken thereafter.

## § 766.14 INTERLOCUTORY REVIEW OF RULINGS

(a) At the request of a party, or on the judge's own initiative, the administrative law judge may certify to the Under Secretary for review a ruling

that does not finally dispose of a proceeding, if the administrative law judge determines that immediate review may hasten or facilitate the final disposition of the matter.

(b) Upon certification to the Under Secretary of the interlocutory ruling for review, the parties will have 10 days to file and serve briefs stating their positions, and five days to file and serve replies, following which the Under Secretary will decide the matter promptly.

### § 766.15 PROCEEDING WITHOUT A HEARING

If the parties have waived a hearing, the case will be decided on the record by the administrative law judge. Proceeding without a hearing does not relieve the parties from the necessity of proving the facts supporting their charges or defenses. Affidavits or declarations, depositions, admissions, answers to interrogatories and stipulations may supplement other documentary evidence in the record. The administrative law judge will give each party reasonable opportunity to file rebuttal evidence.

### § 766.16 PROCEDURAL STIPULATIONS; EXTENSION OF TIME

#### (a) *Procedural stipulations*

Unless otherwise ordered, a written stipulation agreed to by all parties and filed with the administrative law judge will modify any procedures established by this part.

#### (b) *Extension of time*

(1) The parties may extend any applicable time limitation, by stipulation filed with the administrative law judge before the time limitation expires.

(2) The administrative law judge may, on the judge's own initiative or upon application by any party, either before or after the expiration of any applicable time limitation, extend the time within which to file and serve an answer to a charging letter or do any other act required by this part.

### § 766.17 DECISION OF THE ADMINISTRATIVE LAW JUDGE

#### (a) *Predecisional matters*

Except for default proceedings under §766.7 of this part, the administrative law judge will give the parties reasonable opportunity to submit the following, which will be made a part of the record:

- (1) Exceptions to any ruling by the judge or to the admissibility of evidence proffered at the hearing;
- (2) Proposed findings of fact and conclusions of law;
- (3) Supporting legal arguments for the exceptions and proposed findings and conclusions submitted; and
- (4) A proposed order.

#### (b) *Decision and order*

After considering the entire record in the proceeding, the administrative law judge will issue a written decision.

(1) **Initial decision.** For proceedings charging violations relating to part 760 of the EAR, the decision rendered shall be an initial decision. The decision will include findings of fact, conclusions of law, and findings as to whether there has been a violation of the EAA, the EAR, or any order, license or authorization issued thereunder. If the administrative law judge finds that the evidence

of record is insufficient to sustain a finding that a violation has occurred with respect to one or more charges, the judge shall order dismissal of the charges in whole or in part, as appropriate. If the administrative law judge finds that one or more violations have been committed, the judge may issue an order imposing administrative sanctions, as provided in part 764 of the EAR. The decision and order shall be served on each party, and shall become effective as the final decision of the Department 30 days after service, unless an appeal is filed in accordance with §766.21 of this part.

**(2) Recommended decision.** For proceedings not involving violations relating to part 760 of the EAR, the decision rendered shall be a recommended decision. The decision will include recommended findings of fact, conclusions of law, and findings as to whether there has been a violation of the EAA, the EAR or any order, license or authorization issued thereunder. If the administrative law judge finds that the evidence of record is insufficient to sustain a recommended finding that a violation has occurred with respect to one or more charges, the judge shall recommend dismissal of any such charge. If the administrative law judge finds that one or more violations have been committed, the judge shall recommend an order imposing administrative sanctions, as provided in part 764 of the EAR, or such other action as the judge deems appropriate. The administrative law judge shall immediately certify the record, including the original copy of the recommended decision and order, to the Under Secretary for review in accordance with §766.22 of this part. The administrative law judge shall also immediately serve the recommended decision on all parties. Because of the time limits established in the EAA for review by the Under Secretary, service upon parties shall be by personal delivery, express mail or other overnight carrier.

***(c) Suspension of sanctions***

Any order imposing administrative sanctions may provide for the suspension of the sanction imposed, in whole or in part and on such terms of probation or other conditions as the administrative law judge or the Under Secretary may specify. Any suspension order may be modified or revoked by the signing official upon application of BIS showing a violation of the probationary terms or other conditions, after service on the respondent of notice of the application in accordance with the service provisions of §766.3 of this part, and with such opportunity for response as the responsible signing official in his/her discretion may allow. A copy of any order modifying or revoking the suspension shall also be served on the respondent in accordance with the provisions of §766.3 of this part.

***(d) Time for decision***

Administrative enforcement proceedings not involving violations relating to part 760 of the EAR shall be concluded, including review by the Under Secretary under §766.22 of this part, within one year of the submission of a charging letter, unless the administrative law judge, for good cause shown, extends such period. The charging letter will be deemed to have been submitted to the administrative law judge on the date the respondent files an answer or on the date BIS files a motion for a default order pursuant to §766.7(a) of this part, whichever occurs first.

**§ 766.18 SETTLEMENT**

***(a) Cases may be settled before service of a charging letter***

In cases in which settlement is reached before service of a charging letter, a proposed charging letter will be prepared, and a settlement proposal consisting of a settlement agreement and order will be submitted to the Assistant Secretary for approval and signature. If the Assistant Secretary does not approve the proposal, he/she will notify

the parties and the case will proceed as though no settlement proposal had been made. If the Assistant Secretary approves the proposal, he/she will issue an appropriate order, and no action will be required by the administrative law judge.

*(b) Cases may also be settled after service of a charging letter*

(1) If the case is pending before the administrative law judge, the judge shall stay the proceedings for a reasonable period of time, usually not to exceed 30 days, upon notification by the parties that they have entered into good faith settlement negotiations. The administrative law judge may, in his/her discretion, grant additional stays. If settlement is reached, a proposal will be submitted to the Assistant Secretary for approval and signature. If the Assistant Secretary approves the proposal, he/she will issue an appropriate order, and notify the administrative law judge that the case is withdrawn from adjudication. If the Assistant Secretary does not approve the proposal, he/she will notify the parties and the case will proceed to adjudication by the administrative law judge as though no settlement proposal had been made.

(2) If the case is pending before the Under Secretary under §766.21 or §766.22 of this part, the parties may submit a settlement proposal to the Under Secretary for approval and signature. If the Under Secretary approves the proposal, he/she will issue an appropriate order. If the Under Secretary does not approve the proposal, the case will proceed to final decision in accordance with §766.21 or §766.22 of this part, as appropriate.

(c) Any order disposing of a case by settlement may suspend the administrative sanction imposed, in whole or in part, on such terms of probation or other conditions as the signing official may specify. Any such suspension may be modified or revoked by the signing official, in accordance with the procedures set forth in §766.17(c) of this part.

(d) Any respondent who agrees to an order imposing any administrative sanction does so solely for the purpose of resolving the claims in the administrative enforcement proceeding brought under this part. This reflects the fact that BIS has neither the authority nor the responsibility for instituting, conducting, settling, or otherwise disposing of criminal proceedings. That authority and responsibility are vested in the Attorney General and the Department of Justice.

(e) Cases that are settled may not be reopened or appealed.

(f) Supplements Nos. 1 and 2 to this part describe how BIS typically exercises its discretion regarding the terms under which it is willing to settle particular cases.

## § 766.19 REOPENING

The respondent may petition the administrative law judge within one year of the date of the final decision, except where the decision arises from a default judgment or from a settlement, to reopen an administrative enforcement proceeding to receive any relevant and material evidence which was unknown or unobtainable at the time the proceeding was held. The petition must include a summary of such evidence, the reasons why it is deemed relevant and material, and the reasons why it could not have been presented at the time the proceedings were held. The administrative law judge will grant or deny the petition after providing other parties reasonable opportunity to comment. If the proceeding is reopened, the administrative law judge may make such arrangements as the judge deems appropriate for receiving the new evidence and completing the record. The administrative law judge will then issue a new initial or recommended decision and order, and the case will proceed to final decision and order in accordance with §766.21 or §766.22 of this part, as appropriate.

*(c) Availability of documents***§ 766.20 RECORD FOR DECISION  
AND AVAILABILITY OF  
DOCUMENTS***(a) General*

The transcript of hearings, exhibits, rulings, orders, all papers and requests filed in the proceedings and, for purposes of any appeal under §766.21 of this part or review under §766.22 of this part, the decision of the administrative law judge and such submissions as are provided for by §§766.21 and 766.22 of this part, will constitute the record and the exclusive basis for decision. When a case is settled after the service of a charging letter, the record will consist of any and all of the foregoing, as well as the settlement agreement and the order. When a case is settled before service of a charging letter, the record will consist of the proposed charging letter, the settlement agreement and the order.

*(b) Restricted access*

On the judge's own motion, or on the motion of any party, the administrative law judge may direct that there be a restricted access portion of the record for any material in the record to which public access is restricted by law or by the terms of a protective order entered in the proceedings. A party seeking to restrict access to any portion of the record is responsible for submitting, at the time specified in §766.20(c)(2) of this part, a version of the document proposed for public availability that reflects the requested deletion. The restricted access portion of the record will be placed in a separate file and the file will be clearly marked to avoid improper disclosure and to identify it as a portion of the official record in the proceedings. The administrative law judge may act at any time to permit material that becomes declassified or unrestricted through passage of time to be transferred to the unrestricted access portion of the record.

**(1) Scope.**

(i) For proceedings started on or after October 12, 1979, all charging letters, answers, initial and recommended decisions, and orders disposing of a case will be made available for public inspection in the BIS Freedom of Information Records Inspection Facility, U.S. Department of Commerce, Room H-6624, 14th Street and Pennsylvania Avenue, N.W., Washington, D.C. 20230. The complete record for decision, as defined in paragraphs (a) and (b) of this section will be made available on request. In addition, all decisions of the Under Secretary on appeal pursuant to §766.22 of this part and those final orders providing for denial, suspension or revocation of export privileges shall be published in the *Federal Register*.

(ii) For proceedings started before October 12, 1979, the public availability of the record for decision will be governed by the applicable regulations in effect when the proceedings were begun.

**(2) Timing.**

(i) *Antiboycott cases.* For matters relating to part 760 of the EAR, documents are available immediately upon filing, except for any portion of the record for which a request for segregation is made. Parties that seek to restrict access to any portion of the record under paragraph (b) of this section must make such a request, together with the reasons supporting the claim of confidentiality, simultaneously with the submission of material for the record.

(ii) *Other cases.* In all other cases, documents will be available only after the final administrative disposition of the case. In these cases, parties desiring to restrict access to any portion of the record under paragraph (b) of this section must assert their claim of confidentiality,

together with the reasons for supporting the claim, before the close of the proceeding.

## § 766.21 APPEALS

### *(a) Grounds*

For proceedings charging violations relating to part 760 of the EAR, a party may appeal to the Under Secretary from an order disposing of a proceeding or an order denying a petition to set aside a default or a petition for reopening, on the grounds:

- (1) That a necessary finding of fact is omitted, erroneous or unsupported by substantial evidence of record;
- (2) That a necessary legal conclusion or finding is contrary to law;
- (3) That prejudicial procedural error occurred, or
- (4) That the decision or the extent of sanctions is arbitrary, capricious or an abuse of discretion. The appeal must specify the grounds on which the appeal is based and the provisions of the order from which the appeal is taken.

### *(b) Filing of appeal*

An appeal from an order must be filed with the Office of the Under Secretary for Export Administration, Bureau of Industry and Security, U.S. Department of Commerce, Room H-3898, 14th Street and Constitution Avenue, N.W., Washington, D.C. 20230, within 30 days after service of the order appealed from. If the Under Secretary cannot act on an appeal for any reason, the Under Secretary will designate another Department of Commerce official to receive and act on the appeal.

### *(c) Effect of appeal*

The filing of an appeal shall not stay the operation of any order, unless the order by its express terms so provides or unless the Under Secretary, upon application by a party and with opportunity for response, grants a stay.

### *(d) Appeal procedure*

The Under Secretary normally will not hold hearings or entertain oral argument on appeals. A full written statement in support of the appeal must be filed with the appeal and be simultaneously served on all parties, who shall have 30 days from service to file a reply. At his/her discretion, the Under Secretary may accept new submissions, but will not ordinarily accept those submissions filed more than 30 days after the filing of the reply to the appellant's first submission.

### *(e) Decisions*

The decision will be in writing and will be accompanied by an order signed by the Under Secretary giving effect to the decision. The order may either dispose of the case by affirming, modifying or reversing the order of the administrative law judge or may refer the case back to the administrative law judge for further proceedings.

## § 766.22 REVIEW BY UNDER SECRETARY

### *(a) Recommended decision*

For proceedings not involving violations relating to part 760 of the EAR, the administrative law judge shall immediately refer the recommended decision and order to the Under Secretary. Because of the time limits provided under the EAA for review by the Under Secretary, service of the recommended decision and order on the parties, all papers filed by the parties in response, and the final decision of the Under Secretary must be by personal delivery, facsimile, express mail

or other overnight carrier. If the Under Secretary cannot act on a recommended decision and order for any reason, the Under Secretary will designate another Department of Commerce official to receive and act on the recommendation.

**(b) Submissions by parties**

Parties shall have 12 days from the date of issuance of the recommended decision and order in which to submit simultaneous responses. Parties thereafter shall have eight days from receipt of any response(s) in which to submit replies. Any response or reply must be received within the time specified by the Under Secretary.

**(c) Final decision**

Within 30 days after receipt of the recommended decision and order, the Under Secretary shall issue a written order affirming, modifying or vacating the recommended decision and order of the administrative law judge. If he/she vacates the recommended decision and order, the Under Secretary may refer the case back to the administrative law judge for further proceedings. Because of the time limits, the Under Secretary's review will ordinarily be limited to the written record for decision, including the transcript of any hearing, and any submissions by the parties concerning the recommended decision.

**(d) Delivery**

The final decision and implementing order shall be served on the parties and will be publicly available in accordance with §766.20 of this part.

**§ 766.23 RELATED PERSONS**

**(a) General**

In order to prevent evasion, certain types of orders under this part may be made applicable not only to the respondent, but also to other persons

then or thereafter related to the respondent by ownership, control, position of responsibility, affiliation, or other connection in the conduct of trade or business. Orders that may be made applicable to related persons include those that deny or affect export privileges, including temporary denial orders, and those that exclude a respondent from practice before BIS.

**(b) Procedures**

If BIS has reason to believe that a person is related to the respondent and that an order that is being sought or that has been issued should be made applicable to that person in order to prevent evasion of the order, BIS shall, except in an *ex parte* proceeding under §766.24(a) of this part, give that person notice in accordance with §766.5(b) of this part and an opportunity to oppose such action. If the official authorized to issue the order against the respondent finds that the order should be made applicable to that person in order to prevent evasion of the order that official shall issue or amend the order accordingly.

**(c) Appeals**

Any person named by BIS in an order as related to the respondent may appeal that action. The sole issues to be raised and ruled on in any such appeal are whether the person so named is related to the respondent and whether the order is justified in order to prevent evasion.

(1) A person named as related to the respondent in an order issued pursuant to §766.25 may file an appeal with the Under Secretary for Industry and Security pursuant to part 756 of the EAR.

(2) A person named as related to the respondent in an order issued pursuant to other provisions of this part may file an appeal with the administrative law judge.

(i) If the order made applicable to the related person is for a violation related to part 760 of the

EAR, the related person may file an appeal with the administrative law judge. The related person may appeal the initial decision and order of the administrative law judge to the Under Secretary in accordance with the procedures set forth in §766.21.

(ii) If the order made applicable to the related person is issued pursuant to §766.24 of this part to prevent an imminent violation, the recommended decision and order of the administrative law judge shall be reviewed by the Under Secretary in accordance with the procedures set forth in §766.24(e) of this part.

(iii) If the order made applicable to the related person is for a violation of the EAR not related to part 760 of the EAR and not issued pursuant to §766.24 of this part, the recommended decision and order of the administrative law judge shall be reviewed by the Under Secretary in accordance with the procedures set forth in §766.22 of this part.

## § 766.24 TEMPORARY DENIALS

### (a) General

The procedures in this section apply to temporary denial orders issued on or after July 12, 1985. For temporary denial orders issued on or before July 11, 1985, the proceedings will be governed by the applicable regulations in effect at the time the temporary denial orders were issued. Without limiting any other action BIS may take under the EAR with respect to any application, order, license or authorization issued under the EAA, BIS may ask the Assistant Secretary to issue a temporary denial order on an *ex parte* basis to prevent an imminent violation, as defined in this section, of the EAA, the EAR, or any order, license or authorization issued thereunder. The temporary denial order will deny export privileges to any person named in the order as provided for in §764.3(a)(2) of the EAR.

### (b) Issuance

(1) The Assistant Secretary may issue an order temporarily denying to a person any or all of the export privileges described in part 764 of the EAR upon a showing by BIS that the order is necessary in the public interest to prevent an imminent violation of the EAA, the EAR, or any order, license or authorization issued thereunder.

(2) The temporary denial order shall define the imminent violation and state why it was issued without a hearing. Because all denial orders are public, the description of the imminent violation and the reasons for proceeding on an *ex parte* basis set forth therein shall be stated in a manner that is consistent with national security, foreign policy, business confidentiality, and investigative concerns.

(3) A violation may be “imminent” either in time or in degree of likelihood. To establish grounds for the temporary denial order, BIS may show either that a violation is about to occur, or that the general circumstances of the matter under investigation or case under criminal or administrative charges demonstrate a likelihood of future violations. To indicate the likelihood of future violations, BIS may show that the violation under investigation or charges is significant, deliberate, covert and/or likely to occur again, rather than technical or negligent, and that it is appropriate to give notice to companies in the United States and abroad to cease dealing with the person in U.S.-origin items in order to reduce the likelihood that a person under investigation or charges continues to export or acquire abroad such items, risking subsequent disposition contrary to export control requirements. Lack of information establishing the precise time a violation may occur does not preclude a finding that a violation is imminent, so long as there is sufficient reason to believe the likelihood of a violation.

(4) The temporary denial order will be issued for a period not exceeding 180 days.

(5) Notice of the issuance of a temporary denial order on an *ex parte* basis shall be given in accordance with §766.5(b) of this part upon issuance.

**(c) Related persons**

A temporary denial order may be made applicable to related persons in accordance with §766.23 of this part.

**(d) Renewal**

(1) If, no later than 20 days before the expiration date of a temporary denial order, BIS believes that renewal of the denial order is necessary in the public interest to prevent an imminent violation, BIS may file a written request setting forth the basis for its belief, including any additional or changed circumstances, asking that the Assistant Secretary renew the temporary denial order, with modifications, if any are appropriate, for an additional period not exceeding 180 days. BIS's request shall be delivered to the respondent, or any agent designated for this purpose, in accordance with §766.5(b) of this part, which will constitute notice of the renewal application.

(2) **Non-resident respondents.** To facilitate timely notice of renewal requests, a respondent not a resident of the United States may designate a local agent for this purpose and provide written notification of such designation to BIS in the manner set forth in §766.5(b) of this part.

**(3) Hearing.**

(i) A respondent may oppose renewal of a temporary denial order by filing with the Assistant Secretary a written submission, supported by appropriate evidence, to be received not later than seven days before the expiration date of such order. For good cause shown, the Assistant Secretary may consider submissions received not later than five days before the

expiration date. The Assistant Secretary ordinarily will not allow discovery; however, for good cause shown in respondent's submission, he/she may allow the parties to take limited discovery, consisting of a request for production of documents. If requested by the respondent in the written submission, the Assistant Secretary shall hold a hearing on the renewal application. The hearing shall be on the record and ordinarily will consist only of oral argument. The only issue to be considered on BIS's request for renewal is whether the temporary denial order should be continued to prevent an imminent violation as defined herein.

(ii) Any person designated as a related person may not oppose the issuance or renewal of the temporary denial order, but may file an appeal in accordance with §766.23(c) of this part.

(iii) If no written opposition to BIS's renewal request is received within the specified time, the Assistant Secretary may issue the order renewing the temporary denial order without a hearing.

(4) A temporary denial order may be renewed more than once.

**(e) Appeals**

**(1) Filing.**

(i) A respondent may, at any time, file an appeal of the initial or renewed temporary denial order with the administrative law judge.

(ii) The filing of an appeal shall stay neither the effectiveness of the temporary denial order nor any application for renewal, nor will it operate to bar the Assistant Secretary's consideration of any renewal application.

(2) **Grounds.** A respondent may appeal on the grounds that the finding that the order is necessary in the public interest to prevent an imminent violation is unsupported.

**(3) Appeal procedure.** A full written statement in support of the appeal must be filed with the appeal together with appropriate evidence, and be simultaneously served on BIS, which shall have seven days from receipt to file a reply. Service on the administrative law judge shall be addressed to U.S. Coast Guard, ALJ Docketing Center, 40 S. Gay Street, Baltimore, Maryland, 21202-4022. Service on BIS shall be as set forth in §766.5(b) of this part. The administrative law judge normally will not hold hearings or entertain oral argument on appeals.

**(4) Recommended Decision.** Within 10 working days after an appeal is filed, the administrative law judge shall submit a recommended decision to the Under Secretary, and serve copies on the parties, recommending whether the issuance or the renewal of the temporary denial order should be affirmed, modified or vacated.

**(5) Final decision.** Within five working days after receipt of the recommended decision, the Under Secretary shall issue a written order accepting, rejecting or modifying the recommended decision. Because of the time constraints, the Under Secretary's review will ordinarily be limited to the written record for decision, including the transcript of any hearing. The issuance or renewal of the temporary denial order shall be affirmed only if there is reason to believe that the temporary denial order is required in the public interest to prevent an imminent violation of the EAA, the EAR, or any order, license or other authorization issued under the EAA.

**(f) Delivery**

A copy of any temporary denial order issued or renewed and any final decision on appeal shall be published in the *Federal Register* and shall be delivered to BIS and to the respondent, or any agent designated for this purpose, and to any related person in the same manner as provided in

§766.5 of this part for filing for papers other than a charging letter.

**§ 766.25 ADMINISTRATIVE ACTION  
DENYING EXPORT PRIVILEGES**

**(a) General**

The Director of the Office of Export Enforcement (OEE), in consultation with the Director of the Office of Exporter Services, may deny the export privileges of any person who has been convicted of a violation of any of the statutes set forth at 50 U.S.C. 4819(e)(1)(B), including any regulation, license, or order issued pursuant to such statutes.

**(b) Procedure**

Upon notification that a person has been convicted of a violation of one or more of the provisions specified in paragraph (a) of this section, the Director of OEE, in consultation with the Director of the Office of Exporter Services, will determine whether to deny such person export privileges, including but not limited to applying for, obtaining, or using any license, License Exception, or export control document; or participating in or benefitting in any way from any export or export-related transaction subject to the EAR. Before taking action to deny a person export privileges under this section, the Director of OEE will provide the person written notice of the proposed action and an opportunity to comment through a written submission, unless exceptional circumstances exist. In reviewing the response, the Director of OEE will consider any relevant or mitigating evidence why these privileges should not be denied. Upon final determination, the Director of OEE will notify by letter each person denied export privileges under this section.

**(c) Criteria**

In determining whether and for how long to deny U.S. export privileges to a person previously

convicted of one or more of the statutes set forth in paragraph (a) of this section, the Director of OEE may take into consideration any relevant information, including, but not limited to, the seriousness of the offense involved in the criminal prosecution, the nature and duration of the criminal sanctions imposed, and whether the person has undertaken any corrective measures.

***(d) Duration***

Any denial of export privileges under this section shall not exceed 10 years from the date of the conviction of the person who is subject to the denial.

***(e) Effect***

Any person denied export privileges under this section will be considered a “person denied export privileges” for purposes of §736.2(b)(4) (General Prohibition 4 - Engage in actions prohibited by a denial order) and §764.2(k) of the EAR.

***(f) Publication***

The orders denying export privileges under this section are published in the *Federal Register* when issued, and, for the convenience of the public, information about those orders may be included in compilations maintained by BIS on a Web site and as a supplement to the unofficial edition of the EAR available by subscription from the Government Printing Office.

***(g) Appeal***

An appeal of an action under this section will be pursuant to part 756 of the EAR.

***(h) Applicability to related person***

The Director of OEE, in consultation with the Director of the Office of Exporter Services, may take action in accordance with § 766.23 of this part to make applicable to related persons an order that is being sought or that has been issued under this section.

**SUPPLEMENT NO. 1 TO PART 766 - GUIDANCE ON CHARGING AND PENALTY DETERMINATIONS IN SETTLEMENT OF ADMINISTRATIVE ENFORCEMENT CASES****Introduction**

This Supplement describes how the Office of Export Enforcement (OEE) at the Bureau of Industry and Security (BIS) responds to apparent violations of the Export Administration Regulations (EAR) and, specifically, how OEE makes penalty determinations in the settlement of civil administrative enforcement cases under part 764 of the EAR. This guidance does not apply to enforcement cases for violations under part 760 of the EAR—Restrictive Trade Practices or Boycotts. Supplement No. 2 to part 766 continues to apply to civil administrative enforcement cases involving part 760 violations.

Because many administrative enforcement cases are resolved through settlement, the process of settling such cases is integral to the enforcement program. OEE carefully considers each settlement offer in light of the facts and circumstances of the case, relevant precedent, and OEE's objective to achieve in each case an appropriate penalty and deterrent effect. In settlement negotiations, OEE encourages parties to provide, and will give serious consideration to, information and evidence that parties believe are relevant to the application of this guidance to their cases, to whether a violation has in fact occurred, or to whether they have an affirmative defense to potential charges.

This guidance does not confer any right or impose any obligation regarding what penalties OEE may seek in litigating a case or what posture OEE may take toward settling a case. Parties do not have a right to a settlement offer or particular settlement terms from OEE, regardless of settlement positions OEE has taken in other cases.

**I. Definitions**

**Note:** See also: Definitions contained in § 766.2 of the EAR.

*Apparent violation* means conduct that constitutes an actual or possible violation of the Export Administration Act of 1979, the International Emergency Economic Powers Act, the EAR, other statutes administered or enforced by BIS, as well as executive orders, regulations, orders, directives, or licenses issued pursuant thereto.

**Applicable schedule amount** means:

1. \$1,000 with respect to a transaction valued at less than \$1,000;
2. \$10,000 with respect to a transaction valued at \$1,000 or more but less than \$10,000;
3. \$25,000 with respect to a transaction valued at \$10,000 or more but less than \$25,000;
4. \$50,000 with respect to a transaction valued at \$25,000 or more but less than \$50,000;
5. \$100,000 with respect to a transaction valued at \$50,000 or more but less than \$100,000;
6. \$170,000 with respect to a transaction valued at \$100,000 or more but less than \$170,000;
7. \$250,000 with respect to a transaction valued at \$170,000 or more.

*Note to definition of applicable schedule amount.* The applicable schedule amount may be adjusted in accordance with U.S. law, e.g., the Federal Civil Penalties Inflation Adjustment Act Improvements Act of 2015 (Pub. L. 114-74, sec. 701).

*Transaction value* means the U.S. dollar value of a subject transaction, as demonstrated by commercial invoices, bills of lading, signed Customs declarations, AES filings or similar documents. Where the transaction value is not otherwise ascertainable, OEE may consider the market value of the items that were the subject of the transaction and/or the economic benefit derived by the Respondent from the transaction, in determining transaction value. In situations involving a lease of U.S.-origin items, the transaction value will generally be the value of the lease. For purposes of these Guidelines, “transaction value” will not necessarily have the same meaning, nor be applied in the same manner, as that term is used for import valuation purposes at 19 CFR 152.103.

*Voluntary self-disclosure* means the selfinitiated notification to OEE of an apparent violation as described in and satisfying the requirements of § 764.5 of the EAR.

## II. Types of Responses to Apparent Violations

OEE, among other responsibilities, investigates apparent violations of the EAR, or any order, license or authorization issued thereunder. When it appears that such a violation may have occurred, OEE investigations may lead to no action, a warning letter or an administrative enforcement proceeding. A violation may also be referred to the Department of Justice for criminal prosecution. The type of enforcement action initiated by OEE will depend primarily on the nature of the violation. Depending on the facts and circumstances of a particular case, an OEE investigation may lead to one or more of the following actions:

**A. No Action.** If OEE determines that there is insufficient evidence to conclude that a violation has occurred, determines that a violation did not occur and/or, based on an analysis of the Factors outlined in Section III of these Guidelines, concludes that the conduct does not rise to a level warranting an administrative response, then no

action will be taken. In such circumstances, if the investigation was initiated by a voluntary self-disclosure (VSD), OEE will issue a letter (a no-action letter) indicating that the investigation is being closed with no administrative action being taken. OEE may issue a no-action letter in non-voluntarily disclosed cases at its discretion. A no-action determination by OEE represents OEE’s disposition of the apparent violation, unless OEE later learns of additional information regarding the same or similar transactions or other relevant facts. A no-action letter is not a final agency action with respect to whether a violation occurred.

**B. Warning Letter.** If OEE determines that a violation may have occurred but a civil penalty is not warranted under the circumstances, and believes that the underlying conduct could lead to a violation in other circumstances and/or that a Respondent does not appear to be exercising due diligence in assuring compliance with the statutes, executive orders, and regulations that OEE enforces, OEE may issue a warning letter. A warning letter may convey OEE’s concerns about the underlying conduct and/ or the Respondent’s compliance policies, practices, and/or procedures. It may also address an apparent violation of a technical nature, where good faith efforts to comply with the law and cooperate with the investigation are present, or where the investigation commenced as a result of a voluntary self-disclosure satisfying the requirements of § 764.5 of the EAR, provided that no aggravating factors exist. In the exercise of its discretion, OEE may determine in certain instances that issuing a warning letter, instead of bringing an administrative enforcement proceeding, will achieve the appropriate enforcement result. A warning letter will describe the apparent violation and urge compliance. A warning letter represents OEE’s enforcement response to and disposition of the apparent violation, unless OEE later learns of additional information concerning the same or similar apparent violations. A warning letter does not constitute a final agency action with respect to

whether a violation has occurred.

**C. *Administrative enforcement case.*** If OEE determines that a violation has occurred and, based on an analysis of the Factors outlined in Section III of these Guidelines, concludes that the Respondent's conduct warrants a civil monetary penalty or other administrative sanctions, OEE may initiate an administrative enforcement case. The issuance of a charging letter under § 766.3 of the EAR initiates an administrative enforcement proceeding. Charging letters may be issued when there is reason to believe that a violation has occurred. Cases may be settled before or after the issuance of a charging letter. *See* § 766.18 of the EAR. OEE may prepare a proposed charging letter which could result in a case being settled before issuance of an actual charging letter. *See* § 766.18(a) of the EAR. If a case does not settle before issuance of a charging letter and the case proceeds to adjudication, the resulting charging letter may include more violations than alleged in the proposed charging letter, and the civil monetary penalty amounts assessed may be greater than those provided for in Section IV of these Guidelines. Civil monetary penalty amounts for cases settled before the issuance of a charging letter will be determined as discussed in Section IV of these Guidelines. A civil monetary penalty may be assessed for each violation. The maximum amount of such a penalty per violation is stated in § 764.3(a)(1), subject to adjustments under the Federal Civil Penalties Inflation Adjustment Act of 1990 (28 U.S.C. 2461), which are codified at 15 CFR 6.4. OEE will afford the Respondent an opportunity to respond to a proposed charging letter. Responses to charging letters following the institution of an enforcement proceeding under part 766 of the EAR are governed by § 766.3 of the EAR.

**D. *Civil Monetary Penalty.*** OEE may seek a civil monetary penalty if OEE determines that a violation has occurred and, based on the Factors outlined in Section III of these Guidelines, concludes that the Respondent's conduct warrants a monetary penalty. Section IV of these

Guidelines will guide the agency's exercise of its discretion in determining civil monetary penalty amounts.

**E. *Criminal Referral.*** In appropriate circumstances, OEE may refer the matter to the Department of Justice for criminal prosecution. Apparent violations referred for criminal prosecution also may be subject to a civil monetary penalty and/or other administrative sanctions or action by BIS.

**F. *Other Administrative Sanctions or Actions.*** In addition to or in lieu of other administrative actions, OEE may seek sanctions listed in § 764.3 of the EAR. BIS may also take the following administrative actions, among other actions, in response to an apparent violation:

*License Revision, Suspension or Revocation.* BIS authorizations to engage in a transaction pursuant to a license or license exception may be revised, suspended or revoked in response to an apparent violation as provided in §§ 740.2(b) and 750.8 of the EAR.

*Denial of Export Privileges.* An order denying a Respondent's export privileges may be issued, as described in § 764.3(a)(2) of the EAR. Such a denial may extend to all export privileges, as set out in the standard terms for denial orders in Supplement No. 1 to part 764 of the EAR, or may be narrower in scope (*e.g.*, limited to exports of specified items or to specified destinations or customers). A denial order may also be suspended in whole or in part in accordance with § 766.18(c).

*Exclusion from practice.* Under § 764.3(a)(3) of the EAR, any person acting as an attorney, accountant, consultant, freight forwarder or other person who acts in a representative capacity in any matter before BIS may be excluded from practicing before BIS.

*Training and Audit Requirements.* In appropriate cases, OEE may require as part of a settlement

agreement that the Respondent provide training to employees as part of its compliance program, adopt other compliance measures, and/or be subject to internal or independent audits by a qualified outside person. In those cases, OEE may suspend or defer a portion or all of the penalty amount if the suspended amount is applied to comply with such requirements.

**G. Suspension or Deferral.** In appropriate cases, payment of a civil monetary penalty may be suspended or deferred during a probationary period under a settlement agreement and order. If the terms of the settlement agreement or order are not adhered to by the Respondent, then suspension or deferral may be revoked and the full amount of the penalty imposed. *See* § 764.3(a)(1)(iii) of the EAR. In determining whether suspension or deferral is appropriate, OEE may consider, for example, whether the Respondent has demonstrated a limited ability to pay a penalty that would be appropriate for such violations, so that suspended or deferred payment can be expected to have sufficient deterrent value, and whether, in light of all of the circumstances, such suspension or deferral is necessary to make the financial impact of the penalty consistent with the impact of penalties on other parties who committed similar violations. OEE may also take into account when determining whether or not to suspend or defer a civil penalty whether the Respondent will apply a portion or all of the funds suspended or deferred to audit, compliance, or training that may be required under a settlement agreement and order, or the matter is part of a “global settlement” as discussed in more detail below.

### **III. Factors Affecting Administrative Sanctions**

Many apparent violations are isolated occurrences, the result of a good-faith misinterpretation, or involve no more than simple negligence or carelessness. In such instances, absent the presence of aggravating factors, the matter frequently may be addressed with a no

action determination letter or, if deemed necessary, a warning letter. Where the imposition of an administrative penalty is deemed appropriate, as a general matter, OEE will consider some or all of the following Factors in determining the appropriate sanctions in administrative cases, including the appropriate amount of a civil monetary penalty where such a penalty is sought and is imposed as part of a settlement agreement and order. These factors describe circumstances that, in OEE’s experience, are commonly relevant to penalty determinations in settled cases. Factors that are considered exclusively aggravating, such as willfulness, or exclusively mitigating, such as situations where remedial measures were taken, are set forth below. This guidance also identifies General Factors—which can be either mitigating or aggravating—such as the presence or absence of an internal compliance program at the time the apparent violations occurred. Other relevant Factors may also be considered at the agency’s discretion.

While some violations of the EAR have a degree of knowledge or intent as an element of the offense, OEE may regard a violation of any provision of the EAR as knowing or willful if the facts and circumstances of the case support that conclusion. For example, evidence that a corporate entity had knowledge at a senior management level may mean that a higher penalty may be appropriate. OEE will also consider, in accordance with Supplement No. 3 to part 732 of the EAR, the presence of any red flags that should have alerted the Respondent that a violation was likely to occur. The aggravating factors identified in the Guidelines do not alter or amend § 764.2(e) or the definition of “knowledge” in § 772.1, or other provisions of parts 764 and 772 of the EAR. If the violations are of such a nature and extent that a monetary fine alone represents an insufficient penalty, a denial or exclusion order may also be imposed to prevent future violations of the EAR.

#### *Aggravating Factors*

**A. *Willful or Reckless Violation of Law.*** OEE will consider a Respondent's apparent willfulness or recklessness in violating, attempting to violate, conspiring to violate, or causing a violation of the law. Generally, to the extent the conduct at issue appears to be the result of willful conduct—a deliberate intent to violate, attempt to violate, conspire to violate, or cause a violation of the law—the OEE enforcement response will be stronger. Among the factors OEE may consider in evaluating apparent willfulness or recklessness are:

**1. *Willfulness.*** Was the conduct at issue the result of a decision to take action with the knowledge that such action would constitute a violation of U.S. law? Did the Respondent know that the underlying conduct constituted, or likely constituted, a violation of U.S. law at the time of the conduct?

**2. *Recklessness/gross negligence.*** Did the Respondent demonstrate reckless disregard or gross negligence with respect to compliance with U.S. regulatory requirements or otherwise fail to exercise a minimal degree of caution or care in avoiding conduct that led to the apparent violation? Were there warning signs that should have alerted the Respondent that an action or failure to act would lead to an apparent violation?

**3. *Concealment.*** Was there a deliberate effort by the Respondent to hide or purposely obfuscate its conduct in order to mislead OEE, federal, state, or foreign regulators, or other parties involved in the conduct, about an apparent violation?

**Note:** Failure to voluntarily disclose an apparent violation to OEE does not constitute concealment.

**4. *Pattern of Conduct.*** Did the apparent violation constitute or result from a pattern or practice of conduct or was it relatively isolated and atypical in nature? In determining both whether to bring charges and, once charges are brought, whether

to treat the case as egregious, OEE will be mindful of certain situations where multiple recurring violations resulted from a single inadvertent error, such as misclassification. However, for cases that settle before filing of a charging letter with an Administrative Law Judge, OEE will generally charge only the most serious violation per transaction. If OEE issues a proposed charging letter and subsequently files a charging letter with an Administrative Law Judge because a mutually agreeable settlement cannot be reached, OEE will continue to reserve its authority to proceed with all available charges in the charging letter based on the facts presented. When determining a penalty, each violation is potentially chargeable.

**5. *Prior Notice.*** Was the Respondent on notice, or should it reasonably have been on notice, that the conduct at issue, or similar conduct, constituted a violation of U.S. law?

**6. *Management Involvement.*** In cases of entities, at what level within the organization did the willful or reckless conduct occur? Were supervisory or managerial level staff aware, or should they reasonably have been aware, of the willful or reckless conduct?

**B. *Awareness of Conduct at Issue: The Respondent's awareness of the conduct giving rise to the apparent violation.*** Generally, the greater a Respondent's actual knowledge of, or reason to know about, the conduct constituting an apparent violation, the stronger the OEE enforcement response will be. In the case of a corporation, awareness will focus on supervisory or managerial level staff in the business unit at issue, as well as other senior officers and managers. Among the factors OEE may consider in evaluating the Respondent's awareness of the conduct at issue are:

**1. *Actual Knowledge.*** Did the Respondent have actual knowledge that the conduct giving rise to an apparent violation took place, and remain willfully blind to such conduct, and fail to take

remedial measures to address it? Was the conduct part of a business process, structure or arrangement that was designed or implemented with the intent to prevent or shield the Respondent from having such actual knowledge, or was the conduct part of a business process, structure or arrangement implemented for other legitimate reasons that consequently made it difficult or impossible for the Respondent to have actual knowledge?

**2. Reason to Know.** If the Respondent did not have actual knowledge that the conduct took place, did the Respondent have reason to know, or should the Respondent reasonably have known, based on all readily available information and with the exercise of reasonable due diligence, that the conduct would or might take place?

**3. Management Involvement.** In the case of an entity, was the conduct undertaken with the explicit or implicit knowledge of senior management, or was the conduct undertaken by personnel outside the knowledge of senior management? If the apparent violation was undertaken without the knowledge of senior management, was there oversight intended to detect and prevent violations, or did the lack of knowledge by senior management result from disregard for its responsibility to comply with applicable regulations and laws?

**C. Harm to Regulatory Program Objectives: The actual or potential harm to regulatory program objectives caused by the conduct giving rise to the apparent violation.** This factor would be present where the conduct in question, in purpose or effect, substantially implicated national security, foreign policy or other essential interests protected by the U.S. export control system, in view of such factors as the reason for controlling the item to the destination in question; the sensitivity of the item; the prohibitions or restrictions against the recipient of the item; and the licensing policy concerning the transaction (such as presumption of approval or denial). OEE, in its discretion, may consult with other

U.S. agencies or with licensing and enforcement authorities of other countries in making its determination. Among the factors OEE may consider in evaluating the harm to regulatory program objectives are:

**1. Implications for U.S. National Security: The impact that the apparent violation had or could potentially have on the national security of the United States.** For example, if a particular export could undermine U.S. military superiority or endanger U.S. or friendly military forces or be used in a military application contrary to U.S. interests, OEE would consider the implications of the apparent violation to be significant.

**2. Implications for U.S. Foreign Policy: The effect that the apparent violation had or could potentially have on U.S. foreign policy objectives.** For example, if a particular export is, or is likely to be, used by a foreign regime to monitor communications of its population in order to suppress free speech and persecute dissidents, OEE would consider the implications of the apparent violation to be significant.

### General Factors

\*\*general factors

**D. Individual Characteristics: The particular circumstances and characteristics of a Respondent.** Among the factors OEE may consider in evaluating individual characteristics are:

**1. Commercial Sophistication: The commercial sophistication and experience of the Respondent.** Is the Respondent an individual or an entity? If an individual, was the conduct constituting the apparent violation for personal or business reasons?

**2. Size and Sophistication of Operations: The size of a Respondent's business operations, where such information is available and relevant.** At the time of the violation, did the Respondent have any previous export experience and was the Respondent familiar with export

practices and requirements? Qualification of the Respondent as a small business or organization for the purposes of the Small Business Regulatory Enforcement Fairness Act, as determined by reference to the applicable standards of the Small Business Administration, may also be considered.

**3. Volume and Value of Transactions:** *The total volume and value of transactions undertaken by the Respondent on an annual basis, with attention given to the volume and value of the apparent violations as compared with the total volume and value of all transactions.* Was the quantity and/or value of the exports high, such that a greater penalty may be necessary to serve as an adequate penalty for the violation or deterrence of future violations, or to make the penalty proportionate to those for otherwise comparable violations involving exports of lower quantity or value?

**4. Regulatory History:** *The Respondent's regulatory history, including OEE's issuance of prior penalties, warning letters, or other administrative actions (including settlements), other than with respect to antiboycott matters under part 760 of the EAR.* OEE will generally only consider a Respondent's regulatory history for the five years preceding the date of the transaction giving rise to the apparent violation. When an acquiring firm takes reasonable steps to uncover, correct, and voluntarily disclose or cause the voluntary self-disclosure to OEE of conduct that gave rise to violations by an acquired business before the acquisition, OEE typically will not take such violations into account in applying these factors in settling other violations by the acquiring firm.

**5. Other illegal conduct in connection with the export.** Was the transaction in support of other illegal conduct, for example the export of firearms as part of a drug smuggling operation, or illegal exports in support of money laundering?

**6. Criminal Convictions.** Has the Respondent

been convicted of an export related criminal violation?

**Note:** Where necessary to effective enforcement, the prior involvement in export violation(s) of a Respondent's owners, directors, officers, partners, or other related persons may be imputed to a Respondent in determining whether these criteria are satisfied.

**E. Compliance Program:** *The existence, nature and adequacy of a Respondent's risk based BIS compliance program at the time of the apparent violation.* OEE will take account of the extent to which a Respondent complies with the principles set forth in BIS's Export Management System (EMS) Guidelines. Information about the EMS Guidelines can be accessed through the BIS Web site at [www.bis.doc.gov](http://www.bis.doc.gov). In this context, OEE will also consider whether a Respondent's export compliance program uncovered a problem, thereby preventing further violations, and whether the Respondent has taken steps to address compliance concerns raised by the violation, to include the submission of a VSD and steps to prevent reoccurrence of the violation that are reasonably calculated to be effective.

#### Mitigating Factors

**\*\*mitigating factors**

**F. Remedial Response:** *The Respondent's corrective action taken in response to the apparent violation.* Among the factors OEE may consider in evaluating the remedial response are:

1. The steps taken by the Respondent upon learning of the apparent violation. Did the Respondent immediately stop the conduct at issue? Did the Respondent undertake to file a VSD?

2. In the case of an entity, the processes followed to resolve issues related to the apparent violation. Did the Respondent discover necessary information to ascertain the causes and extent of the apparent violation, fully and expeditiously? Was senior management fully informed? If so,

when?

3. In the case of an entity, whether it adopted new and more effective internal controls and procedures to prevent the occurrence of similar apparent violations. If the entity did not have a BIS compliance program in place at the time of the apparent violation, did it implement one upon discovery of the apparent violation? If it did have a BIS compliance program, did it take appropriate steps to enhance the program to prevent the recurrence of similar violations? Did the entity provide the individual(s) and/ or managers responsible for the apparent violation with additional training, and/or take other appropriate action, to ensure that similar violations do not occur in the future?

4. Where applicable, whether the Respondent undertook a thorough review to identify other possible violations.

***G. Exceptional Cooperation with OEE: The nature and extent of the Respondent's cooperation with OEE, beyond those actions set forth in Factor F.*** Among the factors OEE may consider in evaluating exceptional cooperation are:

1. Did the Respondent provide OEE with all relevant information regarding the apparent violation at issue in a timely, comprehensive and responsive manner (whether or not voluntarily self-disclosed), including, if applicable, overseas records?

2. Did the Respondent research and disclose to OEE relevant information regarding any other apparent violations caused by the same course of conduct?

3. Did the Respondent provide substantial assistance in another OEE investigation of another person who may have violated the EAR?

4. Has the Respondent previously made substantial voluntary efforts to provide

information (such as providing tips that led to enforcement actions against other parties) to federal law enforcement authorities in support of the enforcement of U.S. export control regulations?

5. Did the Respondent enter into a statute of limitations tolling agreement, if requested by OEE (particularly in situations where the apparent violations were not immediately disclosed or discovered by OEE, in particularly complex cases, and in cases in which the Respondent has requested and received additional time to respond to a request for information from OEE)? If so, the Respondent's entering into a tolling agreement will be deemed a mitigating factor.

**Note:** A Respondent's refusal to enter into a tolling agreement will not be considered by OEE as an aggravating factor in assessing a Respondent's cooperation or otherwise under the Guidelines.

***H. License Was Likely To Be Approved.*** Would an export license application have likely been approved for the transaction had one been sought? Would the export have qualified for a License Exception? Some license requirements sections in the EAR also set forth a licensing policy (*i.e.*, a statement of the policy under which license applications will be evaluated), such as a general presumption of denial or case by case review. OEE may also consider the licensing history of the specific item to that destination and if the item or end-user has a history of export denials.

*Other Relevant Factors Considered on a Case-by-Case Basis*

***I. Related Violations.*** Frequently, a single export transaction can give rise to multiple violations. For example, an exporter who inadvertently misclassifies an item on the Commerce Control List may, as a result of that error, export the item without the required export license and file

Electronic Export Information (EEI) to the Automated Export System (AES) that both misstates the applicable Export Control Classification Number (ECCN) and erroneously identifies the export as qualifying for the designation “NLR” (no license required) or cites a license exception that is not applicable. In so doing, the exporter commits three violations: one violation of § 764.2(a) of the EAR for the unauthorized export and two violations of § 764.2(g) of the EAR for the two false statements on the EEI filing to the AES. OEE will consider whether the violations stemmed from the same underlying error or omission, and whether they resulted in distinguished or separate harm. OEE generally does not charge multiple violations on a single export, and would not consider the existence of such multiple violations as an aggravating factor in and of itself. It is within OEE’s discretion to charge separate violations and settle the case for a penalty that is less than would be appropriate for unrelated violations under otherwise similar circumstances, or to charge fewer violations and pursue settlement in accordance with that charging decision. OEE generally will consider inadvertent, compounded clerical errors as related and not separate infractions when deciding whether to bring charges and in determining if a case is egregious.

**J. Multiple Unrelated Violations.** In cases involving multiple unrelated violations, OEE is more likely to seek a denial of export privileges and/or a greater monetary penalty than OEE would otherwise typically seek. For example, repeated unauthorized exports could warrant a denial order, even if a single export of the same item to the same destination under similar circumstances might warrant just a civil monetary penalty. OEE takes this approach because multiple violations may indicate serious compliance problems and a resulting greater risk of future violations. OEE may consider whether a Respondent has taken effective steps to address compliance concerns in determining whether multiple violations warrant a denial order in a particular case.

**K. Other Enforcement Action.** Other enforcement actions taken by federal, state, or local agencies against a Respondent for the apparent violation or similar apparent violations, including whether the settlement of alleged violations of BIS regulations is part of a comprehensive settlement with other federal, state, or local agencies. Where an administrative enforcement matter under the EAR involves conduct giving rise to related criminal or civil charges, OEE may take into account the related violations, and their resolution, in determining what administrative sanctions are appropriate under part 766 of the EAR. A criminal conviction indicates serious, willful misconduct and an accordingly high risk of future violations, absent effective administrative sanctions. However, entry of a guilty plea can be a sign that a Respondent accepts responsibility for complying with the EAR and will take greater care to do so in the future. In appropriate cases where a Respondent is receiving substantial criminal penalties, OEE may find that sufficient deterrence may be achieved by lesser administrative sanctions than would be appropriate in the absence of criminal penalties. Conversely, OEE might seek greater administrative sanctions in an otherwise similar case where a Respondent is not subjected to criminal penalties. The presence of a related criminal or civil disposition may distinguish settlements among civil penalty cases that appear otherwise to be similar. As a result, the factors set forth for consideration in civil penalty settlements will often be applied differently in the context of a “global settlement” of both civil and criminal cases, or multiple civil cases, and may therefore be of limited utility as precedent for future cases, particularly those not involving a global settlement.

**L. Future Compliance/Deterrence Effect: The impact an administrative enforcement action may have on promoting future compliance with the regulations by a Respondent and similar parties, particularly those in the same industry**

*sector.*

***M. Other Factors That OEE Deems Relevant.***

On a case-by-case basis, in determining the appropriate enforcement response and/or the amount of any civil monetary penalty, OEE will consider the totality of the circumstances to ensure that its enforcement response is proportionate to the nature of the violation.

**IV. Civil Penalties**

***A. Determining What Sanctions Are Appropriate in a Settlement.***

OEE will review the facts and circumstances surrounding an apparent violation and apply the Factors Affecting Administrative Sanctions in Section III above in determining the appropriate sanction or sanctions in an administrative case, including the appropriate amount of a civil monetary penalty where such a penalty is sought and imposed. Penalties for settlements reached after the initiation of litigation will usually be higher than those described by these guidelines.

***B. Amount of Civil Penalty.***

***1. Determining Whether a Case is Egregious.*** In those cases in which a civil monetary penalty is considered appropriate, OEE will make a determination as to whether a case is deemed “egregious” for purposes of the base penalty calculation. If a case is determined to be egregious, OEE also will also determine the appropriate base penalty amount within the range of base penalty amounts prescribed in paragraphs IV.B.2.a.iii and iv below. These determinations will be based on an analysis of the applicable factors. In making these determinations, substantial weight will generally be given to Factors A (“willful or reckless violation of law”), B (“awareness of conduct at issue”), C (“harm to regulatory program objectives”), and D (“individual characteristics”), with particular emphasis on Factors A, B, and C. A case will be considered an “egregious case” where the analysis of the applicable factors, with a focus on

Factors A, B, and C, indicates that the case represents a particularly serious violation of the law calling for a strong enforcement response. A determination by OEE that a case is “egregious” must have the concurrence of the Assistant Secretary of Commerce for Export Enforcement.

***2. Monetary Penalties in Egregious Cases and Non-Egregious Cases.***

The civil monetary penalty amount shall generally be calculated as follows, except that neither the base penalty amount nor the penalty amount will exceed the applicable statutory maximum:

a. Base Category Calculation and Voluntary Self-Disclosures.

i. In a non-egregious case, if the apparent violation is disclosed through a voluntary self-disclosure, the base penalty amount shall be one-half of the transaction value, capped at a maximum base penalty amount of \$125,000 per violation.

ii. In a non-egregious case, if the apparent violation comes to OEE’s attention by means other than a voluntary self-disclosure, the base penalty amount shall be the “applicable schedule amount,” as defined above (capped at a maximum base penalty amount of \$250,000 per violation).

iii. In an egregious case, if the apparent violation is disclosed through a voluntary self-disclosure, the base penalty amount shall be an amount up to one-half of the statutory maximum penalty applicable to the violation.

The following matrix represents the base penalty amount of the civil monetary penalty for each category of violation:

**BASE PENALTY MATRIX**

Egregious Case?

Voluntary Self-Disclosure ?	NO	YES
	(1) One-Half of the Transaction Value (capped at \$125,000 per violation)	(3) Up to One-Half of the Applicable Statutory Maximum
	NO	YES
	(2) Applicable Schedule Amount (capped at \$250,000 per violation)	(4) Up to the Applicable Statutory Maximum

**Note to paragraph IV.B.2.** The dollar values that appear in IV.B.2.a.i and .ii, and in the Base Penalty Matrix may be adjusted in accordance with U.S. law, e.g., the Federal Civil Penalties Inflation Adjustment Act Improvements Act of 2015 (Pub. L. 114–74, sec. 701).

b. Adjustment for Applicable Relevant Factors.

In non-egregious cases the base penalty amount of the civil monetary penalty may be adjusted to reflect applicable Factors for Administrative Action set forth in Section III of these Guidelines. In egregious cases the base penalty amount of the civil monetary penalty will be set based on applicable Factors for Administrative Action set forth in Section III of these Guidelines. A Factor may result in a lower or higher penalty amount depending upon whether it is aggravating or mitigating or otherwise relevant to the circumstances at hand. Mitigating factors may be combined for a greater reduction in penalty, but mitigation will generally not exceed 75 percent of the base penalty, except in the case of VSDs, where full suspension is possible with conditions in certain nonegregious cases. Subject to this limitation, as a general matter, in those cases where the following Mitigating Factors are

present, OEE will adjust the base penalty amount in the following manner:

In cases involving exceptional cooperation with OEE as set forth in Mitigating Factor G, but no voluntary self-disclosure as defined in § 764.5 of the EAR, the base penalty amount generally will be reduced between 25 and 40 percent. Exceptional cooperation in cases involving voluntary self-disclosure may also be considered as a further mitigating factor. In cases involving a Respondent’s first violation, the base penalty amount generally will be reduced by up to 25 percent. An apparent violation generally will be considered a “first violation” if the Respondent has not been convicted of an export-related criminal violation or been subject to a BIS final order in five years, preceding the date of the transaction giving rise to the apparent violation. A group of substantially similar apparent violations addressed in a single Charging Letter shall be considered as a single violation for purposes of this subsection. In those cases where a prior Charging Letter within the preceding five years involved conduct of a substantially different nature from the apparent violation at issue, OEE may consider the apparent violation at issue a “first violation.” Warning Letters issued within the preceding five years are not factored into account for purposes of determining eligibility for “first offense” mitigation. When an acquiring firm takes reasonable steps to uncover, correct, and disclose or cause to be disclosed to OEE conduct that gave rise to violations by an acquired business before the acquisition, OEE typically will not take such violations into account as an aggravating factor in settling other violations by the acquiring firm.

iii. In cases involving charges pertaining to transactions where a license exception would have been available or a license would likely have been approved had one been sought as set forth in Mitigating Factor H, the base penalty amount generally will be reduced by up to 25 percent.

In all cases, the penalty amount will not exceed

the applicable statutory maximum. Similarly, while mitigating factors may be combined for a greater reduction in penalty, mitigation will generally not exceed 75 percent of the base penalty, except in the case of VSDs, where full suspension is possible with conditions in certain

nonegregious cases.

*C. Settlement Procedures.* The procedures relating to the settlement of administrative enforcement cases are set forth in § 766.18 of the EAR.

**SUPPLEMENT NO. 2 TO PART 766 - GUIDANCE ON CHARGING AND PENALTY DETERMINATIONS IN SETTLEMENT OF ADMINISTRATIVE ENFORCEMENT CASES INVOLVING ANTIBOYCOTT MATTERS**

**(a) Introduction**

**(1) Scope.** This Supplement describes how the Office of Antiboycott Compliance (OAC) responds to violations of part 760 of the EAR “Restrictive Trade Practices or Boycotts” and to violations of part 762 “Recordkeeping” when the recordkeeping requirement pertains to part 760 (together referred to in this supplement as the “antiboycott provisions”). It also describes how BIS makes penalty determinations in the settlement of administrative enforcement cases brought under parts 764 and 766 of the EAR involving violations of the antiboycott provisions. This supplement does not apply to enforcement cases for violations of other provisions of the EAR.

**(2) Policy Regarding Settlement.** Because many administrative enforcement cases are resolved through settlement, the process of settling such cases is integral to the enforcement program. BIS carefully considers each settlement offer in light of the facts and circumstances of the case, relevant precedent, and BIS’s objective to achieve in each case an appropriate level of penalty and deterrent effect. In settlement negotiations, BIS encourages parties to provide, and will give serious consideration to, information and evidence that the parties believe is relevant to the application of this guidance to their cases, to whether a violation has in fact occurred, and to whether they have a defense to potential charges.

**(3) Limitation.** BIS’s policy and practice is to treat similarly situated cases similarly, taking into consideration that the facts and combination of mitigating and aggravating factors are different in each case. However, this guidance does not confer any right or impose any obligation regarding what posture or penalties BIS may seek

in settling or litigating a case. Parties do not have a right to a settlement offer or particular settlement terms from BIS, regardless of settlement postures BIS has taken in other cases.

**(b) Responding to Violations**

OAC within BIS investigates possible violations of Section 8 of the Export Administration Act of 1979, as amended (“Foreign Boycotts”), the antiboycott provisions of EAR, or any order or authorization related thereto. When BIS has reason to believe that such a violation has occurred, BIS may issue a warning letter or initiate an administrative enforcement proceeding. A violation may also be referred to the Department of Justice for criminal prosecution.

**(1) Issuing a warning letter.** Warning letters represent BIS’s belief that a violation has occurred. In the exercise of its discretion, BIS may determine in certain instances that issuing a warning letter, instead of bringing an administrative enforcement proceeding, will fulfill the appropriate enforcement objective. A warning letter will fully explain the violation.

(i) BIS may issue warning letters where:

(A) the investigation commenced as a result of a voluntary self-disclosure satisfying the requirements of § 764.8 of the EAR; or

(B) the party has not previously committed violations of the antiboycott provisions.

(ii) BIS may also consider the category of violation as discussed in paragraph (d)(2) of this supplement in determining whether to issue a warning letter or initiate an enforcement proceeding. A violation covered by Category C

(failure to report or late reporting of receipt of boycott requests) might warrant a warning letter rather than initiation of an enforcement proceeding.

(iii) BIS will not issue a warning letter if it concludes, based on available information, that a violation did not occur.

(iv) BIS may reopen its investigation of a matter should it receive additional evidence or if it appears that information previously provided to BIS during the course of its investigation was incorrect.

**(2) Pursuing an administrative enforcement case.** The issuance of a charging letter under § 766.3 of this part initiates an administrative proceeding.

(i) Charging letters may be issued when there is reason to believe that a violation has occurred. Cases may be settled before or after the issuance of a charging letter. See § 766.18 of this part.

(ii) Although not required to do so by law, BIS may send a proposed charging letter to a party to inform the party of the violations that BIS has reason to believe occurred and how BIS expects that those violations would be charged. Issuance of the proposed charging letter provides an opportunity for the party and BIS to consider settlement of the case prior to the initiation of formal enforcement proceedings.

**(3) Referring for criminal prosecution.** In appropriate cases, BIS may refer a case to the Department of Justice for criminal prosecution, in addition to pursuing an administrative enforcement action.

**(c) Types of administrative sanctions**

Administrative enforcement cases generally are settled on terms that include one or more of three administrative sanctions:

**(1)** A monetary penalty may be assessed for each violation as provided in § 764.3(a)(1) of the EAR;

*Note to paragraph (c)(1): The maximum penalty is subject to adjustments under the Federal Civil Penalties Adjustment Act of 1990 (28 USC 2461, note (2000)), which are codified at 15 CFR § 6.4. For violations that occurred before March 9, 2006, the maximum monetary penalty per violation is \$11,000. For violations occurring on or after March 9, 2006, the maximum monetary penalty per violation is \$50,000.*

**(2)** An order denying a party's export privileges under the EAR may be issued, under § 764.3(a)(2) of the EAR; or

**(3)** Exclusion from practice under § 764.3(a)(3) of the EAR.

**(d) How BIS determines what sanctions are appropriate in a settlement**

**(1) General Factors.** BIS looks to the following general factors in determining what administrative sanctions are appropriate in each settlement.

(i) *Degree of seriousness.* In order to violate the antiboycott provisions of the EAR, a U.S. person does not need to have actual "knowledge" or a reason to know, as that term is defined in § 772.1 of the EAR, of relevant U.S. laws and regulations. Typically, in cases that do not involve knowing violations, BIS will seek a settlement for payment of a civil penalty (unless the matter is resolved with a warning letter). However, in cases involving knowing violations, conscious disregard of the antiboycott provisions, or other such serious violations (e.g., furnishing prohibited information in response to a boycott questionnaire with knowledge that such furnishing is in violation of the EAR), BIS is more likely to seek a denial of export privileges or an exclusion from practice, and/or a greater

monetary penalty as BIS considers such violations particularly egregious.

(ii) *Category of violations.* In connection with its activities described in paragraph (a)(1) of this supplement, BIS recognizes three categories of violations under the antiboycott provisions of the EAR. (See § 760.2, § 760.4 and § 760.5 of the EAR for examples of each type of violation other than recordkeeping). These categories reflect the relative seriousness of a violation, with Category A violations typically warranting the most stringent penalties, including up to the maximum monetary penalty, a denial order and/or an exclusion order. Through providing these categories in this penalty guidelines notice, BIS hopes to give parties a general sense of how it views the seriousness of various violations. This guidance, however, does not confer any right or impose any obligation as to what penalties BIS may impose based on its review of the specific facts of a case.

(A) The Category A violations and the sections of the EAR that set forth their elements are:

(1) Discriminating against U.S. persons on the basis of race, religion, sex, or national origin - § 760.2(b);

(2) Refusing to do business or agreeing to refuse to do business - § 760.2(a);

(3) Furnishing information about race, religion, sex, or national origin of U.S. persons including, but not limited to, providing information in connection with a boycott questionnaire about the religion of employees - § 760.2(c);

(4) Evading the provisions of part 760 - § 760.4;

(5) Furnishing information about business relationships with boycotted countries or blacklisted persons - § 760.2(d); and

(6) Implementing letters of credit - § 760.2(f).

(B) The Category B violations and the sections of the EAR that set forth their elements are:

(1) Furnishing information about associations with charitable or fraternal organizations which support a boycotted country - § 760.2(e); and

(2) Making recordkeeping violations - part 762.

(C) The Category C violation and the section of the EAR that sets forth its elements is: Failing to report timely receipt of boycott requests - § 760.5.

(iii) *Violations arising out of related transactions.* Frequently, a single transaction can give rise to multiple violations. Depending on the facts and circumstances, BIS may choose to impose a smaller or greater penalty per violation. In exercising its discretion, BIS typically looks to factors such as whether the violations resulted from conscious disregard of the requirements of the antiboycott provisions; whether they stemmed from the same underlying error or omission; and whether they resulted in distinguishable or separate harm. The three scenarios set forth below are illustrative of how BIS might view transactions that lead to multiple violations.

(A) *First scenario.* An exporter enters into a sales agreement with a company in a boycotting country. In the course of the negotiations, the company sends the exporter a request for a signed statement certifying that the goods to be supplied do not originate in a boycotted country. The exporter provides the signed certification. Subsequently, the exporter fails to report the receipt of the request. The exporter has committed two violations of the antiboycott

provisions, first, a violation of § 760.2(d) for furnishing information concerning the past or present business relationships with or in a boycotted country, and second, a violation of § 760.5 for failure to report the receipt of a request to engage in a restrictive trade practice or boycott. Although the supplier has committed two violations, BIS may impose a smaller mitigated penalty on a per violation basis than if the violations had stemmed from two separate transactions.

(B) *Second scenario.* An exporter receives a boycott request to provide a statement that the goods at issue in a sales transaction do not contain raw materials from a boycotted country and to include the signed statement along with the invoice. The goods are shipped in ten separate shipments. Each shipment includes a copy of the invoice and a copy of the signed boycott-related statement. Each signed statement is a certification that has been furnished in violation of § 760.2(d)'s bar on the furnishing of prohibited business information. Technically, the exporter has committed ten separate violations of § 760.2(d) and one violation of § 760.5 for failure to report receipt of the boycott request. Given that the violations arose from a single boycott request, however, BIS may treat the violations as related and impose a smaller penalty than it would if the furnishing had stemmed from ten separate requests.

(C) *Third scenario.* An exporter has an ongoing relationship with a company in a boycotting country. The company places three separate orders for goods on different dates with the exporter. In connection with each order, the company requests the exporter to provide a signed statement certifying that the goods to be supplied do not originate in a boycotted country. The exporter provides a signed certification with each order of goods that it ships to the company. BIS has the discretion to penalize the furnishing of each of these three items of information as a separate violation of § 760.2(d) of the EAR for furnishing information concerning past or present

business relationships with or in a boycotted country.

(iv) *Multiple violations from unrelated transactions.* In cases involving multiple unrelated violations, BIS is more likely to seek a denial of export privileges, an exclusion from practice, and/or a greater monetary penalty than in cases involving isolated incidents. For example, the repeated furnishing of prohibited boycott-related information about business relationships with or in boycotted countries during a long period of time could warrant a denial order, even if a single instance of furnishing such information might warrant only a monetary penalty. BIS takes this approach because multiple violations may indicate serious compliance problems and a resulting risk of future violations. BIS may consider whether a party has taken effective steps to address compliance concerns in determining whether multiple violations warrant a denial or exclusion order in a particular case.

(v) *Timing of settlement.* Under § 766.18 of this part, settlement can occur before a charging letter is served, while a case is before an administrative law judge, or while a case is before the Under Secretary for Industry and Security under § 766.22 of this part. However, early settlement—for example, before a charging letter has been filed—has the benefit of freeing resources for BIS to deploy in other matters. In contrast, for example, the BIS resources saved by settlement on the eve of an adversary hearing under § 766.13 of this part are fewer, insofar as BIS has already expended significant resources on discovery, motions practice, and trial preparation. Given the importance of allocating BIS resources to maximize enforcement of the EAR, BIS has an interest in encouraging early settlement and will take this interest into account in determining settlement terms.

(vi) *Related criminal or civil violations.* Where an administrative enforcement matter under the antiboycott provisions involves

conduct giving rise to related criminal charges, BIS may take into account the related violations and their resolution in determining what administrative sanctions are appropriate under part 766 of the EAR. A criminal conviction indicates serious, willful misconduct and an accordingly high risk of future violations, absent effective administrative sanctions. However, entry of a guilty plea can be a sign that a party accepts responsibility for complying with the antiboycott provisions and will take greater care to do so in the future. In appropriate cases where a party is receiving substantial criminal penalties, BIS may find that sufficient deterrence may be achieved by lesser administrative sanctions than would be appropriate in the absence of criminal penalties. Conversely, BIS might seek greater administrative sanctions in an otherwise similar case where a party is not subjected to criminal penalties. The presence of a related criminal or civil disposition may distinguish settlements among civil penalty cases that appear to be otherwise similar. As a result, the factors set forth for consideration in civil penalty settlements will often be applied differently in the context of a “global settlement” of both civil and criminal cases, or multiple civil cases involving other agencies, and may therefore be of limited utility as precedent for future cases, particularly those not involving a global settlement.

(vii) *Familiarity with the Antiboycott Provisions.* Given the scope and detailed nature of the antiboycott provisions, BIS will consider whether a party is an experienced participant in the international business arena who may possess (or ought to possess) familiarity with the antiboycott laws. In this respect, the size of the party’s business, the presence or absence of a legal division or corporate compliance program, and the extent of prior involvement in business with or in boycotted or boycotting countries, may be significant.

**(2) Specific mitigating and aggravating factors.** In addition to the general factors described in paragraph (d)(1) of this supplement,

BIS also generally looks to the presence or absence of the specific mitigating and aggravating factors in this paragraph in determining what sanctions should apply in a given settlement. These factors describe circumstances that, in BIS’s experience, are commonly relevant to penalty determinations in settled cases. However, this listing of factors is not exhaustive and BIS may consider other factors that may further indicate the blameworthiness of a party’s conduct, the actual or potential harm associated with a violation, the likelihood of future violations, and/or other considerations relevant to determining what sanctions are appropriate. The assignment of mitigating or aggravating factors will depend upon the attendant circumstances of the party’s conduct. Thus, for example, one prior violation should be given less weight than a history of multiple violations, and a previous violation reported in a voluntary self-disclosure by a party whose overall compliance efforts are of high quality should be given less weight than previous violation(s) not involving such mitigating factors. Some of the mitigating factors listed in this paragraph are designated as having “great weight.” When present, such a factor should ordinarily be given considerably more weight than a factor that is not so designated.

(i) *Specific mitigating factors.*

(A) *Voluntary self-disclosure.* (GREAT WEIGHT) The party has made a voluntary self-disclosure of the violation, satisfying the requirements of § 764.8 of the EAR.

(B) *Effective compliance program.* (GREAT WEIGHT)

(1) *General policy or program pertaining to Antiboycott Provisions.* BIS will consider whether a party’s compliance efforts uncovered a problem, thereby preventing further violations, and whether the party has taken steps to address compliance concerns raised by the violation, including steps to prevent recurrence of the

violation, that are reasonably calculated to be effective. The focus is on the party's demonstrated compliance with the antiboycott provisions. Whether a party has an effective export compliance program covering other provisions of the EAR is not relevant as a mitigating factor. In the case of a party that has done previous business with or in boycotted countries or boycotting countries, BIS will examine whether the party has an effective antiboycott compliance program and whether its overall antiboycott compliance efforts have been of high quality. BIS may deem it appropriate to review the party's internal business documents relating to antiboycott compliance (e.g., corporate compliance manuals, employee training materials).

(2) *Compliance with reporting and recordkeeping requirements.* In the case of a party that has received reportable boycott requests in the past, BIS may examine whether the party complied with the reporting and recordkeeping requirements of the antiboycott provisions.

(C) *Limited business with or in boycotted or boycotting countries.* The party has had little to no previous experience in conducting business with or in boycotted or boycotting countries. Prior to the current enforcement proceeding, the party had not engaged in business with or in such countries, or had only transacted such business on isolated occasions. BIS may examine the volume of business that the party has conducted with or in boycotted or boycotting countries as demonstrated by the size and dollar amount of transactions or the percentage of a party's overall business that such business constitutes.

(D) *History of compliance with the Antiboycott Provisions of the EAR.*

(1) BIS will consider it to be a mitigating factor if:

(i) The party has never been convicted of a criminal violation of the antiboycott provisions;

(ii) In the past 5 years, the party has not entered into a settlement or been found liable in a boycott-related administrative enforcement case with BIS or another U.S. government agency;

(iii) In the past 3 years, the party has not received a warning letter from BIS relating to the antiboycott provisions; or

(iv) In the past 5 years, the party has not otherwise violated the antiboycott provisions.

(2) Where necessary to ensure effective enforcement, the prior involvement in violations of the antiboycott provisions of a party's owners, directors, officers, partners, or other related persons may be imputed to a party in determining whether these criteria are satisfied. When an acquiring firm takes reasonable steps to uncover, correct, and disclose to BIS conduct that gave rise to violations that the acquired business committed before the acquisition, BIS typically will not take such violations into account in applying this factor in settling other violations by the acquiring firm.

(E) *Exceptional cooperation with the investigation.* The party has provided exceptional cooperation to OAC during the course of the investigation.

(F) *Clarity of request to furnish prohibited information or take prohibited action.* The party responded to a request to furnish information or take action that was ambiguously worded or vague.

(G) *Violations arising out of a party's "passive" refusal to do business in connection with an agreement.* The party has acquiesced in or abided by terms or conditions that constitute a prohibited refusal to do business (e.g., responded to a tender document that contains prohibited language by sending a bid). See "active"

agreements to refuse to do business in paragraph (d)(2)(ii)(I) of this supplement.

(H) *Isolated occurrence of violation.* The violation was an isolated occurrence. (Compare to long duration or high frequency of violations as an aggravating factor in paragraph (d)(2)(ii)(F) of this supplement.)

(ii) *Specific Aggravating Factors.*

(A) *Concealment or obstruction.* The party made a deliberate effort to hide or conceal the violation. (GREAT WEIGHT)

(B) *Serious disregard for compliance responsibilities.* (GREAT WEIGHT) There is evidence that the party's conduct demonstrated a serious disregard for responsibilities associated with compliance with the antiboycott provisions (e.g.: knowing violation of party's own compliance policy or evidence that a party chose to treat potential penalties as a cost of doing business rather than develop a compliance policy).

(C) *History of compliance with the Antiboycott Provisions.*

(I) BIS will consider it to be an aggravating factor if:

(i) The party has been convicted of a criminal violation of the antiboycott provisions;

(ii) In the past 5 years, the party has entered into a settlement or been found liable in a boycott-related administrative enforcement case with BIS or another U.S. government agency;

(iii) In the past 3 years, the party has received a warning letter from BIS relating to the antiboycott provisions; or

(iv) In the past 5 years, the party has otherwise violated the antiboycott provisions.

(2) Where necessary to ensure effective enforcement, the prior involvement in violations of the antiboycott provisions of a party's owners, directors, officers, partners, or other related persons may be imputed to a party in determining whether these criteria are satisfied.

(3) When an acquiring firm takes reasonable steps to uncover, correct, and disclose to BIS conduct that gave rise to violations that the acquired firm committed before being acquired, BIS typically will not take such violations into account in applying this factor in settling other violations by the acquiring firm.

(D) *Familiarity with the type of transaction at issue in the violation.* For example, in the case of a violation involving a letter of credit or related financial document, the party routinely pays, negotiates, confirms, or otherwise implements letters of credit or related financial documents in the course of its standard business practices.

(E) *Prior history of business with or in boycotted countries or boycotting countries.* The party has a prior history of conducting business with or in boycotted and boycotting countries. BIS may examine the volume of business that the party has conducted with or in boycotted and boycotting countries as reflected by the size and dollar amount of transactions or the percentage of a party's overall business that such business constitutes.

(F) *Long duration or high frequency of violations.* Violations that occur at frequent intervals or repeated violations occurring over an extended period of time may be treated more seriously than a single violation or related violations that are committed within a brief period of time, particularly if the violations are committed by a party with a history of business with or in boycotted and boycotting countries. (Compare to isolated occurrence of violation in paragraph (d)(2)(i)(H) of this supplement.)

(G) *Clarity of request to furnish prohibited information or take prohibited action.* The request to furnish information or take other prohibited action (e.g., enter into agreement to refuse to do business with a boycotted country or entity blacklisted by a boycotting country) is facially clear as to its intended purpose.

(H) *Violation relating to specific information concerning an individual entity or individual.* The party has furnished prohibited information about business relationships with specific companies or individuals.

(I) *Violations relating to “active” conduct concerning an agreement to refuse to do business.* The party has taken action that involves altering, editing, or enhancing prohibited terms or language in an agreement to refuse to do business, including a letter of credit, or drafting a clause or provision including prohibited terms or language in the course of negotiating an agreement to refuse to do business, including a letter of credit. See “passive” agreements to refuse to do business in paragraph (d)(2)(i)(G) of this supplement.

***(e) Determination of Scope of Denial or Exclusion Order.***

In deciding whether and what scope of denial or exclusion order is appropriate, the following factors are particularly relevant: the presence of mitigating or aggravating factors of great weight; the degree of seriousness involved; the extent to which senior management participated in or was aware of the conduct in question; the number of violations; the existence and seriousness of prior violations; the likelihood of future violations

(taking into account relevant efforts to comply with the antiboycott provisions); and whether a civil monetary penalty can be expected to have a sufficient deterrent effect.

***(f) How BIS Makes Suspension and Deferral Decisions.***

**(1) Civil Penalties.** In appropriate cases, payment of a civil monetary penalty may be deferred or suspended. See § 764.3(a)(1)(iii) of the EAR. In determining whether suspension or deferral is appropriate, BIS may consider, for example, whether the party has demonstrated a limited ability to pay a penalty that would be appropriate for such violations, so that suspended or deferred payment can be expected to have sufficient deterrent value, and whether, in light of all the circumstances, such suspension or deferral is necessary to make the impact of the penalty consistent with the impact of BIS penalties on other parties who committed similar violations.

**(2) Denial of Export Privileges and Exclusion from Practice.** In deciding whether a denial or exclusion order should be suspended, BIS may consider, for example, the adverse economic consequences of the order on the party, its employees, and other persons, as well as on the national interest in maintaining or promoting the competitiveness of U.S. businesses. An otherwise appropriate denial or exclusion order will be suspended on the basis of adverse economic consequences only if it is found that future violations of the antiboycott provisions are unlikely and if there are adequate measures (usually a substantial civil monetary penalty) to achieve the necessary deterrent effect.

**Foreign Availability Determination Procedures and Criteria**

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**§ 768.1 INTRODUCTION**

In this part, references to the Export Administration Regulations (EAR) are references to 15 CFR chapter VII, subchapter C.

**(a) Authority**

Pursuant to sections 5(f) and 5(h) of the Export Administration Act (EAA), the Under Secretary of Commerce for Export Administration directs the Bureau of Industry and Security (BIS) in gathering and analyzing all the evidence

necessary for the Secretary to determine foreign availability.

**(b) Scope**

This part applies only to the extent that items are controlled for national security purposes. This part does not apply to encryption items that were formerly controlled on the U.S. Munitions List and that were transferred to the Commerce Control List consistent with E.O. 13026 of November 15, 1996 (61 FR 58767) and pursuant to the Presidential Memorandum of that date, which shall not be subject to any mandatory foreign availability review procedures.

**(c) Types of programs**

There are two general programs of foreign availability:

**(1) Foreign availability to controlled countries.** In this category are denied license assessments (*see* §§768.4(b) and 768.7 of this part) and decontrol assessments (*see* §§768.4(c) and 768.7 of this part).

**(2) Foreign availability to non-controlled countries.** In this category are denied license assessments, decontrol assessments, and evaluations of eligibility for expedited licensing (*see* §768.8 of this part).

**(d) Definitions**

The following are definitions of terms used in this part 768:

*Allegation.* See foreign availability submission.

*Assessment.* An evidentiary analysis that BIS conducts concerning the foreign availability of a given item based on the assessment criteria, data gathered by BIS, and the data and recommendations submitted by the Departments of Defense and State and other relevant

departments and agencies, TAC committees, and industry.

*Assessment criteria.* Statutorily established criteria that must be assessed for the Secretary to make a determination with respect to foreign availability. They are, available-in-fact, from a non-U.S. source, in sufficient quantity so as to render the control ineffective, and of comparable quality. (See §768.6 of this part).

*Available-in-fact.* An item is available-in-fact to a country if it is produced within the country or if it may be obtained by that country from a third country. Ordinarily, items will not be considered available-in-fact to non-controlled countries if the items are available only under a validated national security license or a comparable authorization from a country that maintains export controls on such items cooperatively with the United States.

*Claimant.* Any party who makes a foreign availability submission, excluding TACs.

*Comparable quality.* An item is of comparable quality to an item controlled under the EAR if it possesses the characteristics specified in the Commerce Control List (CCL) for that item and is alike in key characteristics that include, but are not limited to: (1) function; (2) technological approach; (3) performance thresholds; (4) maintainability and service life; and (5) any other attribute relevant to the purpose for which the control was placed on the item.

*Controlled countries.* Albania, Armenia, Azerbaijan, Belarus, Bulgaria, Cambodia, Cuba, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Laos, Latvia, Lithuania, Moldova, Mongolia, North Korea, Romania, Russia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan, Vietnam and the People's Republic of China.

*Decontrol.* Removal of license requirements under the EAR.

*Decontrol assessment.* An assessment of the foreign availability of an item to a country or countries for purposes of determining whether decontrol is warranted. Such assessments may be conducted after BIS receives a foreign availability submission or a TAC certification, or by the Secretary's own initiative.

*Denied license assessment.* A foreign availability assessment conducted as a result of a claimant's allegation of foreign availability for an item (or items) that BIS has denied or has issued a letter of intent to deny a license. If the Secretary determines that foreign availability exists, BIS's approval of a license will be limited to the items, countries, and quantities in the allegation.

*Determination.* The Secretary's decision that foreign availability within the meaning of the EAA does or does not exist. (See §768.7 of this part).

*Expedited licensing procedure eligibility evaluation.* An evaluation that BIS initiates for the purpose of determining whether an item is eligible for the expedited licensing procedure. (See §768.8 of this part).

*Expedited licensing procedures.* Under expedited licensing procedures, BIS reviews and processes a license application for the export of an eligible item to a non-controlled country within statutory time limits. Licenses are deemed approved unless BIS denies within the statutory time limits (See §768.8 of this part).

*Foreign availability submission (FAS).* An allegation of foreign availability a claimant makes, supported by reasonable evidence, and submits to BIS. (See §768.5 of this part).

*Item.* Any commodity, software, or technology.

*Items eligible for non-controlled country expedited licensing procedures.* The items described in Supplement No. 2 to this part 768

are eligible for the expedited license procedures (See §768.8 of this part).

*National Security Override (NSO).* A Presidential decision to maintain export controls on an item notwithstanding its foreign availability as determined under the EAA. The President's decision is based on his/her determination that the absence of the controls would prove detrimental to the national security of the United States. Once the President makes such a decision, the President must actively pursue negotiations to eliminate foreign availability with the governments of the sources of foreign availability. (See §768.7 of this part).

*Non-controlled countries.* Any country not defined as a controlled country by this section.

*Non-U.S. source/foreign source.* A person located outside the jurisdiction of the United States (as defined in part 772 of the EAR).

*Reasonable evidence.* Relevant information that is credible.

*Reliable evidence.* Relevant information that is credible and dependable.

*Secretary.* As used in this part, the Secretary refers to the Secretary of Commerce or his/her designee.

*Similar quality.* An item is of similar quality to an item that is controlled under the EAR if it is substantially alike in key characteristics that may include, but are not limited to: (1) function; (2) technological approach; (3) performance thresholds; (4) maintainability and service life; and (5) any other attribute relevant to the purpose for which the control was placed on the item.

*Sufficient quantity.* The amount of an item that would render the U.S. export control, or the denial of the license in question, ineffective in achieving its purpose. For a controlled country, it is the quantity that meets the military needs of

that country so that U.S. exports of the item to that country would not make a significant contribution to its military potential.

*Technical Advisory Committee (TAC).* A Committee created under section 5(h) of the EAA that advises and assists the Secretary of Commerce, the Secretary of Defense, and any other department, agency, or official of the Government of the United States to which the President delegates authority under the EAA on export control matters related to specific areas of controlled items.

*TAC certification.* A statement that a TAC submits to BIS, supported by reasonable evidence, documented as in a FAS, that foreign availability to a controlled country exists for an item that falls within the TAC's area of technical expertise.

## § 768.2 FOREIGN AVAILABILITY DESCRIBED

### (a) Foreign availability

Foreign availability exists when the Secretary determines that an item is comparable in quality to an item subject to U.S. national security export controls, and is available-in-fact to a country, from a non-U.S. source, in sufficient quantities to render the U.S. export control of that item or the denial of a license ineffective. For a controlled country, such control or denial is "ineffective" when maintaining such control or denying a specific license would not restrict the availability of items that would make a significant contribution to the military potential of the controlled country or combination of countries detrimental to the national security of the United States (see sections 5(a) and 3(2)(A) of the EAA).

### (b) Types of foreign availability

There are two types of foreign availability:

- (1) Foreign availability to a controlled country; and
- (2) Foreign availability to a non-controlled country.

**Note to paragraph (b) of this section:** See §768.7 of this part for delineation of the foreign availability assessment procedures, and §768.6 of this part for the criteria used in determining foreign availability.

### § 768.3 FOREIGN AVAILABILITY ASSESSMENT

#### (a) Foreign availability assessment

A foreign availability assessment is an evidentiary analysis that BIS conducts to assess the foreign availability of a given item according to the assessment criteria, based on data submitted by a claimant, the data gathered by BIS, and the data and recommendations submitted by the Departments of Defense and State and other relevant departments and agencies, TAC committees, and industry. BIS uses the results of the analysis in formulating its recommendation to the Secretary on whether foreign availability exists for a given item. If the Secretary determines that foreign availability exists, the Secretary will decontrol the item for national security reasons or approve the license in question if there is no foreign policy reason to deny the license, unless the President exercises a National Security Override (*see* §768.7 of this part). The effect of any such determination on the effectiveness of foreign policy controls may be considered independent of this part.

#### (b) Types of assessments

There are two types of foreign availability assessments:

- (1) Denied license assessment; and

- (2) Decontrol assessment.

#### (c) Expedited licensing procedures

See §768.8 of this part for the evaluation of eligibility of an item for the expedited licensing procedures.

### § 768.4 INITIATION OF AN ASSESSMENT

#### (a) Assessment request

To initiate an assessment, each claimant or TAC must submit a FAS or a TAC Certification to BIS. TACs are authorized to certify foreign availability only to controlled countries. Claimants can allege foreign availability for either controlled or non-controlled countries.

#### (b) Denied license assessment

A claimant whose license application BIS has denied, or for which it has issued a letter of intent to deny on national security grounds, may request that BIS initiate a denied license assessment by submitting a Foreign Availability Submission (FAS) within 90 days after denial of the license. As part of its submission, the claimant must request that the specified license application be approved on the grounds of foreign availability. The evidence must relate to the particular export as described on the license application and to the alleged comparable item. If foreign availability is found, the Secretary will approve the license for the specific items, countries, and quantities listed on the application. The denied license assessment procedure, however, is not intended to result in the removal of the U.S. export control on an item by incrementally providing a country with amounts that, taken together, would constitute a sufficient quantity of an item. The Secretary will not approve on foreign availability grounds a denied license if the approval of such license would itself render the U.S. export control ineffective in achieving its purpose. In the case

of a positive determination, the Secretary will determine whether a decontrol assessment is warranted. If so, then BIS will initiate a decontrol assessment.

*(c) Decontrol assessment*

(1) Any claimant may at any time request that BIS initiate a decontrol assessment by a FAS to BIS alleging foreign availability to any country or countries.

(2) A TAC may request that BIS initiate a decontrol assessment at any time by submitting a TAC Certification to BIS that there is foreign availability to a controlled country for items that fall within the area of the TAC's technical expertise.

(3) The Secretary, on his/her own initiative, may initiate a decontrol assessment.

*(d) BIS mailing address*

All foreign availability submissions and TAC certifications should be submitted to:

- Department of Commerce  
Bureau of Industry and Security  
Room H-1093  
14th Street and Pennsylvania Avenue, NW  
Washington, DC 20230

**§ 768.5 CONTENTS OF FOREIGN  
AVAILABILITY SUBMISSIONS AND  
TECHNICAL ADVISORY  
COMMITTEE CERTIFICATIONS**

(a) All foreign availability submissions must contain, in addition to information on product or technology alleged to be available from foreign sources, at least:

(1) The name of the claimant;

(2) The claimant's mailing and business address;

(3) The claimant's telephone number; and

(4) A contact point and telephone number.

(b) Foreign availability submissions and TAC certifications should contain as much evidence as is available to support the claim, including, but not limited to:

(1) Product names and model designations of the items alleged to be comparable;

(2) Extent to which the alleged comparable item is based on U.S. technology;

(3) Names and locations of the non-U.S. sources and the basis for claiming that the item is a non-U.S. source item;

(4) Key performance elements, attributes, and characteristics of the items on which a qualitative comparison may be made;

(5) Non-U.S. source's production quantities and/or sales of the alleged comparable items and marketing efforts;

(6) Estimated market demand and the economic impact of the control;

(7) Product names, model designations, and value of U.S. controlled parts and components incorporated in the items alleged to be comparable; and

(8) The basis for the claim that the item is available-in-fact to the country or countries for which foreign availability is alleged.

(c) Supporting evidence of foreign availability may include, but is not limited to, the following:

(1) Foreign manufacturers' catalogs, brochures, operation or maintenance manuals;

- (2) Articles from reputable trade and technical publications;
- (3) Photographs;
- (4) Depositions based on eyewitness accounts; and
- (5) Other credible evidence.

*Note to paragraph (c) of this section: See Supplement No. 1 to part 768 for additional examples of supporting evidence.*

(d) Upon receipt of a FAS or TAC certification, BIS will review it to determine whether there is sufficient evidence to support the belief that foreign availability may exist. If BIS determines the FAS or TAC certification is lacking in supporting evidence, BIS will seek additional evidence from appropriate sources, including the claimant or TAC. BIS will initiate the assessment when it determines that it has sufficient evidence that foreign availability may exist. Claimant and TAC certified assessments will be deemed to be initiated as of the date of such determination.

(e) Claimants and TACs are advised to review the foreign availability assessment criteria described in §768.6 of this part and the examples of evidence described in Supplement No. 1 to part 768 when assembling supporting evidence for inclusion in the FAS or TAC certification.

**§ 768.6 CRITERIA**

BIS will evaluate the evidence contained in a FAS or TAC certification and all other evidence gathered in the assessment process in accordance with certain criteria that must be met before BIS can recommend a positive determination to the Secretary. The criteria are defined in §768.1(d) of this part. In order to initiate an assessment, each FAS and TAC certification should address

each of these criteria. The criteria are statutorily prescribed and are:

- (a) Available-in-fact;
- (b) Non-U.S. source;
- (c) Sufficient quantity; and
- (d) Comparable quality.

**§ 768.7 PROCEDURES**

**(a) Initiation of an assessment**

(1) Once BIS accepts a FAS or TAC certification of foreign availability, BIS will notify the claimant or TAC that it is initiating the assessment.

(2) BIS will publish a *Federal Register* notice of the initiation of any assessment.

(3) BIS will notify the Departments of Defense and State, the intelligence community, and any other departments, agencies and their contractors that may have information concerning the item on which BIS has initiated an assessment. Each such department, agency, and contractor shall provide BIS all relevant information concerning the item. BIS will invite interested departments and agencies to participate in the assessment process (*see* paragraph (e) of this section).

**(b) Data gathering**

BIS will seek and consider all available information that bears upon the presence or absence of foreign availability, including but not limited to that evidence described in §768.5(b) and (c) of this part. As soon as BIS initiates the assessment, it will seek evidence relevant to the assessment, including an analysis of the military needs of a selected country or countries, technical analysis, and intelligence information from the Departments of Defense and State, and other U.S.

agencies. Evidence is particularly sought from: industry sources worldwide; other U.S. organizations; foreign governments; commercial, academic and classified data bases; scientific and engineering research and development organizations; and international trade fairs.

**(c) Analysis**

BIS will conduct its analysis by evaluating whether the reasonable and reliable evidence that is relevant to each of the foreign availability criteria provides a sufficient basis to recommend a determination that foreign availability does or does not exist.

**(d) Recommendation and determination**

(1) Upon completion of each assessment, BIS, on the basis of its analysis, will recommend that the Secretary make a determination either that there is or that there is not foreign availability, whichever the evidence supports. The assessment upon which BIS bases its recommendation will accompany the recommendation to the Secretary.

(2) BIS will recommend on the basis of its analysis that the Secretary determine that foreign availability exists to a country when the available evidence demonstrates that an item of comparable quality is available-in-fact to the country, from non-U.S. sources, in sufficient quantity so that continuation of the existing national security export control, or denial of the license application in question on national security grounds, would be ineffective in achieving its purpose. For a controlled country, such control or denial is "ineffective" when comparable items are available-in-fact from foreign sources in sufficient quantities so that maintaining such control or denying a license would not be effective in restricting the availability of items that would make a significant contribution to the military potential of any country or combination of countries

detrimental to the national security of the United States.

(3) The Secretary will make the determination of foreign availability on the basis of the BIS assessment and recommendation; the Secretary's determination will take into account the evidence provided to BIS, the recommendations of the Secretaries of Defense and State and any other interested agencies, and any other information that the Secretary considers relevant.

(4) For all decontrol and denied license assessments (under section 5(f)(3) of the EAA) initiated by a FAS, the Secretary will make a determination within 4 months of the initiation of the assessment and will notify the claimant. The Secretary will submit positive determinations for review to the appropriate departments and agencies.

(5) The deadlines for determinations based on self-initiated and TAC-initiated assessments are different from the deadlines for claimant-initiated assessments (see paragraphs (f)(2) and (f)(3) of this section).

**(e) Interagency review**

BIS will notify all appropriate U.S. agencies and Departments upon the initiation of an assessment and will invite their participation in the assessment process. BIS will provide all interested agencies and departments an opportunity to review source material, draft analyses and draft assessments immediately upon their receipt or production. For claimant-initiated assessments, BIS will provide a copy of all positive recommendations and assessments to interested agencies and departments for their review following the Secretary's determination of foreign availability. For self-initiated and TAC-initiated assessments, BIS will provide all interested agencies an opportunity to review and comment on the assessment.

**(f) Notification**

(1) No later than 5 months after the initiation of an assessment based on a FAS (claimant assessments), the Secretary will inform the claimant in writing and will submit for publication in the *Federal Register* a notice that:

(i) Foreign availability exists, and

(A) The requirement of a license has been removed or the license application in question has been approved; or

(B) The President has determined that for national security purposes the export controls must be maintained or the license application must be denied, notwithstanding foreign availability, and that appropriate steps to eliminate the foreign availability are being initiated; or

(C) In the case of an item controlled multilaterally under the former COCOM regime, the U.S. Government will conduct any necessary consultations concerning the proposed decontrol or approval of the license with the former COCOM regime for a period of up to 4 months from the date of the publication of the determination in the *Federal Register* (the U.S. Government may remove the license requirement for exports to non-controlled countries pending completion of the former COCOM regime review process); or

(ii) Foreign availability does not exist.

(2) For all TAC certification assessments, the Secretary will make a foreign availability determination within 90 days following initiation of the assessment. BIS will prepare and submit a report to the TAC and to the Congress stating that:

(i) The Secretary has found foreign availability and has removed the license requirement; or

(ii) The Secretary has found foreign availability, but has recommended to the President that negotiations be undertaken to eliminate the foreign availability; or

(iii) The Secretary has not found foreign availability.

(3) There is no statutory deadline for assessments self-initiated by the Secretary or for the resulting determination. However, BIS will make every effort to complete such assessments and determinations promptly.

**(g) Foreign availability to controlled countries**

When the Secretary determines that an item controlled for national security reasons is available to a controlled country and the President does not issue a National Security Override (NSO), BIS will submit the determination to the Department of State, along with a draft proposal for the multilateral decontrol of the item or for the former COCOM regime approval of the license. The Department of State will submit the proposal or the license for former COCOM regime review. The former COCOM regime will have up to 4 months for review of the proposal.

**(h) Foreign availability to non-controlled countries**

If the Secretary determines that foreign availability to non-controlled countries exists, the Secretary will decontrol the item for export to all non-controlled countries where it is found to be available, or approve the license in question, unless the President exercises a National Security Override.

**(i) Negotiations to eliminate foreign availability**

(1) The President may determine that an export control must be maintained notwithstanding the existence of foreign availability. Such a determination is called a National Security Override (NSO) and is based on the President's decision that the absence of the control would prove detrimental to the United States national security. Unless extended (as described in paragraph (i)(7) of this section), an NSO is effective for 6 months. Where the President invokes an NSO, the U.S. Government will actively pursue negotiations with the government of any source country during the 6 month period to eliminate the availability.

(2) There are two types of National Security Overrides:

(i) An NSO of a determination of foreign availability resulting from an assessment initiated pursuant to section 5(f) of the EAA (claimant and self-initiated assessments); and

(ii) An NSO of a determination of foreign availability resulting from an assessment initiated pursuant to section 5(h) of the EAA (TAC-certification assessments).

(3) For an NSO resulting from an assessment initiated under section 5(f) of the EAA, the Secretary of any agency may recommend that the President exercise the authority under the EAA to retain the controls or deny the license notwithstanding the finding of foreign availability.

(4) For an NSO resulting from an assessment initiated under section 5(h) of the EAA, the Secretary of Commerce may recommend that the President exercise the authority under the EAA to retain the controls notwithstanding the finding of foreign availability.

(5) Under an NSO resulting from an assessment initiated under section 5(f) of the EAA, the Committee on Banking, Housing, and Urban Affairs of the Senate and the Committee on

International Relations of the House of Representatives will be notified of the initiation of the required negotiations. The notice will include an explanation of the national security interest that necessitates the retention of controls.

(6) Under an NSO resulting from an assessment initiated under section 5(f) of the EAA, BIS will publish notices in the *Federal Register* consisting of:

(i) The Secretary's determination of foreign availability;

(ii) The President's decision to exercise the NSO;

(iii) A concise statement of the basis for the President's decision; and

(iv) An estimate of the economic impact of the decision.

(7) The 6 month effective period for an NSO may be extended up to an additional 12 months if, prior to the end of the 6 months, the President certifies to Congress that the negotiations are progressing, and determines that the absence of the controls would continue to be detrimental to the United States national security.

(8) After the conclusion of negotiations, BIS will retain the control only to the extent that foreign availability is eliminated. If foreign availability is not eliminated, BIS will decontrol the item by removing the requirement for a license for the export of the item to the destinations covered by the assessment. To the extent that the negotiations are successful and the foreign availability is eliminated, BIS will remove the license requirement for the export of the item to any country that has agreed to eliminate foreign availability.

**(j) Changes in foreign availability**

If BIS becomes aware of conditions, including new evidence, that affect a previous determination that foreign availability exists or does not exist, BIS may review the conditions. If BIS finds that the foreign availability previously determined no longer exists, or that foreign availability not earlier found now does exist, BIS will make a recommendation to the Secretary of Commerce for the appropriate changes in the control. The Secretary of Commerce will make a determination, and BIS will publish a *Federal Register* notice of the determination.

**§ 768.8 ELIGIBILITY OF EXPEDITED LICENSING PROCEDURES FOR NON-CONTROLLED COUNTRIES**

(a) BIS determines the eligibility of an item for expedited licensing procedures on the basis of an evaluation of the foreign availability of the item. Eligibility is specific to the items and the countries to which they are found to be available.

(b) BIS will initiate an eligibility evaluation:

- (1) On its own initiative;
- (2) On receipt of a FAS; or
- (3) On receipt of a TAC certification.

(c) Upon initiation of an eligibility evaluation following receipt of either a FAS or TAC certification, BIS will notify the claimant or TAC of the receipt and initiation of an evaluation and publish a *Federal Register* notice of the initiation of the evaluation.

(d) The criteria for determining eligibility for expedited licensing procedures are:

(1) The item must be available-in-fact to the specified non-controlled country from a foreign source;

(2) The item must be of a quality similar to that of the U.S.-controlled item; and

(3) The item must be available-in-fact to the specified non-controlled country without effective restrictions.

(e) Within 30 days of initiation of the evaluation, the Secretary of Commerce will make a determination of foreign availability on the basis of the BIS evaluation and recommendation, taking into consideration the evidence the Secretaries of Defense, State, and other interested agencies provide to BIS and any other information that the Secretary considers relevant.

(f) Within 30 days of the receipt of the FAS or TAC certification, BIS will publish the Secretary's determination in the *Federal Register*, that the item will or will not be eligible for expedited licensing procedures to the stated countries and, where appropriate, amend Supplement No. 2 to part 768.

(g) Following completion of a self-initiated evaluation, BIS will be notified of the Secretary's determination and, where appropriate, Supplement No. 2 to part 768 will be amended.

(h) Foreign availability submissions and TAC certifications to initiate an expedited licensing procedure evaluation must be clearly designated on their face as a request for expedited licensing procedure and must specify the items, quantities and countries alleged eligible. Submissions and certifications should be sent to:

- Department of Commerce  
Bureau of Industry and Security  
Room H-1093  
14th Street and Pennsylvania Avenue, NW  
Washington, DC 20230

**§ 768.9 APPEALS OF NEGATIVE  
FOREIGN AVAILABILITY  
DETERMINATIONS**

Appeals of negative determinations will be conducted according to the standards and procedures described in part 756 of the EAR. A Presidential decision (NSO) to deny a license or continue controls notwithstanding a determination of foreign availability is not subject to appeal.

**§ 768.10 REMOVAL OF CONTROLS  
ON LESS SOPHISTICATED ITEMS**

Where the Secretary has removed national security controls on an item for foreign availability reasons, the Secretary will also remove controls on similar items that are controlled for national security reasons and whose functions, technological approach, performance thresholds, and other attributes that form the basis for national security export controls do not exceed the technical parameters of the item that BIS has decontrolled for foreign availability reasons.

**SUPPLEMENT NO. 1 TO PART 768 - EVIDENCE OF FOREIGN AVAILABILITY**

This Supplement provides a list of examples of evidence that the Bureau of Industry and Security (BIS) has found to be useful in conducting assessments of foreign availability. A claimant submitting evidence supporting a claim of foreign availability should review this list for suggestions as evidence is collected. Acceptable evidence indicating possible foreign availability is not limited to these examples, nor is any one of these examples, usually, in and of itself, necessarily sufficient to meet a foreign availability criterion. A combination of several types of evidence for each criterion usually is required. A Foreign Availability Submission (FAS) should include as much evidence as possible on all four of the criteria listed below. BIS combines the submitted evidence with the evidence that it collects from other sources. BIS evaluates all evidence, taking into account factors that may include, but are not limited to: information concerning the source of the evidence, corroborative or contradictory indications, and experience concerning the reliability or reasonableness of such evidence. BIS will assess all relevant evidence to determine whether each of the four criteria has been met. Where possible, all information should be in writing. If information is based on third party documentation, the submitter should provide such documentation to BIS. If information is based on oral statements a third party made, the submitter should provide a memorandum of the conversation to BIS if the submitter cannot obtain a written memorandum from the source. BIS will amend this informational list as it identifies new examples of evidence.

*(a) Examples of evidence of foreign availability*

The following are intended as examples of evidence that BIS will consider in evaluating foreign availability. BIS will evaluate all evidence according to the provisions in §768.7(c) of this part in order for it to be used in support of

a foreign availability determination. This list is illustrative only.

**(1) Available-in-fact:**

(i) Evidence of marketing of an item in a foreign country (*e.g.*, an advertisement in the media of the foreign country that the item is for sale there);

(ii) Copies of sales receipts demonstrating sales to foreign countries;

(iii) The terms of a contract under which the item has been or is being sold to a foreign country;

(iv) Information, preferably in writing, from an appropriate foreign government official that the government will not deny the sale of an item it produces to another country in accordance with its laws and regulations;

(v) Information, preferably in writing, from a named company official that the company legally can and would sell an item it produces to a foreign country;

(vi) Evidence of actual shipments of the item to foreign countries (*e.g.*, shipping documents, photographs, news reports);

(vii) An eyewitness report of such an item in operation in a foreign country, providing as much information as available, including where possible the make and model of the item and its observed operating characteristics;

(viii) Evidence of the presence of sales personnel or technical service personnel in a foreign country;

(ix) Evidence of production within a foreign country;

(x) Evidence of the item being exhibited at a trade fair in a foreign country, particularly for the purpose of inducing sales of the item to the foreign country;

(xi) A copy of the export control laws or regulations of the source country, showing that the item is not controlled; or

(xii) A catalog or brochure indicating the item is for sale in a specific country.

**(2) Foreign (non-U.S.) source:**

(i) Names of foreign manufacturers of the item including, if possible, addresses and telephone numbers;

(ii) A report from a reputable source of information on commercial relationships that a foreign manufacturer is not linked financially or administratively with a U.S. company;

(iii) A list of the components in the U.S. item and foreign item indicating model numbers and their sources;

(iv) A schematic of the foreign item identifying its components and their sources;

(v) Evidence that the item is a direct product of foreign technology (*e.g.*, a patent law suit lost by a U.S. producer, a foreign patent);

(vi) Evidence of indigenous technology, production facilities, and the capabilities at those facilities; or

(vii) Evidence that the parts and components of the item are of foreign origin or are exempt from U.S. licensing requirements by the parts and components provision §732.4 of the EAR.

**(3) Sufficient quantity:**

(i) Evidence that foreign sources have the item in serial production;

(ii) Evidence that the item or its product is used in civilian applications in foreign countries;

(iii) Evidence that a foreign country is marketing in the specific country an item of its indigenous manufacture;

(iv) Evidence of foreign inventories of the item;

(v) Evidence of excess capacity in a foreign country's production facility;

(vi) Evidence that foreign countries have not targeted the item or are not seeking to purchase it in the West;

(vii) An estimate by a knowledgeable source of the foreign country's needs; or

(viii) An authoritative analysis of the worldwide market (*i.e.*, demand, production rate for the item for various manufacturers, plant capacities, installed tooling, monthly production rates, orders, sales and cumulative sales over 5-6 years).

**(4) Comparable quality:**

(i) A sample of the foreign item;

(ii) Operation or maintenance manuals of the U.S. and foreign items;

(iii) Records or a statement from a user of the foreign item;

(iv) A comparative evaluation, preferably in writing, of the U.S. and foreign items by, for example, a western producer or purchaser of the item, a recognized expert, a reputable trade publication, or independent laboratory;

(v) A comparative list identifying, by manufacturers and model numbers, the key performance components and the materials used

in the item that qualitatively affect the performance of the U.S. and foreign items;

(vi) Evidence of the interchangeability of U.S. and foreign items;

(vii) Patent descriptions for the U.S. and foreign items;

(viii) Evidence that the U.S. and foreign items meet a published industry, national, or international standard;

(ix) A report or eyewitness account, by deposition or otherwise, of the foreign item's operation;

(x) Evidence concerning the foreign manufacturers' corporate reputation;

(xi) Comparison of the U.S. and foreign end item(s) made from a specific commodity, tool(s), device(s), or technical data; or

(xii) Evidence of the reputation of the foreign item including, if possible, information on maintenance, repair, performance, and other pertinent factors.

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**SUPPLEMENT NO. 2 TO PART 768 - ITEMS ELIGIBLE FOR EXPEDITED  
LICENSING PROCEDURES**

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**[RESERVED]**

§ 770.2(b) is the basis for the DOC "No-see-through" rule in system classification. **\*\*see through    \*\*no see through    \*\*X-ray vision**

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### **§ 770.1 INTRODUCTION**

In this part, references to the EAR are references to 15 CFR chapter VII, subchapter C. This part provides commodity, technology, and software interpretations. These interpretations clarify the scope of controls where such scope is not readily apparent from the Commerce Control List (CCL) (see Supplement No. 1 to part 774 of the EAR) and other provisions of the Export Administration Regulations.

### **§ 770.2 ITEM INTERPRETATIONS**

#### **(a) Interpretation 1: Anti-friction bearing or bearing systems and specially designed parts**

(1) Anti-friction bearings or bearing systems shipped as spares or replacements are classified under Export Control Classification Number (ECCN) 2A001 (ball, roller, or needle-roller bearings and parts). This applies to separate shipments of anti-friction bearings or bearing systems and antifriction bearings or bearing systems shipped with machinery or equipment for which they are intended to be used as spares or replacement parts.

(2) An anti-friction bearing or bearing system physically incorporated in a segment of a machine or in a complete machine prior to shipment loses its identity as a bearing. In this scenario, the machine or segment of machinery

containing the bearing is the item subject to export control requirements.

(3) An anti-friction bearing or bearing system not incorporated in a segment of a machine prior to shipment, but shipped as a component of a complete unassembled (knocked-down) machine, is considered a component of a machine. In this scenario, the complete machine is the item subject to export license requirements.

#### **(b) Interpretation 2: Classification of "parts" of machinery, equipment, or other items**

(1) **An assembled machine or unit of equipment is being exported.** In instances where one or more assembled machines or units of equipment are being exported, the individual component parts that are physically incorporated into the machine or equipment do not require a license. The license or general exception under which the complete machine or unit of equipment is exported will also cover its component parts, provided that the parts are normal and usual components of the machine or equipment being exported, or that the physical incorporation is not used as a device to evade the requirement for a license.

(2) **Parts are exported as spares, replacements, for resale, or for stock.** In instances where parts are exported as spares, replacements, for resale, or for stock, a license is required only if the appropriate entry for the part specifies that a license is required for the intended destination.

#### **(c) [RESERVED]**

#### **(d) Interpretation 4: Telecommunications equipment and systems**

Control equipment for paging systems (broadcast radio or selectively signalled receiving systems) is defined as circuit switching equipment in Category 5 of the CCL.

**(e) Interpretation 5: Numerical control systems.**

**(1) Classification of “Numerical Control” Units.** “Numerical control” units for machine tools, regardless of their configurations or architectures, are controlled by their functional characteristics as described in ECCN 2B001.a. “Numerical control” units include computers with add-on “motion control boards”. A computer with add-on “motion control boards” for machine tools may be controlled under ECCN 2B001.a even when the computer alone without “motion control boards” is not subject to licensing requirements under Category 4 and the “motion control boards” are not controlled under ECCN 2B001.b.

**(2) Export documentation requirement.**

(i) When preparing a license application for a numerical control system, the machine tool and the control unit are classified separately. If either the machine tool or the control unit requires a license, then the entire unit requires a license. If either a machine tool or a control unit is exported separately from the system, the exported component is classified on the license application without regard to the other parts of a possible system.

(ii) When preparing the Electronic Export Information (EEI) on the Automated Export System (AES), a system being shipped complete (i.e., machine and control unit), should be reported under the Schedule B number for each machine. When either a control unit or a machine is shipped separately, it should be reported under the Schedule B number appropriate for the individual item being exported.

**(f) Interpretation 6: “Parts,” “accessories,” and equipment exported as scrap**

“Parts,” “accessories,” or equipment that are being shipped as scrap should be described on the EEI filing to the AES in sufficient detail to be

identified under the proper ECCN. When commodities declared as “parts,” “accessories,” or equipment are shipped in bulk, or are otherwise not packaged, packed, or sorted in accordance with normal trade practices, the Customs Officer may require evidence that the shipment is not scrap. Such evidence may include, but is not limited to, bills of sale, orders and correspondence indicating whether the commodities are scrap or are being exported for use as “parts,” “accessories,” or equipment.

**(g) Interpretation 7: Scrap arms, ammunition, and implements of war**

Arms, ammunition, and implements of war, as defined in the U.S. Munitions List, and are under the jurisdiction of the U.S. Department of State (22 CFR parts 120 through 130), except for the following, which are under the jurisdiction of the Department of Commerce:

**(1)** Cartridge and shell cases that have been rendered useless beyond the possibility of restoration to their original identity by means of excessive heating, flame treatment, mangling, crushing, cutting, or by any other method are “scrap”.

**(2)** Cartridge and shell cases that have been sold by the armed services as “scrap”, whether or not they have been heated, flame-treated, mangled, crushed, cut, or reduced to scrap by any other method.

**(3)** Other commodities that may have been on the U.S. Munitions List are “scrap”, and therefore under the jurisdiction of the Department of Commerce, if they have been rendered useless beyond the possibility of restoration to their original identity only by means of mangling, crushing, or cutting. When in doubt as to whether a commodity covered by the Munitions List has been rendered useless, exporters should consult the Directorate of Defense Trade Controls, U.S. Department of State, Washington, D.C. 20520, or the Exporter Counseling

**Interpretations**

Division, Office of Exporter Services, Room 1099A, U.S. Department of Commerce, Washington, D.C. 20230, before reporting a shipment as metal scrap.

**(h)** [RESERVED]

**(i)** [RESERVED]

**(j)** [RESERVED]

**(k) Interpretation 11: Precursor chemicals**

The following chemicals are controlled by ECCN 1C350. The appropriate Chemical Abstract Service Registry (C.A.S.) number and synonyms, (i.e., alternative names) are included to help you determine whether or not your chemicals are controlled by this entry.

**(1)** (C.A.S. #1341-49-7) Ammonium hydrogen bifluoride

- Acid ammonium fluoride
- Ammonium bifluoride
- Ammonium difluoride
- Ammonium hydrofluoride
- Ammonium hydrogen bifluoride
- Ammonium hydrogen difluoride
- Ammonium monohydrogen difluoride

**(2)** (C.A.S. #7784-34-1) Arsenic trichloride

- Arsenic (III) chloride
- Arsenous chloride
- Fuming liquid arsenic
- Trichloroarsine

**(3)** (C.A.S. #76-93-7) Benzilic acid  
alpha.,alpha.-Diphenyl-.alpha.-hydroxyacetic acid

- Diphenylglycolic acid
- .alpha.,.alpha.-Diphenylglycolic acid
- Diphenylhydroxyacetic acid
- .alpha.-Hydroxy-2,2-diphenylacetic acid
- 2-Hydroxy-2,2-diphenylacetic acid
- .alpha.-Hydroxy-.alpha.-phenylbenzeneacetic acid
- Hydroxydiphenylacetic acid

- (4)** (C.A.S. #107-07-3) 2-Chloroethanol
- 2-Chloro-1-ethanol
- Chloroethanol
- 2-Chloroethyl alcohol
- Ethene chlorohydrin
- Ethylchlorohydrin
- Ethylene chlorohydrin
- Ethylene chlorohydrin
- Glycol chlorohydrin
- Glycol monochlorohydrin
- 2-Hydroxyethyl chloride

**(5)** (C.A.S. #78-38-6) Diethyl ethylphosphonate  
Ethylphosphonic acid diethyl ester

**(6)** (C.A.S. #15715-41-0) Diethyl methylphosphonite  
Diethoxymethylphosphine  
Diethyl methanephosphonite  
0,0-Diethyl methylphosphonite  
Methyldiethoxyphosphine  
Methylphosphonous acid diethyl ester

**(7)** (C.A.S. #2404-03-7) Diethyl-N,  
N-dimethylphosphoro- amidate  
N,N-Dimethyl-O,O'-diethyl phosphoramidate  
Diethyl dimethylphosphoramidate  
Dimethylphosphoramidic acid diethyl ester

**(8)** (C.A.S. #762-04-9) Diethyl phosphite  
Diethoxyphosphine oxide  
Diethyl acid phosphite  
Diethyl hydrogen phosphite  
Diethyo phosphonate  
Hydrogen diethyl phosphite

**(9)** (C.A.S. #100-37-8) N,  
N-Diethylethanolamine  
N,N-Diethyl-2-aminoethanol  
Diethyl (2-hydroxyethyl) amine  
N,N-Diethyl-N-(.beta.-hydroxyethyl) amine  
N,N-Diethyl-2-hydroxyethylamine  
Diethylaminoethanol  
2-(Diethylamino) ethanol  
2-(Diethylamino)ethyl alcohol  
N,N-Diethylmonoethanolamine  
(2-Hydroxyethyl) diethylamine

- 2-Hydroxytriethylamine
- (10) (C.A.S. #5842-07-9)  
N,N-Diisopropyl-.beta.-aminoethane thiol  
2-(Diisopropylamino) ethanethiol  
Diisopropylaminoethanethiol  
.beta.-Diisopropylaminoethanethiol  
2-(bis(1-Methylethyl)amino) ethanethiol
- (11) (C.A.S. #4261-68-1) N,  
N-Diisopropyl-.2-aminoethyl chloride  
hydrochloride
- (12) (C.A.S. #96-80-0)  
N,N-Diisopropyl-.beta.-aminoethanol  
N,N-Diisopropyl-2-aminoethanol  
2-(Diisopropylamino) ethanol  
(N,N-Diisopropylamino) ethanol  
2-(Diisopropylamino) ethyl alcohol  
N,N-Diisopropylethanolamine
- (13) (C.A.S. #96-79-7)  
N,N-Diisopropyl-.beta.-aminoethyl chloride  
2-Chloro-N,N-diisopropylethanamine  
1-Chloro-N,N-diisopropylaminoethane  
2-Chloro-N,N-diisopropylethylamine  
N-(2-chloroethyl)-N-(1-methylethyl)-2-prop  
anamine  
N-(2-Chloroethyl) diisopropylamine  
N,N-Diisopropyl-2-chloroethylamine  
1-(Diisopropylamino)-2-cholorethane  
2-(Diisopropylamino)ethyl chloride  
Diisopropylaminoethyl chloride  
.beta.-Diisopropylaminoethyl chloride
- (14) (C.A.S. #108-18-9) Diisopropylamine  
N,N-Diisopropylamine  
N-(1-Methylethyl)-2-propanamine
- (15) (C.A.S. #6163-75-3) Dimethyl  
ethylphosphonate  
Dimethyl ethanephosphonate  
Ethylphosphonic acid dimethyl ester
- (16) (C.A.S. #756-79-6) Dimethyl  
methylphosphonate  
Dimethoxymethyl phosphine oxide
- Dimethyl methanephosphonate  
Methanephosphonic acid dimethyl ester  
Methylphosphonic acid dimethyl ester
- (17) (C.A.S. #868-85-9) Dimethyl phosphite  
Dimethoxyphosphine oxide  
Dimethyl acid phosphite  
Dimethyl hydrogen phosphite  
Dimethyl phosphonate  
Hydrogen dimethyl phosphite  
Methyl phosphate
- (18) (C.A.S. #124-40-3) Dimethylamine  
N-Methyl methanamine
- (19) (C.A.S. #506-59-2) Dimethylamine  
hydrochloride  
Dimethylammonium chloride  
N-Methyl methanamine hydrochloride
- (20) [RESERVED]
- (21) (C.A.S. #1498-40-4) Ethylphosphonous  
dichloride  
Dichloroethylphosphine  
Ethyl phosphonous dichloride  
Ethyl dichlorophosphine
- (22) (C.A.S. #430-78-4) Ethylphosphonus  
difluoride  
Ethyl difluorophosphine
- (23) (C.A.S. #1066-50-8) Ethylphosphonyl  
dichloride  
Dichloroethylphosphine oxide  
Ethanephosphonyl chloride  
Ethylphosphinic dichloride  
Ethylphosphonic acid dichloride  
Ethylphosphonic dichloride
- (24) [RESERVED]
- (25) (C.A.S. #7664-39-3) Hydrogen fluoride  
Anhydrous hydrofluoric acid  
Fluorhydric acid  
Fluorine monohydride  
Hydrofluoric acid gas

- (26) (C.A.S. #3554-74-3)  
 3-Hydroxyl-1-methylpiperidine  
 3-Hydroxy-N-methylpiperidine  
 1-Methyl-3-hydroxypiperidine  
 N-Methyl-3-hydroxypiperidine  
 1-Methyl-3-piperidinol  
 N-Methyl-3-piperidinol
- (27) (C.A.S. #76-89-1) Methyl benzilate  
 Benzilic acid methyl ester  
 .alpha.-Hydroxy-.alpha.-phenylbenzeneacetic acid methyl ester  
 Methyl .alpha.-phenylmandelate  
 Methyl diphenylglycolate
- (28) [RESERVED]
- (29) [RESERVED]
- (30) [RESERVED]
- (31) [RESERVED]
- (32) (C.A.S. #10025-87-3) Phosphorus oxychloride  
 Phosphonyl trichloride  
 Phosphoric chloride  
 Phosphoric trichloride  
 Phosphoroylchloride  
 Phosphoroyltrichloride  
 Phosphorus chloride oxide  
 Phosphorus monoxide trichloride  
 Phosphorus oxide trichloride  
 Phosphorus oxytrichloride  
 Phosphorus trichloride oxide  
 Phosphoryl trichloride  
 Trichlorophosphine oxide  
 Trichlorophosphorus oxide
- (33) (C.A.S. #10026-13-8) Phosphorus pentachloride  
 Pentachlorophosphorane  
 Pentachlorophosphorus  
 Phosphoric chloride  
 Phosphorus(V) chloride  
 Phosphorus perchloride
- (34) (C.A.S. #1314-80-3) Phosphorus pentasulfide  
 Diphosphorus pentasulfide  
 Phosphoric sulfide  
 Phosphorus persulfide  
 Phosphorus sulfide
- (35) (C.A.S. #7719-12-2) Phosphorus trichloride  
 Phosphorus chloride  
 Trichlorophosphine
- (36) C.A.S. #75-97-8) Pinacolone  
 tert-Butyl methyl ketone  
 2,2-Dimethyl-3-butanone  
 3,3-Dimethyl-2-butanone  
 2,2-Dimethylbutanone  
 3,3-Dimethylbutanone  
 1,1-Dimethylethyl methyl ketone  
 Methyl tert-butyl ketone  
 Pinacolin  
 Pinacoline  
 1,1,1-Trimethylacetone
- (37) (C.A.S. #464-07-3) Pinacolyl alcohol  
 tert-Butyl methyl carbinol  
 2,2-Dimethyl-3-butanol  
 3,3-Dimethyl-2-butanol  
 1-Methyl-2,2-dimethylpropanol
- (38) (C.A.S. #151-50-8) Potassium cyanide
- (39) (C.A.S. #7789-23-3) Potassium fluoride  
 Potassium monofluoride
- (40) (C.A.S. #7789-29-9) Potassium hydrogen fluoride  
 Hydrogen potassium difluoride  
 Hydrogen potassium fluoride  
 Potassium acid fluoride  
 Potassium bifluoride  
 Potassium hydrogen difluoride  
 Potassium monohydrogen difluoride
- (41) (C.A.S. #1619-34-7) 3-Quinuclidinol  
 1-Azabicyclo(2.2.2)octan-3-ol  
 3-Hydroxyquinuclidine

- (42) (C.A.S. #3731-38-2) 3-Quinuclidinone  
1-Azabicyclo(2.2.2)octan-3-one  
3-Oxyquinuclidine  
Quinuclidone
- (43) (C.A.S.) #1333-83-1) Sodium bifluoride  
Sodium hydrogen difluoride  
Sodium hydrogen fluoride
- (44) (C.A.S. #143-33-9) Sodium cyanide
- (45) (C.A.S. #7681-49-4) Sodium fluoride  
Sodium monofluoride
- (46) (C.A.S. #1313-82-2) Sodium sulfide  
Disodium monosulfide  
Disodium sulfide  
Sodium monosulfide  
Sodium sulphide
- (47) (C.A.S. #10025-67-9) Sulfur Monochloride
- (48) (C.A.S. #10545-99-0) Sulfur dichloride
- (49) (C.A.S. #111-48-8) Thiodiglycol  
Bis(2-hydroxyethyl) sulfide  
Bis(2-hydroxyethyl) thioether  
Di(2-hydroxyethyl) sulfide  
Diethanol sulfide  
2,2'-Dithiobis-(ethanol)  
3-Thiapentane-1,5-diol  
2,2'-Thiobisethanol  
2,2'-Thiodiethanol  
Thiodiethylene glycol  
2,2'-Thiodiglycol
- (50) C.A.S. #7719-09-7) Thionyl chloride  
Sulfinyl chloride  
Sulfinyl dichloride  
Sulfur chloride oxide  
Sulfur oxychloride  
Sulfurous dichloride  
Sulfurous oxychloride  
Thionyl dichloride
- (51) (C.A.S. #102-71-6) Triethanolamine  
Alkanolamine 244

Nitrilotriethanol  
2,2,2"-Nitrilotriethanol  
2,2,2"-Nitrilotris(ethanol)  
TEA  
TEA(amino alcohol)  
Tri(2-hydroxyethyl)amine  
Triethanolamin  
Tris(.beta.-hydroxyethyl)amine  
Tris(2-hydroxyethyl)amine  
Trolamine

(52) (C.A.S. #637-39-8) Triethanolamine hydrochloride

(53) (C.A.S. #122-52-1) Triethyl phosphite  
Phosphorous acid triethyl ester  
Triethoxyphosphine  
Tris(ethoxy)phosphine

(54) (C.A.S. #121-45-9) Trimethyl phosphite  
Phosphorus acid trimethyl ester  
Trimethoxyphosphine

**(D) Interpretation 12: Computers**

(1) Digital computers or computer systems classified under ECCN 4A003.b or .c, that qualify for “No License Required” (NLR) must be evaluated on the basis of Adjusted Peak Performance (APP) alone, to the exclusion of all other technical parameters. Digital computers or computer systems classified under ECCN 4A003.b or .c that qualify for License Exception APP must be evaluated on the basis of APP, to the exclusion of all other technical parameters. Assemblies performing analog-to-digital conversions are evaluated under Category 3—Electronics, ECCN 3A002.h.

(2) Related equipment classified under ECCN 4A003.g may be exported or reexported under License Exceptions GBS or CIV. When related equipment is exported or reexported as part of a computer system, NLR or License Exception APP is available for the computer system and the related equipment, as appropriate.

**(m) Interpretation 13: Encryption commodities and software controlled for EI reasons**

Encryption commodities and software controlled for EI reasons under ECCNs 5A002, 5A004 and 5D002 may be pre-loaded on a laptop, handheld device or other computer or equipment and exported under the tools of trade provision of License Exception TMP or the personal use exemption under License Exception BAG, subject to the terms and conditions of such License Exceptions. Neither License Exception TMP nor License Exception BAG contains a reporting requirement. Like other “information security” “software,” components, “electronic assemblies” or modules, the control status of encryption commodities and software is determined in Category 5 - Part 2 even if they are bundled, commingled or incorporated in a computer or other equipment. However, commodities and software specially designed for medical end use that incorporate an item in Category 5 - Part 2 are not controlled in Category 5 - Part 2. See paragraph (a) of Supplement No. 3 to part 774 (Statements of Understanding) of the EAR.

**(n) Interpretation 14: Unfinished “600 series” commodities**

Forgings, castings, and other unfinished products, such as extrusions and machined bodies, that have reached a stage in manufacturing where they are clearly identifiable by mechanical properties, material composition, geometry, or function as commodities controlled by any Product Group A (“End Items,” “Equipment,” “Accessories,” “Attachments,” “Parts,” “Components” and “Systems”) “600 series” ECCN are controlled in that “600 series” ECCN.

**§ 770.3 INTERPRETATIONS RELATED TO EXPORTS OF TECHNOLOGY AND SOFTWARE TO DESTINATIONS IN COUNTRY GROUP D:1**

**(a) Introduction**

This section is intended to provide you additional guidance on how to determine whether your technology or software would be eligible for a License Exception, may be exported under NLR, or require a license, for export to Country Group D:1.

**(b) Scope of licenses**

The export of technology and software under a license is authorized only to the extent specifically indicated on the face of the license. The only technology and software related to equipment exports that may be exported without a license is technology described in §§734.7 through 734.11 of the EAR; operating technology and software described in §740.13(a) of the EAR; sales technology described in §740.13(b) of the EAR; and software updates described in §740.13(c) of the EAR.

**(c) Commingled technology and software**

**(1) U.S.-origin technology** does not lose its U.S.-origin when it is redrawn, used, consulted, or otherwise commingled abroad in any respect with other technology of any other origin. Therefore, any subsequent or similar technical data prepared or engineered abroad for the design, construction, operation, or maintenance of any plant or equipment, or part thereof, which is based on or utilizes any U.S.-origin technology, is subject to the EAR in the same manner as the original U.S.-origin technology, including license requirements, unless the commingled technology is not subject to the EAR by reason of the *de minimis* exclusions described in §734.4 of the EAR.

Interpretation (n) was introduced as of 12-31-2016, to comport with the ITAR definition of "Defense Article" at § 120.6 of the ITAR, regarding \*\*castings & \*\*forgings.

(2) U.S.-origin software that is incorporated into or commingled with foreign-origin software does not lose its U.S.-origin. Such commingled software is subject to the EAR in the same manner as the original U.S.-origin software, including license requirements, unless the commingled software is not subject to the EAR by reason of the *de minimis* exclusions described in §734.4 of the EAR.

**(d) Certain License Exception**

The following questions and answers are intended to further clarify the scope of technology and software eligible for a License Exception.

**(1)(i) Question 1.**

**(A)** Our engineers, in installing or repairing equipment, use techniques (experience as well as proprietary knowledge of the internal componentry or specifications of the equipment) that exceed what is provided in the standard manuals or instructions (including training) given to the customer. In some cases, it is also a condition of the license that such information provided to the customer be constrained to the minimum necessary for normal installation, maintenance and operation situations.

**(B) Can we send an engineer (with knowledge and experience) to the customer site to perform the installation or repair, under the provisions of License Exception TSU for operation technology and software described in §740.13(a) of the EAR, if it is understood that he is restricted by our normal business practices to performing the work without imparting the knowledge or technology to the customer personnel?**

**(ii) Answer 1.** Export of technology includes release of U.S.-origin data in a foreign

country, and “release” includes “application to situations abroad of personal knowledge or technical experience acquired in the United States.” As the release of technology in the circumstances described here would exceed that permitted under the License Exception TSU for operation technology and software described in §740.13(a) of the EAR, a license would be required even though the technician could apply the data without disclosing it to the customer.

**(2)(i) Question 2.** We plan, according to our normal business practices, to train customer engineers to maintain equipment that we have exported under a license, License Exception, or NLR. The training is contractual in nature, provided for a fee, and is scheduled to take place in part in the customer's facility and in part in the U.S. Can we now proceed with this training at both locations under a License Exception?

**(ii) Answer 2.** (A) Provided that this is your normal training, and involves technology contained in your manuals and standard instructions for the exported equipment, and meets the other requirements of License Exception TSU for operation technology and software described in §740.13(a), the training may be provided within the limits of those provisions of License Exception TSU. The location of the training is not significant, as the export occurs at the time and place of the actual transfer or imparting of the technology to the customer's engineers.

**(B)** Any training beyond that covered under the provisions of License Exception TSU for operation technology and software described in §740.13(a), but specifically represented in your license application as required for this customer installation, and in fact authorized on the face of the license or a separate technology license, may not be undertaken while the license is suspended or revoked.

This principle that a technician merely "using" technology abroad is an export -- even if he never discloses it to anyone -- also appeared in Part 734 Suppl 1. [Click to see.](#)

\*\*TAA \*\*Interpretation \*\*Interrogatory  
\*\*technology

provide a service beyond what \*\*TSU permits

**Definition of Terms**

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## §772.1

**DEFINITIONS OF TERMS AS USED IN  
THE EXPORT ADMINISTRATION  
REGULATIONS (EAR)**

The following are definitions of terms as used in the Export Administration Regulations (EAR). In this part, references to the EAR are references to 15 CFR chapter VII, subchapter C. Those terms in quotation marks refer to terms used on the Commerce Control List (CCL) (Supplement No. 1 to part 774 of the EAR). Parenthetical references following the terms in quotation marks (i.e., (Cat 5)) refer to the CCL category in which that term is found. If a term is used in only one Export Control Classification Number (ECCN) on the CCL, then that term will *not* appear in this part, but will be defined in the Related Definitions paragraph in the List of Items Controlled Section of that ECCN.

*600 series.* ECCNs in the “xY6zz” format on the Commerce Control List (CCL) that control items on the CCL that were previously controlled on the U.S. Munitions List or that are covered by the Wassenaar Arrangement Munitions List (WAML). The “6” indicates the entry is a munitions entry on the CCL. The “x” represents the CCL category and “Y” the CCL product group. The “600 series” constitutes the munitions ECCNs within the larger CCL.

**600 Series Major Defense Equipment or MDE.** Any item listed in ECCN 9A610.a, 9A619.a, 9A619.b or 9A619.c, having a nonrecurring research and development cost of more than \$50,000,000 or a total production cost of more than \$200,000,000.

**NOTE TO “600 SERIES MAJOR DEFENSE EQUIPMENT:”** For the most current list of MDE, see Appendix 1, (Nonrecurring Cost Recoupment Charges for Major Defense Equipment) to DoD 5105.38-M, “Security Assistance Management Manual (SAMM),” dated 04/30/2012, available online at

<http://www.dsca.osd.mil/samm/ESAMM/Appendix01.htm>.

*Access information.* Information that allows access to encrypted technology or encrypted software in an unencrypted form. Examples include decryption keys, network access codes, and passwords.

*Accessories.* These are associated items for any “component,” “end item,” or “system,” and which are not necessary for their operation, but which enhance their usefulness or effectiveness. For example, for a riding lawnmower, “accessories” and “attachments” will include the bag to capture the cut grass, and a canopy to protect the operator from the sun and rain. For purposes of this definition, “accessories” and “attachments” are the same.

*“Accuracy”.* (Cat 2, 3, 6, 7 and 8) “Accuracy” is usually measured in terms of inaccuracy. It is defined as the maximum deviation, positive or negative, of an indicated value from an accepted standard or true value.

*“Active flight control systems”.* (Cat 7)--Function to prevent undesirable “aircraft” and “missile” motions or structural loads by autonomously processing outputs from multiple sensors and then providing necessary preventive commands to effect automatic control.

*“Active pixel”.* (Cat 6)--A minimum (single) element of the solid state array that has a photoelectric transfer function when exposed to light (electromagnetic) radiation.

*“Adaptive control”.* (Cat 2)--A control system that adjusts the response from conditions detected during the operation (Ref. ISO 2806-1980).

*“Adjusted Peak Performance” (APP).* (Cat 4) An adjusted peak rate at which “digital computers” perform 64-bit or larger floating point additions and multiplications. The formula to calculate APP is contained in a

technical note at the end of Category 4 of the Commerce Control List.

*Advisory Committee on Export Policy (ACEP).* The ACEP voting members include the Assistant Secretary of Commerce for Export Administration, and Assistant Secretary-level representatives from the Departments of State, Defense, Justice (for encryption exports), Energy, and the Arms Control and Disarmament Agency. The appropriate representatives of the Joint Chiefs of Staff and the Director of the Nonproliferation Center of the Central Intelligence Agency are non-voting members. The Assistant Secretary of Commerce for Export Administration is the Chair. Appropriate acting Assistant Secretary, Deputy Assistant Secretary or equivalent strength of any agency or department may serve in lieu of the Assistant Secretary of the concerned agency or department. Such representatives, regardless of rank, will speak and vote on behalf of their agencies or departments. The ACEP may invite Assistant Secretary-level representatives of other Government agencies or departments (other than those identified above) to participate in the activities of the ACEP when matters of interest to such agencies or departments are under consideration. Decisions are made by majority vote.

*AES.* See “Automated Export System.”

*“Agricultural commodities”.* Agricultural commodities include food (including processed food); feed; fish; shellfish and fish products; beer, wine and spirits; livestock; fiber including cotton, wool and other fibers; tobacco and tobacco products; wood and wood products; seeds; fertilizer and organic fertilizer; reproductive materials such as fertilized eggs, embryos and semen. For the purposes of the EAR, agricultural commodities do *not* include furniture made from wood; clothing manufactured from plant or animal materials; agricultural equipment (whether hand tools or motorized equipment);

pesticides, insecticides, or herbicides; or cosmetics (unless derived entirely from plant materials).

**NOTE 1:** *This definition of agricultural commodities includes fertilizer and organic fertilizer, as listed in section 775 of the 2001 Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act (Act) (Public Law 106-387) and commodities listed in section 102 of the Agricultural Trade Act of 1978 (7 U.S.C. 5602) as incorporated in section 902 of the Act, as well as commodities determined by the Department of Agriculture to fall within the scope of section 102 of the 1978 Agricultural Trade Act.*

**NOTE 2:** *For purposes of License Exception AGR (see §740.18 of the EAR), agricultural commodities also include vitamins, minerals, food additives and dietary supplements, and bottled water. These items do not fall within the scope of section 102 of the 1978 Agricultural Trade Act, but are treated as agricultural commodities for the purposes of License Exception AGR.*

**NOTE 3:** *For purposes of License Exception AGR and export license applications to Iran and Sudan under the licensing procedures set forth in the appropriate regulations promulgated and administered by Treasury’s Office of Foreign Assets Control, agricultural commodities only include those that are classified as EAR99.*

*“Aircraft”.* (Cat 1, 6, 7, and 9)--A fixed wing, swivelwing, rotary wing (helicopter), tilt rotor or tilt-wing airborne vehicle. (see *also* “civil aircraft”.)

*Airline.* Any person engaged primarily in the transport of persons or property by aircraft for compensation or hire, pursuant to authorization by the U.S. Government or a foreign government.

*“Airship”.* (Cat 2 and 9) A power-driven airborne vehicle that is kept buoyant by a body

of gas (usually helium, formerly hydrogen) which is lighter than air.

“*All compensations available*”. (Cat 2) means after all feasible measures available to the manufacturer to minimize all systematic positioning errors for the particular machine-tool model or measuring errors for the particular coordinate measuring machine are considered.

“*Allocated by the ITU*”. (Cat 3 and Cat 5 part 1) -- The allocation of frequency bands according to the current edition of the ITU Radio Regulations for primary, permitted and secondary services.

**N.B.** *Additional and alternative allocations are not included.*

“*Angle random walk*”. (Cat 7) The angular error buildup with time that is due to white noise in angular rate. (IEEE STD 528-2001)

“*Angular position deviation*”. (Cat 2)--The maximum difference between angular position and the actual, very accurately measured angular position after the workpiece mount of the table has been turned out of its initial position. (Reference: VDI/VDE 2617, Draft: ‘Rotary tables on coordinate measuring machines’).

“*APP*” See “Adjusted Peak Performance.” This term may also appear without quotation marks.

*Applicant*. The person who applies for an export or reexport license, and who has the authority of a principal party in interest to determine and control the export or reexport of items. See §748.4 of the EAR and definition for “exporter” in this part of the EAR.

“*Asymmetric algorithm*”. (Cat 5) means a cryptographic algorithm using different, mathematically-related keys for encryption and decryption.

**TECHNICAL NOTE:** *A common use of “asymmetric algorithms” is key management.*

*Attachments*. These are associated items for any “component,” “end item,” or “system,” and which are not necessary for their operation, but which enhance their usefulness or effectiveness. For example, for a riding lawnmower, “accessories” and “attachments” will include the bag to capture the cut grass, and a canopy to protect the operator from the sun and rain. For purposes of this definition, “attachments” and “accessories” are the same.

*Australia Group*. *The countries participating in the Australia Group have agreed to adopt harmonized controls on certain dual-use chemicals (i.e., precursor chemicals), biological agents, related manufacturing facilities and equipment, and related technology in order to ensure that exports of these items do not contribute to the proliferation of chemical or biological weapons. Countries participating in the Australia Group as of November 1, 2013, include: Argentina, Australia, Austria, Belgium, Bulgaria, Canada, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, India, Iceland, Ireland, Italy, Japan, Korea (South), Latvia, Lithuania, Luxembourg, Malta, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, the United Kingdom, and the United States. See also §742.2 of the EAR.*

“*Authentication*”. (Cat 5P2) Verifying the identity of a user, process or device, often as a prerequisite to allowing access to resources in an information system. This includes verifying the origin or content of a message or other information, and all aspects of access control where there is no encryption of files or text except as directly related to the protection of passwords, Personal Identification Numbers (PINs) or similar data to prevent unauthorized access.

*Automated Export System (AES)*. AES is a nationwide system operational at all ports and for

all methods of transportation through which export shipment data required by multiple agencies is filed electronically to U.S. Customs and Border Protection, using the efficiencies of Electronic Data Interchange (EDI). AES allows the export information to be collected electronically and edited immediately. For more information about AES, visit the Bureau of Census Web site at: <http://www.census.gov/foreign-trade/aes/index.html> or see 15 CFR Part 30 the Foreign Trade Regulations.

*“Average Output Power”*. (Cat 6) The average output power is the total “laser” output energy, in joules, divided by the period over which a series of consecutive pulses is emitted, in seconds. For a series of uniformly spaced pulses it is equal to the total “laser” output energy in a single pulse, in joules, multiplied by the pulse frequency of the “laser”, in Hertz.

*Bank*. Means any of the following:

(a) bank, savings association, credit union, bank holding company, bank or savings association service corporation, Edge Act corporation, Agreement corporation, or any insured depository institution, which is organized under the laws of the United States or any State and regulated or supervised by a Federal banking agency or a State bank supervisor; or

(b) a company organized under the laws of a foreign country and regulated or supervised by a foreign bank regulatory or supervisory authority which engages in the business of banking, including without limitation, foreign commercial banks, foreign merchant banks and other foreign institutions that engage in banking activities usual in connection with the business of banking in the countries where such foreign institutions are organized or operating; or

(c) an entity engaged in the business of providing clearing or settlement services, that is, or whose members are, regulated or supervised

by a Federal banking agency, a State bank supervisor, or a foreign bank regulatory or supervisory authority; or

(d) a branch or affiliate of any of the entities listed in paragraphs (a), (b), or (c) of this definition, regulated or supervised by a Federal banking agency, a State bank supervisor or a foreign bank regulatory or supervisory authority; or

(e) an affiliate of any of the entities listed in paragraph (a), (b), (c), or (d) of this definition, engaged solely in the business of providing data processing services to a bank or financial institution, or a branch of such an affiliate.

*“Basic gate propagation delay time”*. (Cat 3) The propagation delay time value corresponding to the basic gate used in a “monolithic integrated circuit.” For a ‘family’ of “monolithic integrated circuits”, this may be specified either as the propagation delay time per typical gate within the given ‘family’ or as the typical propagation delay time per gate within the given ‘family’.

#### **TECHNICAL NOTES:**

1. *“Basic gate propagation delay time” is not to be confused with the input/output delay time of a complex “monolithic integrated circuit.”*

2. *‘Family’ consists of all integrated circuits to which all of the following are applied as their manufacturing methodology and specifications except their respective functions:*

a. *The common hardware and software architecture;*

b. *The common design and process technology; and*

c. *The common basic characteristics.*

*“Basic Scientific Research”*. (GTN)--Experimental or theoretical work undertaken principally to acquire new knowledge of the fundamental principles of phenomena or observable facts, not primarily directed towards a specific practical aim or objective.

*“Bias”*. (*accelerometer*) (Cat 7)--The average over a specified time of accelerometer output measured at specified operating conditions, that has no correlation with input acceleration or rotation. “Bias” is expressed in g or in meters per second<sup>2</sup> (g or m/s<sup>2</sup>) (IEEE Std 528-2001) (Micro g equals 1x10<sup>-6</sup> g).

*“Bias”*. (*gyro*) (Cat 7) The average over a specified time of gyro output measured at specified operating conditions that has no correlation with input rotation or acceleration. “Bias” is typically expressed in degrees per hour (deg/hr). (IEEE Std 528 2001).

*Bill of Lading*. The contract of carriage and receipt for items, issued by the carrier. It includes an air waybill, but does not include an inland bill of lading or a domestic air waybill covering movement to port only.

*Build-to-Print technology*.

**(1)** This is “production” “technology” that is sufficient for an inherently capable end user to produce or repair a commodity from engineering drawings without any of the following:

**(i)** Revealing “development” “technology,” such as design methodology, engineering analysis, detailed process or manufacturing know-how;

**(ii)** Revealing the production engineering or process improvement aspect of the “technology;” or

**(iii)** Requiring assistance from the provider of the technology to produce or repair the commodity.

**(2)** Acceptance, test, or inspection criteria pertaining to the commodity at issue is included within the scope of “build-to-print technology” only if it is necessary to verify that the commodity is acceptable.

*Business Unit*. As applied to encryption items, means a unit of a business which, whether or not separately incorporated, has:

**(a)** a distinct organizational structure which does not overlap with other business units of the same business;

**(b)** a distinct set of accounts; and

**(c)** separate facilities for purchase, sale, delivery, and production of goods and services.  
CCL. See Commerce Control List.

*CCL Group*. The Commerce Control List (CCL) is divided into 10 categories. Each category is subdivided into five groups, designated by the letters A through E: (A) Equipment, assemblies and components; (B) Test, inspection and production equipment; (C) Materials; (D) Software; and (E) Technology. See §738.2(b) of the EAR.

*“Camming”*. (axial displacement) (Cat 2)--Axial displacement in one revolution of the main spindle measured in a plane perpendicular to the spindle faceplate, at a point next to the circumference of the spindle faceplate (Ref.: ISO 230 Part 1-1986, paragraph 5.63).

*Canadian airline*. Any citizen of Canada who is authorized by the Canadian Government to engage in business as an airline. For purposes of this definition, a Canadian citizen is:

**(a)** A natural person who is a citizen of Canada; or

**(b)** A partnership of which each member is such an individual; or

(c) A Canadian firm incorporated or otherwise organized under the laws of Canada or any Canadian province, having a total foreign stock interest not greater than 40 percent and having the Chairman or Acting Chairman and at least two-thirds of the Directors thereof Canadian citizens.

“Capable of”. (MTCR context)--See “usable in”.

*Category.* The Commerce Control List (CCL) is divided into ten categories: (0) Nuclear Materials, Facilities and Equipment, and Miscellaneous; (1) Materials, Chemicals, “Microorganisms”, and Toxins; (2) Materials Processing; (3) Electronics Design, Development and Production; (4) Computers; (5) Telecommunications and Information Security; (6) Sensors; (7) Navigation and Avionics; (8) Marine; (9) Propulsion Systems, Space Vehicles, and Related Equipment. See §738.2(a) of the EAR.

“Chemical laser”. (Cat 6)--A “laser” in which the excited species is produced by the output energy from a chemical reaction.

*Chemical Weapons Convention (CWC).* Means “The Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction”, opened for signature on January 13, 1993.

“Circular Error Probable” (“CEP”). (Cat 7) In a circular normal distribution, the radius of the circle containing 50% of the individual measurements being made, or the radius of the circle within which there is a 50% probability of being located.

“Circulation-controlled, anti-torque or circulation-controlled direction control systems” (Cat 7)--Control systems using air blown over aerodynamic surfaces to increase or control the forces generated by the surfaces.

“Civil aircraft”. (Cat 1, 3, 4, 7 and 9) Those “aircraft” listed by designation in published airworthiness certification lists by civil aviation authorities of one or more Wassenaar Arrangement Participating States to fly commercial civil internal and external routes or for legitimate civil, private or business use. (see also “aircraft”)

*COCOM (Coordinating Committee on Multilateral Export Controls).* A multilateral organization that cooperated in restricting strategic exports to controlled countries. COCOM was officially disbanded on March 31, 1994. COCOM members included: Australia, Belgium, Canada, Denmark, France, Germany, Greece, Italy, Japan, Luxembourg, Netherlands, Norway, Portugal, Spain, Turkey, United Kingdom, and United States.

*Commerce Control List (CCL).* A list of items under the export control jurisdiction of the Bureau of Industry and Security, U.S. Department of Commerce. Note that certain additional items described in part 732 of the EAR are also subject to the EAR. The CCL is found in Supplement No. 1 to part 774 of the EAR.

“Communications Channel Controller”. (Cat 4) - The physical interface which controls the flow of synchronous or asynchronous digital information. It is an assembly that can be integrated into computer or telecommunications equipment to provide communications access.

*Commodity.* Any article, material, or supply except technology and software.

“Compensation systems”. (Cat 6) Consist of the primary scalar sensor, one or more reference sensors (e.g., vector “magnetometers”) together with software that permit reduction of rigid body rotation noise of the platform.

*Complete breech mechanisms.* The mechanism for opening and closing the breech of a breech-

loading firearm, especially of a heavy-caliber weapon.

*Component.* This is an item that is useful only when used in conjunction with an “end item.” “Components” are also commonly referred to as assemblies. For purposes of this definition an assembly and a “component” are the same. There are two types of “components”: “major components” and “minor components.” A “major component” includes any assembled element which forms a portion of an “end item” without which the “end item” is inoperable. For example, for an automobile, “components” will include the engine, transmission, and battery. If you do not have all those items, the automobile will not function, or function as effectively. A “minor component” includes any assembled element of a “major component.” “Components” consist of “parts.” References in the CCL to “components” include both “major components” and “minor components.”

*“Composite”.* (Cat 1, 2, 6, 8, and 9)--A “matrix” and an additional phase or additional phases consisting of particles, whiskers, fibers or any combination thereof, present for a specific purpose or purposes.

*“III/V compounds”.* (Cat 3 and 6) Polycrystalline or binary or complex monocrystalline products consisting of elements of groups IIIA and VA of Mendeleev's periodic classification table (e.g., gallium arsenide, gallium-aluminum arsenide, indium phosphide).

*“Contouring control”.* (Cat 2)--Two or more “numerically controlled” motions operating in accordance with instructions that specify the next required position and the required feed rates to that position. These feed rates are varied in relation to each other so that a desired contour is generated (Ref. ISO/DIS 2806--1980).

*Controlled country.* Countries designated controlled for national security purposes under authority delegated to the Secretary of Commerce

by Executive Order 12214 of May 2, 1980 pursuant to section 5(b) of the EAA. The controlled countries are: Albania, Armenia, Azerbaijan, Belarus, Cambodia, Cuba, the People's Republic of China, Georgia, Iraq, Kazakhstan, Kyrgyzstan, Laos, Macau, Moldova, Mongolia, North Korea, Russia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan, and Vietnam. All of the controlled countries except Cuba are listed in Country Group D:1 of the EAR. Cuba is listed in Country Group E:2. This definition does not apply to part 768 of the EAR (Foreign Availability), which provides a dedicated definition.

*Countries supporting international terrorism.* In accordance with §6(j) of the Export Administration Act of 1979, as amended (EAA), the Secretary of State has determined that the following countries' governments have repeatedly provided support for acts of international terrorism: Iran, North Korea, Sudan, and Syria.

*Country Chart.* A chart, found in Supplement No. 1 to part 738 of the EAR, that contains certain licensing requirements based on destination and reason for control. In combination with the CCL, the Country Chart indicates when a license is required for any item on the CCL to any country in the world under General Prohibition One (Exports and Reexports in the Form Received), General Prohibition Two (Parts and Components Reexports), and General Prohibition Three (Foreign Produced Direct Product Reexports). See part 736 of the EAR.

*Country Groups.* For export control purposes, foreign countries are separated into five country groups designated by the symbols A, B, C, D, and E. (see Supplement No. 1 to part 740 of the EAR for a list of countries in each Country Group.)

*“Critical temperature”.* (Cat 1, 3, 5P1, and 6)--The “critical temperature” (sometimes referred to as the transition temperature) of a specific “superconductive” material is the

temperature at which the material loses all resistance to the flow of direct electrical current.

*“Crude oil.”* A mixture of hydrocarbons that existed in liquid phase in underground reservoirs, remains liquid at atmospheric pressure (after passing through surface separating facilities), and has not been processed through a crude oil distillation tower. Crude oil includes reconstituted crude petroleum, lease condensate, and liquid hydrocarbons produced from tar sands, gilsonite, and oil shale. Drip gases are also included, but topped crude oil, residual oil, and other finished and unfinished oils are excluded.

*“Cryptanalytic items”* (Cat 5P2) Systems, equipment or components designed or modified to perform ‘cryptanalytic functions’, software having the characteristics of cryptanalytic hardware or performing ‘cryptanalytic functions’, or technology for the development, production or use of cryptanalytic commodities or software.

**NOTES:**

1. *‘Cryptanalytic functions’ are functions designed to defeat cryptographic mechanisms in order to derive confidential variables or sensitive data, including clear text, passwords or cryptographic keys. These functions may include ‘cryptanalysis,’ which is the analysis of a cryptographic system or its inputs and outputs to derive confidential variables or sensitive data, including clear text. (ISO 7498-2-1988 (E), paragraph 3.3.18).*

2. *Functions specially designed and limited to protect against malicious computer damage or unauthorized system intrusion (e.g., viruses, worms and trojan horses) are not construed to be ‘cryptanalytic functions.’.*

*“Cryptographic activation”.* (Cat 5P2) Any technique that specifically activates or enables cryptographic capability of an item, by means of a mechanism implemented by the manufacturer

of the item, where this mechanism is uniquely bound to any of the following:

1. A single instance of the item; or
2. One customer, for multiple instances of the item.

**Technical Notes to definition of “Cryptographic activation”:**

1. *“Cryptographic activation” techniques and mechanisms may be implemented as hardware, “software” or “technology”.*

2. *Mechanisms for “cryptographic activation” can, for example, be serial number-based license keys or authentication instruments such as digitally signed certificates.*

*“Cryptography”* (Cat 5P2)-- The discipline that embodies principles, means and methods for the transformation of data in order to hide its information content, prevent its undetected modification or prevent its unauthorized use. “Cryptography” is limited to the transformation of information using one or more ‘secret parameters’ (e.g., crypto variables) and/or associated key management.

**Notes:**

1. *“Cryptography” does not include ‘fixed’ data compression or coding techniques.*
2. *“Cryptography” includes decryption.*

**Technical Notes:**

1. *‘Secret parameter’: a constant or key kept from the knowledge of others or shared only within a group.*

2. *‘Fixed’: the coding or compression algorithm cannot accept externally supplied parameters (e.g., cryptographic or key variables) and cannot be modified by the user.*

*Customs officer.* The Customs officers in the U.S. Customs Service and postmasters unless the context indicates otherwise.

*“CW Laser”.* (Cat 6) A CW (Continuous Wave) laser is defined as a laser that produces a nominally constant output energy for greater than 0.25 seconds.

*“Data-Based Referenced Navigation” (“DBRN”) Systems.* (Cat 7) Systems which use various sources of previously measured geo-mapping data integrated to provide accurate navigation information under dynamic conditions. Data sources include bathymetric maps, stellar maps, gravity maps, magnetic maps or 3-D digital terrain maps.

*“Data signaling rate”.* (Cat 5) means the rate, as defined in ITU Recommendation 53-36, taking into account that, for non-binary modulation, baud and bit per second are not equal. Bits for coding, checking and synchronization functions are to be included.

**NOTE:** *When determining the “data signaling rate”, servicing and administrative channels shall be excluded.*

**TECHNICAL NOTE:** *It is the maximum one-way rate, i.e., the maximum rate in either transmission or reception.*

*“Depleted uranium”.* (Cat 0) means uranium depleted in the isotope 235 below that occurring in nature.

*“Designed or modified”.* (MTCR context)--Equipment, parts, components, or “software” that, as a result of “development”, or modification, have specified properties that make them fit for a particular application. “Designed or modified” equipment, parts, components or “software” can be used for other applications. For example, a titanium coated pump designed for a

“missile” may be used with corrosive fluids other than propellants.

*“Development”.* (General Technology Note)--“Development” is related to all stages prior to serial production, such as: design, design research, design analyses, design concepts, assembly and testing of prototypes, pilot production schemes, design data, process of transforming design data into a product, configuration design, integration design, layouts.

*Diffusion bonding.* (Cat 1, 2, and 9)—A solid state joining of at least two separate pieces of metals into a single piece with a joint strength equivalent to that of the weakest material, wherein the principal mechanism is interdiffusion of atoms across the interface.

*Digital computer.* (Cat 4 and 5)--Equipment that can, in the form of one or more discrete variables, perform all of the following:

- (a) Accept data;
- (b) Store data or instructions in fixed or alterable (writable) storage devices;
- (c) Process data by means of a stored sequence of instructions that is modifiable; and
- (d) Provide output of data.

**NOTE:** *Modifications of a stored sequence of instructions include replacement of fixed storage devices, but not a physical change in wiring or interconnections.*

*“Digital transfer rate”.* (Cat 5)--The total bit rate of the information that is directly transferred on any type of medium. (see also “total digital transfer rate”)

*Directorate of Defense Trade Controls (DDTC).* The office at the Department of State, formerly known as the Office of Defense Trade Controls and before that as the Office of Munitions

Control, responsible for reviewing applications to export and reexport items on the U.S. Munitions List. (see 22 CFR parts 120 through 130.)

*Dual use.* Items that have both commercial and military or proliferation applications. While this term is used informally to describe items that are subject to the EAR, purely commercial items and certain munitions items listed on the Wassenaar Arrangement Munitions List (WAML) or the Missile Technology Control Regime Annex are also subject to the EAR (see § 734.2(a) of the EAR).

*“Dynamic adaptive routing”.* (Cat 5)--Automatic rerouting of traffic based on sensing and analysis of current actual network conditions.

**NOTE:** *This does not include cases of routing decisions taken on predefined information.*

*Effective control.* You maintain effective control over an item when you either retain physical possession of the item, or secure the item in such an environment as a hotel safe, a bonded warehouse, or a locked or guarded exhibition facility. Retention of effective control over an item is a condition of certain temporary exports and reexports.

*“Electronic assembly”.* (Cat 4) means a number of electronic components (i.e., ‘circuit elements’, ‘discrete components’, integrated circuits, etc.) connected together to perform (a) specific function(s), replaceable as an entity and normally capable of being disassembled.

**Technical Notes:**

1. *‘Circuit element’:* a single active or passive functional part of an electronic circuit, such as one diode, one transistor, one resistor, one capacitor, etc.

2. *‘Discrete component’:* a separately packaged ‘circuit element’ with its own external connections.

*“Encryption Component”.* Any encryption commodity or software (except source code), including encryption chips, integrated circuits, application specific encryption toolkits, or executable or linkable modules that alone are incapable of performing complete cryptographic functions, and is designed or intended for use in or the production of another encryption item.

*Encryption items.* The phrase encryption items includes all encryption commodities, software, and technology that contain encryption features and are subject to the EAR. This does not include encryption items specifically designed, developed, configured, adapted or modified for military applications ( including command, control and intelligence applications) which are controlled by the Department of State on the U.S. Munitions List.

*Encryption licensing arrangement.* A license that allows the export of specified products to specified destinations in unlimited quantities. In certain cases, exports are limited to specified end-users for specified end-uses. Generally, reporting of all sales of the specified products is required at six month intervals. This includes sales made under distribution arrangements and distribution and warehousing agreements that were previously issued by the Department of State for encryption items.

*Encryption object code.* Computer programs containing an encryption source code that has been compiled into a form of code that can be directly executed by a computer to perform an encryption function.

*Encryption software.* Computer programs that provide capability of encryption functions or confidentiality of information or information systems. Such software includes source code, object code, applications software, or system software.

*Encryption source code.* A precise set of operating instructions to a computer that, when compiled, allows for the execution of an encryption function on a computer.

*“End-effectors”.* (Cat 2) Grippers, ‘active tooling units’ and any other tooling that is attached to the baseplate on the end of a “robot” manipulator arm.

**Technical Note:** ‘Active tooling unit’: a device for applying motive power, process energy or sensing to the workpiece.

*End item.* This is a system, equipment or assembled commodity ready for its intended use. Only ammunition, fuel or other energy source is required to place it in an operating state. Examples of end items include ships, aircraft, computers, firearms, and milling machines.

*End-user.* The person abroad that receives and ultimately uses the exported or reexported items. The end-user is not a forwarding agent or intermediary, but may be the purchaser or ultimate consignee.

*Energetic materials.* (Cat 1) Substances or mixtures that react chemically to release energy required for their intended application. “Explosives”, “pyrotechnics” and “propellants” are subclasses of energetic materials.

*Equipment.* This is a combination of parts, components, accessories, attachments, firmware, or software that operate together to perform a function of, as, or for an end item or system. Equipment may be a subset of “end items” based on the characteristics of the equipment. Equipment that meets the definition of an end-item is an end-item. Equipment that does not meet the definition of an end-item is a part, component, accessory, attachment, firmware, or software.

*“Equivalent Density”.* (Cat 6)--The mass of an optic per unit optical area projected onto the optical surface.

*“Explosives”.* (Cat 1) - see Annex “List of Explosives” located at the end of Category 1 of Supplement No. 1 to Part 774 “Commerce Control List”.

*Export.* See § 734.13 of the EAR.

*Export Administration Act (EAA).* Export Administration Act of 1979, as amended, effective October 1, 1979.

*Export Administration Regulations (EAR).* Regulations set forth in parts 730-774, inclusive, of Title 15 of the Code of Federal Regulations.

*Export Administration Review Board (EARB).* The body authorized by Executive Order 12002 as amended by Executive Orders 12755 and 13268. The Export Administration Review Board’s role in export license application review is in accordance with Executive Order 12981 as amended by Executive Orders 13020, 13026 and 13117.

*Export Control Classification Number (ECCN).* The numbers used in Supplement No. 1 to part 774 of the EAR and throughout the EAR. The Export Control Classification Number consists of a set of digits and a letter. Reference §738.2(c) of the EAR for a complete description of each ECCN’s composition.

*Export control document.* A license; application for license; any and all documents submitted in accordance with the requirements of the EAR in support of, or in relation to, a license application; application for International Import Certificate; Delivery Verification Certificate or similar evidence of delivery; Electronic Export Information (EEI) on the Automated Export System (AES) presented in connection with shipments to any country; a Dock Receipt or bill of lading issued by any carrier in connection with any export subject to the EAR and any and all documents prepared and submitted by exporters and agents pursuant to the export clearance

requirements of Part 758 of the EAR; a U.S. exporter's report of request received for information, certification, or other action indicating a restrictive trade practice or boycott imposed by a foreign country against a country friendly to the United States, submitted to the U.S. Department of Commerce in accordance with the provisions of Part 760 of the EAR; Customs Form 7512, Transportation Entry and Manifest of Goods, Subject to Customs Inspection and Permit, when used for Transportation and Exportation (T.& E.) or Immediate Exportation (I.E.); and any other document issued by a U.S. Government agency as evidence of the existence of a license for the purpose of loading onto an exporting carrier or otherwise facilitating or effecting an export from the United States or any reexport of any item requiring a license.

*Exporter.* The person in the United States who has the authority of a principal party in interest to determine and control the sending of items out of the United States.

*Exporting carrier.* Any instrumentality of water, land, or air transportation by which an export is effected, including any domestic air carrier on which any cargo for export is laden or carried.

*Facilities.* This means a building or outdoor area in which people use an item that is built, installed, produced, or developed for a particular purpose.

*“FADEC systems”.* See “full authority digital engine control systems.”

*“FMU”.* See “flexible manufacturing unit”

*“Fibrous or filamentary materials”.* “(Cat 1, 2, 8 and 9)--The term “fibrous and filamentary materials” includes:

- (a) Continuous monofilaments;
- (b) Continuous yarns and rovings;

(c) Tapes, fabrics, random mats and braids;

(d) Chopped fibers, staple fibers and coherent fiber blankets;

(e) Whiskers, either monocrystalline or polycrystalline, of any length;

(f) Aromatic polyimide pulp.

*“Film type integrated circuit”.* (Cat 3)--An array of “circuit elements” and metallic interconnections formed by deposition of a thick or thin film on an insulating “substrate”.

*NOTE: “Circuit element”:* a single active or passive functional part of an electronic circuit, such as one diode, one transistor, one resistor, one capacitor, etc.

*Financial Institution.* As applied to encryption items, means any of the following:

(a) A broker, dealer, government securities broker or dealer, self-regulatory organization, investment company or investment adviser, which is regulated or supervised by the Securities and Exchange Commission or a self-regulatory organization that is registered with the Securities and Exchange Commission; or

(b) A broker, dealer, government securities broker or dealer, investment company, investment adviser, or entity that engages in securities activities that, if conducted in the United States, would be described by the definition of the term “self-regulatory organization” in the Securities Exchange Act of 1934, which is organized under the laws of a foreign country and regulated or supervised by a foreign securities authority; or

(c) A U.S. board of trade that is designated as a contract market by the Commodity Futures Trading Commission or a futures commission merchant that is regulated or supervised by the

Commodity Futures Trading Commission; or

and

(d) A U.S. entity engaged primarily in the business of issuing a general purpose charge, debit, or stored value card, or a branch of, or affiliate controlled by, such an entity; or

(b) Two or more of the following:

(1) A machine tool described in 2B001.c;

(e) A branch or affiliate of any of the entities listed in paragraphs (a), (b), or (c) of this definition regulated or supervised by the Securities and Exchange Commission, the Commodity Futures Trading Commission, or a foreign securities authority; or

(2) A dimensional inspection machine described in Category 2, or another digitally controlled measuring machine controlled by an entry in Category 2;

(3) A “robot” controlled by an entry in Category 2 or 8;

(f) An affiliate of any of the entities listed in paragraph (a), (b), (c), or (e), of this definition engaged solely in the business of providing data processing services to one or more bank or financial institutions, or a branch of such an affiliate; or

(4) Digitally controlled equipment controlled by 1B003, 2B003, or 9B001;

(5) “Stored program controlled” equipment controlled by 3B001;

(g) A company organized and regulated under the laws of any of the United States and its branches and affiliates whose primary and predominant business activity is the writing of insurance or the reinsuring of risks; or a company organized and regulated under the laws of a foreign country and its branches and affiliates whose primary and predominant business activity is the writing of insurance or the reinsuring of risks.

(6) Digitally controlled equipment controlled by 1B001;

(7) Digitally controlled electronic equipment controlled by 3A002.

*Firm.* A corporation, partnership, limited partnership, association, company, trust, or any other kind of organization or body corporate, situated, residing, or doing business in the United States or any foreign country, including any government or agency thereof.

*“Fly-by-light system”.* (Cat 7) is a primary digital flight control system employing feedback to control the “aircraft” during flight, where the commands to the effectors/actuators are optical signals.

*“Flexible manufacturing unit”.* (FMU), (sometimes also referred to as ‘flexible manufacturing system’ (FMS) or ‘flexible manufacturing cell’ (FMC)) (Cat 2)--An entity that includes a combination of at least:

*“Fly-by-wire system”.* (Cat 7) is a primary digital flight control system employing feedback to control the “aircraft” during flight, where the commands to the effectors/actuators are electrical signals.

(a) A “digital computer” including its own “main storage” and its own “related equipment”;

*“Focal plane array”.* (Cat 6 and 8)--A linear or two-dimensional planar layer, or combination of planar layers, of individual detector elements, with or without readout electronics, that work in the focal plane.

*N.B.* This definition does not include a stack of single detector elements or any two, three, or four element detectors provided time delay and

*integration is not performed within the element.*

*Food.* Specific to exports and reexports to North Korea, Syria and Crimea region of Ukraine, food means items that are consumed by and provide nutrition to humans and animals, and seeds, with the exception of castor bean seeds, that germinate into items that will be consumed by and provide nutrition to humans and animals. (Food does not include alcoholic beverages.)

*Foreign government agency.* For the purposes of exemption from support documentation (see §748.9 of the EAR), a foreign government agency is defined as follows:

(a) National governmental departments operated by government-paid personnel performing governmental administrative functions; e.g. Finance Ministry, Ministry of Defense, Ministry of Health, etc. (municipal or other local government entities must submit required support documentation); or

(b) National government-owned public service entities; e.g., nationally owned railway, postal, telephone, telegraph, broadcasting, and power systems, etc. The term “foreign government agency” does not include government corporations, quasi-government agencies, and state enterprises engaged in commercial, industrial, and manufacturing activities, such as petroleum refineries, mines, steel mills, retail stores, automobile manufacturing plants, airlines, or steamship lines that operate between two or more countries, etc.

*Foreign person.* Any natural person who is not a lawful permanent resident of the United States, citizen of the United States, or any other protected individual as defined by 8 U.S.C. 1324b(a)(3). It also means any corporation, business association, partnership, trust, society or any other entity or group that is not incorporated in the United States or organized to do business in the United States, as well as international

organizations, foreign governments and any agency or subdivision of a foreign government (e.g., diplomatic mission). “Foreign person” is synonymous with “foreign national,” as used in the EAR, and “foreign person” as used in the International Traffic in Arms Regulations (22 CFR 120.16). This definition does not apply to part 760 of the EAR (Restrictive Trade Practices or Boycotts).

*Foreign policy control.* A control imposed under the EAR for any and all of the following reasons: chemical and biological weapons, nuclear nonproliferation, missile technology, regional stability, crime control, anti-terrorism, United Nations sanctions, and any other reason for control implemented under section 6 of the EAA or other similar authority.

*Foreign Terrorist Organizations (FTO).* Any organization that is determined by the Secretary of the Treasury to be a foreign terrorist organization under notices or regulations issued by the Office of Foreign Assets Control (see 31 CFR chapter V).

*Forwarding agent.* The person in the United States who is authorized by a principal party in interest to perform the services required to facilitate the export of the items from the United States. This may include air couriers or carriers. In routed export transactions, the forwarding agent and the exporter may be the same for compliance purposes under the EAR.

*“Fractional bandwidth”.* (Cat 3, 5P1, 5P2) -- The “instantaneous bandwidth” divided by the center frequency, expressed as a percentage.

*“Frequency hopping”.* “(Cat 5P1, 5P2 and 6) -- A form of “spread spectrum” in which the transmission frequency of a single communication channel is made to change by a random or pseudo-random sequence of discrete steps.

*“Frequency switching time.”* (Cat 3) The time

(i.e., delay) taken by a signal when switched from an initial specified output frequency, to arrive at or within any of the following:

- (1)  $\pm 100$  Hz of a final specified output frequency of less than 1 GHz; *or*
- (2)  $\pm 0.1$  part per million of a final specified output frequency equal to or greater than 1 GHz.

*Fuel cell.* (Cat 8) An electrochemical device that converts chemical energy directly into Direct Current (DC) electricity by consuming fuel from an external source.

*“Full Authority Digital Engine Control Systems” (“FADEC Systems”)* (Cat 9) A digital electronic control system for a gas turbine engine that is able to autonomously control the engine throughout its whole operating range from demanded engine start until demanded engine shut down, in both normal and fault conditions.

*Fundamental research.* See § 734.8 of the EAR.

*“Fusible”.* (Cat 1) -- Capable of being cross-linked or polymerized further (cured) by the use of heat, radiation, catalysts, etc., or that can be melted without pyrolysis (charring).

*General prohibitions.* The 10 prohibitions found in part 736 of the EAR that prohibit certain exports, reexports, and other conduct, subject to the EAR, absent a license, license exception, or determination that no license is required (“NLR”).

*“Government end-user” (as applied to encryption items).* A government end user is any foreign central, regional or local government department, agency, or other entity performing governmental functions; including governmental research institutions, governmental corporations or their separate business units (as defined in part 772 of the EAR) which are engaged in the manufacture or distribution of items or services

controlled on the Wassenaar Munitions List, and international governmental organizations. This term does not include: utilities (including telecommunications companies and Internet service providers); banks and financial institutions; transportation; broadcast or entertainment; educational organizations (except public schools and universities); civil health and medical organizations (including public civilian hospitals); retail or wholesale firms; and manufacturing or industrial entities not engaged in the manufacture or distribution of items or services controlled on the Wassenaar Munitions List.

*Hard selectors.* (Cat 5P1) Data or set of data, related to an individual (e.g., family name, given name, e-mail, street address, phone number or group affiliations).

*Hold Without Action (HWA).* License applications may be held without action only in the limited circumstances described in §750.4(b) of the EAR. Encryption review requests may be placed on hold without action status as provided in §740.17(d)(2) and §742.15(b)(2) of the EAR.

*“Hybrid computer”.* (Cat 4)--Equipment that can:

- (a) Accept data;
- (b) Process data, in both analog and digital representation; and
- (c) Provide output of data.

*“Hybrid integrated circuit”.* (Cat 3)--Any combination of integrated circuit(s), or integrated circuit with “circuit elements” or “discrete components” connected together to perform (a) specific function(s), and having all of the following criteria:

- (a) Containing at least one unencapsulated device;

(b) Connected together using typical IC-production methods;

(c) Replaceable as an entity; and

(d) Not normally capable of being disassembled.

**NOTES:**

1. “Circuit element”: a single active or passive functional part of an electronic circuit, such as one diode, one transistor, one resistor, one capacitor, etc.

2. “Discrete component”: a separately packaged “circuit element” with its own external connections.

“Image enhancement”. (Cat 4)--The processing of externally derived information-bearing images by algorithms such as time compression, filtering, extraction, selection, correlation, convolution or transformations between domains (e.g., fast Fourier transform or Walsh transform). This does not include algorithms using only linear or rotational transformation of a single image, such as translation, feature extraction, registration or false coloration.

“Information security”. (Cat 5P2, GSIN, GSN) All the means and functions ensuring the accessibility, confidentiality or integrity of information or communications, excluding the means and functions intended to safeguard against malfunctions. This includes “cryptography,” “cryptographic activation,” ‘cryptanalysis,’ protection against compromising emanations and computer security.

**Technical Note to definition of “Information security”:** ‘Cryptanalysis’: the analysis of a cryptographic system or its inputs and outputs to derive confidential variables or sensitive data, including clear text. (ISO 7498–2–1988 (E), paragraph 3.3.18)

“Instantaneous bandwidth”. (Cat 3 and 5)--The bandwidth over which output power remains constant within 3 dB without adjustment of other operating parameters.

“Instrumented range”. (Cat 6)--The specified unambiguous display range of a radar.

*Intent to Deny (ITD) letter.* A letter informing the applicant:

(a) Of the reason for BIS's decision to deny a license application; and

(b) That the application will be denied 45 days from the date of the ITD letter, unless the applicant provides, and BIS accepts, a reason why the application should not be denied for the stated reason. See §750.6 of the EAR.

“Interleaved Analog-to-Digital Converter (ADC)”. (Cat 3) Devices that have multiple ADC units that sample the same analog input at different times such that when the outputs are aggregated, the analog input has been effectively sampled and converted at a higher sampling rate.

*Intermediate consignee.* The person that acts as an agent for a principal party in interest for the purpose of effecting delivery of items to the ultimate consignee. The intermediate consignee may be a bank, forwarding agent, or other person who acts as an agent for a principal party in interest.

“Intrinsic Magnetic Gradiometer”. (Cat 6)--A single magnetic field gradient sensing element and associated electronics the output of which is a measure of magnetic field gradient. (See also “Magnetic Gradiometer”)

*Intrusion software.* (5P2) “Software” specially designed or modified to avoid detection by ‘monitoring tools’, or to defeat ‘protective countermeasures’, of a computer or network-capable device, and performing any of the following:

(1) The extraction of data or information, from a computer or network-capable device, or the modification of system or user data; or

(2) The modification of the standard execution path of a program or process in order to allow the execution of externally provided instructions.

**NOTE 1 TO “INTRUSION SOFTWARE” DEFINITION:** *“Intrusion software” does not include any of the following: Hypervisors, debuggers or Software Reverse Engineering (SRE) tools; Digital Rights Management (DRM) “software”; or “Software” designed to be installed by manufacturers, administrators or users, for the purposes of asset tracking or recovery.*

**NOTE 2 TO “INTRUSION SOFTWARE” DEFINITION:** *Network-capable devices include mobile devices and smart meters.*

**TECHNICAL NOTE 1 TO “INTRUSION SOFTWARE” DEFINITION:** *‘Monitoring tools’: “software” or hardware devices, that monitor system behaviors or processes running on a device. This includes antivirus (AV) products, end point security products, Personal Security Products (PSP), Intrusion Detection Systems (IDS), Intrusion Prevention Systems (IPS) or firewalls.*

**TECHNICAL NOTE 2 TO “INTRUSION SOFTWARE” DEFINITION:** *‘Protective countermeasures’: techniques designed to ensure the safe execution of code, such as Data Execution Prevention (DEP), Address Space Layout Randomization (ASLR) or sandboxing.*

*“Isostatic presses”.* (Cat 2)--Equipment capable of pressurizing a closed cavity through various media (gas, liquid, solid particles, etc.) to create equal pressure in all directions within the cavity upon a workpiece or material.

*Item.* “Item” means “commodities, software, and technology.” When the EAR intend to refer specifically to commodities, software, or technology, the text will use the specific reference.

*Know.* See “knowledge.”

*Knowledge.* Knowledge of a circumstance (the term may be a variant, such as “know,” “reason to know,” or “reason to believe”) includes not only positive knowledge that the circumstance exists or is substantially certain to occur, but also an awareness of a high probability of its existence or future occurrence. Such awareness is inferred from evidence of the conscious disregard of facts known to a person and is also inferred from a person's willful avoidance of facts. This definition does not apply to part 760 of the EAR (Restrictive Trade Practices or Boycotts).

*“Laser.”* (Cat 1, 2, 3, 5P1, 6, 7, 8 and 9)--An item that produces spatially and temporally coherent light through amplification by stimulated emission of radiation. See also: “Chemical laser;” “Super High Power Laser;” and “Transfer laser.”

*Law or regulation relating to export control.* Any statute, proclamation, executive order, regulation, rule, license, or order applicable to any conduct involving an export transaction shall be deemed to be a “law or regulation relating to export control.”

*Legible or legibility.* Legible and legibility mean the quality of a letter or numeral that enables the observer to identify it positively and quickly to the exclusion of all other letters or numerals.

*Less sensitive government end users (as applied to encryption items).* The following “government end users” (as defined in this Section of the EAR) are considered “less sensitive” for the purposes of License Exception ENC (§ 740.17 of the EAR):

(1) Local/state/provincial "government end users" (departments, agencies and entities), including local/state/provincial executive, legislative, judicial, police, fire, rescue and public safety agencies.

boards, councils and development authorities (including national information center, and Information Communications Technology (ICT) / telecommunications infrastructure / spectrum planning, policy, regulation and testing);

(2) National/federal/royal "government end users" (departments, agencies and entities) providing the following civil government functions and services:

- (i) Census and statistics services;
- (ii) Civil public works infrastructure services (construction, maintenance, repair, regulation and administration) as follows: buildings, public transportation, roads and highways, trucking;
- (iii) Civil service administration and regulation, including human resources and personnel/labor management;
- (iv) Clean water infrastructure services (treatment, supply and testing);
- (v) Economic (trade/commerce/investment), business and industrial development, promotion, regulation and administration, excluding the following end users/end uses:
  - (A) Agencies, departments, boards and councils for science and technology;
  - (B) Research, development and national laboratories (other than as specified in paragraphs (2)(xi) (measurements and standards services) and (2)(xii) (meteorology/weather/atmospheric services) of this definition (below));
  - (C) National telecommunications and information technology agencies,

- (vi) Elections, balloting and polling services;
- (vii) Energy regulation and administration, including oil, gas and mining sectors;
- (viii) Environmental/natural resources regulation, administration and protection, including wildlife, fisheries and national parks;
- (ix) Food/agriculture regulation and administration;
- (x) Labor/community/social services planning, regulation and administration, including: housing and urban development, municipality and rural affairs;
- (xi) Measurements and standards services;
- (xii) Meteorology (weather, atmospheric) services;
- (xiii) National archives/museums;
- (xiv) Patents;
- (xv) Pilgrimage and religious affairs;
- (xvi) Postal services;
- (xvii) Public and higher education (excluding government research institutions and any agency, institution or affiliate engaged in the manufacture or

distribution of items or services controlled on the Wassenaar Munitions List);

(xviii) Public health and medicine/pharmaceutical regulation and administration;

(xix) Public libraries;

(xx) Sports/culture (includes film, commercial broadcasting and the arts) promotion, regulation and administration;

(xxi) Travel/tourism promotion, regulation and administration.

*“Library”* (Cat 1) (parametric technical database) A collection of technical information, reference to which may enhance the performance of the relevant systems, equipment or components.

*License.* Authority issued by the Bureau of Industry and Security authorizing an export, reexport, or other regulated activity. The term “license” does not include authority represented by a “License Exception.”

*License application; application for license.* License application and similar wording mean an application to BIS requesting the issuance of a license to the applicant.

*License Exception.* An authorization described in part 740 of the EAR that allows you to export or reexport, under stated conditions, items subject to the EAR that otherwise would require a license. Unless otherwise indicated, these License Exceptions are not applicable to exports under the licensing jurisdiction of agencies other than the Department of Commerce.

*Licensee.* The person to whom a license has been issued by BIS. See §750.7(c) of the EAR for a complete definition and identification of a

licensee's responsibilities.

*“Lighter-than-air vehicles”.* (Cat 2 and 9) Balloons and “airships” that rely on hot air or on lighter-than-air gases such as helium or hydrogen for their lift.

*“Local area network”.* (Cat 4 and 5 Part 1)--A data communication system that:

(a) Allows an arbitrary number of independent ‘data devices’ to communicate directly with each other; and

(b) Is confined to a geographical area of moderate size (e.g., office building, plant, campus, warehouse).

**Technical Note:** ‘Data device’ means equipment capable of transmitting or receiving sequences of digital information.

*“MBTR”.*--See “maximum bit transfer rate”.

*“MMIC”.* (Cat 3 and 5) See “Monolithic Microwave Integrated Circuit”

*MTCR.* See Missile Technology Control Regime.

*MTEC.* See Missile Technology Export Control Group.

*“Magnetic Gradiometers”.* (Cat 6)--Are designed to detect the spatial variation of magnetic fields from sources external to the instrument. They consist of multiple “magnetometers” and associated electronics the output of which is a measure of magnetic field gradient. (See also “Intrinsic Magnetic Gradiometer”.)

*“Magnetometers”.* (Cat 6)--Are designed to detect magnetic fields from sources external to the instrument. They consist of a single magnetic field sensing element and associated electronics the output of which is a measure of the magnetic

field.

*Material.* This is any list-specified crude or processed matter that is not clearly identifiable as any of the types of items defined in § 772.1 under the defined terms, “end item,” “component,” “accessories,” “attachments,” “part,” “software,” “system,” “equipment,” or “facilities.” The exclusion from the definition of material for clearly identifiable items defined in § 772.1, such as for “parts” and “components,” does not apply to the following ECCNs: 1C233, 1C234, 1C235, 1C236, 1C237, 1C239, 1C350, 1C395, 1C991, 1C992, and 1C995.

*“Matrix”.* (Cat 1, 2, 8, and 9)--A substantially continuous phase that fills the space between particles, whiskers or fibers.

*“Maximum bit transfer rate”.* (MBTR) (Cat 4)--Of solid state storage equipment: the number of data bits per second transferred between the equipment and its controller. Of a disk drive: the internal data transfer rate calculated as follows:

“MBTR” (bits per second) = B x R x T, where:

B = Maximum number of data bits per track available to read or write in a single revolution;

R = Revolutions per second;

T = Number of tracks that can be used or written simultaneously.

*“Measurement uncertainty”.* (Cat 2)-- The characteristic parameter that specifies in what range around the output value the correct value of the measurable variable lies with a confidence level of 95%. It includes the uncorrected systematic deviations, the uncorrected backlash, and the random deviations (Ref.: ISO 10360-2).

*“Media access unit”.* (Cat 5)--Equipment that contains one or more communication interfaces (“network access controller”, “communications channel controller”, modem or computer bus) to

connect terminal equipment to a network.

*Medical devices.* For purposes of the EAR, medical devices are “devices” as defined in section 201 of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 321) including medical supplies, instruments, equipment, equipped ambulances, institutional washing machines for sterilization, and vehicles with medical testing equipment. Note that certain component parts and spares to be exported for incorporation into medical devices are on the Commerce Control List. Only items meeting the definition of “medical device” and that are classified as EAR99 are eligible for export to Iran and Sudan under the licensing procedures set forth in the appropriate regulations promulgated and administered by Treasury’s Office of Foreign Assets Control.

*Medicines.* Medicines means “drug” as defined in section 201 of the Federal Food, Drug and Cosmetic Act (21 U.S.C. 321). For purposes of the EAR, medicines includes prescription and over the counter medicines for humans and animals. Note that certain medicines, such as vaccines and immunotoxins, are on the Commerce Control List. Only items meeting the definition of “medicine” and that are classified as EAR99 are eligible for export to Iran and Sudan under the licensing procedures set forth in the appropriate regulations promulgated and administered by Treasury’s Office of Foreign Assets Control.

*Metal embrittlement agents.* (Cat. 0)—Non-lethal weapon substances that alter the crystal structure of metals within a short time span. Metal embrittlement agents severely weaken metals by chemically changing their molecular structure. These agents are compounded in various substances to include adhesives, liquids, aerosols, foams, and lubricants.

*“Microcomputer microcircuit”.* (Cat 3) means a “monolithic integrated circuit” or “multichip integrated circuit” containing an arithmetic logic

unit (ALU) capable of executing a series of general purpose instructions from an internal storage, on data contained in the internal storage.

**TECHNICAL NOTE 1:** *The “microprocessor microcircuit” normally does not contain integral user-accessible storage, although storage present on-the-chip may be used in performing its logic function.*

**TECHNICAL NOTE 2:** *The internal storage may be augmented by an external storage.*

**NOTE:** *This definition includes chip sets which are designed to operate together to provide the function of a “microprocessor microcircuit.”*

“Microorganisms”. (Cat 1 and 2) means bacteria, viruses, mycoplasmas, rickettsiae, chlamydiae or fungi, whether natural, enhanced or modified, either in the form of isolated live cultures or as material including living material which has been deliberately inoculated or contaminated with such cultures.

“Microprocessor microcircuit”. (Cat 3)--A “monolithic integrated circuit” or “multichip integrated circuit” containing an arithmetic logic unit (ALU) capable of executing a series of general purpose instructions from an external storage.

**N.B. 1:** *The “microprocessor microcircuit” normally does not contain integral user-accessible storage, although storage present on-the-chip may be used in performing its logic function.*

**N.B. 2:** *This definition includes chip sets that are designed to operate together to provide the function of a “microprocessor microcircuit”.*

“Microprogram”. (Cat 4 and 5)--A sequence of elementary instructions, maintained in a special storage, the execution of which is initiated by the introduction of its reference instruction into an instruction register.

*Military commodity.* As used in § 734.4(a)(5), Supplement No. 1 to part 738 (footnote No. 3), §§ 740.2(a)(11), 740.16(a)(2), 740.16(b)(2), 742.6(a)(3), 744.9(a)(2), 744.9(b), ECCN 0A919 and (Related Controls) in “600 series” ECCNs, “military commodity” or “military commodities” means an article, material, or supply that is described on the U.S. Munitions List (22 CFR Part 121) or on the Munitions List that is published by the Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies, but does not include software, technology and any item listed in any ECCN for which the last three numerals are 018 or any item in the “600 series.”

*Missile Technology Control Regime (MTCR).* The United States and other nations in this multilateral control regime have agreed to guidelines for restricting the export and reexport of dual-use items that may contribute to the development of missiles. The MTCR Annex lists missile-related equipment and technology controlled either by the Department of Commerce’s Bureau of Industry and Security – Export Administration Regulations (15 CFR Parts 730 through 799) or by the Department of State’s Directorate of Defense Trade Controls - International Traffic in Arms Regulations (22 CFR Parts 120 through 130).

*Missile Technology Export Control Group (MTEC).* Chaired by the Department of State, the MTEC primarily reviews applications involving items controlled for Missile Technology (MT) reasons. The MTEC also reviews applications involving items not controlled for MT reasons, but destined for a country and/or end-use/end-user of concern.

“Missiles”. (All)--Rocket systems (including ballistic missiles, space launch vehicles, and sounding rockets) and unmanned aerial vehicle systems (including cruise missiles, target drones, and reconnaissance drones) “capable of” delivering at least 500 kilograms payload to a

range of at least 300 kilometers. See § 746.3 for definition of a “ballistic missile” to be exported or reexported to Iraq or transferred within Iraq.

“*Monolithic integrated circuit*”. (Cat 3)--A combination of passive or active “circuit elements” or both that:

(a) Are formed by means of diffusion processes, implantation processes or deposition processes in or on a single semiconducting piece of material, a so-called ‘chip’;

(b) Can be considered as indivisibly associated; and

(c) Perform the function(s) of a circuit.

**NOTE:** “*Circuit element*”: a single active or passive functional part of an electronic circuit, such as one diode, one transistor, one resistor, one capacitor, etc.

“*Monolithic Microwave Integrated Circuit*” (“*MMIC*”). (Cat 3, 5P1 and 9) is a “monolithic integrated circuit” that operates at microwave or millimeter wave frequencies.

“*Monospectral imaging sensors*”. (Cat 6) are capable of acquisition of imaging data from one discrete spectral band.

*More sensitive government end users (as applied to encryption items).* The following national/federal/royal (departments, agencies and entities) “government end users” (as defined in this section of the EAR) providing the following government functions and services, are considered “more sensitive:”

(1) Agencies, departments, boards and councils for science and technology (including research, development and state / national laboratories, but not including measurements and standards);

(2) Currency and monetary authorities

(including departments and offices of the national / federal / royal reserve);

(3) Executive agents of state (including offices of president / vice president / prime minister, royal courts, national security councils, cabinet / council of ministers / supreme councils / executive councils, crown princes and other deputies of the rulers, departments and offices of political / constitutional / mainland affairs);

(4) Legislative bodies responsible for the enactment of laws;

(5) Import/export control, customs and immigration agencies and entities;

(6) Intelligence agencies and entities;

(7) Judiciary (including supreme courts and other national / federal / regional / royal high courts and tribunals);

(8) Maritime, port, railway and airport authorities;

(9) Military and armed services (including national guard, coast guard, security bureaus and paramilitary);

(10) Ministries, departments and garrisons of defense (including defense technology agencies);

(11) Ministries and departments of finance and taxation (including national / federal / royal budget and revenue authorities);

(12) Ministries and departments of foreign affairs / foreign relations / consulates / embassies;

(13) Ministries of interior, internal / home / mainland affairs, and homeland security;

(14) State / national telecommunications and information technology agencies, boards, councils and development authorities

(including national information / critical infrastructure data centers, and Information and Communications Technology (ICT) /telecommunications infrastructure / spectrum planning, policy, regulation and testing);

(15) Police, investigation and other law enforcement agencies and entities (including digital crime / cybercrime / computer forensics, counter narcotics / counter terrorism / counter proliferation agencies);

(16) Prisons;

(17) Public safety agencies and entities (including national / federal / royal agencies and departments of civil defense, emergency management, and first responders).

*“Motion control board”*. (Cat 2)--An electronic “assembly” specially designed to provide a computer system with the capability to coordinate simultaneously the motion of axes of machine tools for “contouring control”.

*“Multichip integrated circuit”*. (Cat 3)--Two or more “monolithic integrated circuits” bonded to a common “substrate”.

*“Multi-data-stream processing”*. (Cat 4)--The “microprogram” or equipment architecture technique that permits simultaneous processing of two or more data sequences under the control of one or more instruction sequences by means such as:

(a) Single Instruction Multiple Data (SIMD) architectures such as vector or array processors;

(b) Multiple Single Instruction Multiple Data (MSIMD) architectures;

(c) Multiple Instruction Multiple Data (MIMD) architectures, including those that are tightly coupled, closely coupled or loosely coupled; or

(d) Structured arrays of processing elements,

including systolic arrays.

*“Multiple channel Analog-to-Digital Converter (ADC)”*. (Cat 3) Devices that integrate more than one ADC, designed so that each ADC has a separate analog input.

*“Multispectral Imaging Sensors”*. (Cat 6)--Are capable of simultaneous or serial acquisition of imaging data from two or more discrete spectral bands. Sensors having more than twenty discrete spectral bands are sometimes referred to as hyperspectral imaging sensors.

*“N.E.S”*. N.E.S or n.e.s. is an abbreviation meaning “not elsewhere specified”.

*NATO (North Atlantic Treaty Organization)*. A strategic defensive organization that consists of the following member nations: Albania, Belgium, Bulgaria, Canada, Croatia, Czech Republic, Denmark, Estonia, France, Germany, Greece, Hungary, Iceland, Italy, Latvia, Lithuania, Luxembourg, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Turkey, the United Kingdom, and the United States.

*NLR*. NLR (“no license required”) is a symbol entered on the Electronic Export Information filing on the Automated Export System certifying that no license is required.

*MSG*. See Nuclear Suppliers Group.

*“Natural uranium”*. (Cat 0) means uranium containing the mixtures of isotopes occurring in nature.

*Net value*. The actual selling price, less shipping charges or current market price, whichever is the larger, to the same type of purchaser in the United States.

*“Network Access Controller”*. (Cat 4) - A physical interface to a distributed switching network. It uses a common medium which

operates throughout at the same “digital transfer rate” using arbitration (e.g., token or carrier sense) for transmission. Independently from any other, it selects data packets or data groups (e.g., IEEE 802) addressed to it. It is an assembly that can be integrated into computer or telecommunications equipment to provide communications access.

*Non-standard cryptography.* Means any implementation of “cryptography” involving the incorporation or use of proprietary or unpublished cryptographic functionality, including encryption algorithms or protocols that have not been adopted or approved by a duly recognized international standards body (e.g., IEEE, IETF, ISO, ITU, ETSI, 3GPP, TIA, and GSMA) and have not otherwise been published.

*“Nuclear reactor”.* (Cat 0 and 2) includes the items within or attached directly to the reactor vessel, the equipment which controls the level of power in the core, and the components which normally contain, come into direct contact with or control the primary coolant of the reactor core.

*Nuclear Suppliers Group (NSG).* The United States and other nations in this multilateral control regime have agreed to guidelines for restricting the export or reexport of items with nuclear applications. Members include: Argentina, Australia, Austria, Belarus, Belgium, Brazil, Bulgaria, Canada, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Kazakhstan, Latvia, Lithuania, Luxembourg, Malta, Mexico, the Netherlands, New Zealand, Norway, People’s Republic of China, Poland, Portugal, Republic of Korea, Romania, Russia, Serbia, Slovak Republic, Slovenia, South Africa, Spain, Sweden, Switzerland, Turkey, Ukraine, the United Kingdom, and the United States. See also §742.3 of the EAR.

*“Numerical control”.* (Cat 2)--The automatic control of a process performed by a device that

makes use of numeric data usually introduced as the operation is in progress (Ref. ISO 2382).

*“OAM”* – see *“Operations, Administration or Maintenance”*

*“Object code”.* (or object language) (GSN)--An equipment executable form of a convenient expression of one or more processes (“source code” (or source language)) that has been compiled by a programming system. (See also “source code”)

*Office of Foreign Assets Control (FAC) or (OFAC).* The office at the Department of the Treasury responsible for blocking assets of foreign countries subject to economic sanctions, controlling participation by U.S. persons, including foreign subsidiaries, in transactions with specific countries or nationals of such countries, and administering embargoes on certain countries or areas of countries. (see 31 CFR parts 500 through 590.)

*“Open cryptographic interface”.* A mechanism which is designed to allow a customer or other party to insert cryptographic functionality without the intervention, help or assistance of the manufacturer or its agents, e.g., manufacturer’s signing of cryptographic code or proprietary interfaces. If the cryptographic interface implements a fixed set of cryptographic algorithms, key lengths or key exchange management systems, that cannot be changed, it will not be considered an “open” cryptographic interface. All general application programming interfaces (e.g., those that accept either a cryptographic or non-cryptographic interface but do not themselves maintain any cryptographic functionality) will not be considered “open” cryptographic interfaces.

*“Operate autonomously”.* (Cat 8)--Fully submerged, without snorkel, all systems working and cruising at minimum speed at which the submersible can safely control its depth dynamically by using its depth planes only, with

no need for a support vessel or support base on the surface, sea-bed or shore, and containing a propulsion system for submerged or surface use.

*Operating Committee (OC).* The OC voting members include representatives of appropriate agencies in the Departments of Commerce, State, Defense, Justice (for encryption exports), and Energy and the Arms Control and Disarmament Agency. The appropriate representatives of the Joint Chiefs of Staff and the Director of the Nonproliferation Center of the Central Intelligence Agency are non-voting members. The Department of Commerce representative, appointed by the Secretary, is the Chair of the OC and serves as the Executive Secretary of the Advisory Committee on Export Policy. The OC may invite representatives of other Government agencies or departments (other than those identified in this definition) to participate in the activities of the OC when matters of interest to such agencies or departments are under consideration.

*“Operations, Administration or Maintenance” (“OAM”)* (Cat 5P2) Means performing one or more of the following tasks:

- a. Establishing or managing any of the following:
  - 1. Accounts or privileges of users or administrators;
  - 2. Settings of an item; or
  - 3. Authentication data in support of the tasks described in paragraphs a.1 or a.2;
- b. Monitoring or managing the operating condition or performance of an item; or
- c. Managing logs or audit data in support of any of the tasks described in paragraphs a. or b.

*Note: “OAM” does not include any of the following tasks or their associated key*

*management functions:*

*a. Provisioning or upgrading any cryptographic functionality that is not directly related to establishing or managing authentication data in support of the tasks described in paragraphs a.1 or a.2 above; or*

*b. Performing any cryptographic functionality on the forwarding or data plane of an item.*

*“Optical integrated circuit”.* (Cat 3)--A “monolithic integrated circuit” or a “hybrid integrated circuit”, containing one or more parts designed to function as photosensor or photoemitter or to perform (an) optical or (an) electro-optical function(s).

*“Optical switching”.* (Cat 5)--The routing of or switching of signals in optical form without conversion to electrical signals.

*Order Party.* The person in the United States who conducted the direct negotiations or correspondence with the foreign purchaser or ultimate consignee and who, as a result of these negotiations, received the order from the foreign purchaser or ultimate consignee.

*Organization for the Prohibition of Chemical Weapons (OPCW).* Means the international organization, located in The Hague, Netherlands, that administers the Chemical Weapons Convention.

*Other party authorized to receive license.* The person authorized by the applicant to receive the license. If a person and address is listed in Block 15 of the application, the Bureau of Industry and Security will send the license to that person instead of the applicant. Designation of another party to receive the license does not alter the responsibilities of the applicant, licensee or exporter.

*“Overall current density”.* (Cat 3)--The total

number of ampere-turns in the coil (i.e., the sum of the number of turns multiplied by the maximum current carried by each turn) divided by the total cross-section of the coil (comprising the superconducting filaments, the metallic matrix in which the superconducting filaments are embedded, the encapsulating material, any cooling channels, etc.).

*Part.* This is any single unassembled element of a “component,” “accessory,” or “attachment” which is not normally subject to disassembly without the destruction or the impairment of design use. Examples include threaded fasteners (e.g., screws, bolts, nuts, nut plates, studs, inserts), other fasteners (e.g., clips, rivets, pins), common hardware (e.g., washers, spacers, insulators, grommets, bushings), springs and wire.

“*Part program*”. (Cat. 2)--An ordered set of instructions that is in a language and in a format required to cause operations to be effected under automatic control and that is either written in the form of a machine program on an input medium or prepared as input data for processing in a computer to obtain a machine program (Ref. ISO 2806-1980).

“*Payload*”. (MTCR context) – The total mass that can be carried or delivered by the specified rocket system or unmanned aerial vehicle (UAV) system that is not used to maintain flight.

**NOTE:** *The particular equipment, subsystems, or components to be included in the “payload” depends on the type and configuration of the vehicle under construction.*

**TECHNICAL NOTES:**

a. *Ballistic Missiles*

1. “*Payload*” for systems with separating re-entry vehicles (RVs) includes:

i. *The RVs, including:*

A. *Dedicated guidance, navigation, and control equipment;*

B. *Dedicated countermeasures equipment;*

ii. *Munitions of any type (e.g., explosive or non-explosive);*

iii. *Supporting structures and deployment mechanisms for the munitions (e.g. hardware used to attach to, or separate the RV from, the bus/post-boost vehicle) that can be removed without violating the structural integrity of the vehicle;*

iv. *Mechanisms and devices for safing, arming, fuzing, or firing;*

v. *Any other countermeasures equipment (e.g., decoys, jammers, or chaff dispensers) that separate from the RV bus/post-boost vehicle;*

vi. *The bus/post-boost vehicle or attitude control/velocity trim module not including systems/subsystems essential to the operation of other stages.*

2. “*Payload*” for systems with non-separating re-entry vehicles includes:

i. *Munitions of any type (e.g., explosive or non-explosive);*

ii. *Supporting structures and deployment mechanisms for the munitions that can be removed without violating the structural integrity of the vehicle;*

iii. *Mechanisms and devices for safing, arming, fuzing or firing;*

iv. *Any countermeasures equipment (e.g., decoys, jammers, or chaff dispensers) that can be removed without violating the structural integrity of the vehicle.*

*b. Space Launch Vehicles - “Payload” includes:*

- 1. Spacecraft (single or multiple), including satellites;*
- 2. Spacecraft-to-launch vehicle adapters including, if applicable, apogee/perigee kick motors or similar maneuvering systems and separation systems;*

*c. Sounding Rockets - “Payload” includes:*

- 1. Equipment required for a mission, such as data gathering, recording or transmitting devices for mission-specific data;*
- 2. Recovery equipment (e.g., parachutes) that can be removed without violating the structural integrity of the vehicle.*

*d. Cruise Missiles - “Payload” includes:*

- 1. Munitions of any type (e.g., explosive or non-explosive);*
- 2. Supporting structures and mechanisms for the munitions that can be removed without violating the structural integrity of the vehicle;*
- 3. Mechanisms and devices for safing, arming, fuzing or firing;*
- 4. Countermeasures equipment (e.g., decoys, jammers or chaff dispensers) that can be removed without violating the structural integrity of the vehicle;*
- 5. Signature alteration equipment that can be removed without violating the structural integrity of the vehicle;*

*e. Other UAVs - “Payload” includes:*

- 1. Munitions of any type (e.g., explosive or non-explosive);*

- 2. Mechanisms and devices for safing, arming, fuzing or firing;*
- 3. Countermeasures equipment (e.g., decoys, jammers or chaff dispensers) that can be removed without violating the structural integrity of the vehicle;*
- 4. Signature alteration equipment that can be removed without violating the structural integrity of the vehicle;*
- 5. Equipment required for a mission such as data gathering, recording or transmitting devices for mission-specific data and supporting structures that can be removed without violating the structural integrity of the vehicle;*
- 6. Recovery equipment (e.g., parachutes) that can be removed without violating the structural integrity of the vehicle;*
- 7. Munitions supporting structures and deployment mechanisms that can be removed without violating the structural integrity of the vehicle.*

“Peak power”. (Cat 6)-- The highest power attained in the “pulse duration”.

*Person.* A natural person, including a citizen or national of the United States or of any foreign country; any firm; any government, government agency, government department, or government commission; any labor union; any fraternal or social organization; and any other association or organization whether or not organized for profit. This definition does not apply to part 760 of the EAR (Restrictive Trade Practices or Boycotts).

“Personal area network” (Cat 5 Part 2) -- A data communication system having all of the following characteristics:

- (a) Allows an arbitrary number of

independent or interconnected ‘data devices’ to communicate directly with each other; and

(b) Is confined to the communication between devices within the immediate vicinity of an individual person or device controller (e.g., single room, office, or automobile, and their nearby surrounding spaces).

**TECHNICAL NOTE:** ‘Data device’ means equipment capable of transmitting or receiving sequences of digital information.

*Port of export.* The port where the cargo to be shipped abroad is laden aboard the exporting carrier. It includes, in the case of an export by mail, the place of mailing.

*“Principal element”.* (Cat 4)--An element is a “principal element” when its replacement value is more than 35% of the total value of the system of which it is an element. Element value is the price paid for the element by the manufacturer of the system, or by the system integrator. Total value is the normal international selling price to unrelated parties at the point of manufacture or consolidation of shipment.

*Principal parties in interest.* Those persons in a transaction that receive the primary benefit, monetary or otherwise, of the transaction. Generally, the principals in a transaction are the seller and the buyer. In most cases, the forwarding or other agent is not a principal party in interest.

*“Production”.* (General Technology Note) (All Categories)-- Means all production stages, such as: product engineering, manufacture, integration, assembly (mounting), inspection, testing, quality assurance.

*“Production equipment”.* (MTCR context) -- Tooling, templates, jigs, mandrels, moulds, dies, fixtures, alignment mechanisms, test equipment, other machinery and components therefor, limited to those specially designed or modified

for “development” or for one or more phases of “production”.

*“Production Facilities”.* (MTCR Context only). (Cat 7 and 9) – Means “production equipment” and specially designed “software” therefor integrated into installations for “development” or for one or more phases of “production”.

*“Program”.* (Cat 2, 4, and 6)--A sequence of instructions to carry out a process in, or convertible into, a form executable by an electronic computer.

*“Proof test”.* (Cat 5)--On-line or off-line production screen testing that dynamically applies a prescribed tensile stress over a 0.5 to 3 m length of fiber at a running rate of 2 to 5 m/s while passing between capstans approximately 150 mm in diameter. The ambient temperature is a nominal 293 K (20° C) and relative humidity 40%.

**NOTE:** Equivalent national standards for executing the “proof test” may be used.

*Proscribed person.* A person who is prohibited from receiving the items at issue or participating in a transaction that is subject to the EAR without authorization under the EAR, such as persons on the Entity List or denied persons.

*Publicly available encryption software.* See § 742.15(b) of the EAR.

*Published.* See § 734.7 of the EAR.

*“Pulse compression”.* (Cat 6)--The coding and processing of a radar signal pulse of long time duration to one of short time duration, while maintaining the benefits of high pulse energy.

*“Pulse duration”.* (Cat 6)-- Duration of a “laser” pulse is the time between the half-power points on the leading edge and trailing edge of an individual pulse.

“*Pulsed Laser*”. (Cat 6)--A “laser” having a “pulse duration” that is less than or equal to 0.25 seconds.

*Purchaser*. The person abroad who has entered into a transaction to purchase an item for delivery to the ultimate consignee. In most cases, the purchaser is not a bank, forwarding agent, or intermediary. The purchaser and ultimate consignee may be the same entity.

“*Pyrotechnic(s)*” (Cat 1) Mixtures of solid or liquid fuels and oxidizers which, when ignited, undergo an energetic chemical reaction at a controlled rate intended to produce specific time delays, or quantities of heat, noise, smoke, visible light or infrared radiation. Pyrophorics are a subclass of pyrotechnics, which contain no oxidizers but ignite spontaneously on contact with air.

“*Quantum cryptography*” (Cat 5P2) A family of techniques for the establishment of a shared key for “cryptography” by measuring the quantum-mechanical properties of a physical system (including those physical properties explicitly governed by quantum optics, quantum field theory, or quantum electrodynamics).

*RWA*. See Return Without Action.

“*Radar frequency agility*”. (Cat 6)--Any technique that changes, in a pseudo-random sequence, the carrier frequency of a pulsed radar transmitter between pulses or between groups of pulses by an amount equal to or larger than the pulse bandwidth.

“*Radar spread spectrum*”. (Cat 6)--Any modulation technique for spreading energy originating from a signal with a relatively narrow frequency band, over a much a wider band of frequencies, by using random or pseudo-random coding.

“*Radiant sensitivity*” (Cat 6)—Radiant sensitivity (mA/W) = 0.807 × (wavelength in nm)

× ‘Quantum Efficiency (QE)’.

**TECHNICAL NOTE:** ‘QE’ is usually expressed as a percentage; however, for the purposes of this formula ‘QE’ is expressed as a decimal number less than one, e.g., 78% is 0.78.

“*Range*”. (Cat 8)--Half the maximum distance a submersible vehicle can cover.

“*Range*”. (MTCR context) – The maximum distance that the specified rocket system or unmanned aerial vehicle (UAV) system is capable of traveling in the mode of stable flight as measured by the projection of its trajectory over the surface of the Earth.

**TECHNICAL NOTES:**

a. The maximum capability based on the design characteristics of the system, when fully loaded with fuel or propellant, will be taken into consideration in determining “range”.

b. The “range” for both rocket systems and UAV systems will be determined independently of any external factors such as operational restrictions, limitations imposed by telemetry, data links or other external constraints.

c. For rocket systems, the “range” will be determined using the trajectory that maximizes “range”, assuming ICAO standard atmosphere with zero wind.

d. For UAV systems, the “range” will be determined for a one-way distance using the most fuel-efficient flight profile (e.g. cruise speed and altitude), assuming ICAO standard atmosphere with zero wind.

*Readable or readability*. Readable and readability mean the quality of a group of letters or numerals being recognized as complete words or numbers.

“*Real-time Processing*”. (Cat 2, 4, and 6) The processing of data by a computer system

providing a required level of service, as a function of available resources, within a guaranteed response time, regardless of the load of the system, when stimulated by an external event.

*Reasons for Control.* Reasons for Control are: Anti-Terrorism (AT), Chemical & Biological Weapons (CB), Chemical Weapons Convention (CW), Crime Control (CC), Encryption Items (EI), Firearms Convention (FC), Missile Technology (MT), National Security (NS), Nuclear Nonproliferation (NP), Regional Stability (RS), Short Supply (SS), Significant Items (SI), Surreptitious Listening (SL) and United Nations sanctions (UN). Items controlled within a particular ECCN may be controlled for more than one reason.

*Recoverable commodities and software.* As applied to encryption items, means any of the following:

(a) A stored data product containing a recovery feature that, when activated, allows recovery of the plaintext of encrypted data without the assistance of the end-user; or

(b) A product or system designed such that a network administrator or other authorized persons who are removed from the end-user can provide law enforcement access to plaintext without the knowledge or assistance of the end-user. This includes, for example, products or systems where plaintext exists and is accessible at intermediate points in a network or infrastructure system, enterprise-controlled recovery systems, and products which permit recovery of plaintext at the server where a system administrator controls or can provide recovery of plaintext across an enterprise.

**NOTE TO THIS DEFINITION:** *“Plaintext” indicates that data that is initially received by or presented to the recoverable product before encryption takes place.*

*Reexport.* See § 734.14 of the EAR.

*Release.* See § 734.15 of the EAR.

*“Repeatability”.* (Cat 7) The closeness of agreement among repeated measurements of the same variable under the same operating conditions when changes in conditions or non-operating periods occur between measurements. (Reference: IEEE STD 528-2001 (one sigma standard deviation))

*“Repeatability”.* (MTCR Context only) (Cat 7) – According to IEEE Standard for Inertial Sensor Terminology 528-2001 in the Definitions section paragraph 2.214 titled repeatability (gyro, accelerometer) as follows: “The closeness of agreement among repeated measurements of the same variable under the same operating conditions when changes in conditions or non-operating periods occur between measurements.”

*Replacement license.* An authorization by the Bureau of Industry and Security revising the information, conditions, or riders stated on a license issued by BIS. See § 750.7 of the EAR.

*Required.* (General Technology Note) --As applied to “technology” or “software,” refers to only that portion of “technology” or “software” which is peculiarly responsible for achieving or exceeding the controlled performance levels, characteristics or functions. Such “required” “technology” or “software” may be shared by different products. For example, assume product “X” is controlled on the CCL if it operates at or above 400 MHz and is not controlled if it operates below 400 MHz. If production technologies “A,” “B,” and “C” allow production at no more than 399 MHz, then technologies “A,” “B,” and “C” are not “required” to produce the controlled product “X”. If technologies “A,” “B,” “C,” “D,” and “E” are used together, a manufacturer can produce product “X” that operates at or above 400 MHz. In this example, technologies “D” and “E” are peculiarly responsible for making the controlled product and are thus “required” technology under

the General Technology Note. (See the General Technology Note.)

**NOTE 1 TO THE DEFINITION OF Required:** *The ITAR and the EAR often divide within each set of regulations or between each set of regulations:*

(a) *Controls on parts, components, accessories, attachments, and software; and*

(b) *Controls on the end items, systems, equipment, or other items into which those parts, components, accessories, attachments, and software are to be installed or incorporated.*

**NOTE 2 TO THE DEFINITION OF Required:** *The references to “characteristics” and “functions” are not limited to entries on the CCL that use specific technical parameters to describe the scope of what is controlled. The “characteristics” and “functions” of an item listed are, absent a specific regulatory definition, a standard dictionary’s definition of the item. For example, ECCN 9A610.a controls military aircraft specially designed for a military use that are not enumerated in USML paragraph VIII(a). No performance level is identified in the entry, but the control characteristic of the aircraft is that it is specially designed “for military use.” Thus, any technology, regardless of significance, peculiar to making an aircraft “for military use” as opposed to, for example, an aircraft controlled under ECCN 9A991.a, would be technical data “required” for an aircraft specially designed for military use thus controlled under ECCN 9E610.*

**NOTE 3 TO THE DEFINITION OF Required:** *Unclassified technology not specifically enumerated on the USML is “subject to the EAR” if it is “required” for the “development,” “production,” “use,” operation, installation, maintenance, repair, overhaul, or refurbishing (or other terms specified in ECCNs on the CCL that control “technology”) of a commodity or software that is subject to the EAR. Thus, for example, if unclassified technology not*

*specifically enumerated on the USML is “required” for the development or production of a 9A610.x aircraft component that is to be integrated or installed in a USML VIII(a) aircraft, then the “technology” is controlled under ECCN 9E610, not USML VIII(i). Conversely, technical data directly related to, for example, the development or production of a component subject to the ITAR does not become subject to the EAR merely because it is developed or produced with equipment subject to the EAR.*

*Return Without Action (RWA).* An application may be RWA'd for one of the following reasons:

(a) The applicant has requested the application be returned;

(b) A License Exception applies;

(c) The items are not under Department of Commerce jurisdiction;

(d) Required documentation has not been submitted with the application; or

(e) The applicant cannot be reached after several attempts to request additional information necessary for processing of the application.

*“Robot”.* (Cat 2 and 8)--A manipulation mechanism, which may be of the continuous path or of the point-to-point variety, may use “sensors”, and has all the following characteristics:

(a) Is multifunctional;

(b) Is capable of positioning or orienting material, parts, tools or special devices through variable movements in a three dimensional space;

(c) Incorporates three or more closed or open loop servo-devices that may include stepping motors; and

(d) Has “user-accessible programmability” by

means of teach/playback method or by means of an electronic computer that may be a programmable logic controller, i.e., without mechanical intervention.

**NOTE:** This definition does not include the following devices:

(a) Manipulation mechanisms that are only manually/teleoperator controllable;

(b) Fixed sequence manipulation mechanisms that are automated moving devices, operating according to mechanically fixed programmed motions. The program is mechanically limited by fixed stops, such as pins or cams. The sequence of motions and the selection of paths or angles are not variable or changeable by mechanical, electronic or electrical means;

(c) Mechanically controlled variable sequence manipulation mechanisms that are automated moving devices, operating according to mechanically fixed programmed motions. The program is mechanically limited by fixed, but adjustable stops, such as pins or cams. The sequence of motions and the selection of paths or angles are variable within the fixed program pattern. Variations or modifications of the program pattern (e.g., changes of pins or exchanges of cams) in one or more motion axes are accomplished only through mechanical operations;

(d) Non-servo-controlled variable sequence manipulation mechanisms that are automated moving devices, operating according to mechanically fixed programmed motions. The program is variable, but the sequence proceeds only by the binary signal from mechanically fixed electrical binary devices or adjustable stops;

(e) Stacker cranes defined as Cartesian coordinate manipulator systems manufactured as an integral part of a vertical array of storage bins and designed to access the contents of those bins

for storage or retrieval.

*Routed export transaction.* A transaction where the foreign principal party in interest authorizes a U.S. forwarding or other agent to facilitate export of items from the United States.

“Run-out”. (out-of-true running) (Cat 2)--Radial displacement in one revolution of the main spindle measured in a plane perpendicular to the spindle axis at a point on the external or internal revolving surface to be tested (Ref.: ISO 230 Part 1-1986, paragraph 5.61).

“SHPL”. (Cat 6) is equivalent to “Super High Power Laser”, see definition for “super high power laser.”

SNEC. See Subgroup on Nuclear Export Coordination.

“Sample rate”. (Cat 3) For an Analog-to-Digital Converter (ADC) the maximum number of samples that are measured at the analog input over a period of one second, except for oversampling ADCs. For oversampling ADCs the “sample rate” is taken to be its output word rate. “Sample rate” may also be referred to as sampling rate, usually specified in Mega Samples Per Second (MSPS) or Giga Samples Per Second (GSPS), or conversion rate, usually specified in Hertz (Hz).

“Satellite navigation system” (Cat 5P2, 7)-- A system consisting of ground stations, a constellation of satellites, and receivers, that enables receiver locations to be calculated on the basis of signals received from the satellites. It includes Global Navigation Satellite Systems (GNSS) and Regional Navigation Satellite Systems (RNSS).

“Scale factor”. (gyro or accelerometer) (Cat 7)--The ratio of change in output to a change in the input intended to be measured. Scale factor is generally evaluated as the slope of the straight line that can be fitted by the method of least

squares to input-output data obtained by varying the input cyclically over the input range.

*Schedule B numbers.* The commodity numbers appearing in the current edition of the Bureau of the Census publication, Schedule B Statistical Classification of Domestic and Foreign Commodities Exported from the United States. (see part 758 of the EAR for information on use of Schedule B numbers.)

*Shield.* Chaired by the Department of State, the Shield primarily reviews applications involving items controlled for Chemical and Biological Weapons (CBW) reasons. The Shield also reviews applications involving items not controlled for CBW reasons, but destined for a country and/or end-use/end-user of concern. See §750.4 of the EAR.

*“Signal analyzers”.* (Cat 3)--Apparatus capable of measuring and displaying basic properties of the single-frequency components of multi-frequency signals.

*“Signal processing”.* (Cat 3, 4, 5, and 6)--The processing of externally derived information-bearing signals by algorithms such as time compression, filtering, extraction, selection, correlation, convolution or transformations between domains (e.g., fast Fourier transform or Walsh transform).

*Single shipment.* All items moving at the same time from one exporter to one consignee or intermediate consignee on the same exporting carrier, even if these items will be forwarded to one or more ultimate consignees. Items being transported in this manner shall be treated as a single shipment even if the items represent more than one order or are in separate containers.

*“Software”.* (Cat: all)--A collection of one or more “programs” or “microprograms” fixed in any tangible medium of expression.

*“Source code”.* (or source language) (Cat 1, 4,

5P2, 6, 7, and 9)--A convenient expression of one or more processes that may be turned by a programming system into equipment executable form (“object code” (or object language)).

*“Spacecraft”.* (Cat 9)--Active and passive satellites and space probes.

*“Spacecraft bus”* (Cat 9) Equipment that provides the support infrastructure of the “spacecraft” and location for the “spacecraft payload”.

*“Spacecraft payload”* (Cat 9) Equipment, attached to the “spacecraft bus”, designed to perform a mission in space (e.g., communications, observation, science).

*“Space-qualified”.* (Cat 3, 6, and 7) Designed, manufactured, or qualified through successful testing, for operation at altitudes greater than 100 km above the surface of the Earth.

**NOTE 1:** *A determination that a specific item is “space-qualified” by virtue of testing does not mean that other items in the same production run or model series are “space-qualified” if not individually tested.*

**NOTE 2:** *The terms ‘designed’ and ‘manufactured’ in this definition are synonymous with “specially designed.” Thus, for example, an item that is “specially designed” for a spacecraft is deemed to be ‘designed’ or ‘manufactured’ for operation at altitudes greater than 100 km and an item that is not “specially designed” for a spacecraft is not deemed to have been so ‘designed’ or ‘manufactured.’*

*“Special fissile material”.* (Cat 0) means plutonium-239, uranium-233, “uranium enriched in the isotopes 235 or 233”, and any material containing the foregoing.

**NOTE:** *As defined by 10 CFR 110.2 of the Nuclear Regulatory Commission Regulations, “Special fissile material” means: plutonium,*

*uranium-233 or uranium enriched above 0.711 percent by weight in the isotope uranium-235.*

*Specially Designated National (SDN).* Any person who is determined by the Secretary of the Treasury to be a specially designated national for any reason under regulations issued by the Office of Foreign Assets Control (see 31 CFR parts 500 through 590).

*Specially Designated Terrorist (SDT).* Any person who is determined by the Secretary of the Treasury to be a specially designated terrorist under notices or regulations issued by the Office of Foreign Assets Control (see 31 CFR chapter V).

**\*\*Specially designed.** When applying this definition, follow this sequential analysis set forth below. (For additional guidance on the order of review of “specially designed,” including how the review of the term relates to the larger CCL, see Supplement No. 4 to Part 774 of the EAR – Commerce Control List Order of Review.)

**(a) Except for items described in (b), an “item” is “specially designed” if it:**

**(1)** As a result of “development” has properties peculiarly responsible for achieving or exceeding the performance levels, characteristics, or functions in the relevant ECCN or U.S. Munitions List (USML) paragraph; *or*

**(2)** Is a “part,” “component,” “accessory,” “attachment,” or “software” for use in or with a commodity or defense article ‘enumerated’ or otherwise described on the CCL or the USML.

**(b) A “part,” “component,” “accessory,” “attachment,” or “software” that would be controlled by paragraph (a) is not “specially designed” if it:**

**(1)** Has been identified to be in an ECCN paragraph that does not contain “specially

designed” as a control parameter or as an EAR99 item in a commodity jurisdiction (CJ) determination or interagency-cleared commodity classification (CCATS) pursuant to § 748.3(e);

**(2)** Is, regardless of ‘form’ or ‘fit,’ a fastener (*e.g.*, screw, bolt, nut, nut plate, stud, insert, clip, rivet, pin), washer, spacer, insulator, grommet, bushing, spring, wire, solder;

**(3)** Has the same function, performance capabilities, and the same or ‘equivalent’ form and fit, as a commodity or software used in or with an item that:

**(i)** Is or was in “production” (*i.e.*, not in “development”); *and*

**(ii)** Is either not ‘enumerated’ on the CCL or USML, or is described in an ECCN controlled only for Anti-Terrorism (AT) reasons;

**(4)** Was or is being developed with “knowledge” that it would be for use in or with commodities or software (i) described in an ECCN *and* (ii) also commodities or software either not ‘enumerated’ on the CCL or the USML (*e.g.*, EAR99 commodities or software) or commodities or software described in an ECCN controlled only for Anti-Terrorism (AT) reasons;

**(5)** Was or is being developed as a general purpose commodity or software, *i.e.*, with no “knowledge” for use in or with a particular commodity (*e.g.*, an F/A-18 or HMMWV) or type of commodity (*e.g.*, an aircraft or machine tool); *or*

**(6)** Was or is being developed with “knowledge” that it would be for use in or with commodities or software described (i) in an ECCN controlled for AT-only reasons and also EAR99 commodities or software; or (ii) exclusively for use in or with EAR99 commodities or software.

**NOTE 1:** ‘Enumerated’ refers to any item (i) on either the USML or CCL not controlled in a

'catch-all' paragraph and (ii) when on the CCL, controlled by an ECCN for more than Anti-Terrorism (AT) reasons only. An example of an 'enumerated' ECCN is 2A226, which controls valves with the following three characteristics: a "nominal size" of 5 mm or greater; having a bellows seal; and wholly made of or lined with aluminum, aluminum alloy, nickel, or nickel alloy containing more than 60% nickel by weight. The CCL also contains notes excluding from control "parts" and "components" "specially designed" for uncontrolled items. Such uncontrolled items are merely 'described' and are not 'enumerated.' Note 2 to ECCN 1A002 is an example of items excluded from control based on being "specially designed" for a 'described' item. Commodities or software in an ECCN controlled only for AT reasons are other examples of items 'described' on the CCL. ECCN 2B996, which controls dimensional inspection or measuring systems or equipment not controlled by 2B006, is an example of a commodity 'described' in an ECCN controlled only for AT reasons. For purposes of "specially designed," ECCNs 0B505.c, 0B999, 0D999, 1B999, 1C992, 1C995, 1C997, 1C999, 6A998 (except for .b), and 9A991 are treated as ECCNs controlled exclusively for AT reasons.

**NOTE 2:** A 'catch-all' paragraph is one that does not refer to specific types of "parts," "components," "accessories," or "attachments" but rather controls non-specific "parts," "components," "accessories," or "attachments" because they were "specially designed" for an enumerated item. For example, ECCN paragraph 9A610.x is a catch-all, because it controls "parts," "components," "accessories," and "attachments" "specially designed" for military aircraft, but does not identify specific types of "parts," "components," "accessories," or "attachments" within its control. Another example of a 'catch-all' is the heading of 7A102, which controls "specially designed" components for the gyros enumerated in 7A102, but does not identify the specific types of "components" within its control.

**NOTE TO PARAGRAPH (a)(1):** Items that as a result of "development" have properties peculiarly responsible for achieving or exceeding the performance levels, 'functions' or characteristics in a relevant ECCN paragraph may have properties shared by different products. For example, ECCN 1A007 controls equipment and devices, specially designed to initiate charges and devices containing energetic materials, by electrical means. An example of equipment not meeting the peculiarly responsible standard under paragraph (a)(1) is a garage door opener, that as a result of "development" has properties that enable the garage door opener to send an encoded signal to another piece of equipment to perform an action (i.e., the opening of a garage door). The garage door opener is not "specially designed" for purposes of 1A007 because although the garage door opener could be used to send a signal by electrical means to charges or devices containing energetic materials, the garage door opener does not have properties peculiarly responsible for achieving or exceeding the performance levels, 'functions' or characteristics in 1A007. For example, the garage door opener is designed to only perform at a limited range and the level of encoding is not as advanced as the encoding usually required in equipment and devices used to initiate charges and devices containing energetic materials, by electrical means. Conversely, another piece of equipment that, as a result of "development," has the properties (e.g., sending a signal at a longer range, having signals with advanced encoding to prevent interference, and having signals that are specific to detonating blasting caps) needed for equipment used to initiate charges and devices containing energetic materials, would be peculiarly responsible because the equipment has a direct and proximate causal relationship that is central or special for achieving or exceeding the performance levels, 'functions' or characteristics identified in 1A007.

**NOTE 1 TO PARAGRAPH (b)(3):** Commodities in "production" that are

subsequently subject to “development” activities, such as those that would result in enhancements or improvements only in the reliability or maintainability of the commodity (e.g., an increased mean time between failure (MTBF)), including those pertaining to quality improvements, cost reductions, or feature enhancements, remain in “production.” However, any new models or versions of such commodities developed from such efforts that change the basic performance or capability of the commodity are in “development” until and unless they enter into “production.”

**NOTE 2 TO PARAGRAPH (b)(3):** With respect to a commodity, ‘equivalent’ means that its form has been modified solely for ‘fit’ purposes.

**NOTE 3 TO PARAGRAPH (b)(3):** The ‘form’ of a commodity is defined by its configuration (including the geometrically measured configuration), material, and material properties that uniquely characterize it. The ‘fit’ of a commodity is defined by its ability to physically interface or interconnect with or become an integral part of another item. The ‘function’ of the item is the action or actions it is designed to perform. ‘Performance capability’ is the measure of a commodity’s effectiveness to perform a designated function in a given environment (e.g., measured in terms of speed, durability, reliability, pressure, accuracy, efficiency). For software, ‘form’ means the design, logic flow, and algorithms. ‘Fit’ means the ability to interface or connect with an item subject to the EAR. The ‘function’ means the action or actions it performs directly to an item subject to the EAR or as a stand-alone application. ‘Performance capability’ means the measure of software’s effectiveness to perform a designated function.

**NOTE TO PARAGRAPHS (b)(3) AND (b)(4):** ECCNs controlled for AT-only reasons that use “specially designed” are eligible for paragraphs (b)(3) and (b)(4). However, the criteria for

release under (b)(3) or (b)(4) must be met by another ECCN controlled for AT-only reasons or an EAR99 item in addition to the AT-only ECCN being reviewed for release from “specially designed.” For example, if a single gasket is used in ECCN 9A990 tractors (9A990 includes a control on “specially designed” “parts”) and also pick-up trucks designated as EAR99 that are in “production”, the single gasket would be released from “specially designed” on the basis of paragraph (b)(3). Or if the single gasket is or was used in 9A990 tractors and also 9A991.b aircraft (another AT-only controlled ECCN), that are in “production,” the gasket would be released from “specially designed” on the basis of paragraph (b)(3). Alternatively, if the single gasket is or was only used in ECCN 9A990 tractors that are in “production,” then paragraph (b)(3) would not be available. This same concept applies for paragraph (b)(4).

**NOTE TO PARAGRAPHS (b)(4), (b)(5) AND (b)(6):** For a commodity or software to be not “specially designed” on the basis of paragraphs (b)(4), (b)(5) or (b)(6), documents contemporaneous with its “development,” in their totality, must establish the elements of paragraphs (b)(4), (b)(5) or (b)(6). Such documents may include concept design information, marketing plans, declarations in patent applications, or contracts. Absent such documents, the “commodity” may not be excluded from being “specially designed” by paragraphs (b)(4), (b)(5) or (b)(6).

“Specific modulus”. (Cat 1)--Young’s modulus in pascals, equivalent to  $N/m^2$ , divided by specific weight in  $N/m^3$ , measured at a temperature of  $(296 \pm 2) K$  ( $(23 \pm 2)^\circ C$ ) and a relative humidity of  $(50 \pm 5)\%$ .

“Specific tensile strength”. (Cat 1)--Ultimate tensile strength in pascals, equivalent to  $N/m^2$ , divided by specific weight in  $N/m^3$ , measured at a temperature of  $(296 \pm 2) K$  ( $(23 \pm 2)^\circ C$ ) and relative humidity of  $(50 \pm 5)\%$ .

“*Spectral efficiency*”. (Cat 5)--A figure of merit parametrized to characterize the efficiency of transmission system that uses complex modulation schemes such as QAM (quadrature amplitude modulation), Trellis coding, QSPK (Q-phased shift key), etc. It is defined as follows:

$$\text{“Spectral efficiency”} = \frac{\text{Digital transfer rate “ (bits/second) ”}}{\text{6 dB spectrum bandwidth (Hz).}}$$

“*Spinning mass gyros*”. (Cat 7) “Spinning mass gyros” are gyros which use a continually rotating mass to sense angular motion.

“*Spread spectrum*”. (Cat 5)--The technique whereby energy in a relatively narrow-band communication channel is spread over a much wider energy spectrum.

“*Spread spectrum radar*”. (Cat 6)--(see “Radar spread spectrum”)

“*Stability*”. (Cat 7) Standard deviation (1 sigma) of the variation of a particular parameter from its calibrated value measured under stable temperature conditions. This can be expressed as a function of time.

**Note to the Definition of “Stability”:** For gyroscopes and accelerometers, “stability” can be estimated by determining the Allan variance noise-analysis value at the integration period (i.e., sample time) consistent with the stated measurement period, which may include extrapolating the Allan variance noise analysis beyond the instability point into the rate/acceleration random walk or rate/acceleration ramp regions to an integration period consistent with the stated measurement period (Reference: IEEE Std. 952-1997 [R2008] or IEEE Std 1293-1998 [R2008]).

*Standard.* This term is equivalent to “standard” or “technical standard” as defined in Office of Management and Budget Circular A-119 (Rev.

2016) (81 FR 4673 (Jan. 27, 2016)), “Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities” section 2.a, available at [https://www.nist.gov/system/files/revise/circular\\_a-119\\_as\\_of\\_01-22-2016.pdf](https://www.nist.gov/system/files/revise/circular_a-119_as_of_01-22-2016.pdf).

*Standards organization.* This term is equivalent to “voluntary consensus standards body,” as defined in Office of Management and Budget Circular A-119 (Rev. 2016) (81 FR 4673 (Jan. 27, 2016)), “Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities” section 2.e, available at [https://www.nist.gov/system/files/revise/circular\\_a-119\\_as\\_of\\_01-22-2016.pdf](https://www.nist.gov/system/files/revise/circular_a-119_as_of_01-22-2016.pdf).

“*Steady State Mode*”. (Cat 9) The term ‘steady state mode’ defines engine operation conditions, where the engine parameters, such as thrust/power, rpm and others, have no appreciable fluctuations, when the ambient air temperature and pressure at the engine inlet are constant.

“*Stored program controlled*”. (Cat 2, 3, and 5)--A control using instructions stored in an electronic storage that a processor can execute in order to direct the performance of predetermined functions.

**NOTE:** Equipment may be “stored program controlled” whether the electronic storage is internal or external to the equipment.

“*Sub-orbital craft*”. (Cat 9) A craft having an enclosure designed for the transport of people or cargo, which is designed to:

- (1) Operate above the stratosphere;
- (2) Perform a non-orbital trajectory; and
- (3) Land back on Earth with the people or cargo intact.

*Subgroup on Nuclear Export Coordination*

(SNEC). Chaired by the Department of State, the SNEC primarily reviews applications involving items controlled for nuclear nonproliferation (NP) reasons. The SNEC also reviews applications involving items not controlled for NP reasons, but destined for a country and/or end-use/end-user of NP concern.

*Subject to the EAR.* A term used in the EAR to describe those commodities, software, technology, and activities over which the Bureau of Industry and Security (BIS) exercises regulatory jurisdiction under the EAR (see §734.2(a) of the EAR).

*Subject to the ITAR.* A term used in the EAR to describe those commodities, software, technology (e.g., technical data) and defense services over which the U.S. Department of State, Directorate of Defense Trade Controls (DDTC) exercises regulatory jurisdiction under the International Traffic in Arms Regulations (ITAR) (see 22 CFR parts 120 through 130).

*“Substrate”.* (Cat 3)--A sheet of base material with or without an interconnection pattern and on which or within which “discrete components” or integrated circuits or both can be located.

**NOTE:** *“Discrete component”:* a separately packaged “circuit element” with its own external connections.

*“Substrate blanks”.* (Cat 3 and 6)--Monolithic compounds with dimensions suitable for the production of optical elements such as mirrors or optical windows.

*“Superalloy”.* (Cat 2 and 9)--Nickel-, cobalt-, or iron-base alloys having strengths superior to any alloys in the AISI 300 series at temperatures over 922 K (649°C) under severe environmental and operating conditions.

*“Superconductive”.* (Cat 1, 3, 5P1, 6, and 8)-- Materials, i.e., metals, alloys, or compounds that can lose all electrical resistance, i.e., that can

attain infinite electrical conductivity and carry very large electrical currents without Joule heating.

**NOTE:** *The “superconductive” state of a material is individually characterized by a “critical temperature”, a critical magnetic field that is a function of temperature, and a critical current density that is a function of both magnetic field and temperature.*

*“Super High Power Laser” (SHPL)* (Cat 6)--A “laser” capable of delivering (the total or any portion of) the output energy exceeding 1 kJ within 50 ms or having an average or CW power exceeding 20 kW.

*“Superplastic forming”.* (Cat 1 and 2)--A deformation process using heat for metals that are normally characterized by low elongation (less than 20%) at the breaking point as determined at room temperature by conventional tensile strength testing, in order to achieve elongations during processing that are at least 2 times those values.

*“Symmetric algorithm”.* (Cat 5, part II) A cryptographic algorithm using an identical key for both encryption and decryption. A common use of “symmetric algorithms” is confidentiality of data.

*System.* This is any combination of “end items,” “equipment,” “parts,” “components,” “accessories,” “attachments,” firmware, or “software” that operate together to perform a function.

**NOTE:** *The industrial standards established by INCOSE and NASA provide examples for when commodities and software operate together to perform a function as a system. References to these standards are included in this note to provide additional examples for when commodities or software operate together to perform a function as a system. See the INCOSE standards for what constitutes a system at*

(<http://g2sebok.incose.org/app/mss/asset.cfm?ID=INCOSE%20G2SEBOK%202.00&ST=F>), and in the (INCOSE SE Handbook v3.1 2007; ISO/IEC 15288:2008). Also see the NASA standards for examples of what constitutes a system in the (NASA SE Handbook SP-2007-6105 Rev 1).

“*Technology*”. Technology means: Information necessary for the “development,” “production,” “use,” operation, installation, maintenance, repair, overhaul, or refurbishing (or other terms specified in ECCNs on the CCL that control “technology”) of an item.

*N.B.:* Controlled “technology” is defined in the General Technology Note and in the Commerce Control List (Supplement No. 1 to part 774 of the EAR).

**NOTE 1 TO DEFINITION OF Technology:** “technology” may be in any tangible or intangible form, such as written or oral communications, blueprints, drawings, photographs, plans, diagrams, models, formulae, tables, engineering designs and specifications, computer-aided design files, manuals or documentation, electronic media or information revealed through visual inspection;

**NOTE 2 TO DEFINITION OF Technology:** The modification of the design of an existing item creates a new item and technology for the modified design is technology for the development or production of the new item.

“*Terminal interface equipment*”. (Cat 4)-- Equipment at which information enters or leaves the telecommunication systems, e.g., telephone, data device, computer, facsimile device.

“*Three dimensional integrated circuit*”. (Cat 3) A collection of semiconductor dies or active device layers, integrated together, and having through semiconductor via connections passing completely through an interposer, substrate, die

or layer to establish interconnections between the device layers. An interposer is an interface that enables electrical connections.

“*Tilting spindle*”. (Cat 2)--A tool-handling spindle that alters, during the machining process, the angular position of its center line with respect to any other axis.

“*Time constant*”. (Cat 6)--The time taken from the application of a light stimulus for the current increment to reach a value of 1-1/e times the final value (i.e., 63% of the final value).

“*Tip shroud*” (Cat 9)—A stationary ring component (solid or segmented) attached to the inner surface of the engine turbine casing or a feature at the outer tip of the turbine blade, which primarily provides a gas seal between the stationary and rotating components.

“*Total control of flight*”. (Cat 7) means an automated control of “aircraft” state variables and flight path to meet mission objectives responding to real time changes in data regarding objectives, hazards or other “aircraft.”

“*Total digital transfer rate*”. (Cat 5)--The number of bits, including line coding, overhead and so forth per unit time passing between corresponding equipment in a digital transmission system. (see also “digital transfer rate”).

“*Toxins*”. (Cat 1 and 2) means toxins in the form of deliberately isolated preparations or mixtures, no matter how produced, other than toxins present as contaminants of other materials such as pathological specimens, crops, foodstuffs or seed stocks of “microorganisms.”

*Transfer*. A shipment, transmission, or release of items subject to the EAR either within the United States or outside the United States. For *In-country transfer / Transfer (in-country)*, see § 734.16 of the EAR.

**NOTE TO DEFINITION OF Transfer:** *This definition of “transfer” does not apply to § 750.10 of the EAR or Supplement No. 8 to part 760 of the EAR. The term “transfer” may also be included on licenses issued by BIS. In that regard, the changes that can be made to a BIS license are the non-material changes described in § 750.7(c) of the EAR. Any other change to a BIS license without authorization is a violation of the EAR. See § 750.7(c) and 764.2(e) of the EAR.*

“Tunable”. (Cat 6)--The ability of a “laser” to produce a continuous output at all wavelengths over a range of several “laser” transitions. A line selectable “laser” produces discrete wavelengths within one “laser” transition and is not considered “tunable”.

**U.S. person.**

(a) For purposes of §§740.21(e)(1), 744.6, 744.10, 744.11, 744.12, 744.13, and 744.14 of the EAR, the term U.S. person includes:

(1) Any individual who is a citizen of the United States, a permanent resident alien of the United States, or a protected individual as defined by 8 U.S.C. 1324b(a)(3);

(2) Any juridical person organized under the laws of the United States or any jurisdiction within the United States, including foreign branches; and

(3) Any person in the United States.

(b) See also §§ 740.9, 740.14, and 740.21(f)(2) and parts 746 and 760 of the EAR for definitions of “U.S. person” that are specific to those sections and parts.

*U.S. subsidiary.* As applied to encryption items, means:

(a) A foreign branch of a U.S. company; or

(b) A foreign subsidiary or entity of a U.S. entity in which:

(1) The U.S. entity beneficially owns or controls (whether directly or indirectly) 25 percent or more of the voting securities of the foreign subsidiary or entity, if no other persons owns or controls (whether directly or indirectly) an equal or larger percentage; or

(2) The foreign entity is operated by the U.S. entity pursuant to the provisions of an exclusive management contract; or

(3) A majority of the members of the board of directors of the foreign subsidiary or entity also are members of the comparable governing body of the U.S. entity; or

(4) The U.S. entity has the authority to appoint the majority of the members of the board of directors of the foreign subsidiary or entity; or

(5) The U.S. entity has the authority to appoint the chief operating officer of the foreign subsidiary or entity.

*Ultimate consignee.* The principal party in interest located abroad who receives the exported or reexported items. The ultimate consignee is not a forwarding agent or other intermediary, but may be the end-user.

“*Unidirectional positioning repeatability*” (Cat 2) The smaller of values  $R_{\uparrow}$  and  $R_{\downarrow}$  (forward and backward), as defined by 3.21 of ISO 230-2:2014 or national equivalents, of an individual machine tool axis.

*United States.* Unless otherwise stated, the 50 States, including offshore areas within their jurisdiction pursuant to section 3 of the Submerged Lands Act (43 U.S.C. 1311), the District of Columbia, Puerto Rico, and all territories, dependencies, and possessions of the United States, including foreign trade zones established pursuant to 19 U.S.C. 81A-81U, and also including the outer continental shelf, as

defined in section 2(a) of the Outer Continental Shelf Lands Act (43 U.S.C. 1331(a)).

*United States airline.* Any citizen of the United States who is authorized by the U.S. Government to engage in business as an airline. For purposes of this definition, a U.S. citizen is:

(a) An individual who is a citizen of the United States or one of its possessions; or

(b) A partnership of which each member is such an individual; or

(c) A corporation or association created or organized under the laws of the United States, or of any State, Territory, or possession of the United States, of which the president and two-thirds of the board of directors and other managing officers thereof are such individuals and in which at least 75 percent of the voting interest is owned or controlled by persons who are citizens of the United States or of one of its possessions.

*“Unmanned aerial vehicle” (“UAV”).* (Cat 9) Any “aircraft” capable of initiating flight and sustaining controlled flight and navigation without any human presence on board.

**Note to definition of “Unmanned aerial vehicle” (“UAV”):** For the purposes of § 744.3 of the EAR, unmanned air vehicles, which are the same as “unmanned aerial vehicles,” include, but are not limited to, cruise missiles, target drones and reconnaissance drones.

*“Usable in”, “usable for”, “usable as” or “capable of”.* (MTCR context)--Equipment, parts, components, materials or “software” which are suitable for a particular purpose. There is no need for the equipment, parts, components, materials or “software” to have been configured, modified or specified for the particular purpose. For example, any military specification memory circuit would be “capable of” operation in a

guidance system.

*“Use”.* (All categories and General Technology Note)--Operation, installation (including on-site installation), maintenance (checking), repair, overhaul and refurbishing.

**NOTE:** *If an ECCN specifies one or more of the six elements of “use” in the heading or control text, only those elements specified are classified under that ECCN.*

*“User-accessible programmability”.* (Cat 4, 5, and 6)--The facility allowing a user to insert, modify, or replace “programs” by means other than:

(a) A physical change in wiring or interconnections; or

(b) The setting of function controls including entry of parameters.

*Utilization facility.* (a) As defined by 10 CFR 110.2 of the Nuclear Regulatory Commission Regulations, utilization facility means a nuclear reactor, other than one that is a production facility, any of the following major components of a nuclear reactor: Pressure vessels designed to contain the core of a nuclear reactor, other than one that is a production facility, and the following major components of a nuclear reactor:

(1) Primary coolant pumps;

(2) Fuel charging or discharging machines; and

(3) **Control rods.** Utilization facility does not include the steam turbine generator portion of a nuclear power plant.

(b) Utilization facility does not include the steam turbine generator portion of a nuclear power plant.

*“Vacuum electronic devices”.* (Cat 3) Electronic

devices based on the interaction of an electron beam with an electromagnetic wave propagating in a vacuum circuit or interacting with radio-frequency vacuum cavity resonators. “Vacuum electronic devices” include klystrons, travelling-wave tubes, and their derivatives.

“*Vector Rate*”. (Cat 4)--See: “Two dimensional Vector Rate”; “Three dimensional Vector Rate”.

*You.* Any person, including a natural person, including a citizen of the United States or any foreign country; any firm; any government, government agency, government department, or government commission; any labor union; any fraternal or social organization; and any other association or organization whether or not organized for profit.

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**§ 774.1 INTRODUCTION**

**(a) Scope of the control list**

In this part, references to the EAR are references to 15 CFR chapter VII, subchapter C. The Bureau of Industry and Security (BIS) maintains the Commerce Control List (CCL) that includes “items” -- i.e., “commodities,” “software,” and “technology” -- subject to the authority of BIS. The CCL does not include items exclusively controlled for export by another department or agency of the U.S. Government, though in

instances where other agencies administer controls over related items, entries in the CCL may contain a reference to such controls. In addition, those items “subject to the EAR” but not identified on the CCL are identified by the designator “EAR99.” See § 734.2(a) of the EAR for items that are “subject to the EAR.” EAR Part 738 contains an explanation of the organization of the CCL and its relationship to the Country Chart.

**(b) (1) ECCN cross-references for items subject to exclusive jurisdiction of another agency.** Prior to October 15, 2013, the CCL contained certain ECCNs that were only included as cross references to items subject to the export control regulations administered by the Nuclear Regulatory Commission.

(2) ECCNs formerly listed on the CCL that, as of October 15, 2013 were subject to the export licensing authority of the Nuclear Regulatory Commission at 10 CFR part 110 are: 0A001, 0B001, 0B002, 0B003, 0B004, 0B005, 0B006, 0C001, 0C002, 0C004, 0C005, 0C006, 0C201 and 1C012.

(3) The following multilateral export control regime reference is provided, as an additional point of historical reference: 0C201 - INFCIRC 254 Part 1, 5.3.1(b).

*Note to paragraph (b): ECCNs 0D001 and 0E001 are “subject to the ITAR” (see 22 CFR parts 120 through 130). These ECCNs are retained on the CCL as cross references to the ITAR, although the former cross references to export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110) for ECCN 0D001, and to the Department of Energy (see 10 CFR part 810) for 0E001 were removed from the Control(s) paragraph in the License Requirements section of these two ECCNs and added as a more general jurisdictional cross reference in a heading note added to these two ECCNs as of June 5, 2014.*

**(c) *Where to find the CCL?***

The CCL is contained in Supplement No. 1 to this part, and Supplement No. 2 to this part contains the General Technology and Software Notes relevant to entries contained in the CCL.

**(d) *Conventions related to the use of quotation marks on the CCL***

The use of double quotation marks on the CCL is intended to be an aid to alert you to terms used on the CCL that are defined in part 772 (Definitions of Terms), or for purposes of ECCNs, where a definition is provided in the “related definitions” paragraph in the License Requirements section of ECCNs or sometimes in Notes and Technical Notes for particular ECCNs and that definition is specific to that particular ECCN. In this sense the quotes are helpful both in the use of single and double quotes, but a good compliance practice is to familiarize yourself with the defined terms in part 772, and when reviewing a control parameter on the CCL that uses a term that is not in quotes to be aware it may be defined in part 772. It is also a useful compliance practice to review the “Related Definitions” paragraph and Notes and Technical Notes to determine if the term is defined for purposes of a particular ECCN.

**(1) Use of double quotes.** If a term on the CCL uses double quotes it means there is a defined term in part 772. However, the absence of double quotes does not mean that a term used on the CCL is not defined in part 772. Because the CCL includes many terms that are defined in part 772, BIS’s practice is to use double quotes for certain

key terms and to use double quotes when needed for consistency with multilateral export control regime based entries, such as many derived from control lists, in particular for the Wassenaar Arrangement that also uses the double quotes convention. However, because of the large number of defined terms used on the CCL and a desire to avoid hindering readability by placing quotes around too many words used in particular ECCNs, BIS’s practice is to not add double quotes around certain terms, such as items and commodities. This convention also applies to the use of double quotes within the Definition of Terms section under part 772.

**(2) Use of single quotes.** The CCL also includes a convention regarding the use of single quotes. Single quotes on the CCL identify a term as a defined term in the context of a particular ECCN. This convention also applies to the use of single quotes within the Definition of Terms section under part 772.

**(e) *Chemicals identified by Chemical Abstracts Service (CAS) number***

In some instances chemicals are listed by name and CAS number. The list applies to chemicals of the same structural formula (including hydrates) regardless of name or CAS number. CAS numbers are shown to assist in identifying a particular chemical or mixture, irrespective of nomenclature. CAS numbers cannot be used as unique identifiers because some forms of the listed chemical have different CAS numbers, and mixtures containing a listed chemical may also have different CAS numbers.

**§774.2 [RESERVED]**

**THE COMMERCE CONTROL LIST**

**CATEGORY 0 - NUCLEAR MATERIALS, FACILITIES, AND EQUIPMENT [AND MISCELLANEOUS ITEMS]**

UN applies to entire entry	See § 746.1 of the EAR for UN controls
AT applies to entire entry	AT Column 1

**A. "END ITEMS," "EQUIPMENT," "ACCESSORIES," "ATTACHMENTS," "PARTS," "COMPONENTS," AND "SYSTEMS"**

**License Requirement Note:** In addition to using the Commerce Country Chart to determine license requirements, a license is required for exports and reexports of ECCN 0A501.y.7 firearms to the People’s Republic of China.

**\*\*0A002** Power generating or propulsion equipment “specially designed” for use with space, marine or mobile “nuclear reactors”. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$500 for 0A501.c, .d, and .x. \$500 for 0A501.c, .d, .e, and .x if the ultimate destination is Canada.  
*GBS:* N/A

**\*\*0A018** Items on the Wassenaar Munitions List (see List of Items Controlled).

**Special conditions for STA**

*STA:* Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in this entry.

No items currently are in this ECCN. See ECCN 0A505 for “parts” and “components” for ammunition that, immediately prior to March 9, 2020, were classified under 0A018.b.

0A018.d used to be "Military \*\*helmets, except...". Now moved to 1A613.

**List of Items Controlled**

**Related Controls:** (1) Firearms that are fully automatic, and magazines with a capacity of greater than 50 rounds, are “subject to the ITAR.” (2) See ECCN 0A502 for shotguns and their “parts” and “components” that are subject to the EAR. Also see ECCN 0A502 for shot-pistols. (3) See ECCN 0A504 and USML Category XII for controls on optical sighting devices.

**\*\*0A501** Firearms (except 0A502 shotguns) and related commodities as follows (see List of Items controlled).

**Related Definitions:** N/A  
**Items:**

**License Requirements**

*Reason for Control:* NS, RS, FC, UN, AT

a. Non-automatic and semi-automatic firearms equal to .50 caliber (12.7 mm) or less.

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to entire entry except 0A501.y	NS Column 1
RS applies to entire entry except 0A501.y	RS Column 1
FC applies to entire entry except 0A501.y	FC Column 1

**Note 1 to paragraph 0A501.a:** ‘Combination pistols’ are controlled under ECCN 0A501.a. A ‘combination pistol’ (a.k.a., a combination gun)

*has at least one rifled barrel and at least one smoothbore barrel (generally a shotgun style barrel).*

b. Non-automatic and non-semi-automatic rifles, carbines, revolvers or pistols with a caliber greater than .50 inches (12.7 mm) but less than or equal to .72 inches (18.0 mm).

c. The following types of “parts” and “components” if “specially designed” for a commodity controlled by paragraph .a or .b of this entry, or USML Category I (unless listed in USML Category I(g) or (h)): barrels, cylinders, barrel extensions, mounting blocks (trunnions), bolts, bolt carriers, operating rods, gas pistons, trigger housings, triggers, hammers, sears, disconnectors, pistol grips that contain fire control “parts” or “components” (e.g., triggers, hammers, sears, disconnectors) and buttstocks that contain fire control “parts” or “components.”

d. Detachable magazines with a capacity of greater than 16 rounds “specially designed” for a commodity controlled by paragraph .a or .b of this entry.

*Note 2 to paragraph 0A501.d: Magazines with a capacity of 16 rounds or less are controlled under 0A501.x.*

e. Receivers (frames) and “complete breech mechanisms,” including castings, forgings stampings, or machined items thereof, “specially designed” for a commodity controlled by paragraph .a or .b of this entry.

f. through w. [Reserved]

x. “Parts” and “components” that are “specially designed” for a commodity classified under paragraphs .a through .c of this entry or the USML and not elsewhere specified on the USML or CCL.

y. Specific “parts,” “components,” “accessories” and “attachments” “specially designed” for a commodity subject to control in

this ECCN or common to a defense article in USML Category I and not elsewhere specified in the USML or CCL as follows, and “parts,” “components,” “accessories,” and “attachments” “specially designed” therefor.

y.1. Stocks or grips, that do not contain any fire control “parts” or “components” (e.g., triggers, hammers, sears, disconnectors);”

y.2. Scope mounts or accessory rails;

y.3. Iron sights;

y.4. Sling swivels;

y.5. Butt plates or recoil pads;

y.6. Bayonets; and

y.7. Firearms manufactured from 1890 to 1898 and reproductions thereof.

*Technical Note 1 to 0A501: The controls on “parts” and “components” in ECCN 0A501 include those “parts” and “components” that are common to firearms described in ECCN 0A501 and to those firearms “subject to the ITAR.”*

*Note 3 to 0A501: Antique firearms (i.e., those manufactured before 1890) and reproductions thereof, muzzle loading black powder firearms except those designs based on centerfire weapons of a post 1937 design, BB guns, pellet rifles, paint ball, and all other air rifles are EAR99 commodities.*

*Note 4 to 0A501: Muzzle loading (black powder) firearms with a caliber less than 20 mm that were manufactured later than 1937 that are used for hunting or sporting purposes that were not “specially designed” for military use and are not “subject to the ITAR” nor controlled as shotguns under ECCN 0A502 are EAR99 commodities.*

**\*\*0A502** Shotguns; shotguns “parts” and “components,” consisting of complete trigger mechanisms; magazines and magazine extension tubes; “complete breech mechanisms;” except equipment used exclusively to treat or tranquilize animals, and except arms designed solely for signal, flare, or saluting use.

**License Requirements**

*Reason for Control:* RS, CC, FC, UN, AT, NS

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to shotguns with a barrel length less than 18 inches (45.72 cm)	NS Column 1
RS applies to shotguns with a barrel length less than 18 inches (45.72 cm)	RS Column 1
FC applies to entire entry	FC Column 1
CC applies to shotguns with a barrel length less than 24 in. (60.96 cm) and shotgun “components” controlled by this entry regardless of end user	CC Column 1
CC applies to shotguns with a barrel length greater than or equal to 24 in. (60.96 cm), regardless of end user	CC Column 2
CC applies to shotguns with a barrel length greater than or equal to 24 in. (60.96 cm) if for sale or resale to police or law enforcement	CC Column 3
UN applies to entire entry	See § 746.1(b) of the EAR for UN controls
AT applies to shotguns with a barrel length less than 18 inches (45.72 cm)	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$500 for 0A502 shotgun “parts” and “components,” consisting of complete trigger mechanisms; magazines and magazine extension tubes. \$500 for 0A502 shotgun “parts” and “components,” consisting of complete trigger mechanisms; magazines and magazine extension tubes, “complete breech mechanisms” if the ultimate destination is Canada.  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* Shotguns that are fully automatic are “subject to the ITAR.”

*Related Definitions:* N/A

*Items:* The list of items controlled is contained in the ECCN heading.

*Note 1 to 0A502:* Shotguns made in or before 1898 are considered antique shotguns and designated as EAR99.

*Technical Note:* Shot pistols or shotguns that have had the shoulder stock removed and a pistol grip attached are controlled by ECCN 0A502. Slug guns are also controlled under ECCN 0A502.

**\*\*0A503** Discharge type arms; non-lethal or less-lethal grenades and projectiles, and “specially designed” “parts” and “components” of those projectiles; and devices to administer electric shock, for example, stun guns, shock batons, shock shields, electric cattle prods, immobilization guns and projectiles; except equipment used exclusively to treat or tranquilize animals, and except arms designed solely for signal, flare, or saluting use; and “specially designed” “parts” and “components,” n.e.s.

**License Requirements**

*Reason for Control:* CC, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
CC applies to entire entry	A license is required for ALL destinations, except Canada, regardless of end use. Accordingly, a column specific to this control does not appear on the Commerce Country Chart. (See part 742 of the EAR for additional information).
UN applies to entire entry	See § 746.1(b) of the EAR for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* Law enforcement restraint devices that administer an electric shock are controlled under ECCN 0A982. Electronic devices that monitor and report a person’s location to enforce restrictions on movement for law enforcement or penal reasons are controlled under ECCN 3A981.

*Related Definitions:* N/A  
*Items:* The list of items controlled is contained in the ECCN heading.

**\*\*0A504 Optical sighting devices for firearms (including shotguns controlled by 0A502); and**

**“components” as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* FC, RS, CC, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
RS applies to paragraph .i	RS Column 1
FC applies to paragraphs .a, .b, .c, d, .e, .g, and .i of this entry	FC Column 1
CC applies to entire entry	CC Column 1
UN applies to entire entry	See §746.1(b) of the EAR for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$500 for 0A504.g.  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) See USML Category XII(c) for sighting devices using second generation image intensifier tubes having luminous sensitivity greater than 350 μA/lm, or third generation or higher image intensifier tubes, that are “subject to the ITAR.” (2) See USML Category XII(b) for laser aiming or laser illumination systems “subject to the ITAR.” (3) Section 744.9 of the EAR imposes a license requirement on certain commodities described in 0A504 if being exported, reexported, or transferred (in-country) for use by a military end-user or for incorporation into an item controlled by ECCN 0A919.

*Related Definitions:* N/A  
*Items:*

- a. Telescopic sights.

- b. Holographic sights.
- c. Reflex or “red dot” sights.
- d. Reticle sights.
- e. Other sighting devices that contain optical elements.
- f. Laser aiming devices or laser illuminators “specially designed” for use on firearms, and having an operational wavelength exceeding 400 nm but not exceeding 710 nm.

*Note 1 to 0A504.f: 0A504.f does not control laser boresighting devices that must be placed in the bore or chamber to provide a reference for aligning the firearms sights.*

- g. Lenses, other optical elements and adjustment mechanisms for articles in paragraphs .a, .b, .c, .d, .e, or .i.
- h. [Reserved]
- i. Riflescopes that were not “subject to the EAR” as of March 8, 2020 and are “specially designed” for use in firearms that are “subject to the ITAR.”

*Note 2 to paragraph i:* For purpose of the application of “specially designed” for the riflescopes controlled under 0A504.i, paragraph (a)(1) of the definition of “specially designed” in § 772.1 of the EAR is what is used to determine whether the riflescope is “specially designed.”

**\*\*0A505 Ammunition as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NS, RS, CC, FC, UN, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to 0A505.a and .x	NS Column 1
RS applies to 0A505.a and .x	RS Column 1
CC applies to 0A505.b	CC Column 1
FC applies to entire entry except 0A505.d	FC Column 1
UN applies to entire entry	See § 746.1 of the EAR for UN controls
AT applies to 0A505.a, .d, and .x	AT Column 1
AT applies to 0A505.c	A license is required for items controlled by paragraph .c of this entry to North Korea for anti-terrorism reasons. The Commerce Country Chart is not designed to determine AT licensing requirements for this entry. See §742.19 of the EAR for additional information.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$500 for items in 0A505.x, except \$3,000 for items in 0A505.x that, immediately prior to March 9, 2020, were classified under 0A018.b. (*i.e.*, “Specially designed” components and parts for ammunition, except cartridge cases, powder bags, bullets, jackets, cores, shells, projectiles, boosters, fuses and components, primers, and other detonating devices and ammunition belting and linking machines (all of which are “subject to the ITAR”). (See 22 CFR parts 120 through 130))

*GBS:* N/A

**Special conditions for STA**

STA: Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in 0A505.

control in this ECCN or a defense article in USML Category III and not elsewhere specified on the USML, the CCL or paragraph .d of this entry.

### List of Items Controlled

*Related Controls:* (1) Ammunition for modern heavy weapons such as howitzers, artillery, cannon, mortars and recoilless rifles as well as inherently military ammunition types such as ammunition preassembled into links or belts, caseless ammunition, tracer ammunition, ammunition with a depleted uranium projectile or a projectile with a hardened tip or core and ammunition with an explosive projectile are “subject to the ITAR.” (2) Percussion caps, and lead balls and bullets, for use with muzzle-loading firearms are EAR99 items.

*Note 2 to 0A505.x:* The controls on “parts” and “components” in this entry include Berdan and boxer primers, metallic cartridge cases, and standard metallic projectiles such as full metal jacket, lead core, and copper projectiles.

*Note 3 to 0A505.x:* The controls on “parts” and “components” in this entry include those “parts” and “components” that are common to ammunition and ordnance described in this entry and to those enumerated in USML Category III.

*Related Definitions:* N/A

*Items:*

*Note 4 to 0A505:* Lead shot smaller than No. 4 Buckshot, empty and unprimed shotgun shells, shotgun wads, smokeless gunpowder, ‘Dummy rounds’ and blank rounds (unless linked or belted), not incorporating a lethal or non-lethal projectile(s) are designated EAR99. A ‘dummy round or drill round’ is a round that is completely inert, i.e., contains no primer, propellant, or explosive charge. It is typically used to check weapon function and for crew training.

a. Ammunition for firearms controlled by ECCN 0A501 or USML Category I and not enumerated in paragraph .b, .c, or .d of this entry or in USML Category III.

b. Buckshot (No. 4 .24” diameter and larger) shotgun shells.

c. Shotgun shells (including less than lethal rounds) that do not contain buckshot; and “specially designed” “parts” and “components” of shotgun shells.

*Note 1 to 0A505.c:* Shotgun shells that contain only chemical irritants are controlled under ECCN 1A984.

d. Blank ammunition for firearms controlled by ECCN 0A501 and not enumerated in USML Category III.

e. through w. [Reserved]

x. “Parts” and “components” that are “specially designed” for a commodity subject to

**\*\*0A521** Any commodity subject to the EAR that is not listed elsewhere in the CCL, but which is controlled for export because it provides at least a significant military or intelligence advantage to the United States or for foreign policy reasons.

0A521 commodities are subject to RS1 controls with no license exception eligibility other than License Exception GOV for U.S. Government personnel and agencies under §740.11(b)(2)(ii) of the EAR, or an item-specific license exception identified in Supplement No. 5 to part 774 particular to an item covered under ECCN 0A521. The list of commodities determined to be classified under ECCN 0A521 controls is published in Supplement No. 5 to part

774. The license requirements and licensing policy relating to ECCN 0A521 are set forth in § 742.6(a)(8) of the EAR.

**\*\*0A602 Guns and Armament as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NS, RS, UN, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
RS applies to entire entry	RS Column 1
UN applies to entire entry	See § 746.1 of the EAR for UN controls
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: \$500  
GBS: N/A

**Special conditions for STA**

STA: Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in 0A602.

**List of Items Controlled**

*Related Controls:* (1) Modern heavy weapons such as howitzers, artillery, cannon, mortars, and recoilless rifles are “subject to the ITAR.” (2) See ECCN 0A919 for foreign-made “military commodities” that incorporate more than a *de minimis* amount of U.S.-origin “600 series” items. (3) See ECCN 0A606 for engines that are “specially designed” for a self-propelled gun or howitzer subject to control under paragraph .a of this ECCN or USML Category VII.

*Related Definitions:* N/A

*Items:*

a. Guns and armament manufactured between 1890 and 1919.

b. Military flame throwers with an effective range less than 20 meters.

c. through w. [Reserved]

x. “Parts” and “components” that are “specially designed” for a commodity subject to control in paragraphs .a or .b of this ECCN or a defense article in USML Category II and not elsewhere specified on the USML or the CCL.

*Note 1 to 0A602.x:* Engines that are “specially designed” for a self-propelled gun or howitzer subject to control under paragraph .a of this ECCN or a defense article in USML Category VII are controlled under ECCN 0A606.x.

*Note 2 to 0A602:* “Parts,” “components,” “accessories,” and “attachments” specified in USML subcategory II(j) are subject to the controls of that paragraph.

*Note 3 to 0A602:* Black powder guns and armament manufactured in or prior to 1890 and replicas thereof designed for use with black powder propellants are designated EAR99.

**\*\*0A604 Commodities related to military explosive devices and charges (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>

NS applies to entire entry	NS Column 1
RS applies to entire entry	RS Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry	See § 746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
 GBS: N/A

**Special Conditions for STA**

STA: Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in this ECCN 0A604.

**List of Items Controlled**

*Related Controls:* (1) Torpedoes, bombs, and mines are “subject to the ITAR” (see 22 CFR § 121.1, USML Category IV). (2) Smoke bombs, non-irritant smoke flares, canisters, grenades and charges, and other pyrotechnical articles having both military and commercial applications are controlled by ECCN 1A984. (3) Certain explosive detonator firing sets, electrically driven explosive detonators, and detonators and multipoint initiation systems are controlled by ECCN 1A007 or ECCN 3A232. (4) See ECCN 0A919 for foreign-made “military commodities” that incorporate more than a *de minimis* amount of U.S.-origin “600 series” controlled content.

*Related Definitions:* N/A  
*Items:*

- a. Demolition blocks, and detonators designed, modified, or adapted therefor.
- b. Military explosive excavating devices.

*Note to 0A604.a and .b:* This entry does not control the detonators and other items described in ECCN 1A007 or ECCN 3A232.

c. Smoke hand grenades and stun hand grenades (e.g., “flashbangs”) not controlled by ECCN 1A984.

d. through w. [Reserved]

x. “Parts,” “components,” “accessories,” and “attachments” that are “specially designed” for a commodity subject to control in paragraphs .a through .c of this ECCN, or for a defense article controlled under USML Category IV, and not specified elsewhere on the USML.

*Note to 0A604.x:* “Parts,” “components,” “accessories,” and “attachments” specified in USML Category IV(h) are subject to the controls of that paragraph.

**\*\*0A606 Ground vehicles and related commodities, as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to entire entry, except 0A606.b and .y.	NS Column 1
NS applies to 0A606.b.	NS Column 2
RS applies to entire entry, except 0A606.b and .y.	RS Column 1
RS applies to 0A606.b.	RS Column 2
RS applies to 0A606.y	China, Russia, or Venezuela (see § 742.6(a)(7))
AT applies to entire entry.	AT Column 1
UN applies to entire entry, except 0A606.y.	See § 746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: \$1500

GBS: N/A

**Special Conditions for STA**

STA: (1) Paragraph (c)(1) of License Exception STA (§ 740.20(c)(1) of the EAR) may not be used for any item in 0A606.a, unless determined by BIS to be eligible for License Exception STA in accordance with §740.20(g) (License Exception STA eligibility requests for 9x515 and “600 series” items). (2) Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in 0A606.

**List of Items Controlled**

*Related Controls:* (1) The ground vehicles, other articles, technical data (including software) and services described in 22 CFR part 121, Category VII are subject to the jurisdiction of the International Traffic in Arms Regulations. (2) See ECCN 0A919 for foreign-made “military commodities” that incorporate more than a de minimis amount of U.S.-origin “600 series” controlled content.

*Related Definitions:* N/A

*Items:*

a. Ground vehicles, whether manned or unmanned, “specially designed” for a military use and not enumerated or otherwise described in USML Category VII.

**Note 1 to paragraph .a:** For purposes of paragraph .a, “ground vehicles” include (i) tanks and armored vehicles manufactured prior to 1956 that have not been modified since 1955 and that do not contain a functional weapon or a

*weapon capable of becoming functional through repair; (ii) military railway trains except those that are armed or are “specially designed” to launch missiles; (iii) unarmored military recovery and other support vehicles; (iv) unarmored, unarmed vehicles with mounts or hard points for firearms of .50 caliber or less; and (v) trailers “specially designed” for use with other ground vehicles enumerated in USML Category VII or ECCN 0A606.a, and not separately enumerated or otherwise described in USML Category VII. For purposes of this note, the term “modified” does not include incorporation of safety features required by law, cosmetic changes (e.g., different paint or repositioning of bolt holes) or addition of “parts” or “components” available prior to 1956.*

**Note 2 to paragraph .a:** A ground vehicle’s being “specially designed” for military use for purposes of determining controls under paragraph .a. entails a structural, electrical or mechanical feature involving one or more “components” that are “specially designed” for military use. Such “components” include:

- a. Pneumatic tire casings of a kind “specially designed” to be bullet-proof;
- b. Armored protection of vital “parts” (e.g., fuel tanks or vehicle cabs);
- c. Special reinforcements or mountings for weapons;
- d. Black-out lighting.

b. Other ground vehicles, “parts” and “components,” as follows:

b.1. Unarmed vehicles that are derived from civilian vehicles and that have all of the following:

b.1.a. Manufactured or fitted with materials or “components” other than reactive or electromagnetic armor to provide ballistic protection to level III (National Institute of Justice standard 0108.01, September 1985) or better;

b.1.b. A transmission to provide drive to both front and rear wheels simultaneously, including those vehicles having additional wheels for load bearing purposes whether driven or not;

b.1.c. Gross vehicle weight rating (GVWR) greater than 4,500 kg; *and*

b.1.d. Designed or modified for off-road use.

b.2. “Parts” and “components” having all of the following:

b.2.a. “Specially designed” for vehicles specified in paragraph .b.1 of this entry; *and*

b.2.b. Providing ballistic protection to level III (National Institute of Justice standard 0108.01, September 1985) or better.

**Note 1 to paragraph b:** *Ground vehicles otherwise controlled by 0A606.b.1 that contain reactive or electromagnetic armor are subject to the controls of USML Category VII.*

**Note 2 to paragraph b:** *ECCN 0A606.b.1 does not control civilian vehicles “specially designed” for transporting money or valuables.*

**Note 3 to paragraph b:** *“Unarmed” means not having installed weapons, installed mountings for weapons, or special reinforcements for mounts for weapons.*

c. Air-cooled diesel engines and engine blocks for armored vehicles that weigh more than 40 tons.

d. Fully automatic continuously variable transmissions for tracked combat vehicles.

e. Deep water fording kits “specially designed” for ground vehicles controlled by ECCN 0A606.a or USML Category VII.

f. Self-launching bridge “components” not enumerated in USML Category VII(g) “specially designed” for deployment by ground vehicles enumerated in USML Category VII or this ECCN.

g. through w. [Reserved]

x. “Parts,” “components,” “accessories,” and “attachments” that are “specially designed” for a commodity enumerated or otherwise described in ECCN 0A606 (other than 0A606.b or 0A606.y) or a defense article enumerated in USML Category VII and not elsewhere specified on the USML or in 0A606.y.

**Note 1:** *Forgings, castings, and other unfinished products, such as extrusions and machined bodies, that have reached a stage in manufacture where they are clearly identifiable by mechanical properties, material composition, geometry, or function as commodities controlled by ECCN 0A606.x are controlled by ECCN 0A606.x.*

**Note 2:** *“Parts,” “components,” “accessories” and “attachments” enumerated in USML paragraph VII(g) are subject to the controls of that paragraph. “Parts,” “components,” “accessories” and “attachments” described in ECCN 0A606.y are subject to the controls of that paragraph.*

y. Specific “parts,” “components,” “accessories,” and “attachments” “specially designed” for a commodity enumerated or otherwise described in this ECCN (other than ECCN 0A606.b) or for a defense article in USML Category VII and not elsewhere specified on the USML or the CCL, as follows, and “parts,” “components,” “accessories,” and “attachments” “specially designed” therefor:

y.1. Brake discs, rotors, drums, calipers, cylinders, pads, shoes, lines, hoses, vacuum boosters, and parts therefor;

- y.2. Alternators and generators;
- y.3. Axles;
- y.4. Batteries;
- y.5. Bearings (*e.g.*, ball, roller, wheel);
- y.6. Cables, cable assemblies, and connectors;
- y.7. Cooling system hoses;
- y.8. Hydraulic, fuel, oil, and air filters, not controlled by ECCN 1A004;
- y.9. Gaskets and o-rings;
- y.10. Hydraulic system hoses, fittings, couplings, adapters, and valves;
- y.11. Latches and hinges;
- y.12. Lighting systems, fuses, and “components;”
- y.13. Pneumatic hoses, fittings, adapters, couplings, and valves;
- y.14. Seats, seat assemblies, seat supports, and harnesses;
- y.15. Tires, except run flat; and
- y.16. Windows, except those for armored vehicles.

**\*\*0A614** Military training “equipment,” as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
RS applies to entire entry	RS Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry	See §746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$1500  
*GBS:* N/A

**Special Conditions for STA**

*STA:* Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2)) of the EAR may not be used for any item in 0A614.

**List of Items Controlled**

*Related Controls:* (1) Defense articles that are enumerated or otherwise described in USML Category IX and “technical data” (including “software”) directly related thereto are “subject to the ITAR.” (2) See ECCN 0A919 for foreign-made “military commodities” that incorporate more than a *de minimis* of US-origin “600 series” items. (3) “Parts,” “components,” “accessories” and “attachments” that are common to a simulator controlled by ECCN 0A614.a and to a simulated system or an end item that is controlled on the USML or elsewhere on the CCL are controlled under the same USML Category or ECCN as the “parts,” “components,” “accessories” and “attachments” of the simulated system or end item.

*Related Definitions:* N/A  
*Items:*

- a. “Equipment” “specially designed” for military training that is not enumerated or

otherwise described in USML Category IX.

*Note 1 to 0A614: This entry includes operational flight trainers, radar target trainers, flight simulators for aircraft classified under ECCN 9A610.a, human-rated centrifuges, instrument flight trainers for military aircraft, navigation trainers for military items, target equipment, armament trainers, military pilotless aircraft trainers, mobile training units and training “equipment” for ground military operations.*

*Note 2 to 0A614: This entry does not apply to “equipment” “specially designed” for training in the use of hunting or sporting weapons.*

b. through w. [Reserved]

x. “Parts,” “components,” “accessories” “attachments” that are “specially designed” for a commodity controlled by this entry or an article enumerated or otherwise described in USML Category IX, and not specified elsewhere on the USML.

**\*\*0A617** Miscellaneous “equipment,” materials, and related commodities (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry, except 0A617.y.	NS Column 1
RS applies to entire entry, except 0A617.y.	RS Column 1
RS applies to 0A617.y	China, Russia, or Venezuela (see § 742.6(a)(7))
AT applies to entire entry.	AT Column 1

UN applies to entire entry, except 0A617.y.	See § 764.1(b) for UN controls
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**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: \$1500  
GBS: N/A

**Special Conditions for STA**

STA: Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in 0A617.

**List of Items Controlled**

*Related Controls:* (1) Defense articles, such as materials made from classified information, that are controlled by USML Category XIII, and technical data (including software) directly related thereto, are subject to the ITAR. (2) See ECCN 0A919 for foreign-made “military commodities” that incorporate more than a *de minimis* amount of U.S.-origin “600 series” controlled content. (3) For controls on self-contained diving and underwater swimming apparatus and related commodities, see ECCN 8A620.f. (4) For controls on robots, robot controllers, and robot end-effectors, see USML Category VII and ECCNs 0A606 and 2B007. (5) “Libraries,” *i.e.*, parametric technical databases, “specially designed” for military use with equipment controlled by the USML or a “600 series” ECCN are controlled by the technical data and technology controls pertaining to such items. (6) For controls on nuclear power generating equipment or propulsion equipment, including “nuclear reactors,” “specially designed” for military use, and “parts” and “components” “specially designed” therefor, see USML Categories VI, XIII, XV, and XX. (7) Simulators “specially designed” for military “nuclear reactors” are controlled by USML Category IX(b). (8) See USML

Categories X, XI and XII for “laser” protection equipment (e.g., eye and sensor protection) “specially designed” for military use. (9) “Fuel cells” “specially designed” for a defense article on the USML or a commodity controlled by a “600 series” ECCN are controlled according to the corresponding “600 series” ECCN for such end items. (10) See USML Category XV for controls on fuel cells “specially designed” for satellite or spacecraft.

*Related Definitions:* N/A

*Items:*

- a. [Reserved]
- b. Concealment and deception equipment “specially designed” for military application, including special paints, decoys, smoke or obsuration equipment and simulators, and “parts,” “components,” “accessories,” and “attachments” “specially designed” therefor, not controlled by USML Category XIII.
- c. Ferries, bridges not described in ECCN 0A606 or USML Category VII, and pontoons, “specially designed” for military use.
- d. Test models “specially designed” for the “development” of defense articles controlled by USML Categories IV, VI, VII and VIII.
- e. [Reserved]
- f. “Metal embrittlement agents.”
- g. through x. [Reserved]
- y. Other commodities as follows, and “parts,” “components,” “accessories,” and “attachments” “specially designed” therefore:

y.1. Construction equipment “specially designed” for military use, including such

equipment “specially designed” for transport in aircraft controlled by USML VIII(a) or ECCN 9A610.a.

y.2. “Parts,” “components,” “accessories,” and “attachments” “specially designed” for commodities in paragraph .y.1 of this entry, including crew protection kits used as protective cabs.

y.3. ISO intermodal containers or demountable vehicle bodies (i.e., swap bodies), n.e.s., “specially designed” or ‘modified’ for shipping or packing defense articles or items controlled by a “600 series” ECCN.

**Technical Note:** For the purpose of 0A617.y.3, ‘modified’ means any structural, electrical, mechanical, or other change that provides a non-military item with military capabilities equivalent to an item which is “specially designed” for military use.

y.4. Field generators “specially designed” for military use.

y.5. Power controlled searchlights and control units therefor, “specially designed” for military use, and “equipment” mounting such units.

**\*\*0A919** “Military commodities” located and produced outside the United States as follows (see list of items controlled).

**License Requirements**

*Reasons for Control:* RS, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
RS applies to entire entry	RS Column 1, See § 742.6(a)(3) for license requirements

AT applies to entire entry	AT Column 1
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**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
 GBS: N/A

**List of Items Controlled**

*Related Controls:* (1) “Military commodities” are subject to the export licensing jurisdiction of the Department of State if they incorporate items that are subject to the International Traffic in Arms Regulations (ITAR) (22 CFR Parts 120 - 130). (2) “Military commodities” described in this paragraph are subject to the export licensing jurisdiction of the Department of State if such commodities are described on the U.S. Munitions List (22 CFR Part 121) and are in the United States. (3) The furnishing of assistance (including training) to foreign persons, whether in the United States or abroad, in the design, development, engineering, manufacture, production, assembly, testing, repair, maintenance, modification, operation, demilitarization, destruction, processing, or use of defense articles that are subject to the ITAR; or the furnishing to foreign persons of any technical data controlled under 22 CFR 121.1 whether in the United States or abroad are under the licensing jurisdiction of the Department of State. (4) Brokering activities (as defined in 22 CFR 129) of “military commodities” that are subject to the ITAR are under the licensing jurisdiction of the Department of State.

*Related Definitions:* “Military commodity” or “military commodities” means an article, material or supply that is described on the U.S. Munitions List (22 CFR Part 121) or on the Munitions List that is published by the Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods

and Technologies (i.e., the Wassenaar Arrangement Munitions List (WAML)), but does not include software, technology, any item listed in any ECCN for which the last three numerals are 018, or any item in the “600 series.”

*Items:*

a. “Military commodities” produced and located outside the United States that are not subject to the International Traffic in Arms Regulations (22 CFR parts 120-130) and having any of the following characteristics:

a.1. Incorporate more than a *de minimis* amount of U.S.-origin controlled content classified under ECCNs 6A002, 6A003, or 6A993.a (having a maximum frame rate equal to or less than 9 Hz and thus meeting the criterion of Note 3.a to 6A003.b.4);

a.2. Incorporate more than a *de minimis* amount of U.S.-origin “600 series” controlled content (see §734.4 of the EAR); *or*

a.3. Are direct products of U.S.-origin “600 series” technology or software (see § 736.2(b)(3) of the EAR).

b. [Reserved]

**\*\*0A977 Water cannon systems for riot or crowd control, and “parts” and “components” “specially designed” therefor.**

**License Requirements**

*Reason for Control:* CC 1

	<b>Country Chart (See Supp. No. 1 to part 738)</b>
CC applies to entire entry	CC Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
 GBS: N/A

**Special Conditions for STA**

STA: License Exception STA may not be used for 0A977.

**List of Items Controlled**

Related Controls: N/A  
 Related Definitions: N/A

Items: The list of items controlled is contained in the ECCN heading.

**Note:** 0A977 water cannon systems include, for example: vehicles or fixed stations equipped with remotely operated water cannon that are designed to protect the operator from an outside riot with features such as armor, shatter resistant windows, metal screens, bull-bars, or run-flat tires. Components “specially designed” for water cannons may include, for example: deck gun water nozzles, pumps, reservoirs, cameras, and lights that are hardened or shielded against projectiles, elevating masts for those items, and teleoperation systems for those items.

**\*\*0A978 Law enforcement striking weapons, including saps, police batons, side handle batons, tonfas, sjamboks, and whips.**

**License Requirements**

Reason for Control: CC

Control(s)	Country Chart (See Supp. No. 1 to part 738)
CC applies to entire entry	CC Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
 GBS: N/A

**List of Items Controlled**

Related Controls: N/A  
 Related Definitions: N/A  
 Items:

The list of items controlled is contained in the ECCN heading.

**\*\*0A979 Police helmets and shields; and “specially designed” “components,” n.e.s.**

**License Requirements**

Reason for Control: CC

Control(s)	Country Chart (See Supp. No. 1 to part 738)
CC applies to entire entry	CC Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
 GBS: N/A

**List of Items Controlled**

Related Controls: N/A  
 Related Definitions: N/A  
 Items:

The list of items controlled is contained in the ECCN heading.

**\*\*0A980 Horses by sea.**

**License Requirements**

Reason for Control: SS

Control(s)

SS applies to entire entry. For licensing requirements (and possible License Exceptions) proceed directly to part 754 of the EAR. The Commerce Country Chart is not designed to determine licensing requirements for items controlled for SS reasons.

### List of Items Controlled

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*0A981** Equipment designed for the execution of human beings as follows (see List of Items Controlled).

### License Requirements

*Reason for Control:* CC

*Control(s)*

CC applies to entire entry. A license is required for ALL destinations regardless of end-use. Accordingly, a column specific to this control does not appear on the Commerce Country Chart. (See §742.7 of the EAR for additional information.)

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

### List of Items Controlled

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

a. Gallows and guillotines.

b. Electric chairs for the purpose of executing human beings.

c. Air tight vaults designed for the execution of human beings by the administration of a lethal gas or substance.

d. Automatic drug injection systems designed for the execution of human beings by administration of a lethal substance.

**\*\*0A982** Law enforcement restraint devices, including leg irons, shackles, and handcuffs; straight jackets; stun cuffs; shock belts; shock sleeves; multipoint restraint devices such as restraint chairs; and “specially designed” “parts,” “components” and “accessories,” n.e.s.

### License Requirements

*Reason for Control:* CC

*Control(s)*

CC applies to entire entry. A license is required for ALL destinations, except Canada, regardless of end-use. Accordingly, a column specific to this control does not appear on the Commerce Country Chart. (See part 742 of the EAR for additional information.)

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

### List of Items Controlled

*Related Controls:* Thumbcuffs and handcuffs are classified under ECCN [0A983](#), “specially designed” implements of torture. Restraint devices that electronically monitor or report the location of confined persons for law enforcement or penal reasons are controlled under ECCN [3A981](#).

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**Note to ECCN 0A982.** *This ECCN applies to restraint devices used in law enforcement activities. It does not apply to medical devices that are equipped to restrain patient movement during medical procedures. It does not apply to devices that confine memory impaired patients to appropriate medical facilities. It does not apply to safety equipment such as safety belts or child automobile safety seats.*

**\*\*0A983** “Specially designed” implements of torture, including thumbscrews, thumbcuffs, fingercuffs, spiked batons, and “specially designed” “parts,” “components” and “accessories,” n.e.s.

#### License Requirements

*Reason for Control:* CC

*Control(s)*

CC applies to entire entry. A license is required for ALL destinations, regardless of end-use. Accordingly, a column specific to this control does not appear on the Commerce Country Chart. (See part 742 of the EAR for additional information.)

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

#### List of Items Controlled

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**Note to ECCN 0A983.** *In this ECCN, “torture” has the meaning set forth in Section 2340(1) of Title 18, United States Code.*

#### 0A988 Conventional military steel helmets.

No items currently are in this ECCN. See ECCN 1A613.y.1 for conventional steel helmets that, immediately prior to July 1, 2014, were classified under 0A988.

**\*\*0A998** Oil and gas exploration equipment, software, and data, as follows (see List of Items Controlled).

#### License Requirements

*Reason for Control:* Foreign policy

*Control(s)*

Russian industry sector sanction applies to entire entry. See § 746.5 for specific license requirements and license review policy.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

#### List of Items Controlled

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

a. Oil and gas exploration data, e.g., seismic analysis data.

b. Hydraulic fracturing items, as follows:

b.1. Hydraulic fracturing design and analysis software and data.

b.2. Hydraulic fracturing ‘proppant,’ ‘fracking fluid,’ and chemical additives therefor.

*Technical Note:* A ‘proppant’ is a solid material, typically treated sand or man-made ceramic materials, designed to keep an induced hydraulic fracture open, during or following a fracturing treatment. It is added to a ‘fracking fluid’ which may vary in composition depending on the type of fracturing used, and can be gel, foam or slickwater-based.

b.3. High pressure pumps.

**\*\*0A999** Specific processing equipment, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* AT

*Control(s)*

AT applies to entire entry. A license is required for items controlled by this entry to North Korea for anti-terrorism reasons. The Commerce Country Chart is not designed to determine AT licensing requirements for this entry. See §742.19 of the EAR for additional information.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

- a. Ring Magnets;
- b. [Reserved]

**B. TEST, INSPECTION AND “PRODUCTION EQUIPMENT”**

**\*\*0B501** Test, inspection, and production “equipment” and related commodities for the “development” or “production” of commodities enumerated or otherwise described in ECCN 0A501 or USML Category I as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, RS, UN, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry except equipment for ECCN 0A501.y	NS Column 1
RS applies to entire entry except equipment for ECCN 0A501.y	RS Column 1
UN applies to entire entry	See § 746.1 of the EAR for UN controls
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$3000  
*GBS:* N/A

**Special conditions for STA**

*STA:* Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used to ship any item in this entry.

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

- a. Small arms chambering machines.
- b. Small arms deep hole drilling machines and drills therefor.
- c. Small arms rifling machines.
- d. Small arms spill boring machines.
- e. Production equipment (including dies, fixtures, and other tooling) “specially designed” for the “production” of the items controlled in 0A501.a through .x. or USML Category I.

**\*\*0B505** Test, inspection, and production “equipment” and related commodities “specially designed” for the “development” or “production” of commodities enumerated or otherwise described in ECCN 0A505 or USML Category III, except equipment for the hand loading of cartridges and shotgun shells, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, RS, UN, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to paragraphs .a and .x	NS Column 1
RS applies to paragraphs .a and .x	RS Column 1
UN applies to entire entry	See § 746.1 of the EAR for UN controls
AT applies to paragraphs .a, .d, and .x	AT Column 1
AT applies to paragraph .c	A license is required for export or reexport of these items to North Korea for anti-terrorism reasons.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$3000  
*GBS:* N/A

**Special conditions for STA**

*STA:* Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in 0B505.

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

- a. Production equipment (including tooling, templates, jigs, mandrels, molds, dies, fixtures, alignment mechanisms, and test equipment), not enumerated in USML Category III that are “specially designed” for the “production” of commodities controlled by ECCN 0A505.a or .x or USML Category III.
- b. Equipment “specially designed” for the “production” of commodities in ECCN 0A505.b.
- c. Equipment “specially designed” for the “production” of commodities in ECCN 0A505.c.
- d. Equipment “specially designed” for the “production” of commodities in ECCN 0A505.d.
- e. through .w [Reserved]
- x. “Parts” and “components” “specially designed” for a commodity subject to control in paragraph .a of this entry.

**\*\*0B521** Any commodity subject to the EAR that is not listed elsewhere in the CCL, but which is controlled for export because it provides at least a significant military or intelligence

**advantage to the United States or for foreign policy reasons.**

0B521 commodities are subject to RS1 controls with no license exception eligibility other than License Exception GOV for U.S. Government personnel and agencies under §740.11(b)(2)(ii) of the EAR, or an item-specific license exception identified in Supplement No. 5 to part 774 particular to an item covered under ECCN 0B521. The list of commodities determined to be classified under ECCN 0B521 controls is published in Supplement No. 5 to part 774. The license requirements and licensing policy relating to ECCN 0B521 are set forth in §742.6(a)(8) of the EAR.

**\*\*0B602** Test, inspection, and production “equipment” and related commodities “specially designed” for the “development” or “production” of commodities enumerated or otherwise described in ECCN 0A602 or USML Category II as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, RS, UN, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
RS applies to entire entry	RS Column 1
UN applies to entire entry	See § 746.1 of the EAR for UN controls
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: \$3000

GBS: N/A

**Special conditions for STA**

STA: Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in 0B602.

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

a. The following commodities if “specially designed” for the “development” or “production” of commodities enumerated in ECCN 0A602.a or USML Category II:

- a.1. Gun barrel rifling and broaching machines and tools therefor;
- a.2. Gun barrel rifling machines;
- a.3. Gun barrel trepanning machines;
- a.4. Gun boring and turning machines;
- a.5. Gun honing machines of 6 feet (183 cm) stroke or more;
- a.6. Gun jump screw lathes;
- a.7. Gun rifling machines; and
- a.8. Barrel straightening presses.

b. Jigs and fixtures and other metal-working implements or accessories of the kinds exclusively designed for use in the manufacture of items in ECCN 0A602 or USML Category II.

c. Other tooling and equipment, “specially designed” for the “production” of items in ECCN 0A602 or USML Category II.

d. Test and evaluation equipment and test models, including diagnostic instrumentation and physical test models, “specially designed” for items in ECCN 0A602 or USML Category II.

**\*\*0B604** Test, inspection, and production “equipment” and related commodities “specially designed” for the “development,” “production,” repair, overhaul, or refurbishing of commodities in ECCN 0A604 or related defense articles in USML Category IV (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
RS applies to entire entry	RS Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry	See § 746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$1500  
*GBS:* N/A

**Special Conditions for STA**

*STA:* Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in this ECCN 0B604.

**List of Items Controlled**

*Related Controls:* (1) See ECCN 9B604, which controls test, inspection, and production “equipment” and related commodities “specially designed” for the “development” or “production” of commodities in ECCN 9A604 or related defense articles in USML Category IV. (2) See ECCN 0A919 for foreign-made “military commodities” that incorporate more than a *de minimis* amount of US-origin “600 series” controlled content.

*Related Definitions:* N/A

*Items:*

a. Test, inspection, and other production “equipment” that are “specially designed” for the “development,” “production,” repair, overhaul, or refurbishing of commodities controlled by ECCN 0A604 or for bombs, torpedoes, depth charges, mines and hand grenades, and parts, components, accessories and attachments therefor, controlled under USML Category IV.

b. through w. [Reserved]  
x. “Parts,” “components,” “accessories,” and “attachments” that are “specially designed” for a commodity subject to control in paragraph .a of this ECCN.

**\*\*0B606** Test, inspection, and production “equipment” and related commodities, not enumerated on the USML, “specially designed” for the “development,” “production” repair, overhaul, or refurbishing of commodities enumerated or otherwise described in ECCN 0A606 or USML Category VII (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
RS applies to entire entry	RS Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry	See § 746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$1500  
*GBS:* N/A

**Special Conditions for STA**

STA: Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in 0B606.

**List of Items Controlled**

*Related Controls:* (1) Ground vehicles, other articles, technical data (including software) and services described in 22 CFR part 121, Category VII are subject to the jurisdiction of the International Traffic in Arms Regulations. (2) See ECCN 0A919 for foreign-made “military commodities” that incorporate more than a *de minimis* amount of U.S.-origin “600 series” controlled content.

*Related Definitions:* N/A

*Items:*

- a. Test, inspection, and production “equipment” “specially designed” for the “development,” “production,” repair, overhaul, or refurbishing of commodities enumerated or otherwise described in ECCN 0A606 (except for 0A606.b or 0A606.y) or in USML Category VII, and “parts,” “components,” “accessories” and “attachments” “specially designed” therefor.

**Note 1:** ECCN 0B606 includes (i) armor plate drilling machines, other than radial drilling machines, (ii) armor plate planing machines, (iii) armor plate quenching presses; and (iv) tank turret bearing grinding machines.

- b. Environmental test facilities “specially designed” for the certification, qualification, or testing of commodities enumerated or otherwise described in ECCN 0A606 (except for 0A606.b or 0A606.y) or in USML Category VII, and “equipment” “specially designed” therefor.

**\*\*0B614 Test, inspection, and production “equipment” for military training “equipment” and “specially designed”**

**“parts,” “components,” “accessories” and “attachments” therefor, as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
RS applies to entire entry	RS Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry	See § 746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: \$1500

GBS: N/A

**Special Conditions for STA**

STA: Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in 0B614.

**List of Items Controlled**

*Related Controls:* See ECCN 0A919 for foreign-made “military commodities” that incorporate more than a *de minimis* amount of US-origin “600 series” controlled content.

*Related Definitions:* N/A

*Items:*

- a. Test, inspection, and other production “equipment” “specially designed” for the “development,” “production,” repair, overhaul, or refurbishing of commodities controlled by ECCN 0A614 or articles enumerated or otherwise described in USML Category IX.

b. through .w [Reserved]

x. “Parts,” “components,” “accessories” and “attachments” that are “specially designed” for a commodity controlled by ECCN 0B614.

**\*\*0B617** Test, inspection, and production “equipment” and related commodities “specially designed” for the “development,” “production,” repair, overhaul, or refurbishing of commodities enumerated or otherwise described in ECCN 0A617 or USML Category XIII, and “parts,” “components,” “accessories,” and “attachments” “specially designed” therefor (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
RS applies to entire entry	RS Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry	See § 746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$1500

*GBS:* N/A

**Special Conditions for STA**

*STA:* Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in 0B617.

**List of Items Controlled**

*Related Controls:* See ECCN 0A919 for foreign-made “military commodities” that incorporate more than a *de minimis* amount of U.S.-origin “600 series” controlled content.

*Related Definitions:* N/A

*Items:*

a. Test, inspection, and production “equipment” not controlled by USML Category XIII(k) “specially designed” for the “production,” “development,” repair, overhaul, or refurbishing of commodities enumerated or otherwise described in ECCN 0A617, (except for 0A617.y) or USML Category XIII, and “parts,” “components,” “accessories,” and “attachments” “specially designed” therefor.

b. [Reserved].

*Note:* Field engineer equipment “specially designed” for use in a combat zone, identified in the Wassenaar Arrangement Munitions List 17.d, and mobile repair shops “specially designed” or modified to service military equipment, identified in Wassenaar Arrangement Munitions List 17.j, are controlled by 0B617 to the extent that the items are not included in USML Category XIII(k).

**\*\*0B999** Specific processing equipment, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* AT, RS

*Control(s)*

AT applies to entire entry. A license is required for items controlled by this entry to North Korea for anti-terrorism reasons. The Commerce Country Chart is not designed to determine AT license requirements for this entry. See §742.19 of the EAR for additional information.

RS applies to entire entry. A license is required for items controlled by this entry for export or reexport to Iraq or transfer within Iraq for regional stability reasons. The Commerce Country Chart is not designed to determine RS license requirements for this entry. See §§742.6 and 746.3 of the EAR for additional information.

to ECCN 0C521 are set forth in § 742.6(a)(8) of the EAR.

**\*\*0C606** Materials “specially designed” for commodities controlled by ECCN 0A606 not elsewhere specified in the USML (see List of Items Controlled).

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

**License Requirements**

LVS: N/A  
 GBS: N/A

*Reason for Control:* NS, RS, AT, UN

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
RS applies to entire entry	RS Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry	See § 746.1(b) for UN controls

a. Hot cells;

b. Glove boxes suitable for use with radioactive materials.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: \$1500  
 GBS: N/A

**C. “MATERIALS”**

**Special Conditions for STA**

**\*\*0C521** Any material subject to the EAR that is not listed elsewhere in the CCL, but which is controlled for export because it provides at least a significant military or intelligence advantage to the United States or for foreign policy reasons.

*STA:* Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in 0C606.

0C521 materials are subject to RS1 controls with no license exception eligibility other than License Exception GOV for U.S. Government personnel and agencies under § 740.11(b)(2)(ii) of the EAR, or an item-specific license exception identified in Supplement No. 5 to part 774 particular to an item covered under ECCN 0C521. The list of materials determined to be classified under ECCN 0C521 controls is published in Supplement No. 5 to part 774. The license requirements and licensing policy relating

**List of Items Controlled**

*Related Controls:* (1) Materials that are subject to the jurisdiction of the ITAR are described in USML Category XIII. (2) See ECCN 0A919 for foreign-made “military commodities” that incorporate more than a *de minimis* amount of U.S.-origin “600 series” controlled content.

*Related Definitions:* N/A

*Items:* Materials “specially designed” for commodities enumerated or otherwise described in ECCN 0A606 (other than 0A606.b or 0A606.y) or USML Category VII, not elsewhere specified in the USML or the CCL.

*Note:* Materials “specially designed” for both ground vehicles enumerated or otherwise described in USML Category VII and ground vehicles enumerated or otherwise described in ECCN 0A606 are subject to the controls of this ECCN unless identified in USML Category VII(g) as being subject to the controls of that paragraph.

**\*\*0C617** Miscellaneous Materials “Specially Designed” for Military Use (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
RS applies to entire entry	RS Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry	See § 746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: \$1500  
 GBS: N/A

**Special Conditions for STA**

STA: Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in 0C617.

**List of Items Controlled**

*Related Controls:* (1) For controls on other signature suppression materials, see USML Category XIII and ECCNs 1C001 and 1C101. (2) See ECCN 0A919 for foreign made “military commodities” that incorporate more than a *de minimis* amount of U.S.-origin “600 series” controlled content.

*Related Definitions:* N/A

*Items:*

a. Materials, coatings and treatments for signature suppression, “specially designed” for military use to reduce detectability or observability and that are not controlled by USML Category XIII or ECCNs 1C001 or 1C101.

b. [Reserved].

**D. “SOFTWARE”**

**\*\*0D001** “Software” “specially designed” or modified for the “development,” “production,” or “use” of commodities described in 0A002. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)

*Heading Note:* Certain “software” for the “development,” “production,” or “use” of nuclear related commodities is subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

**License Requirements**

*Reason for Control:*

*Control(s)*

“Software” for items described in 0A002 is “subject to the ITAR” (see 22 CFR parts 120 through 130).

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

Related Controls: N/A  
 Related Definitions: N/A  
 Items:

The List of Items Controlled is contained in the ECCN heading.

**\*\*0D501** “Software” “specially designed” for the “development,” “production,” operation, or maintenance of commodities controlled by 0A501 or 0B501.

**License Requirements**

Reason for Control: NS, RS, UN, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to entire entry except “software” for commodities in ECCN 0A501.y or equipment in ECCN 0B501 for commodities in ECCN 0A501.y	NS Column 1
RS applies to entire entry except “software” for commodities in ECCN 0A501.y or equipment in ECCN 0B501 for commodities in ECCN 0A501.y	RS Column 1
UN applies to entire entry	See § 746.1 of the EAR for UN controls
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**Special conditions for STA**

STA: Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any “software” in 0D501.

**List of Items Controlled**

Related Controls: “Software” required for and directly related to articles enumerated in USML Category I is “subject to the ITAR”.

Related Definitions: N/A  
 Items: The list of items controlled is contained in this ECCN heading.

**\*\*0D505** “Software” “specially designed” for the “development,” “production,” operation, or maintenance of commodities controlled by 0A505 or 0B505.

**License Requirements**

Reason for Control: NS, RS, UN, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to “software” for commodities in ECCN 0A505.a and .x and equipment in ECCN 0B505.a .and .x	NS Column 1
RS applies to “software” for commodities in ECCN 0A505.a and .x and equipment in ECCN 0B505.a and .x	RS Column 1
UN applies to entire entry	See § 746.1 of the EAR for UN controls

AT applies to “software” for commodities in ECCN 0A505.a, .d, or .x and equipment in ECCN 0B505.a, .d, or .x	AT Column 1
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**List Based License Exceptions (See Part 740 for a description of all license exceptions)**

TSR: N/A

**Special conditions for STA**

STA: Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any “software” in 0D505.

**List of Items Controlled**

*Related Controls:* “Software” required for and directly related to articles enumerated in USML Category III is “subject to the ITAR”.

*Related Definitions:* N/A

*Items:* The list of items controlled is contained in this ECCN heading.

**\*\*0D521** Any software subject to the EAR that is not listed elsewhere in the CCL, but which is controlled for export because it provides at least a significant military or intelligence advantage to the United States or for foreign policy reasons.

0D521 software is subject to RS1 controls with no license exception eligibility other than License Exception GOV for U.S. Government personnel and agencies under § 740.11(b)(2)(ii) of the EAR, or an item-specific license exception identified in Supplement No. 5 to part 774 particular to an item covered under ECCN 0D521. The list of software determined to be classified under ECCN 0D521 controls is published in Supplement No. 5 to part 774. The license requirements and licensing policy relating to ECCN 0D521 are set forth in § 742.6(a)(8) of the EAR.

**\*\*0D602** “Software” “specially designed” for the “development,” “production,” operation or maintenance of commodities controlled by 0A602 or 0B602 as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, RS, UN, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 1
RS applies to entire entry	RS Column 1
UN applies to entire entry	See § 746.1 of the EAR for UN controls
AT applies to entire entry	AT Column 1

**List Based License Exceptions (See Part 740 for a description of all license exceptions)**

TSR: N/A

**Special conditions for STA**

STA: Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in 0D602.

**List of Items Controlled**

*Related Controls:* (1) “Software” required for and directly related to articles enumerated in USML Category II is “subject to the ITAR”. (2) See ECCN 0A919 for foreign-made “military commodities” that incorporate more than a *de minimis* amount of U.S.-origin “600 series” items.

*Related Definitions:* N/A

*Items:* “Software” “specially designed” for the “development,” “production,”

operation, or maintenance of commodities controlled by ECCN 0A602 and ECCN 0B602.

**\*\*0D604** “Software” “specially designed” for the “development,” “production,” operation, or maintenance of commodities controlled by ECCN 0A604 or 0B604 (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
RS applies to entire entry	RS Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry	See § 746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**Special Conditions for STA**

*STA:* Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in this ECCN 0D604.

**List of Items Controlled**

*Related Controls:* (1) “Software” directly related to articles enumerated in USML Category IV is controlled under USML Category IV(i). (2) See ECCN 0A919 for foreign-made “military commodities” that incorporate more than a *de minimis* amount of U.S.-origin “600 series” controlled content.

*Related Definitions:* N/A

*Items:*

a. “Software” “specially designed” for the “development,” “production,” operation, or maintenance of commodities controlled by ECCN 0A604 or 0B604.

b. [Reserved]

**\*\*0D606** “Software” “specially designed” for the “development,” “production,” operation, or maintenance of ground vehicles and related commodities controlled by 0A606, 0B606, or 0C606 (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry, except 0D606.y	NS Column 1
RS applies to entire entry, except 0D606.y	RS Column 1
RS applies to 0D606.y	China, Russia, or Venezuela (see § 742.6(a)(7))
AT applies to entire entry	AT Column 1
UN applies to entire entry, except 0D606.y	See § 746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**Special Conditions for STA**

*STA:* Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any software in 0D606.

**List of Items Controlled**

*Related Controls:* (1) Software directly related to articles enumerated or otherwise described in USML Category VII are subject to the controls of USML paragraph VII(h). (2) See ECCN 0A919 for foreign made “military commodities” that incorporate more than a *de minimis* amount of U.S.-origin “600 series” controlled content.

*Related Definitions:* N/A

*Items:*

- a. “Software” “specially designed” for the “development,” “production,” operation, or maintenance of commodities controlled by ECCNs 0A606 (except for ECCNs 0A606.b or 0A606.y), 0B606, or 0C606.
- b. through x. [Reserved]
- y. “Specific software” “specially designed” for the “production,” “development,” operation, or maintenance of commodities described in ECCN 0A606.y.

**\*\*0D614** “Software” related to military training “equipment,” as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
RS applies to entire entry	RS Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry	See § 746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**Special Conditions for STA**

*STA:* Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any “software” in 0D614.

**List of Items Controlled**

*Related Controls:* (1) “Software” directly related to articles enumerated in USML Category IX is subject to the control of USML paragraph IX(e). (2) See ECCN 0A919 for foreign made “military commodities” that incorporate more than a *de minimis* amount of US-origin “600 series” items.

*Related Definitions:* N/A

*Items:*

- a. “Software” “specially designed” for the “development,” “production,” operation, or maintenance of commodities controlled by ECCNs 0A614 or 0B614.

- b. [Reserved]

**\*\*0D617** “Software” “specially designed” for the “development,” “production,” operation, or maintenance of commodities controlled by 0A617, “equipment” controlled by 0B617, or materials controlled by 0C617 (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry, except 0D617.y.	NS Column 1
RS applies to entire entry, except 0D617.y.	RS Column 1

RS applies to 0D617.y	China, Russia, or Venezuela (see § 742.6(a)(7))
AT applies to entire entry	AT Column 1
UN applies to entire entry, except 0D617.y.	See § 746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**Special Conditions for STA**

STA: Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any “software” in 0D617.

**List of Items Controlled**

*Related Controls:* (1) “Software” directly related to articles controlled by USML Category XIII is subject to the control of USML paragraph XIII(1). (2) See ECCN 0A919 for foreign-made “military commodities” that incorporate more than a *de minimis* amount of U.S.-origin “600 series” controlled content.

*Related Definitions:* N/A

*Items:*

a. “Software” (other than “software” controlled in paragraph .y of this entry) “specially designed” for the “development,” “production,” operation or maintenance of commodities controlled by ECCNs 0A617 (except 0A617.y), 0B617, or 0C617.

b. to x. [Reserved].

y. Specific “software” “specially designed” for the “production,” “development,” operation or maintenance of commodities controlled by ECCN 0A617.y.

**\*\*0D977 “Software” “specially designed” for the “development,” “production” or “use” of commodities controlled by 0A977.**

**License Requirements**

*Reason for Control:* CC1

Control(s)	Country Chart (See Supp. No. 1 to part 738)
CC applies to entire entry	CC Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A

GBS: N/A

**Special Conditions for STA**

STA: License Exception STA may not be used for 0D977.

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:* The list of items controlled is contained in the ECCN heading.

**\*\*0D999 Specific software, as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* AT, RS

*Control(s)*

AT applies to entire entry. A license is required for items controlled by this entry to North Korea for anti-terrorism reasons. The Commerce Country Chart is not designed to determine AT

license requirements for this entry. See §742.19 of the EAR for additional information.

RS applies to entire entry. A license is required for items controlled by this entry for export or reexport to Iraq or transfer within Iraq for regional stability reasons. The Commerce Country Chart is not designed to determine RS license requirements for this entry. See §§742.6 and 746.3 of the EAR for additional information.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

Related Controls: N/A  
 Related Definitions: N/A  
 Items:

- a. Software for neutronic calculations/modeling;
- b. Software for radiation transport calculations/modeling;
- c. Software for hydrodynamic calculations/modeling.

**E. “TECHNOLOGY”**

**\*\*0E001** “Technology,” according to the Nuclear Technology Note, for the “development,” “production,” or “use” of items described in 0A002, or 0D001.

*Heading Note:* “Technology” for certain items subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110) is subject to the export licensing authority of the Department of Energy (see 10 CFR part 810).

**License Requirements**

*Reason for Control:*

*Control(s)*

“Technology” for items described in 0A002 and 0D001 (applies to “software” in 0D001 for items described in 0A002 only) is subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls (see 22 CFR part 121).

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

Related Controls: N/A  
 Related Definitions: N/A  
 Items:

The List of Items Controlled is contained in the ECCN heading.

**\*\*0E501** “Technology” “required” for the “development,” “production,” operation, installation, maintenance, repair, or overhaul of commodities controlled by 0A501 or 0B501 as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, RS, UN, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
RS applies to entire entry	RS Column 1
UN applies to entire entry	See § 746.1 of the EAR for UN controls
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**Special conditions for STA**

STA: Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any “technology” in ECCN 0E501.

**List of Items Controlled**

*Related Controls:* Technical data required for and directly related to articles enumerated in USML Category I are “subject to the ITAR.”

*Related Definitions:* N/A

*Items:*

a. “Technology” “required” for the “development” or “production” of commodities controlled by ECCN 0A501 (other than 0A501.y) or 0B501.

b. “Technology” “required” for the operation, installation, maintenance, repair, or overhaul of commodities controlled by ECCN 0A501 (other than 0A501.y) or 0B501.

**\*\*0E502** “Technology” “required” for the “development” or “production” of commodities controlled by 0A502.

**License Requirements**

*Reason for Control:* CC, UN

Control(s)	Country Chart (See Supp. No. 1 to part 738)
CC applies to entire entry	CC Column 1

UN applies to entire entry	See § 746.1(b) of the EAR for UN controls
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**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* Technical data required for and directly related to articles enumerated in USML Category I are “subject to the ITAR”.

*Related Definitions:* N/A

*Items:* The list of items controlled is contained in the ECCN heading.

**\*\*0E504** “Technology” “required” for the “development” or “production” of commodities controlled by 0A504 that incorporate a focal plane array or image intensifier tube.

**License Requirements**

*Reason for Control:* RS, UN, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
RS applies to entire entry	RS Column 1
UN applies to entire entry	See § 746.1(b) of the EAR for UN controls
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A  
*Items:* The list of items controlled is contained in the ECCN heading.

**\*\*0E505** “Technology” “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing of commodities controlled by 0A505.

CC applies to “technology” for the “development” or “production” of commodities in 0A505.b	CC Column 1
AT applies to “technology” for “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing commodities in 0A505.a, .d, and .x	AT Column 1

**License Requirements**

*Reason for Control:* NS, RS, UN, CC, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to “technology” for “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing commodities in 0A505.a and .x; for equipment for those commodities in 0B505; and for “software” for that equipment and those commodities in 0D505	NS Column 1
RS applies to entire entry except “technology” for “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing commodities in 0A505.a and .x; for equipment for those commodities in 0B505 and for “software” for those commodities and that equipment in 0D505	RS Column 1
UN applies to entire entry	See § 746.1 of the EAR for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**Special conditions for STA**

*STA:* Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any “technology” in 0E505.

**List of Items Controlled**

*Related Controls:* Technical data required for and directly related to articles enumerated in USML Category III are “subject to the ITAR”.

*Related Definitions:* N/A  
*Items:* The list of items controlled is contained in this ECCN heading.

**\*\*0E521** Any technology subject to the EAR that is not listed elsewhere in the CCL, but which is controlled for export because it provides at least a significant military or intelligence advantage to the United States or for foreign policy reasons.

0E521 technology is subject to RS1 controls with no license exception eligibility other than License Exception GOV for U.S. Government personnel and agencies under §

740.11(b)(2)(ii) of the EAR, or an item-specific license exception identified in Supplement No. 5 to part 774 particular to an item covered under ECCN 0E521. The list of technologies determined to be classified under ECCN 0E521 controls is published in Supplement No. 5 to part 774. The license requirements and licensing policy relating to ECCN 0E521 are set forth in § 742.6(a)(8) of the EAR.

**\*\*0E602** “Technology” “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing of commodities controlled by 0A602 or 0B602, or “software” controlled by 0D602 as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, RS, UN, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
RS applies to entire entry	RS Column 1
UN applies to entire entry	See § 746.1 of the EAR for UN controls
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**Special conditions for STA**

*STA:* Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in 0E602.

**List of Items Controlled**

*Related Controls:* Technical data directly related to articles enumerated in USML Category II are “subject to the ITAR.”

*Related Definitions:* N/A

*Items:* “Technology” “required” for the “development,” “production,” operation, installation, maintenance, repair, or overhaul of commodities controlled by ECCN 0A602 or 0B602, or “software” controlled by ECCN 0D602.

**\*\*0E604** “Technology” “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing of commodities controlled by ECCN 0A604 or 0B604, or “software” controlled by ECCN 0D604 (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
RS applies to entire entry	RS Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry	See § 746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**Special Conditions for STA**

*STA:* Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any “software” in 0D614.

**List of Items Controlled**

*Related Controls:* Technical data directly related to articles enumerated in USML

Category IV are controlled under USML Category IV(i).

*Related Definitions:* N/A

*Items:*

a. “Technology” “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing of commodities controlled by ECCN 0A604 or 0B604, or “software” controlled by ECCN 0D604.

b. [Reserved]

**\*\*0E606** “Technology” “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing of ground vehicles and related commodities in 0A606, 0B606, 0C606, or software in 0D606 (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry, except 0E606.y	NS Column 1
RS applies to entire entry, except 0E606.y	RS Column 1
RS applies to 0E606.y	China, Russia, or Venezuela (see § 742.6(a)(7))
AT applies to entire entry	AT Column 1
UN applies to entire entry, except 0E606.y	See § 746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**Special Conditions for STA**

*STA:* Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any technology in 0D606.

**List of Items Controlled**

*Related Controls:* Technical data directly related to articles enumerated in USML Category VII are subject to the controls of USML paragraph VII(h).

*Related Definitions:* N/A

*Items:*

a. “Technology” “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing of commodities enumerated or otherwise described in ECCN 0A606 (except for ECCNs 0A606.b or 0A606.y), 0B606, or 0C606.

b. through x. [Reserved]

y. Specific “technology” “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul or refurbishing of commodities or software in ECCN 0A606.y or 0D606.y.

**\*\*0E614** “Technology,” as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
RS applies to entire entry	RS Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry	See § 746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**Special Conditions for STA**

STA: Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any technology in 0E614.

**List of Items Controlled**

*Related Controls:* “Technical data” directly related to articles enumerated in USML Category IX is subject to the control of USML paragraph IX(e).

*Related Definitions:* N/A

*Items:*

a. “Technology” “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing of commodities or “software” controlled by ECCNs 0A614, 0B614, or 0D614.

b. [Reserved]

**\*\*0E617** “Technology” “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing of commodities controlled by ECCN 0A617, “equipment controlled by 0B617, or materials controlled by 0C617, or “software” controlled by ECCN 0D617 (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry, except 0E617.y.	NS Column 1

RS applies to entire entry, except 0E617.y.	RS Column 1
RS applies to 0E617.y	China, Russia, or Venezuela (see § 742.6(a)(7))
AT applies to entire entry	AT Column 1
UN applies to entire entry, except 0E617.y.	See § 746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**Special Conditions for STA**

STA: Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any technology in 0E617.

**List of Items Controlled**

*Related Controls:* Technical data directly related to articles controlled by USML Category XIII are subject to the control of USML paragraph XIII(l).

*Related Definitions:* N/A

*Items:*

a. “Technology” (other than “technology” controlled by paragraph .y of this entry) “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing of commodities or “software” controlled by ECCN 0A617 (except 0A617.y), 0B617, 0C617, or 0D617 (except 0D617.y).

b. through x. [Reserved].

y. Specific “technology” “required” for the “production,” “development,” operation, installation, maintenance, repair, overhaul, or refurbishing of commodities controlled by ECCN 0A617.y or “software” controlled by 0D617.y.

**\*\*0E977** “Technology” “required” for the “development” or “production” of commodities controlled by 0A977.

control does not appear on the Commerce Country Chart. (See part 742 of the EAR for additional information.)

**License Requirements**

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*Reason for Control:* CC1

*TSR:* N/A

Control(s)	Country Chart (See Supp. No. 1 to part 738)
CC applies to entire entry	CC Column 1

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

The list of items controlled is contained in the ECCN heading.

*LVS:* N/A  
*GBS:* N/A

**Special Conditions for STA**

**EAR99 Items subject to the EAR that are *not* elsewhere specified in this CCL Category or in any other category in the CCL are designated by the number EAR99.**

*STA:* License Exception STA may not be used for 0E977.

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A

*Items:* The list of items controlled is contained in the ECCN heading.

**\*\*0E982** “Technology” exclusively for the “development” or “production” of equipment controlled by 0A982 or 0A503.

**License Requirements**

*Reason for Control:* CC

*Control(s)*

CC applies to “technology” for items controlled by 0A982 or 0A503. A license is required for ALL destinations, except Canada, regardless of end-use. Accordingly, a column specific to this

**CATEGORY 1 - SPECIAL MATERIALS AND RELATED EQUIPMENT, CHEMICALS, "MICROORGANISMS," AND "TOXINS"**

*Note:* The Food and Drug Administration (FDA) and the Drug Enforcement Administration (DEA) may control exports of items subject to the EAR and on the Commerce Control List. BIS provides cross references to these other agency controls for convenience only. Therefore, please consult relevant FDA and DEA regulations for guidance related to the item you wish to export and do not rely solely on the EAR for information about other agency export control requirements. See Supplement No. 3 to part 730 (Other U.S. Government Departments and Agencies with Export Control Responsibilities) for more information.

**A. "END ITEMS," "EQUIPMENT," "ACCESSORIES," "ATTACHMENTS," "PARTS," "COMPONENTS," AND "SYSTEMS"**

**\*\*1A001** "Parts" and "components" made from fluorinated compounds, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: \$5000  
GBS: N/A

**List of Items Controlled**

*Related Controls:* (1) Items "specially designed" or modified for missiles or for items on the U.S. Munitions List are "subject

to the ITAR" (see 22 CFR parts 120 through 130, including USML Category XXI). (2) See also [1C009](#).

*Related Definitions:* N/A

*Items:*

- a. Seals, gaskets, sealants or fuel bladders, "specially designed" for "aircraft" or aerospace use, made from more than 50% by weight of any of the materials controlled by 1C009.b or 1C009.c;

BIS in 11-4-2015 telecon says 1A002 stuff specially designed for commercial aircraft will typically form a part that is 9A991. Says very few parts remain under 1A002, and those can be things like reentry heat shields.

- b. [Reserved]

**\*\*1A002** "Composite" structures or laminates, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
NP applies to 1A002.b.1 in the form of tubes with an inside diameter between 75 mm and 400 mm	NP Column 1
AT applies to entire entry	AT Column 1

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: \$1,500; N/A for NP; N/A for "composite" structures or laminates controlled by 1A002.a, having an organic "matrix" and made from materials controlled by 1C010.c or 1C010.d.

GBS: N/A

**Special Conditions for STA**

*STA:* License Exception STA may not be used to ship any item in this entry to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

*Note 1:* 1A002 does not control “composite” structures or laminates made from epoxy resin impregnated carbon “fibrous or filamentary materials”, for the repair of “civil aircraft” structures or laminates, having all of the following:

**List of Items Controlled**

*Related Controls:* (1) See ECCNs [1E001](#) (“development” and “production”) and [1E201](#) (“use”) for technology for items controlled by this entry. (2) Also see ECCNs [1A202](#), [1C010](#), [1C210](#), 9A010, and 9A110. (3) “Composite” structures “specially designed” for missile applications (including “specially designed” subsystems, “parts,” and “components”) are controlled by ECCN 9A110. (4) “Composite” structures or laminates “specially designed” or prepared for use in separating uranium isotopes are subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

*Related Definitions:* N/A

*Items:*

## a. Made from any of the following:

a.1. An organic “matrix” and “fibrous or filamentary materials” specified by 1C010.c or 1C010.d; *or*

a.2. Prepregs or preforms specified by 1C010.e;

## b. Made from a metal or carbon “matrix”, and any of the following:

b.1. Carbon “fibrous or filamentary materials” having all of the following:

b.1.a. A “specific modulus” exceeding  $10.15 \times 10^6$  m; *and*

b.1.b. A “specific tensile strength” exceeding  $17.7 \times 10^4$  m; *or*

b.2. Materials controlled by 1C010.c.

a. An area not exceeding  $1 \text{ m}^2$ ;

b. A length not exceeding 2.5 m; *and*

c. A width exceeding 15 mm.

*Note 2:* 1A002 does not control semi-finished items, “specially designed” for civilian applications as follows:

a. Sporting goods;

b. Automotive industry;

c. Machine tool industry;

d. Medical applications.

*Note 3:* 1A002.b.1 does not apply to semi-finished items containing a maximum of two dimensions of interwoven filaments and “specially designed” for applications as follows:

a. Metal heat-treatment furnaces for tempering metals;

b. Silicon boule production equipment.

*Note 4:* 1A002 does not apply to finished items “specially designed” for a specific application.

**\*\*1A003** Manufactures of non-“fusible” aromatic polyimides in film, sheet, tape or ribbon form having any of the following (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$200  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* This entry does not control manufactures when coated or laminated with copper and designed for the production of electronic printed circuit boards. For “fusible” aromatic polyimides in any form, see [1C008.a.3](#).

*Related Definitions:* N/A

*Items:*

- a. A thickness exceeding 0.254 mm; *or*
- b. Coated or laminated with carbon, graphite, metals or magnetic substances.

**\*\*1A004 Protective and detection equipment and “components”, not “specially designed” for military use, as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NS, CB, RS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
CB applies to chemical detection systems and dedicated detectors therefor, in 1A004.c, that also have the technical characteristic	CB Column 2

RS apply to 1A004.d	RS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* Yes for 1A004.a, .b, and .c.2.

**List of Items Controlled**

*Related Controls:* (1) See ECCNs [1A995](#), 2B351, and 2B352. (2) See ECCN [1D003](#) for “software” “specially designed” or modified to enable equipment to perform the functions of equipment controlled under section [1A004.c](#) (Nuclear, biological and chemical (NBC) detection systems). (3) See ECCN [1E002.g](#) for control libraries (parametric technical databases) “specially designed” or modified to enable equipment to perform the functions of equipment controlled under [1A004.c](#) (Nuclear, biological and chemical (NBC) detection systems). (4) Chemical and biological protective and detection equipment specifically designed, developed, modified, configured, or adapted for military applications is “subject to the ITAR” (see 22 CFR parts 120 through 130, including USML Category XIV(f)), as is commercial equipment that incorporates “parts” or “components” controlled under that category except for domestic preparedness devices for individual protection that integrate “components” and “parts” identified in USML Category XIV(f)(4) when such “parts” or “components” are: 1) integral to the device; 2) inseparable from the device; and 3) incapable of replacement without compromising the effectiveness of the device, in which case the equipment is subject to the export licensing jurisdiction of the Department of Commerce under ECCN [1A004](#). (5) This entry does not control radionuclides incorporated in equipment listed in this entry - such materials are subject to the licensing jurisdiction of the Nuclear Regulatory Commission (See 10 CFR part 110).

*Related Definitions:* 1) ‘Biological agents’ means: pathogens or toxins, selected or

modified (such as altering purity, shelf life, virulence, dissemination characteristics, or resistance to UV radiation) to produce casualties in humans or animals, degrade equipment or damage crops or the environment. 2) ‘Riot control agents’ are substances which, under the expected conditions of use for riot control purposes, produce rapidly in humans sensory irritation or disabling physical effects which disappear within a short time following termination of exposure. (Tear gases are a subset of ‘riot control agents.’)

*Items:*

a. Full face masks, filter canisters and decontamination equipment therefor, designed or modified for defense against any of the following, and “specially designed” “components” therefor:

*Note: IA004.a includes Powered Air Purifying Respirators (PAPR) that are designed or modified for defense against agents or materials, listed in IA004.a.*

**Technical Notes:** For the purpose of IA004.a:

1. Full face masks are also known as gas masks.

2. Filter canisters include filter cartridges.

a.1. ‘Biological agents’;

a.2. ‘Radioactive materials’;

a.3. Chemical warfare (CW) agents; *or*

a.4. ‘Riot control agents’, as follows:

a.4.a.  $\alpha$ -Bromobenzeneacetonitrile, (Bromobenzyl cyanide) (CA) (CAS 5798-79-8);

a.4.b. [(2-chlorophenyl) methylene] propanedinitrile, (o-Chlorobenzylidenemalononitrile) (CS) (CAS 2698-41-1);

a.4.c. 2-Chloro-1-phenylethanone, Phenylacyl chloride ( $\omega$ -chloroacetophenone) (CN) (CAS 532-27-4);

a.4.d. Dibenz-(b,f)-1,4-oxazepine, (CR) (CAS 257-07-8);

a.4.e. 10-Chloro-5, 10-dihydrophenarsazine, (Phenarsazine chloride), (Adamsite), (DM) (CAS 578-94-9);

a.4.f. N-Nonanoylmorpholine, (MPA) (CAS 5299-64-9);

b. Protective suits, gloves and shoes, “specially designed” or modified for defense against any of the following:

b.1. ‘Biological agents’;

b.2. ‘Radioactive materials’; *or*

b.3. Chemical warfare (CW) agents;

c. Detection systems, “specially designed” or modified for detection or identification of any of the following, and “specially designed” “components” therefor:

c.1. ‘Biological agents’;

c.2. ‘Radioactive materials’; *or*

c.3. Chemical warfare (CW) agents;

d. Electronic equipment designed for automatically detecting or identifying the presence of “explosives” (as listed in the annex at the end of Category 1) residues and utilizing ‘trace detection’ techniques (*e.g.*, surface acoustic wave, ion mobility spectrometry, differential mobility spectrometry, mass spectrometry).

**Technical Note:** ‘Trace detection’ is defined as the capability to detect less than 1 ppm vapor, or 1 mg solid or liquid.

**Note 1:** IA004.d does not apply to equipment “specially designed” for laboratory use.

*Note 2: 1A004.d does not apply to non-contact walk-through security portals.*

*Note: 1A004 does not control:*

*a. Personal radiation monitoring dosimeters;*

*b. Occupational health or safety equipment limited by design or function to protect against hazards specific to residential safety or civil industries, including:*

- 1. Mining;*
- 2. Quarrying;*
- 3. Agriculture;*
- 4. Pharmaceutical;*
- 5. Medical;*
- 6. Veterinary;*
- 7. Environmental;*
- 8. Waste management;*
- 9. Food industry.*

**Technical Notes:**

*1. 1A004 includes equipment, “components” that have been ‘identified,’ successfully tested to national standards or otherwise proven effective, for the detection of or defense against ‘radioactive materials’ ‘biological agents,’ chemical warfare agents, ‘simulants’ or “riot control agents,” even if such equipment or “components” are used in civil industries such as mining, quarrying, agriculture, pharmaceuticals, medical, veterinary, environmental, waste management, or the food industry.*

*2. ‘Simulant’: A substance or material that is used in place of toxic agent (chemical or biological) in training, research, testing or evaluation.*

*3. For the purposes of 1A004, ‘radioactive materials’ are those selected or modified to increase their effectiveness in producing casualties in humans or animals, degrading equipment or damaging crops or the environment.*

**\*\*1A005** Body armor and “specially designed” “components” therefor, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, UN, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
UN applies to entire entry	See § 746.1(b) for UN controls.
AT applies to entire entry	AT Column 1

**License Requirements Notes:** 1. Soft body armor not manufactured to military standards or specifications must provide ballistic protection equal to or less than NIJ level III (NIJ 0101.06, July 2008) to be controlled under 1A005.a. 2. For purposes of 1A005.a, military standards and specifications include, at a minimum, specifications for fragmentation protection.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* Yes, except UN

**List of Items Controlled**

*Related Controls:* (1) Bulletproof and bullet resistant vests (body armor) providing NIJ Type IV protection or greater are “subject to the ITAR” (see 22 CFR 121.1 Category X(a)). (2) Soft body armor and protective garments manufactured to military standards or specifications that provide protection equal to NIJ level III or less are classified under ECCN 1A613.d.1. (3) Hard armor plates providing NIJ level III ballistic protection are classified under ECCN 1A613.d.2. (4) Police helmets and shields are classified under ECCN 0A979. (5) Other personal protective “equipment”

“specially designed” for military applications not controlled by the USML or elsewhere in the CCL is classified under ECCN 1A613.e. (6) For “fibrous or filamentary materials” used in the manufacture of body armor, see ECCN 1C010.

*Related Definitions:* N/A  
*Items:*

- a. Soft body armor not manufactured to military standards or specifications, or to their equivalents, and “specially designed” “components” therefor;
- b. Hard body armor plates that provide ballistic protection less than NIJ level III (NIJ 0101.06, July 2008) or national equivalents.

**Notes to ECCN 1A005:**

- 1. This entry does not control body armor when accompanying its user for the user’s own personal protection.
- 2. This entry does not control body armor designed to provide frontal protection only from both fragment and blast from non-military explosive devices.
- 3. This entry does not apply to body armor designed to provide protection only from knife, spike, needle or blunt trauma.

**\*\*1A006** Equipment, “specially designed” or modified for the disposal of improvised explosive devices, as follows (see List of Items Controlled), and “specially designed” “components” and “accessories” therefor.

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2

AT applies to entire entry	AT Column 1
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**License Requirement Note:** 1A006 does not apply to equipment when accompanying its operator.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
GBS: N/A

**List of Items Controlled**

*Related Controls:* Equipment “specially designed” for military use for the disposal of improvised explosive devices is “subject to the ITAR” (see 22 CFR parts 120 through 130, including USML Category IV).

*Related Definitions:* ‘Disruptors’ - Devices “specially designed” for the purpose of preventing the operation of an explosive device by projecting a liquid, solid or frangible projectile.

*Items:*

- a. Remotely operated vehicles;
- b. ‘Disruptors’.

**\*\*1A007** Equipment and devices, “specially designed” to initiate charges and devices containing “energetic materials,” by electrical means, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
NP applies to 1A007.b, as well as 1A007.a when the detonator	NP Column 1

firing set meets or exceeds the parameters of 3A229.	
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A

GBS: N/A

**List of Items Controlled**

*Related Controls:* High explosives and related equipment “specially designed” for military use are “subject to the ITAR” (see 22 CFR parts 120 through 130). This entry does not control detonators using only primary explosives, such as lead azide. See also ECCNs 0A604, 3A229, and 3A232. See 1E001 for “development” and “production” technology controls, and 1E201 for “use” technology controls.

*Related Definitions:* N/A

*Items:*

- a. Explosive detonator firing sets designed to drive explosive detonators specified by 1A007.b;
- b. Electrically driven explosive detonators as follows:

- b.1. Exploding bridge (EB);
- b.2. Exploding bridge wire (EBW);
- b.3. Slapper;
- b.4. Exploding foil initiators (EFI).

**Technical Notes:**

1. The word *initiator* or *igniter* is sometimes used in place of the word *detonator*.

2. For the purpose of 1A007.b the detonators of concern all utilize a small electrical conductor (bridge, bridge wire, or foil) that explosively vaporizes when a fast, high-current

*electrical pulse is passed through it. In non slapper types, the exploding conductor starts a chemical detonation in a contacting high explosive material such as PETN (pentaerythritoltetranitrate). In slapper detonators, the explosive vaporization of the electrical conductor drives a flyer or slapper across a gap, and the impact of the slapper on an explosive starts a chemical detonation. The slapper in some designs is driven by magnetic force. The term exploding foil detonator may refer to either an EB or a slapper-type detonator.*

**\*\*1A008 Charges, devices and “components”, as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NS, UN, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1
UN applies to entire entry	See § 746.1(b) for UN controls.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: \$3,000 for .a through .c;  
\$6,000 for .d.

GBS: N/A

**List of Items Controlled**

*Related Controls:* (1) All of the following are “subject to the ITAR” (see 22 CFR parts 120 through 130):

- a. High explosives and related equipment “specially designed” for military use;

b. Explosive devices or charges in this entry that utilize USML controlled energetic materials (See 22 CFR 121.1 Category V), if they have been specifically designed, developed, configured, adapted, or modified for a military application;

c. Shaped charges that have all of the following a uniform shaped conical liner with an included angle of 90 degrees or less, more than 2.0 kg of controlled materials, and a diameter exceeding 4.5 inches;

d. Detonating cord containing greater than 0.1 kg per meter (470 grains per foot) of controlled materials;

e. Cutters and severing tools containing greater than 10 kg of controlled materials;

f. With the exception of cutters and severing tools, devices or charges controlled by this entry where the USML controlled materials can be easily extracted without destroying the device or charge; *and*

g. Individual USML controlled energetic materials in this entry, even when compounded with other materials, when not incorporated into explosive devices or charges controlled by this entry or 1C992.

(2) See also ECCNs [1C011](#), [1C018](#), [1C111](#), [1C239](#), and [1C608](#) for additional controlled energetic materials. See ECCN [1E001](#) for the “development” or “production” “technology” for the commodities controlled by ECCN 1A008, but not for explosives or commodities that are “subject to the ITAR” (see 22 CFR parts 120 through 130).

*Related Definitions:* N/A

*Items:*

a. ‘Shaped charges’ having all of the following:

a.1. Net Explosive Quantity (NEQ) greater than 90 g; *and*

a.2. Outer casing diameter equal to or greater than 75 mm;

b. Linear shaped cutting charges having all of the following, and “specially designed” “components” therefor:

b.1. An explosive load greater than 40 g/m; *and*

b.2. A width of 10 mm or more;

c. Detonating cord with explosive core load greater than 64 g/m;

d. Cutters, not specified by 1A008.b, and severing tools, having a NEQ greater than 3.5 kg.

**Technical Note:** ‘Shaped charges’ are explosive charges shaped to focus the effects of the explosive blast.

**Note:** The only charges and devices specified in 1A008 are those containing “explosives” (see list of explosives in the Annex at the end of Category 1) and mixtures thereof.

**\*\*1A101** Devices for reduced observables such as radar reflectivity, ultraviolet/infrared signatures and acoustic signatures, for applications usable in rockets, missiles, or unmanned aerial vehicles capable of achieving a “range” equal to or greater than 300 km or their complete subsystems.

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A

GBS: N/A

LVS: N/A

GBS: N/A

**List of Items Controlled**

*Related Controls:* (1) See also [1C101](#). (2) For commodities that meet the definition of defense articles under 22 CFR 120.3 of the International Traffic in Arms Regulations (ITAR), describes similar commodities “subject to the ITAR” (See 22 CFR parts 120 through 130, including USML Category XIII).

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1A102** Resaturated pyrolyzed carbon-carbon “parts” and “components” designed for rockets, missiles, or unmanned aerial vehicles capable of achieving a “range” equal to or greater than 300km. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130).

**\*\*1A202** Composite structures, other than those controlled by 1A002, in the form of tubes and having both of the following characteristics (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

**List of Items Controlled**

*Related Controls:* (1) See ECCNs [1E201](#) (“use”) and [1E202](#) (“development” and “production”) for technology for items controlled by this entry. (2) Also see ECCNs [1A002](#), [1C010](#), [1C210](#), 9A010, and 9A110. (3) “Composite” structures “specially designed” or prepared for use in separating uranium isotopes are subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

*Related Definitions:* N/A

*Items:*

- a. An inside diameter of between 75 mm and 400 mm; *and*
- b. Made with any of the “fibrous or filamentary materials” specified in 1C010.a or .b or 1C210.a or with carbon prepreg materials specified in 1C210.c.

**\*\*1A225** Platinized catalysts “specially designed” or prepared for promoting the hydrogen isotope exchange reaction between hydrogen and water for the recovery of tritium from heavy water or for the production of heavy water.

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A

GBS: N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCNs [1E201](#) (“use”) and [1E202](#) (“development” and “production”) for technology for items controlled by this entry. (2) Equipment “specially designed” or prepared for the production of heavy water is subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1A226** Specialized packings, which may be used in separating heavy water from ordinary water, having both of the following characteristics (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A

GBS: N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCNs [1E201](#) (“use”) and [1E202](#) (“development” and “production”) for technology for items controlled by this entry. (2) Equipment “specially designed” or prepared for the

production of heavy water is subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

*Related Definitions:* N/A

*Items:*

- a. Made of phosphor bronze mesh chemically treated to improve wettability; *and*
- b. Designed to be used in vacuum distillation towers.

**\*\*1A227** High-density (lead glass or other) radiation shielding windows, having all of the following characteristics (see List of Items Controlled), and “specially designed” frames therefor.

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A

GBS: N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCNs [1E201](#) (“use”) and [1E202](#) (“development” and “production”) for technology for items controlled by this entry. (2) Equipment “specially designed” or prepared for nuclear reactors and reprocessing facilities is subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

*Related Definitions:* In 1A227.a, the term “cold area” means the viewing area of the window exposed to the lowest level of radiation in the design application.

*Items:*

- a. A “cold area” greater than 0.09 m<sup>2</sup>;
- b. A density greater than 3 g/cm<sup>3</sup>; and
- c. A thickness of 100 mm or greater.

**\*\*1A231** Target assemblies and components for the production of tritium as follows (See List of Items Controlled).

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a Description of All License Exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* See ECCNs 1E001 (“production”) and 1E201 (“use”) for technology for items controlled by this entry.

*Related Definitions:* N/A

*Items:*

- a. Target assemblies made of or containing lithium enriched in the lithium-6 isotope “specially designed” for the “production” of tritium through irradiation, including insertion in a nuclear reactor;

- b. Components “specially designed” for the target assemblies specified in item a.

*Technical Note to ECCN 1A231.b.:* Components “specially designed” for target assemblies for the “production” of tritium may include lithium pellets, tritium getters, and specially-coated cladding.

**\*\*1A290** Depleted uranium (any uranium containing less than 0.711% of the isotope U-235) in shipments of more than 1,000 kilograms in the form of shielding contained in X-ray units, radiographic exposure or teletherapy devices, radioactive thermoelectric generators, or packaging for the transportation of radioactive materials.

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) This entry does not control depleted uranium in fabricated forms for use in munitions. See 22 CFR part 121 for depleted uranium “subject to the ITAR” (2) Depleted uranium that is not fabricated for use in munitions or fabricated into commodities solely to take advantage of its high density (e.g., aircraft, ship, or other counterweights) or in the forms listed in this entry are subject to the export licensing authority of the Nuclear Regulatory

Commission. (See 10 CFR part 110.) (3) “Natural uranium” or “depleted uranium” or thorium in the form of metal, alloy, chemical compound or concentrate and any other material containing one or more of the foregoing are subject to the export licensing authority of the Nuclear Regulatory Commission. (See 10 CFR part 110.)

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1A607 Military dissemination “equipment” for riot control agents, military detection and protection “equipment” for toxicological agents (including chemical, biological, and riot control agents), and related commodities (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
RS applies to entire entry	RS Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry	See § 746.1(b) for UN controls

**List Based License Exceptions (See Part 740 for a description of all license exceptions)**

*LVS:* N/A

*GBS:* N/A

**Special Conditions for STA**

*STA:* Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the

EAR) may not be used for any item in 1A607.

**List of Items Controlled**

*Related Controls:* (1) Vaccines identified in ECCN 1C991 are not controlled by this ECCN. (2) See 22 CFR § 121.1 (USML), Category XIV(h), for vaccines that are subject to the ITAR. (3) Protection and detection equipment and related items identified in ECCN 1A004, 1A995, or 2B351 are not controlled by this ECCN. (4) See 22 CFR § 121.1 (USML), Category XIV(f), for dissemination, detection and protection equipment that is subject to the ITAR. (5) See ECCN 0A919 for “military commodities” located and produced outside the United States that incorporate more than a *de minimis* amount of US-origin “600 series” controlled content.

*Related Definitions:* N/A

*Items:*

a. through d. [Reserved]

e. “Equipment” “specially designed” for military use and for the dissemination of any of the riot control agents controlled in ECCN 1C607.a.

f. Protection “equipment” (including air conditioning units, protective coatings, and protective clothing):

f.1. Not controlled by USML Category XIV(f); *and*

f.2. “Specially designed” for military use and for defense against:

f.2.a. Materials specified by USML Category XIV (a) or (b); *or*

f.2.b. Riot control agents controlled in 1C607.a.

g. Decontamination “equipment”:

g.1. Not controlled by USML Category XIV(f); *and*

g.2. “Specially designed” for military use and for decontamination of objects contaminated with materials controlled by USML Category XIV(a) or (b).

h. “Equipment”:

h.1. Not controlled by USML Category XIV(f); *and*

h.2. “Specially designed” for military use and for the detection or identification of:

h.2.a. Materials specified by USML Category XIV(a) or (b); *or*

h.2.b. Riot control agents controlled by ECCN 1C607.a.

i. [Reserved]

j. “Equipment” “specially designed” to:

j.1. Interface with a detector, shelter, vehicle, vessel, or aircraft controlled by the USML or a “600 series” ECCN; *and*

j.2. Collect and process samples of articles controlled in USML Category XIV(a) or (b).

k. Medical countermeasures that are “specially designed” for military use (including pre- and post-treatments, antidotes, and medical diagnostics) and “specially designed” to counter chemical agents controlled by the USML Category XIV(a).

*Note: Examples of “equipment” controlled by this entry are barrier and non-barrier creams and filled autoinjectors (e.g., combopens where one injector contains 2-PAM and the other atropine) if “specially designed” to counter such agents.*

l. through w. [Reserved]

x. “Parts,” “components,” “accessories,” and

“attachments” that are “specially designed” for a commodity controlled by ECCN 1A607.e, .f, .g, .h, or .j or for a defense article controlled by USML Category XIV(f) and that are not enumerated or otherwise described elsewhere in the USML.

**\*\*1A613 Armored and protective “equipment” and related commodities, as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry except 1A613.y	NS Column 1
RS applies to entire entry except 1A613.y	RS Column 1
RS applies 1A613.y	China, Russia, or Venezuela (see § 724.6(a)(7))
AT applies to entire entry	AT Column 1
UN applies to entire entry, except 1A613.y	See § 746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: \$1500  
 GBS: N/A

**Special Conditions for STA**

STA: Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in 1A613.

**List of Items Controlled**

*Related Controls:* (1) Defense articles, such as materials made from classified information, that are controlled by USML Category X or XIII of the ITAR, and technical data (including software)

directly related thereto, are “subject to the ITAR.” (2) See ECCN 0A919 for foreign-made “military commodities” that incorporate more than a *de minimis* amount of US-origin “600 series” controlled content. (3) See ECCN 9A610.g for anti-gravity suits (“G-suits”) and pressure suits capable of operating at altitudes higher than 55,000 feet above sea level.

*Related Definitions:* References to “NIJ Type” protection are to the National Institute of Justice Classification guide at NIJ Standard 0101.06, Ballistic Resistance of Body Armor, and NIJ Standard 0108.01, Ballistic Resistant Protective Materials.

*Items:*

- a. Metallic or non-metallic armored plate “specially designed” for military use and not controlled by the USML.

*Note to paragraph a:* For controls on body armor plates, see ECCN 1A613.d.2 and USML Category X(a)(1).

- b. Shelters “specially designed” to:

b.1. Provide ballistic protection for military systems; *or*

b.2. Protect against nuclear, biological, or chemical contamination.

- c. Military helmets (other than helmets controlled under 1A613.y.1) providing less than NIJ Type IV protection and “specially designed” helmet shells, liners, or comfort pads therefor.

*Note 1:* See ECCN 0A979 for controls on police helmets.

*Note 2:* See USML Category X(a)(5) and (a)(6) for controls on other military helmets.

- d. Body armor and protective garments, as follows:

d.1. Soft body armor and protective garments manufactured to military standards or specifications, or to their equivalents, that provide ballistic protection equal to or less than NIJ level III (NIJ 0101.06, July 2008); *or*

*Note:* For 1A613.d.1, military standards or specifications include, at a minimum, specifications for fragmentation protection.

d.2. Hard body armor plates that provide ballistic protection equal to NIJ level III (NIJ 0101.06, July 2008) or national equivalents.

*Note:* See ECCN 1A005 for controls on soft body armor not manufactured to military standards or specifications and hard body armor plates providing less than NIJ level III protection. For body armor providing NIJ Type IV protection or greater, see USML Category X(a)(1).

e. Atmospheric diving suits “specially designed” for rescue operations for submarines controlled by the USML or the CCL.

f. Other personal protective “equipment” “specially designed” for military applications not controlled by the USML, not elsewhere controlled on the CCL.

g. to w. [Reserved]

x. “Parts,” “components,” “accessories,” and “attachments” that are “specially designed” for a commodity controlled by ECCN 1A613 (except for 1A613.y) or an article enumerated in USML Category X, and not controlled elsewhere in the USML.

*Note:* Forgings, castings, and other unfinished products, such as extrusions and machined bodies, that have reached a stage in manufacturing where they are clearly identifiable by mechanical properties, material composition, geometry, or function as commodities controlled by ECCN 1A613.x are controlled by ECCN 1A613.x.

y. Other commodities as follows:

y.1 Conventional military steel helmets.

*N.B. to paragraph y.1: For other military helmet “components” or “accessories,” see the relevant ECCN in the CCL or USML Entry.*

y.2 [Reserved]

**\*\*1A984** Chemical agents, including tear gas formulation containing 1 percent or less of orthochlorobenzalmalonitrile (CS), or 1 percent or less of chloroacetophenone (CN), except in individual containers with a net weight of 20 grams or less; liquid pepper except when packaged in individual containers with a net weight of 3 ounces (85.05 grams) or less; smoke bombs; non-irritant smoke flares, canisters, grenades and charges; and other pyrotechnic articles (excluding shotgun shells, unless the shotgun shells contain only chemical irritants having dual military and commercial use, and "parts" and "components" "specially designed" therefor, n.e.s.

**License Requirements**

*Reason for Control:* CC

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
CC applies to entire entry	CC Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1A985** Fingerprinting powders, dyes, and inks.

**License Requirements**

*Reason for Control:* CC

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
CC applies to entire entry	CC Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* See 3A981.

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1A995** Protective and detection equipment not “specially designed” for military use and not controlled by ECCN 1A004 or ECCN 2B351, as follows (see List of Items Controlled), and “parts” and “components” not “specially designed” for military use and not controlled by ECCN 1A004 or ECCN 2B351 therefor.

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart</i>
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	<i>(See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
GBS: N/A

**List of Items Controlled**

*Related Controls:* See ECCNs [1A004](#), 2B351, and 2B352.  
*Related Definitions:* N/A  
*Items:*

- a. Personal radiation monitoring dosimeters;
- b. Equipment limited by design or function to protect against hazards specific to civil industries, such as mining, quarrying, agriculture, pharmaceuticals, medical, veterinary, environmental, waste management, or to the food industry.

*Note: This entry (1A995) does not control items for protection against chemical or biological agents that are consumer goods, packaged for retail sale or personal use, or medical products, such as latex exam gloves, latex surgical gloves, liquid disinfectant soap, disposable surgical drapes, surgical gowns, surgical foot covers, and surgical masks. Such items are classified as EAR99.*

**\*\*1A999** Specific processing equipment, n.e.s., as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* AT

*Control(s)*

AT applies to entire entry. A license is required for items controlled by this entry to North Korea

for anti-terrorism reasons. The Commerce Country Chart is not designed to determine AT licensing requirements for this entry. See §742.19 of the EAR for additional information.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
GBS: N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

- a. Radiation detection, monitoring and measurement equipment, n.e.s.;
- b. Radiographic detection equipment such as x-ray converters, and storage phosphor image plates.

**B. TEST, INSPECTION AND “PRODUCTION EQUIPMENT”**

**\*\*1B001** Equipment for the production or inspection of “composite” structures or laminates controlled by 1A002 or “fibrous or filamentary materials” controlled by 1C010, as follows (see List of Items Controlled), and “specially designed” “components” and “accessories” therefor.

**License Requirements**

*Reason for Control:* NS, MT, NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
MT applies to entire entry, except 1B001.d.4, e and f.	MT Column 1

<b>Note:</b> <i>MT applies to equipment in 1B001.d that meet or exceed the parameters of 1B101.</i>	
NP applies to filament winding machines described in 1B001.a that are capable of winding cylindrical rotors having a diameter between 75 mm (3 in) and 400 mm (16 in) and lengths of 600 mm (24 in) or greater; AND coordinating and programming controls and precision mandrels for these filament winding machines	NP Column 1
AT applies to entire entry	AT Column 1

**Technical Note:** For the purposes of 1B001.b, ‘tape-laying machines’ have the ability to lay one or more ‘filament bands’ limited to widths greater than 25.4 mm and less than or equal to 304.8 mm, and to cut and restart individual ‘filament band’ courses during the laying process.

c. Multidirectional, multidimensional weaving machines or interlacing machines, including adapters and modification kits, “specially designed” or modified for weaving, interlacing or braiding fibers for “composite” structures;

**Technical Note:** For the purposes of 1B001.c the technique of interlacing includes knitting.

d. Equipment “specially designed” or adapted for the production of reinforcement fibers, as follows:

d.1. Equipment for converting polymeric fibers (such as polyacrylonitrile, rayon, pitch or polycarbosilane) into carbon fibers or silicon carbide fibers, including special equipment to strain the fiber during heating;

d.2. Equipment for the chemical vapor deposition of elements or compounds, on heated filamentary substrates, to manufacture silicon carbide fibers;

d.3. Equipment for the wet-spinning of refractory ceramics (such as aluminum oxide);

d.4. Equipment for converting aluminum containing precursor fibers into alumina fibers by heat treatment;

e. Equipment for producing prepregs controlled by 1C010.e by the hot melt method;

f. Non-destructive inspection equipment “specially designed” for “composite” materials, as follows:

f.1. X-ray tomography systems for three dimensional defect inspection;

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A for MT and for 1B001.a;  
\$5000 for all other items

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCN [1D001](#) for software for items controlled by this entry and see ECCNs [1E001](#) (“development” and “production”) and [1E101](#) (“use”) for technology for items controlled by this entry. (2) Also see ECCNs [1B101](#) and [1B201](#).

*Related Definitions:* N/A

*Items:*

a. Filament winding machines, of which the motions for positioning, wrapping and winding fibers are coordinated and programmed in three or more ‘primary servo positioning’ axes, “specially designed” for the manufacture of “composite” structures or laminates, from “fibrous or filamentary materials”;

b. ‘Tape laying machines’, of which the motions for positioning and laying tape are coordinated and programmed in five or more ‘primary servo positioning’ axes, “specially designed” for the manufacture of “composite” airframe or missile structures;

f.2. Numerically controlled ultrasonic testing machines of which the motions for positioning transmitters or receivers are simultaneously coordinated and programmed in four or more axes to follow the three dimensional contours of the “part” or “component” under inspection;

g. Tow-placement machines, of which the motions for positioning and laying tows are coordinated and programmed in two or more ‘primary servo positioning’ axes, “specially designed” for the manufacture of “composite” airframe or missile structures.

*Technical Note to 1B001.g: For the purposes of 1B001.g, ‘tow-placement machines’ have the ability to place one or more ‘filament bands’ having widths less than or equal to 25.4 mm, and to cut and restart individual ‘filament band’ courses during the placement process..*

**Technical Notes for 1B001:**

1. For the purpose of 1B001, ‘primary servo positioning’ axes control, under computer program direction, the position of the end effector (i.e., head) in space relative to the work piece at the correct orientation and direction to achieve the desired process.

2. For the purposes of 1B001, a ‘filament band’ is a single continuous width of fully or partially resin-impregnated tape, tow or fiber. Fully or partially resin-impregnated ‘filament bands’ include those coated with dry powder that tacks upon heating.

**\*\*1B002** Equipment for producing metal alloys, metal alloy powder or alloyed materials, “specially designed” to avoid contamination and “specially designed” for use in one of the processes specified in 1C002.c.2.

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$5000  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1B003** Tools, dies, molds or fixtures, for “superplastic forming” or “diffusion bonding” titanium, aluminum or their alloys, “specially designed” for the manufacture of any of the following (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$5000  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* For “specially designed” production equipment of systems, sub-systems, and “parts” and “components” controlled by 9A005 to 9A009, 9A011, 9A101, 9A105 to 9A109, 9A111, and 9A116 to 9A120 usable in “missiles,” see 9B115.

*Related Definitions:* N/A

*Items:*

- a. Airframe or aerospace structures;
- b. “Aircraft” or aerospace engines; *or*
- c. “Specially designed” “parts” and “components” for structures specified by 1B003.a or for engines specified by 1B003.b.

**\*\*1B018** Items on the Wassenaar Arrangement Munitions List (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, MT, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
MT applies to equipment for the “production” of rocket propellants.	MT Column 1
RS applies to 1B018.a.	RS Column 2
AT applies to entire entry	AT Column 1
UN applies to entire entry.	See § 746.1(b) for UN controls.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$3000 for 1B018.a for countries WITHOUT an “X” in RS Column 2 on the Country Chart contained in Supplement No. 1 to part 738 of the EAR;

\$5000 for 1B018.b.

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* See ECCN 1B608.a, .b, and .x for items that, immediately prior to July 1, 2014, were classified under 1B018.a.

*Related Definitions:* N/A

*Items:*

- a. [Reserved]
- b. [Reserved]

**\*\*1B101** Equipment, other than that controlled by 1B001, for the “production” of structural composites, fibers, prepregs or preforms, usable for rockets, missiles, or unmanned aerial vehicles capable of achieving a “range” equal to or greater than 300 km and their subsystems, as follows (see List of Items Controlled); and “specially designed” “parts,” “components” and “accessories” therefor.

**License Requirements**

*Reason for Control:* MT, NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
NP applies to filament winding machines described in 1B101.a that are capable of winding cylindrical rotors having a diameter between 75 mm (3 in.) and 400 mm (16 in.) and lengths of 600 mm (24 in.) or greater AND to coordinating and programming controls and precision mandrels for these filament winding machines	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

GBS: N/A

### List of Items Controlled

*Related Controls:* See ECCN [1D101](#) for software for items controlled by this entry and see ECCNs [1E001](#) (“development” and “production”) and [1E101](#) (“use”) for technology for items controlled by this entry. Also see [1B201](#).

*Related Definitions:* Examples of “parts,” “components” and “accessories” for the machines controlled by this entry are molds, mandrels, dies, fixtures and tooling for the preform pressing, curing, casting, sintering or bonding of composite structures, laminates and manufactures thereof.

*Items:*

a. Filament winding machines or ‘fiber/tow-placement machines,’ of which the motions for positioning, wrapping and winding fibers can be coordinated and programmed in three or more axes, designed to fabricate composite structures or laminates from fibrous or filamentary materials, and coordinating and programming controls;

b. ‘Tape-laying machines’ of which the motions for positioning and laying tape can be coordinated and programmed in two or more axes, designed for the manufacture of composite airframe and missile structures;

**Technical Notes for paragraphs a and b:** For the purposes of 1B101.a. and 1B101.b., the following definitions apply:

1. ‘Fiber/tow-placement machines’ and ‘tape-laying machines’ are machines that perform similar processes that use computer-guided heads to lay one or several ‘filament bands’ onto a mold to create a part or a structure. These machines have the ability to cut and restart individual ‘filament band’ courses during the laying process.

2. A ‘filament band’ is a single continuous width of fully or partially resin-impregnated tape, tow, or fiber. Fully or

partially resin-impregnated ‘filament bands’ include those coated with dry powder that tacks upon heating.

3. ‘Fiber/tow-placement machines’ have the ability to place one or more ‘filament bands’ having widths less than or equal to 25.4 mm. This refers to the minimum width of material the machine can place, regardless of the upper capability of the machine.

4. ‘Tape-laying machines’ have the ability to place one or more ‘filament bands’ having widths less than or equal to 304.8 mm, but cannot place ‘filament bands’ with a width equal to or less than 25.4 mm. This refers to the minimum width of material the machine can place, regardless of the upper capability of the machine.

c. Equipment designed or modified for the “production” of “fibrous or filamentary materials” as follows:

c.1. Equipment for converting polymeric fibers (such as polyacrylonitrile, rayon or polycarbosilane) including special provision to strain the fiber during heating;

c.2. Equipment for the vapor deposition of elements or compounds on heated filament substrates; and

c.3. Equipment for the wet-spinning of refractory ceramics (such as aluminum oxide);

d. Equipment designed or modified for special fiber surface treatment or for producing prepregs and preforms controlled by 9A110.

**Note:** Equipment covered in 1B101.d includes but is not limited to, rollers, tension stretchers, coating equipment, cutting equipment and clicker dies.

**\*\*1B102** Metal powder “production equipment,” other than that specified in 1B002, and “parts” and “components” as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* See also [1B115.b](#).

*Related Definitions:* N/A

*Items:*

a. Metal powder “production equipment” usable for the “production”, in a controlled environment, of spherical, spheroidal or atomized materials specified in 1C011.a., 1C011.b., 1C111.a.1., 1C111.a.2., or controlled for MT reasons in Category V of the USML.

b. “Specially designed” “parts” and “components” for “production equipment” specified in 1B002 or 1B102.a.

*Note:* 1B102 includes:

a. *Plasma generators (high frequency arc-jet) usable for obtaining sputtered or spherical metallic powders with organization of the process in an argon-water environment;*

b. *Electroburst equipment usable for obtaining sputtered or spherical metallic powders with organization of the process in an argon-water environment;*

c. *Equipment usable for the “production” of spherical aluminum powders by powdering a melt in an inert medium (e.g., nitrogen).*

**\*\*1B115** Equipment, other than that controlled in 1B002 or 1B102, for the “production” of propellant or propellant constituents (see List of Items Controlled), and “specially designed” “parts” and “components” therefor.

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* For the control of batch mixers, continuous mixers and fluid energy mills, see [1B117](#), [1B118](#) and [1B119](#).

*Related Definitions:* N/A

*Items:*

a. “Production equipment” for the “production”, handling or acceptance testing of liquid propellants or propellant constituents controlled by 1C011.a, 1C011.b, 1C111 or on the U.S. Munitions List;

b. “Production equipment,” for the production, handling, mixing, curing, casting, pressing, machining, extruding or acceptance testing of solid propellants or propellant constituents described in 1C011.a, 1C011.b or 1C111, or on the U.S. Munitions List.

*Note:* 1B115.b does not control batch mixers, continuous mixers or fluid energy mills. For the control of batch mixers, continuous mixers and fluid energy mills see 1B117, 1B118, and 1B119.

*Note 1:* [Reserved]

*Note 2:* 1B115 does not control equipment for the “production,” handling and acceptance testing of boron carbide.

**\*\*1B116** “Specially designed” nozzles for producing pyrolytically derived materials formed on a mold, mandrel or other substrate from precursor gases which decompose in the 1,573 K (1,300 °C) to 3,173 K (2,900 °C) temperature range at pressures of 130 Pa to 20 kPa.

**License Requirements**

*Reason for Control:* MT, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1B117** Batch mixers having all of the following (see List of Items Controlled), and “specially designed” “parts” and “components” therefor.

**License Requirements**

*Reason for Control:* MT, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* See 1B115, [1B118](#), and [1B119](#).

*Related Definitions:* N/A

*Items:*

- a. Capable of mixing under vacuum in the range from zero to 13.326 kPa;
- b. Capable of controlling the temperature of the mixing chamber;
- c. A total volumetric capacity of 110 liters (30 gallons) or more; *and*
- d. At least one ‘mixing/kneading shaft’ mounted off center.

*Note to paragraph d:* In 1B117.d. the term ‘mixing/kneading shaft’ does not refer to deagglomerators or knife-spindles.

**\*\*1B118** Continuous mixers having all of the following (see List of Items Controlled), and

“specially designed” “parts” and “components” therefor.

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* See 1B115, 1B117, and 1B119.  
*Related Definitions:* N/A  
*Items:*

- a. Capable of mixing under vacuum in the range from zero to 13.326 kPa;
- b. Capable of controlling the temperature of the mixing chamber; *and*
- c. Either of the following:
  - c.1. Two or more mixing/kneading shafts; *or*
  - c.2. A single rotating and oscillating shaft with kneading teeth/pins as well as kneading teeth/pins inside the casing of the mixing chamber.

**\*\*1B119** Fluid energy mills usable for grinding or milling propellant or propellant constituents specified in 1C011.a, 1C011.b or 1C111, or on the U.S. Munitions List, and “specially designed” “parts” and “components” therefor.

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* See 1B115, 1B117, and 1B118.  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1B201** Filament winding machines (other than those controlled by ECCN 1B001 or 1B101) and related equipment, as described in this ECCN (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
 GBS: N/A

**List of Items Controlled**

*Related Controls:* See ECCN [1D201](#) for software for items controlled by this entry and see ECCNs [1E001](#) (“development” and “production”) and [1E201](#) (“use”) for technology for items controlled by this entry. Also see ECCN [1E203](#) for technology for the “development” of software controlled by ECCN [1D201](#).

*Related Definitions:* N/A

*Items:*

a. Filament winding machines having all of the following characteristics:

a.1. Having motions for positioning, wrapping, and winding fibers coordinated and programmed in two or more axes;

a.2. “Specially designed” to fabricate composite structures or laminates from “fibrous or filamentary materials”; *and*

a.3. Capable of winding cylindrical tubes with an internal diameter between 75 mm and 650 mm and lengths of 300 mm or greater;

b. Coordinating and programming controls for filament winding machines controlled by 1B201.a;

c. Precision mandrels for filament winding machines controlled by 1B201.a.

**\*\*1B225 Electrolytic cells for fluorine production with a production capacity greater than 250 g of fluorine per hour.**

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>

NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
 GBS: N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCNs [1E001](#) (“development” and “production”) and [1E201](#) (“use”) for technology for items controlled by this entry. (2) See ECCN [1B999](#) for specific processing equipment, n.e.s.

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1B226 Electromagnetic isotope separators, designed for, or equipped with, single or multiple ion sources capable of providing a total ion beam current of 50 mA or greater.**

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
 GBS: N/A

**List of Items Controlled**

*Related Controls:* (1) Electromagnetic isotope separators “specially designed” or prepared for use in separating uranium isotopes are subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110). (2) See ECCNs [1E001](#) (“development” and “production”) and [1E201](#) (“use”) for technology for items controlled by this entry.

*Related Definitions:* N/A

*ECCN Controls:* This entry includes separators capable of enriching stable isotopes and separators with the ion sources and collectors both in the magnetic field and those configurations in which they are external to the field.

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1B228 Hydrogen cryogenic distillation columns having all of the characteristics described in this ECCN (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) Equipment “specially designed” or prepared for the production of

heavy water is subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110). (2) See ECCNs [1E001](#) (“development” and “production”) and [1E201](#) (“use”) for technology for items controlled by this entry.

*Related Definitions:* (1) The term “fine grain stainless steels,” for purposes of this ECCN, means fine grain austenitic stainless steels with an ASTM (or equivalent standard) grain size number of 5 or greater. (2) The term “effective length,” for purposes of this ECCN, means the active height of packing material in a packed-type column, or the active height of internal contactor plates in a plate-type column.

*Items:*

- a. Designed to operate with internal temperatures of 35 K (-238 °C) or less;
- b. Designed to operate at an internal pressure of 0.5 to 5 MPa (5 to 50 atmospheres);
- c. Constructed of “fine-grain stainless steels” of the 300 series with low sulphur content or equivalent cryogenic and H<sub>2</sub>-compatible materials; *and*
- d. With internal diameters of 30 cm or greater and “effective lengths” of 4 m or greater.

**\*\*1B229 Water-hydrogen sulfide exchange tray columns and internal contactors, as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A

GBS: N/A

**List of Items Controlled**

*Related Controls:* (1) Equipment “specially designed” or prepared for the production of heavy water is subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110). (2) See ECCNs [1E001](#) (“development” and “production”) and [1E201](#) (“use”) for technology for items controlled by this entry.

*Related Definitions:* The “internal contactors” controlled by [1B229.b](#) are segmented trays that have an effective assembled diameter of 1.8 m (6 ft.) or greater, are designed to facilitate countercurrent contacting, and are constructed of stainless steels with a carbon content of 0.03% or less. These may be sieve trays, valve trays, bubble cap trays, or turbogrid trays.

*Items:*

a. Water-hydrogen sulfide exchange tray columns, having all of the following characteristics:

a.1. Can operate at pressures of 2 MPa or greater;

a.2. Constructed of carbon steel having an austenitic ASTM (or equivalent standard) grain size number of 5 or greater; *and*

a.3. With a diameter of 1.8 m (6 ft.) or greater;

b. “Internal contactors” for the water-hydrogen sulfide exchange tray columns controlled by 1B229.a.

**\*\*1B230** Pumps capable of circulating solutions of concentrated or dilute potassium amide catalyst in liquid ammonia (KNH<sub>2</sub>/NH<sub>3</sub>), having all of the following characteristics (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A

GBS: N/A

**List of Items Controlled**

*Related Controls:* (1) Equipment “specially designed” or prepared for the production of heavy water is subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110). (2) See ECCNs [1E001](#) (“development” and “production”) and [1E201](#) (“use”) for technology for items controlled by this entry.

*Related Definitions:* N/A

*Items:*

a. Airtight (i.e., hermetically sealed);

b. A capacity greater than 8.5 m<sup>3</sup>/h; *and*

c. Either of the following characteristics:

c.1. For concentrated potassium amide solutions (1% or greater), an operating pressure of 1.5 to 60 MPa (15-600 atmospheres); *or*

c.2. For dilute potassium amide solutions (less than 1%), an operating pressure of 20 to 60 MPa (200-600 atmospheres).

**\*\*1B231** Tritium facilities or plants, and equipment therefor, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) Tritium, tritium compounds, and mixtures containing tritium are subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110). (2) See ECCNs [1E001](#) (“development” and “production”) and [1E201](#) (“use”) for technology for items controlled by this entry.

*Related Definitions:* N/A  
*Items:*

- a. Facilities or plant for the production, recovery, extraction, concentration, or handling of tritium;
- b. Equipment for tritium facilities or plant, as follows:
  - b.1. Hydrogen or helium refrigeration units capable of cooling to 23 K (-250 °C) or less, with heat removal capacity greater than 150 watts; *or*
  - b.2. Hydrogen isotope storage and purification systems using metal hydrides as the storage, or purification medium.

**\*\*1B232 Turboexpanders or turboexpander-compressor sets having both of the following characteristics (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) Equipment “specially designed” or prepared for the production of heavy water is subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110). (2) See ECCNs [1E001](#) (“development” and “production”) and [1E201](#) (“use”) for technology for items controlled by this entry.

*Related Definitions:* N/A  
*Items:*

- a. Designed for operation with an outlet temperature of 35 K (-238 °C) or less; *and*
- b. Designed for a throughput of hydrogen gas of 1,000 kg/h or greater.

**\*\*1B233 Lithium isotope separation facilities or plants, and systems and equipment therefor (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
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NP applies to 1B233.b	NP Column 1
AT applies to 1B233.b	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
 GBS: N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCN [1E001](#) (“development” and “production”) and ECCN [1E201](#) (“use”) for technology for items described in this entry. (2) Facilities and plants described in 1B233.a are subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110). (3) Certain lithium isotope separation equipment and components for the plasma separation process (PSP) that are described in 1B233.b through .d are also directly applicable to uranium isotope separation and are subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

*Related Definitions:* N/A

*Items:*

- a. Facilities or plants for the separation of lithium isotopes;
- b. Equipment for the separation of lithium isotopes based on the lithium-mercury amalgam process, as follows:
  - b.1. Packed liquid-liquid exchange columns “specially designed” for lithium amalgams;
  - b.2. Mercury and/or lithium amalgam pumps;
  - b.3. Lithium amalgam electrolysis cells;
  - b.4. Evaporators for concentrated lithium hydroxide solution.
- c. Ion exchange systems “specially designed” for lithium isotope separation, and “specially designed” component parts therefor;

d. Chemical exchange systems (employing crown ethers, cryptands, or lariat ethers) “specially designed” for lithium isotope separation, and “specially designed” component parts therefor.

**\*\*1B234** High explosive containment vessels, chambers, containers, and other similar containment devices, not enumerated in ECCN 1B608 or in USML Category IV or V of the ITAR, designed for the testing of high explosives or explosive devices and having both of the characteristics described in this ECCN (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
 GBS: N/A

**List of Items Controlled**

*Related Controls:* (1) Devices “specially designed” for the handling, control, activation, monitoring, detection, protection, discharge, or detonation of the articles enumerated in USML Category IV(a) and (b) are controlled by USML Category IV(c) of the ITAR (see 22 CFR parts 120 through 130). (2) See USML Category V of the ITAR (22 CFR parts 120 through 130) for devices identified therein that are “specially designed” to fully contain explosives

enumerated in USML Category V. (3) Also see ECCN 1B608 for “equipment” “specially designed” for the “development,” “production,” repair, overhaul, or refurbishing of items controlled by ECCN 1C608 or USML Category V and not elsewhere specified on the USML.

*Related Definitions:* N/A

*Items:*

- a. Designed to fully contain an explosion equivalent to 2 kg of TNT or greater; *and*
- b. Having design elements or features enabling real time or delayed transfer of diagnostic or measurement information.

**\*\*1B607** Military test, inspection, and production “equipment” and related commodities “specially designed” for the “development,” “production,” repair, overhaul, or refurbishing of commodities identified in ECCN 1A607 or 1C607, or defense articles enumerated or otherwise described in USML Category XIV (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
RS applies to entire entry	RS Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry	See § 746.1(b) for UN controls

**List Based License Exceptions (See Part 740 for a description of all license exceptions)**

LVS: \$1500  
GBS: N/A

**Special Conditions for STA**

STA: Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in 1B607.

**List of Items Controlled**

*Related Controls:* (1) See ECCN 2B350 for controls on certain incinerators. (2) See ECCN 0A919 for “military commodities” located and produced outside the United States that incorporate more than a *de minimis* amount of US-origin “600 series” controlled content.

*Related Definitions:* N/A

*Items:*

- a. “Equipment” “specially designed” for the destruction of the chemical agents controlled by USML Category XIV(a).

*Note to 1B607.a:* ECCN 1B607.a includes controls over facilities “specially designed” for destruction operations. This paragraph .a does not control incinerators and “specially designed” handling facilities or “specially designed” waste supply systems therefor.

- b. Test facilities and “equipment” “specially designed” for military certification, qualification, or testing of commodities controlled by ECCN 1A607.e, .f, .g, .h, or .j or by USML Category XIV(f), except for XIV(f)(1).

- c. Tooling and “equipment” “specially designed” for the “development,” “production,” repair, overhaul, or refurbishing of commodities controlled by ECCN 1A607.e, .f, .g, .h, or .j or USML Category XIV(f).

- d. through w. [Reserved]

- x. “Parts,” “components,” “accessories,” and “attachments” that are “specially designed” for a commodity controlled by ECCN 1B607.b or .c, or for a defense article controlled by USML Category XIV(f), and that are not enumerated or otherwise described elsewhere in the USML.

**\*\*1B608** Test, inspection, and production “equipment” and related commodities “specially designed” for the “development,” “production,” repair, overhaul, or refurbishing of commodities enumerated in ECCN 1C608 or USML Category V (see List of Items Controlled).

ECCN 1B115 for controls on “production equipment,” not controlled by this ECCN 1B608, for propellants or propellant constituents described in ECCN 1C011.a, 1C011.b, or 1C111 or in USML Category V.

*Related Definitions:* N/A

*Items:*

**License Requirements**

*Reason for Control:* NS, RS, MT, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
RS applies to entire entry	RS Column 1
MT applies to equipment “specially designed” for MT-controlled commodities in ECCN 1C608 or MT articles in USML Category V	MT Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry	See § 746.1(b) for UN controls

a. “Equipment” “specially designed” for the “development,” “production,” repair, overhaul, or refurbishing of items controlled by ECCN 1C608 or USML Category V and not elsewhere specified on the USML.

*Note:* ECCN 1B608.a. includes: (1) continuous nitrators; (2) dehydration presses; (3) cutting machines for the sizing of extruded propellants; (4) sweetie barrels (tumblers) 6 feet or more in diameter and having over 500 pounds product capacity; (5) convection current converters for the conversion of materials listed in USML Category V(c)(2); and (6) extrusion presses for the extrusion of small arms, cannon and rocket propellants.

b. Complete installations “specially designed” for the “development,” “production,” repair, overhaul, or refurbishing of items controlled by ECCN 1C608 or USML Category V and not elsewhere specified on the USML.

c. Environmental test facilities “specially designed” for the certification, qualification, or testing of items controlled by ECCN 1C608 or USML Category V.

d. through w. [Reserved]

x. “Parts,” “components,” “accessories” and “attachments” that are “specially designed” for a commodity subject to control in this ECCN or a defense article in USML Category V and not elsewhere specified on the USML.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: \$1500  
GBS: N/A

**Special Conditions for STA**

STA: Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in 1B608.

**List of Items Controlled**

*Related Controls:* (1) Defense articles that are enumerated in USML Category V, and technical data (including software) directly related thereto, are “subject to the ITAR.” (2) See ECCN 0A919 for foreign-made “military commodities” that incorporate more than a *de minimis* amount of US-origin “600 series” controlled content. (3) See

**\*\*1B613** Test, inspection, and “production” “equipment” and related commodities “specially designed” for the “development,” “production,” repair, overhaul, or

**refurbishing of commodities controlled by ECCN 1A613 or USML Category X, as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
RS applies to entire entry	RS Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry	See § 746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$1500  
*GBS:* N/A

**Special Conditions for STA**

*STA:* Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in 1B613.

**List of Items Controlled**

*Related Controls:* See ECCN 0A919 for foreign-made “military commodities” that incorporate more than a *de minimis* amount of US-origin “600 series” controlled content.

*Related Definitions:* N/A

*Items:*

- a. Test, inspection, and “production” “equipment,” not controlled by USML Category X(c), that is “specially designed” for the “development,” “production,” repair, overhaul, or refurbishing of commodities controlled by ECCN 1A613 or USML Category X.
- b. Plasma pressure compaction (P2C) “equipment” “specially designed” for the “production” of ceramic or composite body

armor plates controlled by ECCN 1A613 or USML Category X.

**\*\*1B999 Specific processing equipment, n.e.s., as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* AT, RS

*Control(s)*

AT applies to entire entry. A license is required for items controlled by this entry to North Korea for anti-terrorism reasons. The Commerce Country Chart is not designed to determine AT licensing requirements for this entry. See §742.19 of the EAR for additional information

RS applies to entire entry. A license is required for items controlled by this entry for export or reexport to Iraq or transfer within Iraq for regional stability reasons. The Commerce Country Chart is not designed to determine RS license requirements for this entry. See §§742.6 and 746.3 of the EAR for additional information.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* See also [1B001](#), [1B101](#), [1B201](#), [1B225](#) and [1D999](#)

*Related Definitions:* N/A

*Items:*

- a. Electrolytic cells for fluorine production, n.e.s.;
- b. Particle accelerators;
- c. Industrial process control hardware/systems designed for power industries, n.e.s.;
- d. Freon and chilled water cooling systems capable of continuous cooling duties of 100,000 BTU/hr (29.3 kW) or greater;

e. Equipment for the production of structural composites, fibers, prepregs and preforms, n.e.s.

**C. “MATERIALS”**

**Technical Note:**

*Metals and alloys: Unless provision to the contrary is made, the words “metals” and “alloys” in 1C001 to 1C011 cover crude and semi-fabricated forms, as follows:*

*Crude forms: Anodes, balls, bars (including notched bars and wire bars), billets, blocks, blooms, brickets, cakes, cathodes, crystals, cubes, dice, grains, granules, ingots, lumps, pellets, pigs, powder, rondelles, shot, slabs, slugs, sponge, sticks;*

*Semi-fabricated forms (whether or not coated, plated, drilled or punched):*

*a. Wrought or worked materials fabricated by rolling, drawing, extruding, forging, impact extruding, pressing, graining, atomizing, and grinding, i.e.: angles, channels, circles, discs, dust, flakes, foils and leaf, forging, plate, powder, pressings and stampings, ribbons, rings, rods (including bare welding rods, wire rods, and rolled wire), sections, shapes, sheets, strip, pipe and tubes (including tube rounds, squares, and hollows), drawn or extruded wire;*

*b. Cast material produced by casting in sand, die, metal, plaster or other types of molds, including high pressure castings, sintered forms, and forms made by powder metallurgy.*

*The object of the control should not be defeated by the export of non-listed forms alleged to be finished products but representing in reality crude forms or semi-fabricated forms.*

**\*\*1C001 Materials “specially designed” for absorbing electromagnetic radiation, or**

**intrinsically conductive polymers, as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NS, MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
GBS: N/A

**Special Conditions for STA**

*STA:* License Exception STA may not be used to ship any item in this entry to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

**List of Items Controlled**

*Related Controls:* See also [1C101](#)  
*Related Definitions:* N/A  
*Items:*

a. Materials for absorbing frequencies exceeding  $2 \times 10^8$  Hz but less than  $3 \times 10^{12}$  Hz.

*Note 1:* 1C001.a does not control:

*a. Hair type absorbers, constructed of natural or synthetic fibers, with non-magnetic loading to provide absorption;*

b. Absorbers having no magnetic loss and whose incident surface is non-planar in shape, including pyramids, cones, wedges and convoluted surfaces;

c. Planar absorbers, having all of the following:

1. Made from any of the following:

a. Plastic foam materials (flexible or non-flexible) with carbon-loading, or organic materials, including binders, providing more than 5% echo compared with metal over a bandwidth exceeding  $\pm 15\%$  of the center frequency of the incident energy, and not capable of withstanding temperatures exceeding 450 K (177 °C); or

b. Ceramic materials providing more than 20% echo compared with metal over a bandwidth exceeding  $\pm 15\%$  of the center frequency of the incident energy, and not capable of withstanding temperatures exceeding 800 K (527 °C);

**Technical Note:** Absorption test samples for 1C001.a. Note 1.c.1 should be a square at least 5 wavelengths of the center frequency on a side and positioned in the far field of the radiating element.

2. Tensile strength less than  $7 \times 10^6$  N/m<sup>2</sup>; and

3. Compressive strength less than  $14 \times 10^6$  N/m<sup>2</sup>;

d. Planar absorbers made of sintered ferrite, having all of the following:

1. A specific gravity exceeding 4.4; and

2. A maximum operating temperature of 548 K (275 °C);

e. Planar absorbers having no magnetic loss and fabricated from 'open-cell foams' plastic material with a density of 0.15 grams/cm<sup>3</sup> or less.

**Technical Note:** 'Open-cell foams' are flexible and porous materials, having an inner structure open to the atmosphere. 'Open-cell foams' are also known as reticulated foams.

**Note 2:** Nothing in Note 1 releases magnetic materials to provide absorption when contained in paint.

b. Materials not transparent to visible light and specially designed for absorbing near-infrared radiation having a wavelength exceeding 810 nm but less than 2,000 nm (frequencies exceeding 150 THz but less than 370 THz);

**Note:** 1C001.b does not apply to materials, "specially designed" or formulated for any of the following applications:

a. "Laser" marking of polymers; or

b. "Laser" welding of polymers.

c. Intrinsically conductive polymeric materials with a 'bulk electrical conductivity' exceeding 10,000 S/m (Siemens per meter) or a 'sheet (surface) resistivity' of less than 100 ohms/square, based on any of the following polymers:

c.1. Polyaniline;

c.2. Polypyrrole;

c.3. Polythiophene;

c.4. Poly phenylene-vinylene; or

c.5. Poly thienylene-vinylene.

**Note:** 1C001.c does not apply to materials in a liquid form.

**Technical Note:** 'Bulk electrical conductivity' and 'sheet (surface) resistivity' should be determined using ASTM D-257 or national equivalents.

**\*\*1C002** Metal alloys, metal alloy powder and alloyed materials, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
NP applies to 1C002.b.3 or b.4 if they exceed the parameters stated in 1C202	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$3000; N/A for NP  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCNs [1E001](#) (“development” and “production”) and [1E201](#) (“use”) for technology for items controlled by this entry. (2) Also see ECCN [1C202](#). (3) Aluminum alloys and titanium alloys in physical forms and finished products “specially designed” or prepared for use in separating uranium isotopes are subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

*Related Definition:* N/A

*Items:*

**Note:** 1C002 does not control metal alloys, metal alloy powder and alloyed materials, specially formulated for coating purposes.

**Technical Note 1:** The metal alloys in 1C002 are those containing a higher percentage by weight of the stated metal than of any other element.

**Technical Note 2:** ‘Stress-rupture life’ should be measured in accordance with ASTM standard E-139 or national equivalents.

**Technical Note 3:** ‘Low cycle fatigue life’ should be measured in accordance with ASTM Standard E-606 ‘Recommended Practice for Constant-Amplitude Low-Cycle Fatigue Testing’ or national equivalents. Testing should be axial with an average stress ratio equal to 1 and a stress-concentration factor ( $K_t$ ) equal to 1. The average stress is defined as maximum stress minus minimum stress divided by maximum stress.

a. Aluminides, as follows:

a.1. Nickel aluminides containing a minimum of 15% by weight aluminum, a maximum of 38% by weight aluminum and at least one additional alloying element;

a.2. Titanium aluminides containing 10% by weight or more aluminum and at least one additional alloying element;

b. Metal alloys, as follows, made from the powder or particulate material controlled by 1C002.c:

b.1. Nickel alloys having any of the following:

b.1.a. A ‘stress-rupture life’ of 10,000 hours or longer at 923 K (650 °C) at a stress of 676 MPa; *or*

b.1.b. A ‘low cycle fatigue life’ of 10,000 cycles or more at 823 K (550 °C) at a maximum stress of 1,095 MPa;

b.2. Niobium alloys having any of the following:

b.2.a. A ‘stress-rupture life’ of 10,000 hours or longer at 1,073 K (800 °C) at a stress of 400 MPa; *or*

b.2.b. A ‘low cycle fatigue life’ of 10,000 cycles or more at 973 K (700 °C) at a maximum stress of 700 MPa;

b.3. Titanium alloys having any of the following:

b.3.a. A ‘stress-rupture life’ of 10,000 hours or longer at 723 K (450 °C) at a stress of 200 MPa; *or*

b.3.b. A ‘low cycle fatigue life’ of 10,000 cycles or more at 723 K (450 °C) at a maximum stress of 400 MPa;

b.4 Aluminum alloys having any of the following:

b.4.a. A tensile strength of 240 MPa or more at 473 K (200 °C); *or*

b.4.b. A tensile strength of 415 MPa or more at 298 K (25 °C);

b.5. Magnesium alloys having all the following:

b.5.a. A tensile strength of 345 MPa or more; and

b.5.b. A corrosion rate of less than 1 mm/year in 3% sodium chloride aqueous solution measured in accordance with ASTM standard G-31 or national equivalents;

c. Metal alloy powder or particulate material, having all of the following:

c.1. Made from any of the following composition systems:

**Technical Note:** *X in the following equals one or more alloying elements.*

c.1.a. Nickel alloys (Ni-Al-X, Ni-X-Al) qualified for turbine engine “parts” or “components,” i.e. with less than 3 non-metallic particles (introduced during the manufacturing process) larger than 100 µm in 10<sup>9</sup> alloy particles;

c.1.b. Niobium alloys (Nb-Al-X or Nb-X-Al, Nb-Si-X or Nb-X-Si, Nb-Ti-X or Nb-X-Ti);

c.1.c. Titanium alloys (Ti-Al-X or Ti-X-Al);

c.1.d. Aluminum alloys (Al-Mg-X or Al-X-Mg, Al-Zn-X or Al-X-Zn, Al-Fe-X or Al-X-Fe); *or*

c.1.e. Magnesium alloys (Mg-Al-X or Mg-X-Al);

c.2. Made in a controlled environment by any of the following processes:

c.2.a. ‘Vacuum atomization’;

c.2.b. ‘Gas atomization’;

c.2.c. ‘Rotary atomization’;

c.2.d. ‘Splat quenching’;

c.2.e. ‘Melt spinning’ and ‘comminution’;

c.2.f. ‘Melt extraction’ and ‘comminution’;

c.2.g. ‘Mechanical alloying’; *or*

c.2.h. ‘Plasma atomization’; *and*

c.3. Capable of forming materials controlled by 1C002.a or 1C002.b;

d. Alloyed materials, having all the following:

d.1. Made from any of the composition systems specified by 1C002.c.1;

d.2. In the form of uncomminuted flakes, ribbons or thin rods; *and*

d.3. Produced in a controlled environment by any of the following:

d.3.a. ‘Splat quenching’;

d.3.b. ‘Melt spinning’; or

d.3.c. ‘Melt extraction’.

**Technical Notes:**

1. ‘Vacuum atomization’ is a process to reduce a molten stream of metal to droplets of a diameter of 500 µm or less by the rapid evolution of a dissolved gas upon exposure to a vacuum.

2. ‘Gas atomization’ is a process to reduce a molten stream of metal alloy to droplets of 500 µm diameter or less by a high pressure gas stream.

3. ‘Rotary atomization’ is a process to reduce a stream or pool of molten metal to droplets of a diameter of 500 µm or less by centrifugal force.

4. ‘Splat quenching’ is a process to ‘solidify rapidly’ a molten metal stream impinging upon a chilled block, forming a flake-like product.

5. ‘Melt spinning’ is a process to ‘solidify rapidly’ a molten metal stream impinging upon a rotating chilled block, forming a flake, ribbon or rod-like product.

6. ‘Comminution’ is a process to reduce a material to particles by crushing or grinding.

7. ‘Melt extraction’ is a process to ‘solidify rapidly’ and extract a ribbon-like alloy product by the insertion of a short segment of a rotating chilled block into a bath of a molten metal alloy.

8. ‘Mechanical alloying’ is an alloying process resulting from the bonding, fracturing and rebonding of elemental and master alloy powders by mechanical impact. Non-metallic particles may be incorporated in the alloy by addition of the appropriate powders.

9. ‘Plasma atomization’ is a process to reduce a molten stream or solid metal to droplets of 500 µm diameter or less, using plasma torches in an inert gas environment.

10. ‘Solidify rapidly’ is a process involving the solidification of molten material at cooling rates exceeding 1000 K/sec.

**\*\*1C003** Magnetic metals, of all types and of whatever form, having any of the following (see List of Items Controlled).

**License Requirements**

Reason for Control: NS, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: \$3000  
GBS: N/A

**List of Items Controlled**

Related Controls: N/A  
Related Definitions: N/A  
Items:

a. Initial relative permeability of 120,000 or more and a thickness of 0.05 mm or less;

**Technical Note:** Measurement of initial relative permeability must be performed on fully annealed materials.

b. Magnetostrictive alloys having any of the following:

b.1. A saturation magnetostriction of more than  $5 \times 10^{-4}$ ; or

b.2. A magnetomechanical coupling factor (k) of more than 0.8; *or*

c. Amorphous or ‘nanocrystalline’ alloy strips, having all of the following:

c.1. A composition having a minimum of 75% by weight of iron, cobalt or nickel;

c.2. A saturation magnetic induction (B<sub>s</sub>) of 1.6 T or more; *and*

c.3. Any of the following:

c.3.a. A strip thickness of 0.02 mm or less; *or*

c.3.b. An electrical resistivity of  $2 \times 10^{-4}$  ohm cm or more.

**Technical Note:** ‘Nanocrystalline’ materials in 1C003.c are those materials having a crystal grain size of 50 nm or less, as determined by X-ray diffraction.

**\*\*1C004** Uranium titanium alloys or tungsten alloys with a “matrix” based on iron, nickel or copper, having all of the following (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: \$3000  
GBS: N/A

**List of Items Controlled**

*Related Controls:* See also [1C117](#) and [1C226](#).

*Related Definitions:* N/A

*Items:*

- a. A density exceeding 17.5 g/cm<sup>3</sup>;
- b. An elastic limit exceeding 880 MPa;
- c. An ultimate tensile strength exceeding 1,270 MPa; *and*
- d. An elongation exceeding 8%.

**\*\*1C005** “Superconductive” “composite” conductors in lengths exceeding 100 m or with a mass exceeding 100 g, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: \$1500  
GBS: N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

- a. “Superconductive” “composite” conductors containing one or more niobium-titanium ‘filaments’, having all of the following:
  - a.1. Embedded in a “matrix” other than a copper or copper-based mixed “matrix”; *and*

a.2. Having a cross-section area less than  $0.28 \times 10^{-4} \text{ mm}^2$  (6  $\mu\text{m}$  in diameter for circular ‘filaments’);

b. “Superconductive” “composite” conductors consisting of one or more “superconductive” ‘filaments’ other than niobium-titanium, having all of the following:

b.1. A “critical temperature” at zero magnetic induction exceeding 9.85 K (-263.31 °C); and

b.2. Remaining in the “superconductive” state at a temperature of 4.2 K (-268.96°C) when exposed to a magnetic field oriented in any direction perpendicular to the longitudinal axis of conductor and corresponding to a magnetic induction of 12 T with critical current density exceeding 1750 A/mm<sup>2</sup> on overall cross-section of the conductor.

c. “Superconductive” “composite” conductors consisting of one or more “superconductive” ‘filaments’ which remain “superconductive” above 115 K (-158.16°C).

**Technical Note:** For the purpose of 1C005, ‘filaments’ may be in wire, cylinder, film, tape or ribbon form.

**\*\*1C006 Fluids and lubricating materials, as follows (see List of Items Controlled).**

**License Requirements**

Reason for Control: NS, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: \$3000  
 GBS: Yes for 1C006.d

**List of Items Controlled**

Related Controls: See also [1C996](#).

Related Definitions: N/A

Items:

a. [Reserved]

b. Lubricating materials containing, as their principal ingredients, any of the following:

b.1. Phenylene or alkylphenylene ethers or thio-ethers, or their mixtures, containing more than two ether or thio-ether functions or mixtures thereof; *or*

b.2. Fluorinated silicone fluids with a kinematic viscosity of less than 5,000 mm<sup>2</sup>/s (5,000 centistokes) measured at 298 K (25 °C);

c. Damping or flotation fluids having all of the following:

c.1. Purity exceeding 99.8%;

c.2. Containing less than 25 particles of 200  $\mu\text{m}$  or larger in size per 100 ml; *and*

c.3. Made from at least 85% of any of the following:

c.3.a. Dibromotetrafluoroethane (CAS 25497-30-7, 124-73-2, 27336-23-8);

c.3.b. Polychlorotrifluoroethylene (oily and waxy modifications only); *or*

c.3.c. Polybromotrifluoroethylene;

d. Fluorocarbon electronic cooling fluids having all of the following:

d.1. Containing 85% by weight or more of any of the following, or mixtures thereof:

d.1.a. Monomeric forms of perfluoropolyalkylether-triazines or perfluoroaliphatic-ethers;

- d.1.b. Perfluoroalkylamines;
- d.1.c. Perfluorocycloalkanes; *or*
- d.1.d. Perfluoroalkanes;
- d.2. Density at 298 K (25 °C) of 1.5 g/ml or more;
- d.3. In a liquid state at 273 K (0 °C); *and*
- d.4. Containing 60% or more by weight of fluorine.

*Note:* 1C006.d does not apply to materials specified and packaged as medical products.

**\*\*1C007** Ceramic powders, ceramic-“matrix” “composite” materials and ‘precursor materials,’ as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, MT, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 2
MT applies to items in 1C007.c when the dielectric constant is less than 6 at any frequency from 100 MHz to 100 GHz for use in “missile” radomes	MT Column 1
AT applies to entire entry	AT Column 1

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$5,000, except N/A for MT and for 1C007.e  
*GBS:* N/A

**Special Conditions for STA**

*STA:* License Exception STA may not be used to ship any item in 1C007.c entry to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

**List of Items Controlled**

*Related Controls:* See also [1C107](#)

*Related Definitions:* N/A

*Items:*

a. Ceramic powders of titanium diboride (TiB<sub>2</sub>) (CAS 12045-63-5) having total metallic impurities, excluding intentional additions, of less than 5,000 ppm, an average particle size equal to or less than 5 µm and no more than 10% of the particles larger than 10 µm;

b. [Reserved]

c. Ceramic-”matrix” “composite” materials as follows:

c.1. Ceramic-ceramic “composite” materials with a glass or oxide-“matrix” and reinforced with any of the following:

c.1.a. Continuous fibers made from any of the following materials:

c.1.a.1. Al<sub>2</sub>O<sub>3</sub> (CAS 1344-28-1); *or*

c.1.a.2. Si-C-N; *or*

*Note:* 1C007.c.1.a does not apply to “composites” containing fibers with a tensile strength of less than 700 MPa at 1,273 K (1,000°C) or tensile creep resistance of more than 1% creep strain at 100 MPa load and 1,273 K (1,000°C) for 100 hours.

c.1.b. Fibers being all of the following:

c.1.b.1. Made from any of the following materials:

c.1.b.1.a. Si-N;

c.1.b.1.b. Si-C;

c.1.b.1.c. Si-Al-O-N; *or*

c.1.b.1.d. Si-O-N; *and*

c.1.b.2. Having a “specific tensile strength” exceeding  $12.7 \times 10^3$  m;

c.2. Ceramic-”matrix” “composite” materials with a “matrix” formed of carbides or nitrides of silicon, zirconium or boron;

*N.B.:* For items previously specified by 1C007.c see 1C007.c.1.b.

d. [Reserved]

*N.B.:* For items previously specified by 1C007.d see 1C007.c.2.

e. ‘Precursor materials’ “specially designed” for the “production” of materials controlled by 1C007.c, as follows:

e.1. Polydiorganosilanes;

e.2. Polysilazanes;

e.3. Polycarbosilazanes;

**Technical Note:** For the purposes of 1C007, ‘precursor materials’ are special purpose polymeric or metallo-organic materials used for the “production” of silicon carbide, silicon nitride, or ceramics with silicon, carbon and nitrogen.

f. [Reserved]

*N.B.:* For items previously specified by 1C007.f see 1C007.c.1.a.

**\*\*1C008 Non-fluorinated polymeric substances as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$200

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* See also [1A003](#).

*Related Definitions:* N/A

*Items:*

a. Imides as follows:

a.1. Bismaleimides;

a.2. Aromatic polyamide-imides (PAI) having a ‘glass transition temperature (Tg)’ exceeding 563 K (290°C);

a.3. Aromatic polyimides having a ‘glass transition temperature (Tg)’ exceeding 505 K (232°C);

a.4. Aromatic polyetherimides having a ‘glass transition temperature (Tg)’ exceeding 563 K (290°C);

*Note:* 1C008.a controls the substances in liquid or solid “fusible” form, including resin, powder, pellet, film, sheet, tape, or ribbon.

*N.B.:* For non-“fusible” aromatic polyimides in film, sheet, tape, or ribbon form, see ECCN 1A003.

b. [RESERVED]

c. [RESERVED]

d. Polyarylene ketones;

e. Polyarylene sulfides, where the arylene group is biphenylene, triphenylene or combinations thereof;

f. Polybiphenylenethersulphone having a ‘glass transition temperature (Tg)’ exceeding 563 K (290° C).

**Technical Notes:**

1. The ‘glass transition temperature (Tg)’ for 1C008.a.2 thermoplastic materials, 1C008.a.4 materials and 1C008.f materials is determined using the method described in ISO 11357-2 (1999) or national equivalents.

2. The ‘glass transition temperature (Tg)’ for 1C008.a.2 thermosetting materials and 1C008.a.3 materials is determined using the 3-point bend method described in ASTM D 7028-07 or equivalent national standard. The test is to be performed using a dry test specimen which has attained a minimum of 90% degree of cure as specified by ASTM E 2160-04 or equivalent national standard, and was cured using the combination of standard- and post-cure processes that yield the highest Tg.

**\*\*1C009 Unprocessed fluorinated compounds as follows (see List of Items Controlled).**

**License Requirements**

Reason for Control: NS, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: \$5000

GBS: N/A

**List of Items Controlled**

Related Controls: See also [1A001](#).

Related Definitions: N/A

Items:

a. [Reserved]

b. Fluorinated polyimides containing 10% by weight or more of combined fluorine;

c. Fluorinated phosphazene elastomers containing 30% by weight or more of combined fluorine.

**\*\*1C010 “Fibrous or filamentary materials” as follows (see List of Items Controlled).**

**License Requirements**

Reason for Control: NS, NP, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 2
NP applies to 1C010.a (aramid “fibrous or filamentary materials”, b (carbon “fibrous and filamentary materials”), and e.1 for “fibrous and filamentary materials” that meet or exceed the control criteria of ECCN 1C210	NP Column 1
AT applies to entire entry	AT Column 1

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: \$1500, N/A for NP

GBS: N/A

### Special Conditions for STA

**STA:** License Exception STA may not be used to ship any item in 1C010.c to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

### List of Items Controlled

**Related Controls:** (1) See ECCNs [1E001](#) (“development” and “production”) and [1E201](#) (“use”) for technology for items controlled by this entry. (2) Also see ECCNs [1C210](#) and [1C990](#). (3) See also 9C110 for material not controlled by [1C010.e](#), as defined by notes 1 or 2.

**Related Definitions:** 1.) “Specific modulus”: Young’s modulus in pascals, equivalent to N/m<sup>2</sup> divided by specific weight in N/m<sup>3</sup>, measured at a temperature of (296±2) K ((23±2) °C) and a relative humidity of (50±5)%. 2.) “Specific tensile strength”: ultimate tensile strength in pascals, equivalent to N/m<sup>2</sup> divided by specific weight in N/m<sup>3</sup>, measured at a temperature of (296±2) K ((23±2) °C) and a relative humidity of (50±5)%.

**Items:**

### Technical Notes:

**1.** For the purpose of calculating “specific tensile strength”, “specific modulus” or specific weight of “fibrous or filamentary materials” in 1C010.a, 1C010.b or 1C010.c, the tensile strength and modulus should be determined by using Method A described in ISO 10618 (2004) or national equivalents.

**2.** Assessing the “specific tensile strength”, “specific modulus” or specific weight of non-unidirectional “fibrous or filamentary materials” (e.g., fabrics, random mats or braids) in 1C010 is to be based on the mechanical

*properties of the constituent unidirectional monofilaments (e.g., monofilaments, yarns, rovings or tows) prior to processing into the non-unidirectional “fibrous or filamentary materials”.*

a. Organic “fibrous or filamentary materials”, having all of the following:

a.1. “Specific modulus” exceeding  $12.7 \times 10^6$  m; and

a.2. “Specific tensile strength” exceeding  $23.5 \times 10^4$  m;

**Note:** 1C010.a does not control polyethylene.

b. Carbon “fibrous or filamentary materials”, having all of the following:

b.1. “Specific modulus” exceeding  $14.65 \times 10^6$  m; and

b.2. “Specific tensile strength” exceeding  $26.82 \times 10^4$  m;

**Note:** 1C010.b does not control:

a. “Fibrous or filamentary materials”, for the repair of “civil aircraft” structures or laminates, having all of the following:

1. An area not exceeding 1 m<sup>2</sup>;
2. A length not exceeding 2.5 m; and
3. A width exceeding 15 mm.

b. Mechanically chopped, milled or cut carbon “fibrous or filamentary materials” 25.0 mm or less in length.

c. Inorganic “fibrous or filamentary materials”, having all of the following:

c.1. “Specific modulus” exceeding  $2.54 \times 10^6$  m; and

c.2. Melting, softening, decomposition or sublimation point exceeding 1,922 K (1,649 °C) in an inert environment;

**Note:** 1C010.c does not control:

a. Discontinuous, multiphase, polycrystalline alumina fibers in chopped fiber or random mat form, containing 3% by weight or more silica, with a “specific modulus” of less than  $10 \times 10^6$  m;

b. Molybdenum and molybdenum alloy fibers;

c. Boron fibers;

d. Discontinuous ceramic fibers with a melting, softening, decomposition or sublimation point lower than 2,043 K (1,770°C) in an inert environment.

d. “Fibrous or filamentary materials”, having any of the following:

d.1. Composed of any of the following:

d.1.a. Polyetherimides controlled by 1C008.a; or

d.1.b. Materials controlled by 1C008.b to 1C008.f; or

d.2. Composed of materials controlled by 1C010.d.1.a or 1C010.d.1.b and ‘commingled’ with other fibers controlled by 1C010.a, 1C010.b or 1C010.c;

**Technical Note:** ‘Commingled’ is filament to filament blending of thermoplastic fibers and reinforcement fibers in order to produce a fiber reinforcement “matrix” mix in total fiber form.

e. Fully or partially resin impregnated or pitch impregnated “fibrous or filamentary materials” (prepregs), metal or carbon coated “fibrous or filamentary materials” (preforms) or ‘carbon fiber preforms’, having all of the following:

e.1. Having any of the following:

e.1.a. Inorganic “fibrous or filamentary materials” controlled by 1C010.c; or

e.1.b. Organic or carbon “fibrous or filamentary materials”, having all of the following:

e.1.b.1. “Specific modulus” exceeding  $10.15 \times 10^6$  m; and

e.1.b.2. “Specific tensile strength” exceeding  $17.7 \times 10^4$  m; and

e.2. Having any of the following:

e.2.a. Resin or pitch, controlled by 1C008 or 1C009.b;

e.2.b. ‘Dynamic Mechanical Analysis glass transition temperature (DMA T<sub>g</sub>)’ equal to or exceeding 453 K (180°C) and having a phenolic resin; or

e.2.c. ‘Dynamic Mechanical Analysis glass transition temperature (DMA T<sub>g</sub>)’ equal to or exceeding 505 K (232°C) and having a resin or pitch, not specified by 1C008 or 1C009.b, and not being a phenolic resin;

**Note 1:** Metal or carbon coated “fibrous or filamentary materials” (preforms) or ‘carbon fiber preforms’, not impregnated with resin or pitch, are specified by “fibrous or filamentary materials” in 1C010.a, 1C010.b or 1C010.c.

**Note 2:** 1C010.e does not apply to:

a. Epoxy resin “matrix” impregnated carbon “fibrous or filamentary materials” (prepregs) for the repair of “civil aircraft” structures or laminates, having all of the following:

1. An area not exceeding  $1 \text{ m}^2$ ;
2. A length not exceeding 2.5 m; and
3. A width exceeding 15 mm;

b. Fully or partially resin-impregnated or pitch-impregnated mechanically chopped, milled or cut carbon “fibrous or filamentary materials” 25.0 mm or less in length when using a resin or pitch other than those specified by 1C008 or 1C009.b.

**Technical Notes:**

1. ‘Carbon fiber preforms’ are an ordered arrangement of uncoated or coated fibers intended to constitute a framework of a part before the “matrix” is introduced to form a “composite”.

2. The ‘Dynamic Mechanical Analysis glass transition temperature (DMA  $T_g$ )’ for materials controlled by 1C010.e is determined using the method described in ASTM D 7028 -07, or equivalent national standard, on a dry test specimen. In the case of thermoset materials, degree of cure of a dry test specimen shall be a minimum of 90% as defined by ASTM E 2160 04 or equivalent national standard.

flaked or ground, manufactured from material consisting of 99 percent or more of items controlled by 1C011.b; and b) Metal powders mixed with other substances to form a mixture formulated for military purposes.

*Related Definitions:* N/A

*Items:*

a. Metals in particle sizes of less than 60  $\mu$ m whether spherical, atomized, spheroidal, flaked or ground, manufactured from material consisting of 99% or more of zirconium, magnesium and alloys thereof;

**Technical Note:** The natural content of hafnium in the zirconium (typically 2% to 7%) is counted with the zirconium.

**Note:** The metals or alloys specified by 1C011.a also refer to metals or alloys encapsulated in aluminum, magnesium, zirconium or beryllium.

**\*\*1C011 Metals and compounds, as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NS, MT, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 2
MT applies to 1C011.a and .b for items that meet or exceed the parameters in 1C111.	MT Column 1
AT applies to entire entry	AT Column 1

b. Boron or boron alloys, with a particle size of 60  $\mu$ m or less, as follows:

b.1. Boron with a purity of 85% by weight or more;

b.2. Boron alloys with a boron content of 85% by weight or more;

**Note:** The metals or alloys specified by 1C011.b also refer to metals or alloys encapsulated in aluminum, magnesium, zirconium or beryllium.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

c. Guanidine nitrate (CAS 506-93-4);

d. Nitroguanidine (NQ) (CAS 556-88-7).

**List of Items Controlled**

*Related Controls:* (1) See also ECCNs [1C111](#) and [1C608](#). (2) All of the following are “subject to the ITAR” (see 22 CFR parts 120 through 130): a) Materials controlled by [1C011.a](#), and metal fuels in particle form, whether spherical, atomized, spheroidal,

**\*\*1C018 Commercial charges and devices containing energetic materials on the Wassenaar Arrangement Munitions List and certain chemicals.**

No items currently are in this ECCN. (1) See ECCN 1C608.b. through .m for items that,

immediately prior to July 1, 2014, were classified under 1C018.b through .m. (2) See ECCNs 1C011, 1C111, and 1C239 for additional controlled energetic materials, including chlorine trifluoride (ClF<sub>3</sub>), which is controlled under ECCN 1C111.a.3.f. (3) See ECCN 1A008 for shaped charges, detonating cord, and cutters and severing tools.

commodities “subject to the ITAR” (See 22 CFR parts 120 through 130, including USML Category XIII).

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1C101** Materials for Reduced Observables such as Radar Reflectivity, Ultraviolet/Infrared Signatures and Acoustic Signatures (i.e., Stealth Technology), Other than Those Controlled by 1C001, for applications usable in rockets, missiles, or unmanned aerial vehicles capable of achieving a “range” equal to or greater than 300km, and their subsystems.

**\*\*1C102** Resaturated pyrolyzed carbon-carbon materials designed for space launch vehicles specified in 9A004 or sounding rockets specified in 9A104. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)

**\*\*1C107** Graphite and ceramic materials, other than those controlled by 1C007, which can be machined to any of the following products as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) Materials controlled by this entry include structural materials and coatings (including paints), “specially designed” for reduced or tailored reflectivity or emissivity in the microwave, infrared or ultraviolet spectra. (2) This entry does not control coatings (including paints) when specially used for the thermal control of satellites. (3) For commodities that meet the definition of defense articles under 22 CFR 120.3 of the International Traffic in Arms Regulations (ITAR), which describes similar

**List of Items Controlled**

*Related Controls:* (1) See also [1C004](#), [1C007](#), and [1C298](#). (2) For commodities that meet the definition of defense articles under 22 CFR 120.3 of the ITAR, which describes similar commodities “subject to the ITAR” (See 22 CFR parts 120 through 130, including USML Category XIII). (3) “Special fissile materials” and “other fissile

materials”; except, four “effective grams” or less when contained in a sensing component in instruments are subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

*Related Definitions:* N/A

*Items:*

a. Fine grain graphites with a bulk density of 1.72 g/cm<sup>3</sup> or greater, measured at 15 °C, and having a grain size of 100 micrometers or less, usable for rocket nozzles and reentry vehicle nose tips as follows:

a.1. Cylinders having a diameter of 120 mm or greater and a length of 50 mm or greater;

a.2. Tubes having an inner diameter of 65 mm or greater and a wall thickness of 25 mm or greater and a length of 50 mm or greater;

a.3. Blocks having a size of 120 mm x 120 mm x 50 mm or greater.

b. Pyrolytic or fibrous reinforced graphites, usable for rocket nozzles and reentry vehicle nose tips;

c. Ceramic composite materials (dielectric constant is less than 6 at any frequency from 100 MHz to 100 GHz) for use in radomes useable in rockets, missiles, and unmanned aerial vehicles capable of achieving a “range” equal to or greater than 300 km; *or*

d. High-temperature ceramic materials, useable in rockets, missiles, and unmanned aerial vehicles capable of achieving a “range” equal to or greater than 300 km, as follows:

d.1. Bulk machinable silicon-carbide reinforced unfired ceramic, usable for nose tips.

d.2. Reinforced silicon-carbide ceramic composites usable for nose tips, re-entry vehicles, nozzle flaps.

d.3. Bulk machinable ceramic composite materials consisting of an ‘Ultra High Temperature Ceramic (UHTC)’ matrix with a

melting point equal to or greater than 3000°C and reinforced with fibers or filaments, usable for missile components (such as nose tips, re-entry vehicles, leading edges, jet vanes, control surfaces, or rocket motor throat inserts).

*Note:* ECCN 1C107.d.3. does not control ‘Ultra High Temperature Ceramic (UHTC)’ materials in non-composite form.

*Technical Note:* ‘Ultra High Temperature Ceramics (UHTC)’ includes: titanium diboride (TiB<sub>2</sub>), zirconium diboride (ZrB<sub>2</sub>), niobium diboride (NbB<sub>2</sub>), hafnium diboride (HfB<sub>2</sub>), tantalum diboride (TaB<sub>2</sub>), titanium carbide (TiC), zirconium carbide (ZrC), niobium carbide (NbC), hafnium carbide (HfC), tantalum carbide (TaC).

**\*\*1C111 Propellants and constituent chemicals for propellants, other than those specified in 1C011, as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* MT, NP, RS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
NP applies to 1C111.a.3.f only	NP Column 1
RS applies to 1C111.d.3 only	RS Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) See USML Category V(e)(7) for controls on HTPB (hydroxyl terminated polybutadiene) with a hydroxyl functionality equal to or greater than 2.2 and less than or equal to 2.4, a hydroxyl value of

less than 0.77 meq/g, and a viscosity at 30 °C of less than 47 poise (CAS # 69102-90-5). (2) See USML Category V(f)(3) for controls on ferrocene derivatives, including butacene. (3) See ECCN 1C608 for controls on oxidizers that are composed of fluorine and also other halogens, oxygen, or nitrogen, except for chlorine trifluoride, which is controlled under this ECCN 1C111.a.3.f. (4) See ECCN 1C011.b for controls on boron and boron alloys not controlled under this ECCN 1C111.a.2.b. (5) See USML Category V(d)(10) for controls on Inhibited Red Fuming Nitric Acid (IRFNA) (CAS 8007-58-7).

*Related Definitions:* Particle size is the mean particle diameter on a weight or volume basis. Best industrial practices must be used in sampling, and in determining particle size, and the controls may not be undermined by the addition of larger or smaller sized material to shift the mean diameter.

*Items:*

a. Propulsive substances:

a.1. Spherical or spheroidal aluminum powder (C.A.S. 7429-90-5) in particle size of less than  $200 \times 10^{-6}$  m (200 µm) and an aluminum content of 97% by weight or more, if at least 10 % of the total weight is made up of particles of less than 63 µm, according to ISO 2591-1:1988 or national equivalents.

**Technical Note:** A particle size of 63 µm (ISO R-565) corresponds to 250 mesh (Tyler) or 230 mesh (ASTM standard E-11).

a.2. Metal powders and alloys where at least 90% of the total particles by particle volume or weight are made up of particles of less than 60 µ (determined by measurement techniques such as using a sieve, laser diffraction or optical scanning), whether spherical, atomized, spheroidal, flaked or ground, as follows:

a.2.a. Consisting of 97% by weight or more of any of the following:

a.2.a.1. Zirconium (C.A.S. # 7440-67-7);

a.2.a.2. Beryllium (C.A.S. # 7440-41-7); or

a.2.a.3. Magnesium (C.A.S. # 7439-95-4);

a.2.b. Boron or boron alloys with a boron content of 85 % or more by weight.

**Technical Note:** The natural content of hafnium in the zirconium (typically 2% to 7%) is counted with the zirconium.

**Note:** In a multimodal particle distribution (*e.g.*, mixtures of different grain sizes) in which one or more modes are controlled, the entire powder mixture is controlled.

a.3. Oxidizer substances usable in liquid propellant rocket engines, as follows:

a.3.a. Dinitrogen trioxide (CAS 10544-73-7);

a.3.b. Nitrogen dioxide (CAS 10102-44-0) / dinitrogen tetroxide (CAS 10544-72-6);

a.3.c. Dinitrogen pentoxide (CAS 10102-03-1);

a.3.d. Mixed oxides of nitrogen (MON);

a.3.e. [Reserved];

a.3.f. Chlorine trifluoride (ClF<sub>3</sub>).

**Technical Note:** Mixed oxides of nitrogen (MON) are solutions of nitric oxide (NO) in dinitrogen tetroxide/nitrogen dioxide (N<sub>2</sub>O<sub>4</sub>/NO<sub>2</sub>) that can be used in missile systems. There are a range of compositions that can be denoted as MON<sub>i</sub> or MON<sub>ij</sub>, where *i* and *j* are integers representing the percentage of nitric oxide in the mixture (*e.g.*, MON<sub>3</sub> contains 3% nitric oxide,

MON25 25% nitric oxide. An upper limit is MON40, 40% by weight).

b. Polymeric substances:

b.1. Carboxy-terminated polybutadiene (including carboxyl-terminated polybutadiene) (CTPB);

b.2. Hydroxy-terminated polybutadiene (including hydroxyl-terminated polybutadiene) (HTPB) (CAS 69102-90-5), except for hydroxyl-terminated polybutadiene as specified in USML Category V (see 22 CFR 121.1) (also see Related Controls Note #1 for this ECCN);

b.3. Polybutadiene acrylic acid (PBAA);

b.4. Polybutadiene acrylic acid acrylonitrile (PBAN) (CAS 25265-19-4 / CAS 68891-50-9);

b.5. Polytetrahydrofuran polyethylene glycol (TPEG).

**Technical Note:** Polytetrahydrofuran polyethylene glycol (TPEG) is a block copolymer of poly 1,4-Butanediol (CAS 110-63-4) and polyethylene glycol (PEG) (CAS 25322-68-3).

c. Other propellant energetic materials, additives, or agents:

c.1. [Reserved]

c.2. Triethylene glycol dinitrate (TEGDN);

c.3. 2 Nitrodiphenylamine (2-NDPA);

c.4. Trimethylolethane trinitrate (TMETN);

c.5. Diethylene glycol dinitrate (DEGDN).

d. Hydrazine and derivatives as follows:

d.1. Hydrazine (C.A.S. # 302-01-2) in concentrations of 70% or more;

d.2. Monomethyl hydrazine (MMH) (C.A.S. # 60-34-4);

d.3. Symmetrical dimethyl hydrazine (SDMH) (C.A.S. # 540-73-8);

d.4. Unsymmetrical dimethyl hydrazine (UDMH) (C.A.S. # 57-14-7);

d.5. Trimethylhydrazine (C.A.S. # 1741-01-1);

d.6. Tetramethylhydrazine (C.A.S. # 6415-12-9);

d.7. N,N diallylhydrazine (CAS 5164-11-4);

d.8. Allylhydrazine (C.A.S. # 7422-78-8);

d.9. Ethylene dihydrazine (CAS 6068-98-0);

d.10. Monomethylhydrazine dinitrate;

d.11. Unsymmetrical dimethylhydrazine nitrate;

d.12. 1,1-Dimethylhydrazinium azide (CAS 227955-52-4) / 1,2-Dimethylhydrazinium azide (CAS 299177-50-7);

d.13. Hydrazinium azide (C.A.S. # 14546-44-2);

d.14. Hydrazinium dinitrate (CAS 13464-98-7);

d.15. Diimido oxalic acid dihydrazine (C.A.S. # 3457-37-2);

d.16. 2-hydroxyethylhydrazine nitrate (HEHN);

d.17. Hydrazinium diperchlorate (C.A.S. # 13812-39-0);

d.18. Methylhydrazine nitrate (MHN) (CAS 29674-96-2);

d.19. 1,1-Diethylhydrazine nitrate (DEHN) / 1,2-Diethylhydrazine nitrate (DEHN) (CAS 363453-17-2);

d.20. 3,6-dihydrazino tetrazine nitrate (DHTN), also referred to as 1,4-dihydrazine nitrate.

**\*\*1C116 Maraging steels having both of the following (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* MT, NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
NP applies to items that meet or exceed the parameters of 1C216	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
GBS: N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCNs [1E001](#) (“development” and “production”) and [1E101](#) (“use”) for technology for items controlled by this entry. (2) Also see ECCN [1C216](#). (3) Maraging steel, in physical forms and finished products and “specially designed” or prepared for use in separating uranium isotopes, is subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

*Related Definitions:* N/A

*Items:*

a. Having an ultimate tensile strength, measured at 20°C, equal to or greater than:

a.1. 0.9 GPa in the solution annealed stage; *or*

a.2. 1.5 GPa in the precipitation hardened stage; *and*

b. Any of the following forms:

b.1. Sheet, plate or tubing with a wall or plate thickness equal to or less than 5.0 mm; *or*

b.2. Tubular forms with a wall thickness equal to or less than 50 mm and having an inner diameter equal to or greater than 270 mm.

**Technical Note:**

*Maraging steels are iron alloys that are generally:*

a. *Characterized by high nickel, very low carbon content and use substitutional elements or precipitates to produce strengthening and age-hardening of the alloy; and*

b. *Subjected to heat treatment cycles to facilitate the martensitic transformation process (solution annealed stage) and subsequently age hardened (precipitation hardened stage).*

**\*\*1C117 Materials for the fabrication of missile “parts” or “components” for rockets or missiles capable of achieving a “range” equal to or greater than 300 km, as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
GBS: N/A

**List of Items Controlled**

*Related Controls:* See [1C226](#).

*Related Definitions:* N/A

*Items:*

a. Tungsten and alloys in particulate form with a tungsten content of 97% by weight or more and a particle size of  $50 \times 10^{-6}$  m (50  $\mu$ m) or less;

b. Molybdenum and alloys in particulate form with a molybdenum content of 97% by weight or more and a particle size of  $50 \times 10^{-6}$  m (50  $\mu$ m) or less;

c. Tungsten materials in the solid form having all of the following:

c.1. Any of the following material compositions:

c.1.a. Tungsten and alloys containing 97% by weight or more of tungsten;

c.1.b. Copper infiltrated tungsten containing 80% by weight or more of tungsten; *or*

c.1.c. Silver infiltrated tungsten containing 80% by weight or more of tungsten; *and*

c.2. Able to be machined to any of the following products:

c.2.a. Cylinders having a diameter of 120 mm or greater and a length of 50 mm or greater;

c.2.b. Tubes having an inner diameter of 65 mm or greater and a wall thickness of 25 mm or greater and a length of 50 mm or greater; *or*

c.2.c. Blocks having a size of 120 mm x 120 mm x 50 mm or greater.

**\*\*1C118** Titanium-stabilized duplex stainless steel (Ti-DSS), having all of the following characteristics (see List of Items Controlled).

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

a. Having all of the following characteristics:

a.1. Containing 17.0-23.0% by weight of chromium and 4.5-7.0% by weight of nickel;

a.2. Having a titanium content of greater than 0.10% by weight; *and*

a.3. A ferritic-austenitic microstructure (also referred to as a two-phase microstructure) of which at least 10% by volume (according to ASTM E-1181-87 or national equivalents) is austenite; *and*

b. Having any of the following forms:

b.1. Ingots or bars having a size of 100 mm or more in each dimension;

b.2. Sheets having a width of 600 mm or more and a thickness of 3 mm or less; *or*

b.3. Tubes having an outer diameter of 600 mm or more and a wall thickness of 3 mm or less.

**\*\*1C202 Alloys, other than those controlled by 1C002.b.3 or 1C002.b.4 as follows (see List of Items Controlled). License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* 1) See ECCNs [1E001](#) (“development” and “production”) and [1E201](#) (“use”) for technology for items controlled by this entry. 2) Also see ECCN [1C002](#). 3) Aluminum alloys and titanium alloys, in physical forms and finished products and “specially designed” or prepared for use in separating uranium isotopes, are subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

*Related Definitions:* The phrase “capable of” refers to aluminum alloys and titanium alloys either before or after heat treatment.

*Items:*

a. Aluminum alloys having both of the following characteristics:

a.1. “Capable of” an ultimate tensile strength of 460 MPa or more at 293 K (20 °C); *and*

a.2. In the form of tubes or cylindrical solid forms (including forgings) with an outside diameter of more than 75 mm;

b. Titanium alloys having both of the following characteristics:

b.1. “Capable of” an ultimate tensile strength of 900 MPa or more at 293 K (20 °C); *and*

b.2. In the form of tubes or cylindrical solid forms (including forgings) with an outside diameter of more than 75 mm.

**\*\*1C210 “Fibrous or filamentary materials” or preregs, other than those controlled by 1C010.a, .b or .e, as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCNs [1E001](#) (“development” and “production”) and [1E201](#) (“use”) for technology for items controlled by this entry. (2) Also see ECCNs [1C010](#) and [1C990](#).

*Related Definitions:* For the purpose of this entry, the term “fibrous or filamentary materials” is restricted to continuous “monofilaments”, “yarns”, “rovings”, “tows”, or “tapes”.

*Definitions for other terms used in this entry:* *Filament or Monofilament* is the smallest increment of fiber, usually several μm in diameter.

*Strand* is a bundle of filaments (typically over 200) arranged approximately parallel.

*Roving* is a bundle (typically 12-120) of approximately parallel strands.

*Yarn* is a bundle of twisted strands.

*Tow* is a bundle of filaments, usually approximately parallel.

*Tape* is a material constructed of interlaced or unidirectional filaments, strands, rovings, tows or yarns, etc., usually preimpregnated with resin.

*Specific modulus* is the Young's modulus in  $N/m^2$  divided by the specific weight in  $N/m^3$ , measured at a temperature of  $(296 \pm 2)$  K ( $(23 \pm 2)$  °C) and a relative humidity of  $50 \pm 5$  percent.

*Specific tensile strength* is the ultimate tensile strength in  $N/m^2$  divided by specific weight in  $N/m^3$ , measured at a temperature of  $(296 \pm 2)$  K ( $(23 \pm 2)$  °C) and a relative humidity of  $50 \pm 5$  percent.

*Items:*

- a. Carbon or aramid “fibrous or filamentary materials” having a “specific modulus” of  $12.7 \times 10^6$  m or greater or a “specific tensile strength” of  $235 \times 10^3$  m or greater *except* Aramid “fibrous or filamentary materials” having 0.25 percent or more by weight of an ester based fiber surface modifier;
- b. Glass “fibrous or filamentary materials” having a “specific modulus” of  $3.18 \times 10^6$  m or greater and a “specific tensile strength” of  $76.2 \times 10^3$  m or greater; *or*
- c. Thermoset resin impregnated continuous “yarns”, “rovings”, “tows” or “tapes” with a width no greater than 15 mm (prepregs), made from carbon or glass “fibrous or filamentary materials” controlled by 1C210.a or .b.

**Technical Note:** *The resin forms the matrix of the composite.*

**\*\*1C216** Maraging steel, other than that controlled by 1C116, “capable of” an ultimate tensile strength of 1,950 MPa or more, at 293 K (20 °C).

### License Requirements

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

### List of Items Controlled

*Related Controls:* (1) See ECCNs [1E001](#) (“development” and “production”) and [1E201](#) (“use”) for technology for items controlled by this entry. (2) Also see ECCN [1C116](#). (3) Maraging steel, in physical form and finished products “specially designed” or prepared for use in separating uranium isotopes, is subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

*Related Definitions:* The phrase “capable of” in the ECCN heading refers to maraging steel either before or after heat treatment.

*ECCN Controls:* This entry does not control forms in which all linear dimensions are 75 mm or less.

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1C225** Boron enriched in the boron-10 ( $^{10}\text{B}$ ) isotope to greater than its natural isotopic abundance, as follows: elemental boron, compounds, mixtures containing boron, manufactures thereof, waste or scrap of any of the foregoing.

### License Requirements

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* See ECCNs [1E001](#) (“development” and “production”) and [1E201](#) (“use”) for technology for items controlled by this entry.

*Related Definitions:* In this entry, mixtures containing boron include boron-loaded materials.

*Items:*

The list of items controlled is contained in the ECCN heading.

**Technical Note:** *The natural isotopic abundance of boron-10 is approximately 18.5 weight percent (20 atom percent).*

**\*\*1C226 Tungsten, tungsten carbide, and alloys containing more than 90% tungsten by weight, having both of the following characteristics (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* See ECCNs [1E001](#) (“development” and “production”) and [1E201](#) (“use”) for technology for items controlled by this entry.

*Related Definitions:* N/A

*ECCN Controls:* This entry does not control manufactures “specially designed” as weights or gamma-ray collimators.

*Items:*

- a. In forms with a hollow cylindrical symmetry (including cylinder segments) with an inside diameter between 100 and 300 mm; *and*
- b. A mass greater than 20 kg.

**\*\*1C227 Calcium having both of the following characteristics (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* See ECCNs [1E001](#) (“development” and “production”) and

[1E201](#) (“use”) for technology for items controlled by this entry.

*Related Definitions:* N/A

*Items:*

- a. Containing less than 1,000 parts per million by weight of metallic impurities other than magnesium; *and*
- b. Containing less than 10 parts per million by weight of boron.

**\*\*1C228** Magnesium having both of the following characteristics (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* See ECCNs [1E001](#) (“development” and “production”) and [1E201](#) (“use”) for technology for items controlled by this entry.

*Related Definitions:* N/A

*Items:*

- a. Containing less than 200 parts per million by weight of metallic impurities other than calcium; *and*
- b. Containing less than 10 parts per million by weight of boron.

**\*\*1C229** Bismuth having both of the following characteristics (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* See ECCNs [1E001](#) (“development” and “production”) and [1E201](#) (“use”) for technology for items controlled by this entry.

*Related Definitions:* N/A

*Items:*

- a. A purity of 99.99% or greater by weight; *and*
- b. Containing less than 10 parts per million by weight of silver.

**\*\*1C230** Beryllium metal, alloys containing more than 50% beryllium by weight, beryllium compounds, manufactures thereof, and waste or scrap of any of the foregoing.

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
 GBS: N/A

**List of Items Controlled**

*Related Controls:* See ECCNs [1E001](#) (“development” and “production”) and [1E201](#) (“use”) for technology for items controlled by this entry.

*Related Definitions:* N/A

*ECCN Controls:* This entry does not control the following:

- a. Metal windows for X-ray machines, or for bore-hole logging devices;
- b. Oxide shapes in fabricated or semi-fabricated forms “specially designed” for electronic component parts or as substrates for electronic circuits;
- c. Beryl (silicate of beryllium and aluminum) in the form of emeralds or aquamarines.

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1C231 Hafnium metal, hafnium alloys and compounds containing more than 60% hafnium by weight, manufactures thereof, and waste or scrap of any of the foregoing.**

**License Requirements**

*Reason for Control:* NP, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
 GBS: N/A

**List of Items Controlled**

*Related Controls:* See ECCNs [1E001](#) (“development” and “production”) and [1E201](#) (“use”) for technology for items controlled by this entry.

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1C232 Helium-3 (<sup>3</sup>He), mixtures containing helium-3, and products or devices containing any of the foregoing.**

**License Requirements**

*Reason for Control:* NP, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
 GBS: N/A

**List of Items Controlled**

*Related Controls:* See ECCNs [1E001](#) (“development” and “production”) and [1E201](#) (“use”) for technology for items controlled by this entry.

*Related Definitions:* N/A

*ECCN Controls:* This entry does not control a product or device containing less than 1 g of helium-3.

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1C233** Lithium enriched in the lithium-6 (<sup>6</sup>Li) isotope to greater than its natural isotopic abundance, and products or devices containing enriched lithium, as follows: elemental lithium, alloys, compounds, mixtures containing lithium, manufactures thereof, and waste or scrap of any of the foregoing.

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCNs [1E001](#) (“development” and “production”) and [1E201](#) (“use”) for technology for items controlled by this entry. (2) See ECCN [1B233](#) for lithium isotope separation facilities or plants, and equipment therefor. (3) Certain facilities or plants for the separation of lithium isotopes are subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

*Related Definitions:* The natural isotopic abundance of lithium-6 is approximately 6.5 weight percent (7.5 atom percent).

*ECCN Controls:* This entry does not control thermoluminescent dosimeters.

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1C234** Zirconium with a hafnium content of less than 1 part hafnium to 500 parts zirconium by weight, as follows: metal, alloys containing more than 50% zirconium by weight, compounds, manufactures thereof, and waste or scrap of any of the foregoing.

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCNs [1E001](#) (“development” and “production”) and [1E201](#) (“use”) for technology for items controlled by this entry. (2) Zirconium metal and alloys in the form of tubes or assemblies of tubes, “specially designed” or prepared for use in a reactor, are subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

*Related Definitions:* N/A

*ECCN Controls:* This entry does not control zirconium in the form of foil having a thickness of 0.10 mm (0.004 in.) or less.

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1C235** Tritium, tritium compounds, mixtures containing tritium in which the ratio of tritium to hydrogen atoms exceeds 1 part in 1,000, and products or devices containing any of the foregoing.

**License Requirements**

*Reason for Control:* NP, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCNs [1E001](#) (“development” and “production”) and [1E201](#) (“use”) for technology for items controlled by this entry. (2) Also see ECCN [1B231](#). (3) Tritium that is byproduct material (e.g., produced in a nuclear reactor) is subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

*Related Definitions:* N/A

*ECCN Controls:* (1) This entry does not control tritium, tritium compounds, and mixtures that are byproduct material (e.g., produced in a nuclear reactor) – such materials are subject to the licensing jurisdiction of the Nuclear Regulatory Commission (see Related Controls paragraph for this entry). (2) This entry does not control a product or device containing less than 1.48 x 10<sup>3</sup> GBq (40 Ci) of tritium.

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1C236 Radionuclides appropriate for making neutron sources based on alpha-n reaction and products or devices containing such radionuclides (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NP, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCNs [1E001](#) (“development” and “production”) and [1E201](#) (“use”) for technology for items controlled by this entry. (2) Certain alpha-emitting radionuclides are subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

*Related Definitions:* N/A

*ECCN Controls:* This entry does not control a product or device containing less than 3.7 GBq (100 millicuries) of activity.

*Items:*

a. Radionuclides identified in 1C236.a.1 in any of the forms described in 1C236.a.2:

a.1. Radionuclides, as follows, appropriate for making neutron sources based on alpha-n reactions:

- a.1.a. Actinium 225;
- a.1.b. Actinium 227;
- a.1.c. Californium 253;
- a.1.d. Curium 240;
- a.1.e. Curium 241;
- a.1.f. Curium 242;

- a.1.g. Curium 243;
- a.1.h. Curium 244;
- a.1.i. Einsteinium 253;
- a.1.j. Einsteinium 254;
- a.1.k. Gadolinium 148;
- a.1.l. Plutonium 236;
- a.1.m. Plutonium 238;
- a.1.n. Polonium 208;
- a.1.o. Polonium 209;
- a.1.p. Polonium 210;
- a.1.q. Radium 223;
- a.1.r. Thorium 227;
- a.1.s. Thorium 228;
- a.1.t. Uranium 230;
- a.1.u. Uranium 232; and
- a.2. In any of the following forms:
  - a.2.a. Elemental;
  - a.2.b. Compounds having a total activity of 37 GBq (1 curie) per kg or greater; *or*
  - a.2.c. Mixtures having a total activity of 37 GBq (1 curie) per kg or greater.
- b. Products or devices containing radionuclides identified in 1C236.a.1 in any of the forms described in 1C236.a.2.

**\*\*1C237 Radium-226 (<sup>226</sup>Ra), radium-226 alloys, radium-226 compounds, mixtures containing radium-226, manufactures thereof,**

**and products or devices containing any of the foregoing.**

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* See ECCNs [1E001](#) (“development” and “production”) and [1E201](#) (“use”) for technology for items controlled by this entry.

*Related Definitions:* N/A

*ECCN Controls:* This entry does not control the following:

- a. Medical applicators;
  - b. A product or device containing less than 0.37 GBq (10 millicuries) of radium-226.
- Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1C239 High explosives, other than those controlled by the U.S. Munitions List, or substances or mixtures containing more than 2% by weight thereof, with a crystal density greater than 1.8 g/cm<sup>3</sup> and having a detonation velocity greater than 8,000 m/s.**

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part</i>
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	738)
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
GBS: N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCNs [1E001](#) (“development” and “production”) and [1E201](#) (“use”) for technology for items controlled by this entry. (2) See ECCNs 1C608 (energetic materials and related commodities on the Wassenaar Arrangement Munitions List) and 1C992 (commercial charges and devices containing energetic materials, n.e.s and nitrogen trifluoride in a gaseous state). (3) High explosives for military use are “subject to the ITAR” (see 22 CFR part 121.1).

*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1C240** Nickel powder or porous nickel metal, specially prepared for the manufacture of gaseous diffusion barriers subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110), as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
GBS: N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCNs [1E001](#) (“development” and “production”) and [1E201](#) (“use”) for technology for items controlled by this entry. (2) Nickel powder and porous nickel metal, “specially designed” or prepared for use in separating uranium isotopes, are subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

*Related Definitions:* N/A  
*ECCN Controls:* This entry does not control the following:

- a. Filamentary nickel powders;
- b. Single porous nickel sheets with an area of 1,000 cm<sup>2</sup> per sheet or less.

*Items:*

- a. Nickel powder having both of the following characteristics:
  - a.1. A nickel purity content of 99.0% or greater by weight; and
  - a.2. A mean particle size of less than 10 micrometers measured by American Society for Testing and Materials (ASTM) B330 standard;
- b. Porous nickel metal produced from materials controlled by 1C240.a.

**Technical Note:** 1C240.b refers to porous metal formed by compacting and sintering the materials in 1C240.a to form a metal material with fine pores interconnected throughout the structure.

**1C241 Rhenium and alloys containing**

**\*\*1C241** Rhenium and alloys containing rhenium (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

a. Rhenium and alloys containing rhenium, as follows, having both of the characteristics described in 1C241.b:

a.1. Alloys containing 90% by weight or more of rhenium;

a.2. Alloys containing 90% by weight or more of any combination of rhenium and tungsten; *and*

b. Having both of the following characteristics:

b.1. In forms with a hollow cylindrical symmetry (including cylinder segments) with an inside diameter between 100 mm and 300 mm; *and*

b.2. A mass greater than 20 kg.

**\*\*1C298** Graphite with a boron content of less than 5 parts per million and a density greater than 1.5 grams per cubic centimeter that is

intended for use other than in a nuclear reactor.

**License Requirements**

*Reason for Control:* NP

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 2

**License Requirement Note:** Some graphite intended for use in a nuclear reactor is subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) See also [1C107](#). (2) Graphite having a purity level of less than 5 parts per million “boron equivalent” as measured according to ASTM standard C-1233-98 and intended for use in a nuclear reactor is subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR 110).

*Related Definitions:* For the purpose of this entry, graphite with a purity level better than 5 parts per million boron equivalent is determined according to ASTM standard C1233-98. In applying ASTM standard C1233-98, the boron equivalence of the element carbon is not included in the boron equivalence calculation, since carbon is not considered an impurity.

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1C350** Chemicals that may be used as precursors for toxic chemical agents (see List of Items Controlled).

### License Requirements:

*Reason for Control:* CB, CW, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
CB applies to entire entry	CB Column 2

CW applies to 1C350 .b, and .c. The Commerce Country Chart is not designed to determine licensing requirements for items controlled for CW reasons. A license is required, for CW reasons, to export or reexport Schedule 2 chemicals and mixtures identified in 1C350.b to States not Party to the CWC (destinations not listed in Supplement No. 2 to part 745 of the EAR). A license is required, for CW reasons, to export Schedule 3 chemicals and mixtures identified in 1C350.c to States not Party to the CWC, unless an End-Use Certificate issued by the government of the importing country has been obtained by the exporter prior to export. A license is required, for CW reasons, to reexport Schedule 3 chemicals and mixtures identified in 1C350.c from a State not Party to the CWC to any other State not Party to the CWC. (See §742.18 of the EAR for license requirements and policies for toxic and precursor chemicals controlled for CW reasons. See §745.2 of the EAR for End-Use Certificate requirements that apply to exports of Schedule 3 chemicals to countries not listed in Supplement No. 2 to part 745 of the EAR.)

AT applies to entire entry. The Commerce Country Chart is not designed to determine licensing requirements for items controlled for AT reasons in 1C350. A license is required, for AT reasons, to export or reexport items controlled by 1C350 to a country in Country Group E:1 of Supplement No. 1 to part 740 of the EAR. (See part 742 of the EAR for additional information on the AT controls that apply to Iran, North Korea, Sudan, and Syria. See part 746 of the EAR for additional information on sanctions that apply to Iran, North Korea, and Syria.)

### License Requirement Notes:

1. *SAMPLE SHIPMENTS:* Subject to the following requirements and restrictions, a license is not required for sample shipments when the cumulative total of these shipments does not exceed a 55-gallon container or 200 kg of a single chemical to any one consignee during a calendar year. A consignee that receives a sample shipment under this exclusion may not resell, transfer, or reexport the sample shipment, but may use the sample shipment for any other legal purpose unrelated to chemical weapons.

#### a. Chemicals Not Eligible:

A. [Reserved]

B. CWC Schedule 2 chemicals (States not Party to the CWC). No CWC Schedule 2 chemical or mixture identified in 1C350.b is eligible for sample shipment to States not Party to the CWC (destinations not listed in Supplement No. 2 to part 745 of the EAR) without a license.

b. *Countries Not Eligible:* Countries in Country Group E:1 of Supplement No. 1 to part 740 of the EAR are not eligible to receive sample shipments of any chemicals controlled by this ECCN without a license.

c. *Sample shipments that require an End-Use Certificate for CW reasons:* No CWC Schedule 3 chemical or mixture identified in 1C350.c is eligible for sample shipment to States not Party to the CWC (destinations not listed in Supplement No. 2 to part 745 of the EAR) without a license, unless an End-Use Certificate issued by the government of the importing country is obtained by the exporter prior to export (see §745.2 of the EAR for End-Use Certificate requirements).

d. *Sample shipments that require a license for reasons set forth elsewhere in the EAR:* Sample shipments, as described in this Note 1, may require a license for reasons set forth elsewhere in the EAR. See, in particular, the

*end-use/end-user restrictions in part 744 of the EAR, and the restrictions that apply to embargoed countries in part 746 of the EAR.*

*e. Annual report requirement. The exporter is required to submit an annual written report for shipments of samples made under this Note 1. The report must be on company letterhead stationery (titled “Report of Sample Shipments of Chemical Precursors” at the top of the first page) and identify the chemical(s), Chemical Abstract Service Registry (C.A.S.) number(s), quantity(ies), the ultimate consignee's name and address, and the date of export for all sample shipments that were made during the previous calendar year. The report must be submitted no later than February 28 of the year following the calendar year in which the sample shipments were made, to: U.S. Department of Commerce, Bureau of Industry and Security, 14th Street and Pennsylvania Ave., NW., Room 2099B, Washington, DC 20230, Attn: “Report of Sample Shipments of Chemical Precursors.”*

## **2. MIXTURES:**

*a. Mixtures that contain precursor chemicals identified in ECCN 1C350, in concentrations that are below the levels indicated in 1C350.b through .d, are controlled by ECCN 1C395 or 1C995 and are subject to the licensing requirements specified in those ECCNs.*

*b. A license is not required under this ECCN for a mixture, when the controlled chemical in the mixture is a normal ingredient in consumer goods packaged for retail sale for personal use. Such consumer goods are designated EAR99. However, a license may be required for reasons set forth elsewhere in the EAR.*

**Note to Mixtures:** Calculation of concentrations of AG-controlled chemicals:

*a. Exclusion. No chemical may be added to the mixture (solution) for the sole purpose of circumventing the Export Administration Regulations;*

*b. Percent Weight Calculation. When calculating the percentage, by weight, of ingredients in a chemical mixture, include all ingredients of the mixture, including those that act as solvents.*

**3. COMPOUNDS.** *Compounds created with any chemicals identified in this ECCN 1C350 may be shipped NLR (No License Required), without obtaining an End-Use Certificate, unless those compounds are also identified in this entry or require a license for reasons set forth elsewhere in the EAR.*

**4. TESTING KITS:** *Certain medical, analytical, diagnostic, and food testing kits containing small quantities of chemicals identified in this ECCN 1C350, are excluded from the scope of this ECCN and are controlled under ECCN 1C395 or 1C995. (Note that replacement reagents for such kits are controlled by this ECCN 1C350 if the reagents contain one or more of the precursor chemicals identified in 1C350 in concentrations equal to or greater than the control levels for mixtures indicated in 1C350.)*

### **Technical Notes:**

*1. For purposes of this entry, a “mixture” is defined as a solid, liquid or gaseous product made up of two or more ingredients that do not react together under normal storage conditions.*

*2. The scope of this control applicable to Hydrogen Fluoride (see 1C350.d.14 in the List of Items Controlled) includes its liquid, gaseous, and aqueous phases, and hydrates.*

*3. Precursor chemicals in ECCN 1C350 are listed by name, Chemical Abstract Service (CAS) number and CWC Schedule (where applicable). Precursor chemicals of the same structural formula (e.g., hydrates) are controlled by ECCN 1C350, regardless of name or CAS number. CAS numbers are shown to assist in identifying whether a particular precursor chemical or mixture is controlled under ECCN 1C350, irrespective of nomenclature. However, CAS numbers cannot be used as unique identifiers in all situations because some forms of the listed*

*precursor chemical have different CAS numbers, and mixtures containing a precursor chemical listed in ECCN 1C350 may also have different CAS numbers.*

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A

GBS: N/A

**List of Items Controlled**

*Related Controls:* See USML Category XIV(c) for related chemicals “subject to the ITAR” (see 22 CFR parts 120 through 130).

*Related Definitions:* See §770.2(k) of the EAR for synonyms for the chemicals listed in this entry.

*Items:*

a. [Reserved]

b. Australia Group-controlled precursor chemicals also identified as Schedule 2 chemicals under the CWC, as follows, and mixtures in which at least one of the following chemicals constitutes 30 percent or more of the weight of the mixture:

b.1. (C.A.S. #7784-34-1) Arsenic trichloride;

b.2. (C.A.S. #76-93-7) Benzilic acid;

b.3. (C.A.S. #78-38-6) Diethyl ethylphosphonate;

b.4. (C.A.S. #683-08-9) Diethyl methylphosphonate;

b.5. (C.A.S. #15715-41-0) Diethyl methylphosphonite;

b.6. (C.A.S.#2404-03-7) Diethyl-N,N-dimethylphosphoramidate;

b.7. (C.A.S.# 41480-75-5) N,N-Diisopropylaminoethanethiol hydrochloride;

b.8. (C.A.S. #5842-07-9) N,N-Diisopropyl-beta-aminoethane thiol;

b.9. (C.A.S. #96-80-0) N,N-Diisopropyl-beta-aminoethanol;

b.10. (C.A.S. #96-79-7), N,N-Diisopropyl-beta-aminoethyl chloride;

b.11. (C.A.S. #4261-68-1) N,N-Diisopropyl-beta-aminoethyl chloride hydrochloride;

b.12. (C.A.S. #6163-75-3) Dimethyl ethylphosphonate;

b.13. (C.A.S. #756-79-6) Dimethyl methylphosphonate;

b.14. (C.A.S. #677-43-0) N,N-dimethylamino-phosphoryl dichloride;

b.15. (C.A.S. #1498-40-4) Ethyl phosphonous dichloride [Ethyl phosphinyl dichloride];

b.16. (C.A.S. #430-78-4) Ethyl phosphonus difluoride [Ethyl phosphinyl difluoride];

b.17. (C.A.S. #1066-50-8) Ethyl phosphonyl dichloride;

b.18. (C.A.S. #993-13-5) Methylphosphonic acid;

b.19. (C.A.S. #676-98-2) Methylphosphonothioic dichloride.

b.20. (C.A.S. #464-07-3) Pinacolyl alcohol;

b.21. (C.A.S. #1619-34-7) 3-Quinuclidinol;

b.22. (C.A.S. #111-48-8) Thiodiglycol.

c. Australia Group-controlled precursor chemicals also identified as Schedule 3 chemicals under the CWC, as follows, and mixtures in which at least one of the following chemicals

constitutes 30 percent or more of the weight of the mixture:

- c.1. (C.A.S. #762-04-9) Diethyl phosphite;
- c.2. (C.A.S. #868-85-9) Dimethyl phosphite (dimethyl hydrogen phosphite);
- c.3. (C.A.S. #139-87-7)  
Ethyl-diethanolamine;
- c.4. (C.A.S. #10025-87-3) Phosphorus oxychloride;
- c.5. (C.A.S. #10026-13-8) Phosphorus pentachloride;
- c.6. (C.A.S. #7719-12-2) Phosphorus trichloride;
- c.7. (C.A.S. #10545-99-0) Sulfur dichloride;
- c.8. (C.A.S. #10025-67-9) Sulfur monochloride;
- c.9. (C.A.S. #7719-09-7) Thionyl chloride;
- c.10. (C.A.S. #102-71-6) Triethanolamine;
- c.11. (C.A.S. #122-52-1) Triethyl phosphite;
- c.12. (C.A.S. #121-45-9) Trimethyl phosphite.

d. Other Australia Group-controlled precursor chemicals not also identified as Schedule 1, 2, or 3 chemicals under the CWC, as follows, and mixtures in which at least one of the following chemicals constitutes 30 percent or more of the weight of the mixture:

- d.1. (C.A.S. #1341-49-7) Ammonium hydrogen fluoride;
- d.2. (C.A.S. #107-07-3) 2-Chloroethanol;
- d.3. (C.A.S. #109-89-7) Diethylamine;

- d.4. (C.A.S. #100-37-8) N,N-Diethylaminoethanol;
- d.5. (C.A.S. #589-57-1) Diethyl chlorophosphite;
- d.6. (C.A.S. #298-06-6) O,O-Diethyl phosphorodithioate;
- d.7. (C.A.S. #2465-65-8) O,O-Diethyl phosphorothioate;
- d.8. (C.A.S. #108-18-9) Di-isopropylamine;
- d.9. (C.A.S. #124-40-3) Dimethylamine;
- d.10. (C.A.S. #506-59-2) Dimethylamine hydrochloride;
- d.11. (C.A.S. #762-77-6) Ethyl chlorofluorophosphate;
- d.12. (C.A.S. #1498-51-7) Ethyl dichlorophosphate;
- d.13. (C.A.S. #460-52-6) Ethyl difluorophosphate;
- d.14. (C.A.S. #7664-39-3) Hydrogen fluoride;
- d.15. (C.A.S. #3554-74-3) 3-Hydroxyl-1-methylpiperidine;
- d.16. (C.A.S. #76-89-1) Methyl benzilate;
- d.17. (C.A.S. #754-01-8) Methyl chlorofluorophosphate;
- d.18. (C.A.S. #677-24-7) Methyl dichlorophosphate;
- d.19. (C.A.S. #22382-13-4) Methyl difluorophosphate;
- d.20. (C.A.S. #14277-06-6) N,N-Diethylacetamide;
- d.21. (C.A.S. #53510-30-8) N,N-Diethylbutanamide;

- d.22. (C.A.S. #90324-67-7) N,N-Diethylformamidine;
- d.23. (C.A.S. #1342789-47-2) N,N-Diethylisobutanamidine;
- d.24. (C.A.S. #84764-73-8) N,N-Diethylpropanamidine;
- d.25. (C.A.S. #1315467-17-4) N,N-Diisopropylbutanamidine;
- d.26. (C.A.S. #857522-08-8) N,N-Diisopropylformamidine;
- d.27. (C.A.S. #2909-14-0) N,N-Dimethylacetamidine;
- d.28. (C.A.S. #1340437-35-5) N,N-Dimethylbutanamidine;
- d.29. (C.A.S. #44205-42-7) N,N-Dimethylformamidine;
- d.30. (C.A.S. #321881-25-8) N,N-Dimethylisobutanamidine;
- d.31. (C.A.S. #56776-14-8) N,N-Dimethylpropanamidine;
- d.32. (C.A.S. #1339586-99-0) N,N-Dipropylacetamidine;
- d.33. C.A.S. #1342422-35-8) N,N-Dipropylbutanamidine;
- d.34. (C.A.S. #48044-20-8) N,N-Dipropylformamidine;
- d.35. (C.A.S. #1342700-45-1) N,N-Dipropylisobutanamidine;
- d.36. (C.A.S. #1341496-89-6) N,N-Dipropylpropanamidine;
- d.37. (C.A.S. #1314-80-3) Phosphorus pentasulfide;
- d.38. (C.A.S. #75-97-8) Pinacolone;

- d.39. (C.A.S. #7789-29-9) Potassium bifluoride;
- d.40. (C.A.S. #151-50-8) Potassium cyanide;
- d.41. (C.A.S. #7789-23-3) Potassium fluoride;
- d.42. (C.A.S. #3731-38-2) 3-Quinuclidone;
- d.43. (C.A.S. #1333-83-1) Sodium bifluoride;
- d.44. (C.A.S. #143-33-9) Sodium cyanide;
- d.45. (C.A.S. #7681-49-4) Sodium fluoride;
- d.46. (C.A.S. #16893-85-9) Sodium hexafluorosilicate;
- d.47. (C.A.S. #1313-82-2) Sodium sulfide;
- d.48. (C.A.S. #637-39-8) Triethanolamine hydrochloride;
- d.49. (C.A.S. #116-17-6) Tri-isopropyl phosphite.

**\*\*1C351 Human and animal pathogens and “toxins”, as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* CB, CW, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
CB applies to entire entry	CB Column 1

CW applies to 1C351.d.11 and d.12 and a license is required for CW reasons for all destinations, including Canada, as follows: CW applies to 1C351.d.11 for ricin in the form of (1) Ricinus Communis AgglutininII (RCAII), also known as ricin D or Ricinus Communis LectinIII (RCLIII) and (2) Ricinus Communis LectinIV (RCLIV),

also known as ricin E. CW applies to 1C351.d.12 for saxitoxin identified by C.A.S. #35523-89-8. See §742.18 of the EAR for licensing information pertaining to chemicals subject to restriction pursuant to the Chemical Weapons Convention (CWC). The Commerce Country Chart is not designed to determine licensing requirements for items controlled for CW reasons.

Control(s)	Country Chart (See Supp. No. 1 to part 738)
AT applies to entire entry	AT Column 1

**License Requirement Notes:**

1. All vaccines and “immunotoxins” are excluded from the scope of this entry. Certain medical products and diagnostic and food testing kits that contain biological toxins controlled under paragraph (d) of this entry, with the exception of toxins controlled for CW reasons under d.11 and d.12, are excluded from the scope of this entry. Vaccines, “immunotoxins”, certain medical products, and diagnostic and food testing kits excluded from the scope of this entry are controlled under ECCN 1C991.

2. For the purposes of this entry, only saxitoxin is controlled under paragraph d.12; other members of the paralytic shellfish poison family (e.g., neosaxitoxin) are designated EAR99.

3. *Clostridium perfringens* strains, other than the epsilon toxin-producing strains of *Clostridium perfringens* described in c.12, are excluded from the scope of this entry, since they may be used as positive control cultures for food testing and quality control.

4. Unless specified elsewhere in this ECCN 1C351 (e.g., in License Requirement Notes 1-3), this ECCN controls all biological agents and “toxins,” regardless of quantity or attenuation, that are identified in the List of Items Controlled for this ECCN, including small quantities or attenuated strains of select biological agents or “toxins” that are excluded from the lists of select

biological agents or “toxins” by the Animal and Plant Health Inspection Service (APHIS), U.S. Department of Agriculture, or the Centers for Disease Control and Prevention (CDC), U.S. Department of Health and Human Services, in accordance with their regulations in 9 CFR part 121 and 42 CFR part 73, respectively.

5. Biological agents and pathogens are controlled under this ECCN 1C351 when they are an isolated live culture of a pathogen agent, or a preparation of a toxin agent that has been isolated or extracted from any source or material, including living material that has been deliberately inoculated or contaminated with the agent. Isolated live cultures of a pathogen agent include live cultures in dormant form or in dried preparations, whether the agent is natural, enhanced or modified.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
GBS: N/A

**Special Conditions for STA**

STA: (1) Paragraph (c)(1) of License Exception STA (§740.20(c)(1)) may be used for items in 1C351.d.1 through 1C351.d.10 and 1C351.d.13 through 1C351.d.19. See §740.20(b)(2)(vi) for restrictions on the quantity of any one toxin that may be exported in a single shipment and the number of shipments that may be made to any one end user in a single calendar year. Also see the Automated Export System (AES) requirements in §758.1(b)(4) of the EAR.

(2) Paragraph (c)(2) of License Exception STA (§740.20(c)(2) of the EAR) may not be used for any items in 1C351

**List of Items Controlled**

*Related Controls:* (1) Certain forms of ricin and saxitoxin in 1C351.d.11. and d.12 are CWC Schedule 1 chemicals (see §742.18 of the EAR). The U.S. Government must provide advance notification and annual reports to the OPCW of all exports of Schedule 1 chemicals. See §745.1 of the EAR for notification procedures. See 22 CFR part 121, Category XIV and §121.7 for CWC Schedule 1 chemicals that are “subject to the ITAR.” (2) The Animal and Plant Health Inspection Service (APHIS), U.S. Department of Agriculture, and the Centers for Disease Control and Prevention (CDC), U.S. Department of Health and Human Services, maintain controls on the possession, use, and transfer within the United States of certain items controlled by this ECCN (for APHIS, see 7 CFR 331.3(b), 9 CFR 121.3(b), and 9 CFR 121.4(b); for CDC, see 42 CFR 73.3(b) and 42 CFR 73.4(b)). (3) See 22 CFR part 121, Category XIV(b), for modified biological agents and biologically derived substances that are “subject to the ITAR.”

*Related Definitions:* (1) For the purposes of this entry “immunotoxin” is defined as an antibody-toxin conjugate intended to destroy specific target cells (e.g., tumor cells) that bear antigens homologous to the antibody. (2) For the purposes of this entry “subunit” is defined as a portion of the “toxin”.

*Items:*

a. Viruses identified on the Australia Group (AG) “List of Human and Animal Pathogens and Toxins for Export Control,” as follows:

- a.1. African horse sickness virus;
- a.2. African swine fever virus;
- a.3. Andes virus;
- a.4. Avian influenza (AI) viruses identified as having high pathogenicity (HP), as follows:

- a.4.a. AI viruses that have an intravenous pathogenicity index (IVPI) in 6-week-old chickens greater than 1.2; or

- a.4.b. AI viruses that cause at least 75% mortality in 4- to 8-week-old chickens infected intravenously.

*Note:* Avian influenza (AI) viruses of the H5 or H7 subtype that do not have either of the characteristics described in 1C351.a.4 (specifically, 1C351.a.4.a or a.4.b) should be sequenced to determine whether multiple basic amino acids are present at the cleavage site of the haemagglutinin molecule (HA0). If the amino acid motif is similar to that observed for other HPAI isolates, then the isolate being tested should be considered as HPAI and the virus is controlled under 1C351.a.4.

- a.5. Bluetongue virus;

- a.6. Chapare virus;

- a.7. Chikungunya virus;

- a.8. Choclo virus;

- a.9. Classical swine fever virus (Hog cholera virus);

- a.10. Crimean-Congo hemorrhagic fever virus;

- a.11. Dobrava-Belgrade virus;

- a.12. Eastern equine encephalitis virus;

- a.13. Ebolavirus (includes all members of the Ebolavirus genus);

- a.14. Foot-and-mouth disease virus;

- a.15. Goatpox virus;

- a.16. Guanarito virus;

- a.17. Hantaan virus;

- a.18. Hendra virus (Equine morbillivirus);

- a.19. Japanese encephalitis virus;
- a.20. Junin virus;
- a.21. Kyasanur Forest disease virus;
- a.22. Laguna Negra virus;
- a.23. Lassa virus;
- a.24. Louping ill virus;
- a.25. Lujo virus;
- a.26. Lumpy skin disease virus;
- a.27. Lymphocytic choriomeningitis virus;
- a.28. Machupo virus;
- a.29. Marburgvirus (includes all members of the Marburgvirus genus);
- a.30. Middle East respiratory syndrome-related coronavirus (MERS-related coronavirus);
- a.31. Monkeypox virus;
- a.32. Murray Valley encephalitis virus;
- a.33. Newcastle disease virus;
- a.34. Nipah virus;
- a.35. Omsk hemorrhagic fever virus;
- a.36. Oropouche virus;
- a.37. Peste-des-petits ruminants virus;
- a.38. Porcine Teschovirus;
- a.39. Powassan virus;
- a.40. Rabies virus and all other members of the Lyssavirus genus;
- a.41. Reconstructed 1918 influenza virus;
- Technical Note: 1C351.a.41 includes reconstructed replication competent forms of the 1918 pandemic influenza virus containing any portion of the coding regions of all eight gene segments.*
- a.42. Rift Valley fever virus;
- a.43. Rinderpest virus;
- a.44. Rocio virus;
- a.45. Sabia virus;
- a.46. Seoul virus;
- a.47. Severe acute respiratory syndrome-related coronavirus (SARS-related coronavirus);
- a.48. Sheeppox virus;
- a.49. Sin Nombre virus;
- a.50. St. Louis encephalitis virus;
- a.51. Suid herpesvirus 1 (Pseudorabies virus; Aujeszky's disease);
- a.52. Swine vesicular disease virus;
- a.53. Tick-borne encephalitis virus (Far Eastern subtype, formerly known as Russian Spring-Summer encephalitis virus—see 1C351.b.3 for Siberian subtype);
- a.54. Variola virus;
- a.55. Venezuelan equine encephalitis virus;
- a.56. Vesicular stomatitis virus;
- a.57. Western equine encephalitis virus; or
- a.58. Yellow fever virus.
- b. Viruses identified on the APHIS/CDC “select agents” lists (see Related Controls paragraph #2 for this ECCN), but not identified on the Australia Group (AG) “List of Human and Animal

Pathogens and Toxins for Export Control,” as follows:

- b.1. [Reserved];
  - b.2. [Reserved]; *or*
  - b.3. Tick-borne encephalitis virus (Siberian subtype, formerly West Siberian virus—see 1C351.a.53 for Far Eastern subtype).
- c. Bacteria identified on the Australia Group (AG) “List of Human and Animal Pathogens and Toxins for Export Control,” as follows:
- c.1. *Bacillus anthracis*;
  - c.2. *Brucella abortus*;
  - c.3. *Brucella melitensis*;
  - c.4. *Brucella suis*;
  - c.5. *Burkholderia mallei* (*Pseudomonas mallei*);
  - c.6. *Burkholderia pseudomallei* (*Pseudomonas pseudomallei*);
  - c.7. *Chlamydia psittaci* (*Chlamydochlamydia psittaci*);
  - c.8. *Clostridium argentinense* (formerly known as *Clostridium botulinum* Type G), botulinum neurotoxin producing strains;
  - c.9. *Clostridium baratii*, botulinum neurotoxin producing strains;
  - c.10. *Clostridium botulinum*;
  - c.11. *Clostridium butyricum*, botulinum neurotoxin producing strains;
  - c.12. *Clostridium perfringens*, epsilon toxin producing types;
  - c.13. *Coxiella burnetii*;
  - c.14. *Francisella tularensis*;
  - c.15. *Mycoplasma capricolum* subspecies *capripneumoniae* (“strain F38”);
  - c.16. *Mycoplasma mycoides* subspecies *mycoides* SC (small colony) (a.k.a. contagious bovine pleuropneumonia);
  - c.17. *Rickettsia prowazekii*;
  - c.18. *Salmonella enterica* subspecies *enterica* serovar Typhi (*Salmonella typhi*);
  - c.19. Shiga toxin producing *Escherichia coli* (STEC) of serogroups O26, O45, O103, O104, O111, O121, O145, O157, and other shiga toxin producing serogroups;  
*Note: Shiga toxin producing Escherichia coli (STEC) includes, inter alia, enterohaemorrhagic E. coli (EHEC), verotoxin producing E. coli (VTEC) or verocytotoxin producing E. coli (VTEC).*
  - c.20. *Shigella dysenteriae*;
  - c.21. *Vibrio cholerae*; *or*
  - c.22. *Yersinia pestis*.
- d. “Toxins” identified on the Australia Group (AG) “List of Human and Animal Pathogens and Toxins for Export Control,” as follows, and “subunits” thereof:
- d.1. Abrin;
  - d.2. Aflatoxins;
  - d.3. Botulinum toxins;
  - d.4. Cholera toxin;
  - d.5. *Clostridium perfringens* alpha, beta 1, beta 2, epsilon and iota toxins;
  - d.6. Conotoxins;
  - d.7. Diacetoxyscirpenol;

- d.8. HT-2 toxin;
- d.9. Microcystins (Cyanginosins);
- d.10. Modeccin;
- d.11. Ricin;
- d.12. Saxitoxin;
- d.13. Shiga toxins (shiga-like toxins, verotoxins, and verocytotoxins);
- d.14. Staphylococcus aureus enterotoxins, hemolysin alpha toxin, and toxic shock syndrome toxin (formerly known as Staphylococcus enterotoxin F);
- d.15. T-2 toxin;
- d.16. Tetrodotoxin;
- d.17. Viscumin (Viscum album lectin 1); or
- d.18. Volkensin.
- e. “Fungi”, as follows:
  - e.1. Coccidioides immitis; or
  - e.2. Coccidioides posadasii.

**\*\*1C353 Genetic elements and genetically-modified organisms, as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* CB, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
CB applies to entire entry	CB Column 1
AT applies to entire entry	AT Column 1

**License Requirement Notes:**

1. Vaccines that contain genetic elements or genetically modified organisms identified in this ECCN are controlled by ECCN 1C991.

2. Unless specified elsewhere in this ECCN 1C353 (e.g., in License Requirement Note 1), this ECCN controls genetic elements or genetically modified organisms for all biological agents and “toxins,” regardless of quantity or attenuation, that are identified in the List of Items Controlled for this ECCN, including genetic elements or genetically modified organisms for attenuated strains of select biological agents or “toxins” that are excluded from the lists of select biological agents or “toxins” by the Animal and Plant Health Inspection Service (APHIS), U.S. Department of Agriculture, or the Centers for Disease Control and Prevention (CDC), U.S. Department of Health and Human Services, in accordance with the APHIS regulations in 7 CFR part 331 and 9 CFR part 121 and the CDC regulations in 42 CFR part 73.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
GBS: N/A

**List of Items Controlled**

*Related Controls:* (1) The Animal and Plant Health Inspection Service (APHIS), U.S. Department of Agriculture, and the Centers for Disease Control and Prevention (CDC), U.S. Department of Health and Human Services, maintain controls on the possession, use, and transfer within the United States of certain items controlled by this ECCN, including (but not limited to) certain genetic elements, recombinant nucleic acids, and recombinant organisms associated with the agents or toxins in ECCN 1C351 or 1C354 (for APHIS, see 7 CFR 331.3(c), 9 CFR 121.3(c), and 9 CFR 121.4(c); for CDC, see 42 CFR 73.3(c) and 42 CFR 73.4(c)). (2) See 22 CFR part 121, Category XIV(b), for modified biological agents and biologically derived substances that are subject to the export licensing jurisdiction of the U.S. Department

of State, Directorate of Defense Trade Controls.

*Related Definition:* N/A

*Items:*

a. Any genetically modified organism that contains, or any genetic element that codes for, any of the following:

a.1. Any gene or genes specific to any virus controlled by 1C351.a or .b or 1C354.c;

a.2. Any gene or genes specific to any bacterium controlled by 1C351.c or 1C354.a, or any fungus controlled by 1C351.e or 1C354.b, and which:

a.2.a. In itself or through its transcribed or translated products represents a significant hazard to human, animal or plant health; *or*

a.2.b. Could endow or enhance pathogenicity; *or*

a.3. Any toxins, or their subunits, controlled by 1C351.d.

b. [Reserved].

*Technical Notes:*

1. *Genetically modified organisms include organisms in which the nucleic acid sequences have been created or altered by deliberate molecular manipulation.*

2. *“Genetic elements” include, inter alia, chromosomes, genomes, plasmids, transposons, vectors, and inactivated organisms containing recoverable nucleic acid fragments, whether genetically modified or unmodified, or chemically synthesized in whole or in part. For the purposes of this ECCN 1C353, nucleic acids from an inactivated organism, virus, or sample are considered to be ‘recoverable’ if the inactivation and preparation of the material is intended or known to facilitate isolation, purification, amplification, detection, or identification of nucleic acids.*

3. *This ECCN does not control nucleic acid sequences of shiga toxin producing Escherichia coli of serogroups O26, O45, O103, O104, O111, O121, O145, O157, and other shiga toxin producing serogroups, other than those genetic elements coding for shiga toxin, or for its subunits.*

4. *‘Endow or enhance pathogenicity’ is defined as when the insertion or integration of the nucleic acid sequence or sequences is/are likely to enable or increase a recipient organism’s ability to be used to deliberately cause disease or death. This might include alterations to, inter alia: virulence, transmissibility, stability, route of infection, host range, reproducibility, ability to evade or suppress host immunity, resistance to medical countermeasures, or detectability.*

**\*\*1C354 Plant pathogens, as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* CB, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
CB applies to entire entry	CB Column 1
AT applies to entire entry	AT Column 1

**License Requirement Note:**

1. *All vaccines are excluded from the scope of this ECCN. See ECCN 1C991 for vaccines.*

2. *Unless specified elsewhere in this ECCN 1C354 (e.g., in License Requirement Note 1), this ECCN controls all biological agents, regardless of quantity or attenuation, that are identified in the List of Items Controlled for this ECCN, including small quantities or attenuated strains of select biological agents that are excluded from the list of PPQ select agents and “toxins” by the Animal and Plant Health Inspection Service (APHIS), U.S. Department of Agriculture, in accordance with their regulations in 7 CFR part 331.*

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A

GBS: N/A

**List of Items Controlled**

*Related Controls:* (1) The Animal and Plant Health Inspection Service (APHIS), U.S. Department of Agriculture, maintains controls on the possession, use, and transfer within the United States of certain items controlled by this ECCN (see 7 CFR 331.3(c), 9 CFR 121.3(c), and 9 CFR 121.4(c)).

(2) See 22 CFR part 121, Category XIV(b), for modified biological agents and biologically derived substances that are subject to the export licensing jurisdiction of the U.S. Department of State, Directorate of Defense Trade Controls.

*Related Definitions:* N/A

*Items:*

a. Bacteria, as follows:

a.1. *Xanthomonas albilineans*;

a.2. *Xanthomonas axonopodis* pv. *citri* (*Xanthomonas campestris* pv. *citri* A) (*Xanthomonas campestris* pv. *citri*);

a.3. *Xanthomonas oryzae* [this species of proteobacteria is identified on the APHIS “select agents” list (see Related Controls paragraph for this ECCN), but only the *pathovar Xanthomonas oryzae* pv. *oryzae* (syn. *Pseudomonas campestris* pv. *oryzae*) is identified on the Australia Group (AG) “List of Plant Pathogens for Export Control”];

a.4. *Clavibacter michiganensis* subspecies *sepedonicus* (syn. *Corynebacterium michiganensis* subspecies *sepedonicum* or *Corynebacterium sepedonicum*);

a.5. *Ralstonia solanacearum*, race 3, biovar 2;

a.6. *Raythayibactor toxicus* [this bacterium is identified on the APHIS “select agents” list (see the Related Controls paragraph for this ECCN), but is not identified on the Australia Group (AG) “List of Plant Pathogens for Export Control”].

b. Fungi, as follows:

b.1. *Colletotrichum kahawae* (*Colletotrichum coffeanum* var. *virulans*);

b.2. *Cochliobolus miyabeanus* (*Helminthosporium oryzae*);

b.3. *Microcyclus ulei* (syn. *Dothidella ulei*);

b.4. *Puccinnia graminis* ssp. *graminis* var. *graminis* / *Puccinia graminis* ssp. *graminis* var. *stakmanii* (*Puccinia graminis* [syn. *Puccinia graminis* f. sp. *tritici*]);

b.5. *Puccinia striiformis* (syn. *Puccinia glumarum*);

b.6. *Magnaporthe oryzae* (*Pyricularia oryzae*);

b.7. *Peronosclerospora philippinensis* (*Peronosclerospora sacchari*);

b.8. *Sclerophthora rayssiae* var. *zeae*;

b.9. *Synchytrium endobioticum*;

b.10. *Tilletia indica*;

b.11. *Thecaphora solani*;

b.12. *Phoma glycinicola* (formerly *Pyrenochaeta glycines*) [this fungus is identified on the APHIS “select agents” list (see the Related Controls paragraph for this ECCN), but is not identified on the Australia Group (AG) “List of Plant Pathogens for Export Control”].

c. Viruses, as follows:

c.1. Andean potato latent virus (Potato Andean latent tymovirus);

c.2. Potato spindle tuber viroid.

**\*\*1C355** **Chemical Weapons Convention (CWC) Schedule 2 and 3 chemicals and families of chemicals not controlled by ECCN 1C350 or “subject to the ITAR” (see 22 CFR parts ) (see List of Items Controlled).**

### License Requirements

*Reason for Control:* CW, AT

*Control(s)*

CW applies to entire entry. The Commerce Country Chart is not designed to determine licensing requirements for items controlled for CW reasons. A license is required to export or reexport CWC Schedule 2 chemicals and mixtures identified in 1C355.a to States not Party to the CWC (destinations not listed in Supplement No. 2 to part 745 of the EAR). A license is required to export CWC Schedule 3 chemicals and mixtures identified in 1C355.b to States not Party to the CWC, unless an End Use Certificate issued by the government of the importing country is obtained by the exporter, prior to export. A license is required to reexport CWC Schedule 3 chemicals and mixtures identified in 1C355.b from a State not Party to the CWC to any other State not Party to the CWC. (See §742.18 of the EAR for license requirements and policies for toxic and precursor chemicals controlled for CW reasons.)

AT applies to entire entry. The Commerce Country Chart is not designed to determine licensing requirements for items controlled for AT reasons in 1C350. A license is required, for AT reasons, to export or reexport items controlled by 1C350 to a country in Country Group E:1 of Supplement No. 1 to part 740 of the EAR. (See part 742 of the EAR for additional information on the AT controls that apply to Iran, North Korea, Sudan, and Syria. See part 746 of the EAR for

additional information on sanctions that apply to Iran, North Korea, and Syria.)

### License Requirements Notes:

#### 1. MIXTURES:

a. *Mixtures containing toxic and precursor chemicals identified in ECCN 1C355, in concentrations that are below the control levels indicated in 1C355.a and .b, are controlled by ECCN 1C995 and are subject to the license requirements specified in that ECCN.*

b. *Mixtures containing chemicals identified in this entry are not controlled by ECCN 1C355 when the controlled chemical is a normal ingredient in consumer goods packaged for retail sale for personal use or packaged for individual use. Such consumer goods are classified as EAR99.*

**Note to mixtures:** *Calculation of concentrations of CW-controlled chemicals:*

a. *Exclusion. No chemical may be added to the mixture (solution) for the sole purpose of circumventing the Export Administration Regulations;*

b. *Percent Weight Calculation. When calculating the percentage, by weight, of ingredients in a chemical mixture, include all ingredients of the mixture, including those that act as solvents.*

2. **COMPOUNDS:** *Compounds created with any chemicals identified in this ECCN 1C355 may be shipped NLR (No License Required), without obtaining an End-Use Certificate, unless those compounds are also identified in this entry or require a license for reasons set forth elsewhere in the EAR.*

**Technical Notes:** *For purposes of this entry, a “mixture” is defined as a solid, liquid or gaseous product made up of two or more ingredients that do not react together under normal storage conditions.*

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
GBS: N/A

**List of Items Controlled**

*Related Controls:* See also ECCNs [1C350](#), [1C351](#), [1C395](#), and [1C995](#). See §§742.18 and 745.2 of the EAR for End-Use Certification requirements.

*Related Definitions:* N/A

*Items:*

a. CWC Schedule 2 chemicals and mixtures containing Schedule 2 chemicals:

a.1. Toxic chemicals, as follows, and mixtures containing toxic chemicals:

a.1.a. PFIB: 1,1,3,3,3-Pentafluoro-2-(trifluoromethyl)-1-propene (C.A.S. 382-21-8) and mixtures in which PFIB constitutes more than 1 percent of the weight of the mixture;

a.1.b. [Reserved]

a.2. Precursor chemicals, as follows, and mixtures in which at least one of the following precursor chemicals constitutes more than 10 percent of the weight of the mixture:

a.2.a. Chemicals, except for those listed in Schedule 1, containing a phosphorus atom to which is bonded one methyl, ethyl, or propyl (normal or iso) group but not further carbon atoms.

*Note:* 1C355.a.2.a does not control Fonofos: *O-Ethyl S-phenyl ethylphosphonothiolothionate* (C.A.S. 944-22-9).

a.2.b. FAMILY: N,N-Dialkyl (Me, Et, n-Pr or i-Pr) phosphoramidic dihalides;

a.2.c. FAMILY: Dialkyl (Me, Et, n-Pr or i-Pr) N,N-dialkyl (Me, Et, n-Pr, or i-Pr)-phosphoramidates;

a.2.d. FAMILY: N,N-Dialkyl (Me, Et, n-Pr or i-Pr) aminoethyl-2-chlorides and corresponding protonated salts;

a.2.e. FAMILY: N,N-Dialkyl (Me, Et, n-Pr or i-Pr) aminoethane-2-ols and corresponding protonated salts;

*Note:* 1C355.a.2.e. does not control *N,N-Dimethylaminoethanol* and corresponding protonated salts (C.A.S. 108-01-0) or *N,N-Diethylaminoethanol* and corresponding protonated salts (C.A.S. 100-37-8).

a.2.f. FAMILY: N,N-Dialkyl (Me, Et, n-Pr or i-Pr) aminoethane-2-thiols and corresponding protonated salts.

b. CWC Schedule 3 chemicals and mixtures containing Schedule 3 chemicals:

b.1. Toxic chemicals, as follows, and mixtures in which at least one of the following toxic chemicals constitutes 30 percent or more of the weight of the mixture:

b.1.a. Phosgene: Carbonyl dichloride (C.A.S. 75-44-5);

b.1.b. Cyanogen chloride (C.A.S. 506-77-4);

b.1.c. Hydrogen cyanide (C.A.S. 74-90-8);

b.1.d. Chloropicrin: Trichloronitromethane (CAS 76-06-2).

b.2. Precursor chemicals, as follows, and mixtures in which at least one of the following precursor chemicals constitutes 30 percent or more of the weight of the mixture:

b.2.a. [Reserved];

b.2.b. Methyl-diethanolamine (C.A.S. 105-59-9).

**\*\*1C395** Mixtures and medical, analytical, diagnostic, and food testing kits not controlled by ECCN 1C350, as follows (See List of Items Controlled).

### License Requirements

*Reason for Control:* CB, CW, AT

#### *Control(s)*

CB applies to entire entry. The Commerce Country Chart is not designed to determine licensing requirements for items controlled for CB reasons in 1C395. A license is required, for CB reasons, to export or reexport mixtures controlled by 1C395.a and test kits controlled by 1C395.b to States not Party to the CWC (destinations not listed in Supplement No. 2 to part 745 of the EAR).

CW applies to entire entry. The Commerce Country Chart is not designed to determine licensing requirements for items controlled for CW reasons. A license is required for CW reasons, as follows, to States not Party to the CWC (destinations not listed in Supplement No. 2 to part 745 of the EAR): (1) exports and reexports of mixtures controlled by 1C395.a, (2) exports and reexports of test kits controlled by 1C395.b that contain CWC Schedule 2 chemicals controlled by ECCN 1C350, (3) exports of test kits controlled by 1C395.b that contain CWC Schedule 3 chemicals controlled by ECCN 1C350, except that a license is not required, for CW reasons, to export test kits containing CWC Schedule 3 chemicals if an End Use Certificate issued by the government of the importing country is obtained by the exporter prior to export, and (4) reexports from States not Party to the CWC of test kits controlled by 1C395.b that contain CWC Schedule 3 chemicals. (See §742.18 of the EAR for license requirements and policies for toxic and precursor chemicals controlled for CW reasons.)

AT applies to entire entry. The Commerce Country Chart is not designed to determine licensing requirements for items controlled for AT reasons in 1C395. A license is required, for

AT reasons, to export or reexport items controlled by 1C395 to a country in Country Group E:1 of Supplement No. 1 to part 740 of the EAR. (See part 742 of the EAR for additional information on the AT controls that apply to Iran, North Korea, Sudan, and Syria. See part 746 of the EAR for additional information on sanctions that apply to Iran, North Korea, and Syria.)

### *License Requirements Notes*

1. 1C395.b does not control mixtures that contain precursor chemicals identified in ECCN 1C350.b or .c in concentrations below the control levels for mixtures indicated in 1C350.b or .c. 1C395.a and 1C995.a.1 and a.2.a control such mixtures, unless they are consumer goods, as described in License Requirements Note 2 of this ECCN.

2. This ECCN does not control mixtures when the controlled chemicals are normal ingredients in consumer goods packaged for retail sale for personal use. Such consumer goods are classified as EAR99.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A

GBS: N/A

### **List of Items Controlled**

*Related Controls:* 1. ECCN [1C350](#) controls mixtures containing 30 percent or higher concentrations, by weight, of any single CWC Schedule 2 chemical identified in ECCN [1C350.b](#); ECCN [1C995](#) controls such mixtures containing concentrations of 10 percent or less. 2. ECCN [1C995](#) controls “medical, analytical, diagnostic, and food testing kits” (as defined in the Related Definitions paragraph of this ECCN) that contain precursor chemicals listed in ECCN [1C350.d](#). ECCN [1C350](#) controls any such kits in which the amount of any single chemical listed in [1C350.b](#), [.c](#), or [.d](#) exceeds 300 grams by weight.

*Related Definitions:* For the purpose of this entry, “medical, analytical, diagnostic, and food testing kits” are pre-packaged materials of defined composition that are specifically developed, packaged and marketed for medical, analytical, diagnostic, or public health purposes. Replacement reagents for medical, analytical, diagnostic, and food testing kits described in 1C395.b are controlled by ECCN 1C350 if the reagents contain at least one of the precursor chemicals identified in that ECCN in concentrations equal to or greater than the control levels for mixtures indicated in 1C350.b or .c.

*Items:*

- a. Mixtures containing more than 10 percent, but less than 30 percent, by weight of any single CWC Schedule 2 chemical identified in ECCN 1C350.b. (For controls on other mixtures containing these chemicals, see Note 1 in the Related Controls paragraph of this ECCN.)
- b. “Medical, analytical, diagnostic, and food testing kits” (as defined in the Related Definitions for this ECCN) that contain CWC Schedule 2 or 3 chemicals controlled by ECCN 1C350.b or .c in an amount *not* exceeding 300 grams per chemical. (For controls on other such test kits containing these and other controlled chemicals, see Note 2 in the Related Controls paragraph of this ECCN.)

**\*\*1C607 Tear Gases, Riot Control Agents and materials for the detection and decontamination of chemical warfare agents (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry, except 1C607.a.10, .a.11, .a.12, and .a.14	NS Column 1

RS applies to entire entry	RS Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry	See § 746.1(b) for UN controls

**List Based License Exceptions (See Part 740 for a description of all license exceptions)**

LVS: N/A  
 GBS: N/A

**Special Conditions for STA**

STA: Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in 1C607.

**List of Items Controlled**

*Related Controls:* (1) See ECCN 1A984 for controls on other riot control agents. (2) See 22 CFR § 121.1 (USML), Category XIV(b), for modified biological agents and biologically derived substances that are subject to the ITAR. (3) See 22 CFR § 121.1 (USML), Category XIV(g), for ITAR controls on antibodies, recombinant protective antigens, polynucleotides, biopolymers or biocatalysts (including the expression vectors, viruses, plasmids, or cultures of specific cells used to produce them) that are “specially designed” for use with articles controlled under USML Category XIV(f). (4) See ECCN 0A919 for “military commodities” located and produced outside the United States that incorporate more than a *de minimis* amount of US-origin “600 series” controlled content.

*Related Definitions:* N/A  
*Items:*

- a. Tear gases and riot control agents including:
  - a.1. CA (Bromobenzyl cyanide) (CAS 5798–79–8);
  - a.2. CS (o-Chlorobenzylidenemalononitrile or o-Chlorobenzalmalononitrile) (CAS 2698–41–1);
  - a.3. CN (Phenylacetyl chloride or w-

Chloroacetophenone) (CAS 532–27-4);

a.4. CR (Dibenz-(b,f)-1,4-oxazepine) (CAS 257–07–8);

a.5. Adamsite (Diphenylamine chloroarsine or DM) (CAS 578–94–9);

a.6. N-Nonanoylmorpholine, (MPA) (CAS 5299-64-9);

a.7. Dibromodimethyl ether (CAS 4497–29–4);

a.8. Dichlorodimethyl ether (CICi) (CAS 542–88–1);

a.9. Ethyldibromoarsine (CAS 683–43–2);

a.10. Bromo acetone (CAS 598-31-2);

a.11. Bromo methylethylketone (CAS 816-40-0);

a.12. Iodo acetone (CAS 3019-04-3);

a.13. Phenylcarbylamine chloride (CAS 622-44-6);

a.14. Ethyl iodoacetate (CAS 623-48-3);

*Note to 1C607.a:* ECCN 1C607.a. does not control the following: formulations containing 1% or less of CN or CS; individually packaged tear gases or riot control agents for personal self-defense purposes that are controlled by ECCN 1A984; or active constituent chemicals, and combinations thereof, identified and packaged for food production or medical purposes.

b. “Biopolymers,” not controlled by USML Category XIV(g) “specially designed” or processed for the detection or identification of chemical warfare agents specified by USML Category XIV(a), and the cultures of specific cells used to produce them.

c. “Biocatalysts,” and biological systems therefor, not controlled by USML Category XIV(g) “specially designed” for the

decontamination or degradation of chemical warfare agents controlled in USML Category XIV (a), as follows:

c.1. “Biocatalysts” “specially designed” for the decontamination or degradation of chemical warfare agents controlled in USML Category XIV(a) resulting from directed laboratory selection or genetic manipulation of biological systems;

c.2. Biological systems containing the genetic information specific to the production of “biocatalysts” specified by 1C607.c.1, as follows:

c.2.a. “Expression vectors;”

c.2.b. Viruses; or

c.2.c. Cultures of cells.

*Note to 1C607.b and .c:* The cultures of cells and biological systems are exclusive and these sub-items do not apply to cells or biological systems for civil purposes, such as agricultural, pharmaceutical, medical, veterinary, environmental, waste management, or in the food industry.

d. Chemical mixtures not controlled by USML Category XIV(f) “specially designed” for military use for the decontamination of objects contaminated with materials specified by USML Category XIV(a) or (b).

**\*\*1C608 “Energetic materials” and related commodities (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NS, RS, MT, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
RS applies to entire entry	RS Column 1
MT applies to 1C608.m	MT Column 1
AT applies to entire entry	AT Column 1

UN applies to entire entry	See § 746.1(b) for UN controls
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**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: \$1500

GBS: N/A

### Special Conditions for STA

STA: Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in 1C608.

### List of Items Controlled

*Related Controls:* (1) The EAR does not control devices or charges containing materials controlled by USML subparagraphs V(c)(6), V(h), or V(i). The USML controls devices containing such materials. (2) The USML in Categories III, IV, or V controls devices and charges in this entry if they contain materials controlled by Category V (other than slurries) and such materials can be easily extracted without destroying the device or charge. (3) See also explosives and other items enumerated in ECCNs 1A006, 1A007, 1A008, 1C011, 1C111, 1C239, and 1C992. (4) See ECCN 0A919 for foreign-made “military commodities” that incorporate more than a *de minimis* amount of US-origin “600 series” controlled content.

*Related Definitions:* (1) For purposes of this entry, the term ‘controlled materials’ means controlled energetic materials enumerated in ECCNs 1C011, 1C111, 1C239, 1C608, or USML Category V. (2) For the purposes of this entry, the term ‘propellants’ means substances or mixtures that react chemically to produce large volumes of hot gases at controlled rates to perform mechanical work.

*Items:*

a. ‘Single base,’ ‘double base,’ and ‘triple base’ ‘propellants’ having nitrocellulose with nitrogen content greater than 12.6% in the form of either:

a.1. ‘Sheetstock’ or ‘carpet rolls;’ or

a.2. Grains with diameter greater than 0.10 inches.

*Note:* This entry does not control ‘propellant’ grains used in shotgun shells, small arms cartridges, or rifle cartridges.

#### Technical Notes:

1. ‘Sheetstock’ is ‘propellant’ that has been manufactured in the form of a sheet suitable for further processing.

2. A ‘carpet roll’ is ‘propellant’ that has been manufactured as a sheet, often cut to a desired width, and subsequently rolled up (like a carpet).

3. ‘Single base’ is ‘propellant’ which consists mostly of nitrocellulose.

4. ‘Double base’ ‘propellant’ consist mostly of nitrocellulose and nitroglycerine.

5. ‘Triple base’ consists mostly of nitrocellulose, nitroglycerine, and nitroguanidine. Such ‘propellants’ contain other materials, such as resins or stabilizers, that could include carbon, salts, burn rate modifiers, nitrodiphenylamine, wax, polyethylene glycol (PEG), polyglycol adipate (PGA).

b. Shock tubes containing greater than 0.064 kg per meter (300 grains per foot), but not more than 0.1 kg per meter (470 grains per foot) of ‘controlled materials.’

c. Cartridge power devices containing greater than 0.70 kg, but not more than 1.0 kg of ‘controlled materials.’

d. Detonators (electric or nonelectric) and “specially designed” assemblies therefor containing greater than 0.01 kg, but not more than 0.1 kg of ‘controlled materials.’

e. Igniters not controlled by USML Categories III or IV that contain greater than 0.01 kg, but not more than 0.1 kg of ‘controlled materials.’

f. Oil well cartridges containing greater than 0.015 kg, but not more than 0.1 kg of ‘controlled materials.’

g. Commercial cast or pressed boosters containing greater than 1.0 kg, but not more than 5.0 kg of ‘controlled materials.’

h. Commercial prefabricated slurries and emulsions containing greater than 10 kg and less than or equal to thirty-five percent by weight of USML ‘controlled materials.’

i. [Reserved]

j. “Pyrotechnic” devices “specially designed” for commercial purposes (e.g., theatrical stages, motion picture special effects, and fireworks displays), and containing greater than 3.0 kg, but not more than 5.0 kg of ‘controlled materials.’

k. Other commercial explosive devices or charges “specially designed” for commercial applications, not controlled by 1C608.c through .g above, containing greater than 1.0 kg, but not more than 5.0 kg of ‘controlled materials.’

l. Propyleneimine (2 methylaziridine) (C.A.S. #75-55-8).

m. Any oxidizer or ‘mixture’ thereof that is a compound composed of fluorine and any of the following: other halogens, oxygen, or nitrogen.

*Note 1 to 1C608.m: Nitrogen trifluoride (NF<sub>3</sub>)(CAS 7783-54-2) in a gaseous state is controlled under ECCN 1C992 and not under ECCN 1C608.m.*

*Note 2 to 1C608.m: Chlorine trifluoride (ClF<sub>3</sub>)(CAS 7790-91-2) is controlled under ECCN 1C111.a.3.f and not under ECCN 1C608.m.*

*Note 3 to 1C608.m: Oxygen difluoride (OF<sub>2</sub>) is controlled under USML Category V.d.10 (see 22 CFR 121.1) and not under ECCN 1C608.m.*

*Note to 1C608.l and m: If a chemical in ECCN 1C608.l or .m is incorporated into a commercial charge or device described in ECCN 1C608.c through .k or in ECCN 1C992, the classification of the commercial charge or device applies to the item.*

*Technical Note to 1C608.m: ‘Mixture’ refers to a composition of two or more substances with at least one substance being enumerated in 1C011, 1C111, 1C239, 1C608, USML Category V, or elsewhere on the USML.*

n. Any explosives, ‘propellants,’ oxidizers, “pyrotechnics,” fuels, binders, or additives that are “specially designed” for military application and not enumerated or otherwise described in USML Category V or elsewhere on the USML.

*Note 1: 1C608.n does not apply to the following “aircraft” fuels: JP-4, JP-5, and JP-8.*

*Note 2: “Aircraft” fuels specified by 1C608.n, Note 1 are finished products, not their constituents.*

**\*\*1C980** Inorganic chemicals listed in Supplement No. 1 to part 754 of the EAR that were produced or derived from the Naval Petroleum Reserves (NPR) or became available for export as a result of an exchange of any NPR produced or derived commodities.

### License Requirements

*Reason for Control:* SS

*Control(s)*

SS applies to entire entry. For licensing requirements (and possible License Exceptions) proceed directly to part 754 of the EAR. The Commerce Country Chart is not designed to determine licensing requirements for items controlled for SS reasons.

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1C982** Other petroleum products listed in Supplement No. 1 to part 754 of the EAR that were produced or derived from the Naval Petroleum Reserves (NPR) or became available for export as a result of an exchange of any NPR produced or derived commodities.

**License Requirements**

*Reason for Control:* SS

*Control(s)*

SS applies to entire entry. For licensing requirements (and possible License Exceptions) proceed directly to part 754 of the EAR. The Commerce Country Chart is not designed to determine licensing requirements for items controlled for SS reasons.

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1C983** Natural gas liquids and other natural gas derivatives listed in Supplement No. 1 to part 754 of the EAR that were produced or derived from the Naval Petroleum Reserves (NPR) or became available for export as a result of an exchange of any NPR produced or derived commodities.

**License Requirements**

*Reason for Control:* SS

*Control(s)*

SS applies to entire entry. For licensing requirements (and possible License Exceptions) proceed directly to part 754 of the EAR. The Commerce Country Chart is not designed to determine licensing requirements for items controlled for SS reasons.

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1C984** Manufactured gas and synthetic natural gas (except when commingled with natural gas and thus subject to export authorization from the Department of Energy) listed in Supplement No. 1 to part 754 of the EAR that were produced or derived from the Naval Petroleum Reserves (NPR) or became available for export as a result of an exchange of any NPR produced or derived commodities.

**License Requirements**

*Reason for Control:* SS

*Control(s)*

SS applies to entire entry. For licensing requirements (and possible License Exceptions) proceed directly to part 754 of the EAR. The Commerce Country Chart is not designed to determine licensing requirements for items controlled for SS reasons.

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1C988 Unprocessed western red cedar (*Thuja plicata*) logs and timber, and rough, dressed and worked lumber containing wane, as described in § 754.4 of the EAR.**

**License Requirements**

*Reason for Control:* SS

*Control(s)*

SS applies to entire entry. For licensing requirements (and possible License Exceptions) proceed directly to part 754 of the EAR. The Commerce Country Chart is not designed to determine licensing requirements for items controlled for SS reasons.

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* For a non-exhaustive list of 10-digit Harmonized System-based Schedule B commodity numbers that may apply to unprocessed Western Red Cedar products subject to § 754.4 and related definitions, see Supplement No. 2 to part 754 of the EAR.

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1C990 Fibrous and filamentary materials, not controlled by 1C010 or 1C210, for use in “composite” structures and with a specific modulus of 3.18 x 10<sup>6</sup> m or greater and a specific tensile strength of 7.62 x 10<sup>4</sup> m or greater.**

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1C991 Vaccines, immunotoxins, medical products, diagnostic and food testing kits, as follows (see List of Items controlled).**

**License Requirements**

*Reason for Control:* CB, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
CB applies to 1C991.d	CB Column 3
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) Medical products containing ricin or saxitoxin, as follows, are controlled for CW reasons under ECCN [1C351](#):

(a) Ricinus Communis Agglutinin<sub>II</sub> (RCA<sub>II</sub>), also known as ricin D, or Ricinus Communis Lectin<sub>III</sub> (RCL<sub>III</sub>);

(b) Ricinus Communis Lectin<sub>IV</sub> (RCL<sub>IV</sub>), also known as ricin E; or

(c) Saxitoxin identified by C.A.S. #35523-89-8.

(2) The export of a “medical product” that is an “Investigational New Drug” (IND), as defined in 21 CFR §312.3, is subject to certain U.S. Food and Drug Administration (FDA) requirements that are independent of the export requirements specified in this ECCN or elsewhere in the EAR. These FDA requirements are described in 21 CFR §312.110 and must be satisfied in addition to any requirements specified in the EAR.

(3) Also see 21 CFR §314.410 for FDA requirements concerning exports of new drugs and new drug substances.

*Related Definitions:* For the purpose of this entry, “immunotoxin” is defined as an antibody-toxin conjugate intended to destroy specific target cells (e.g., tumor cells) that bear antigens homologous to the antibody. For the purpose of this entry, “medical products” are: (1) pharmaceutical formulations designed for testing and human administration in the treatment of medical conditions, (2) prepackaged for distribution as clinical or medical products, and (3) approved by the U.S. Food and Drug Administration either to be marketed as clinical or medical products or for use as an “Investigational New Drug” (IND) (see 21 CFR Part 312). For the purpose of this entry, “diagnostic and food testing kits” are specifically developed, packaged and marketed for diagnostic or public health purposes. Biological toxins in any other configuration, including bulk shipments, or for any other end-uses are controlled by ECCN 1C351. For the purpose of this entry, “vaccine” is defined as a medicinal (or veterinary) product in a pharmaceutical formulation, approved by the U.S. Food and Drug Administration or the U.S. Department

of Agriculture to be marketed as a medical (or veterinary) product or for use in clinical trials, that is intended to stimulate a protective immunological response in humans or animals in order to prevent disease in those to whom or to which it is administered.

*Items:*

a. Vaccines against items controlled by ECCN ECCN 1C351, 1C353 or 1C354;

b. Immunotoxins containing items controlled by 1C351.d;

c. Medical products containing botulinum toxins controlled by ECCN 1C351.d.3 or conotoxins controlled by ECCN 1C351.d.6;

d. Medical products containing items controlled by ECCN 1C351.d (except botulinum toxins controlled by ECCN 1C351.d.3, conotoxins controlled by ECCN 1C351.d.6, and items controlled for CW reasons under 1C351.d.11 or .d.12);

e. Diagnostic and food testing kits containing items controlled by ECCN 1C351.d (except items controlled for CW reasons under ECCN 1C351.d.11 or .d.12).

**\*\*1C992 Commercial charges and devices containing energetic materials, n.e.s. and nitrogen trifluoride in a gaseous state (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* AT, RS, Foreign policy

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1.
RS applies to entire entry.	A license is required for items controlled by this entry for export or reexport to Iraq and transfer within Iraq for regional stability reasons.

	The Commerce Country Chart is not designed to determine RS license requirements for this entry. See §§ 742.6 and 746.3 of the EAR for additional information.
Russian industry sector sanctions apply to entire entry.	See § 746.5 for specific license requirements and license review policy.

(see 22 CFR 121.12) (such as ammonium pictrate, black powder, etc.) contained in commercial explosive devices and in the charges are omitted when determining the total mass of controlled material.

*Items:*

- a. Shaped charges “specially designed” for oil well operations, utilizing one charge functioning along a single axis, that upon detonation produce a hole, and
  - a.1. Contain any formulation of controlled materials;
  - a.2. Have only a uniform shaped conical liner with an included angle of 90 degrees or less;
  - a.3. Contain more than 0.010 kg but less than or equal to 0.090 kg of controlled materials; and
  - a.4. Have a diameter not exceeding 4.5 inches;
- b. Shaped charges “specially designed” for oil well operations containing less than or equal to 0.010 kg of controlled materials;
- c. Detonation cord or shock tubes containing less than or equal to 0.064 kg per meter (300 grains per foot) of controlled materials;
- d. Cartridge power devices, that contain less than or equal to 0.70 kg of controlled materials in the deflagration material;
- e. Detonators (electric or nonelectric) and assemblies thereof, that contain less than or equal to 0.01 kg of controlled materials;
- f. Igniters, that contain less than or equal to 0.01 kg of controlled materials;
- g. Oil well cartridges, that contain less than or equal to 0.015 kg of controlled energetic materials;

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
 GBS: N/A

**List of Items Controlled**

*Related Controls:* (1) Commercial charges and devices containing USML controlled energetic materials that exceed the quantities noted or that are not covered by this entry are controlled under [ECCN 1C608](#). (2) Nitrogen trifluoride when not in a gaseous state is controlled under ECCN 1C608.

*Related Definitions:* (1) Items controlled by this entry 1C992 are those materials not controlled by ECCN 1C608 and not “subject to the ITAR” (see 22 CFR parts 120 through 130). (2) For purposes of this entry, the term “controlled materials” means controlled energetic materials (see ECCNs 1C011, 1C111, 1C239 and 1C608; see also 22 CFR 121.1 Category V). (3) The individual USML controlled energetic materials, even when compounded with other materials, remain “subject to the ITAR” when not incorporated into explosive devices or charges controlled by this entry. (4) Commercial prefabricated slurries and emulsions containing greater than 35% of USML controlled energetic materials are “subject to the ITAR” (see 22 CFR parts 120 through 130). (5) For purposes of this entry, the mass of aluminum powder, potassium perchlorate, and any of the substances listed in the note to the USML

- h. Commercial cast or pressed boosters containing less than or equal to 1.0 kg of controlled materials;
- i. Commercial prefabricated slurries and emulsions containing less than or equal to 10.0 kg and less than or equal to thirty-five percent by weight of USML controlled materials;
- j. Cutters and severing tools containing less than or equal to 3.5 kg of controlled materials;
- k. Pyrotechnic devices when designed exclusively for commercial purposes (e.g., theatrical stages, motion picture special effects, and fireworks displays) and containing less than or equal to 3.0 kg of controlled materials; or
- l. Other commercial explosive devices and charges not controlled by 1C992.a through .k containing less than or equal to 1.0 kg of controlled materials.

*Note: 1C992.l includes automotive safety devices; extinguishing systems; cartridges for riveting guns; explosive charges for agricultural, oil and gas operations, sporting goods, commercial mining, or public works purposes; and delay tubes used in the assembly of commercial explosive devices.*

- m. Nitrogen trifluoride (NF<sub>3</sub>) in a gaseous state.

**\*\*1C995** Mixtures not controlled by ECCN 1C350, ECCN 1C355 or ECCN 1C395 that contain chemicals controlled by ECCN 1C350 or ECCN 1C355 and medical, analytical, diagnostic, and food testing kits not controlled by ECCN 1C350 or ECCN 1C395 that contain chemicals controlled by ECCN 1C350.d, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* AT, RS

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
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AT applies to entire entry	AT Column 1
RS applies to entire entry	A license is required for items controlled by this entry for export or reexport to Iraq or transfer within Iraq for regional stability reasons. The Commerce Country Chart is not designed to determine RS license requirements for this entry. See §§742.6 and 746.3 of the EAR for additional information.

**License Requirement Notes:**

1. *This ECCN does not control mixtures containing less than 0.5% of any single toxic or precursor chemical controlled by ECCN 1C350.b, .c, or .d or ECCN 1C355 as unavoidable by-products or impurities. Such mixtures are classified as EAR99.*

2. *1C995.c does not control mixtures that contain precursor chemicals identified in 1C350.d in concentrations below the levels for mixtures indicated in 1C350.d. 1C995.a.2.b controls such mixtures, unless they are consumer goods as described in License Requirements Note 3 of this ECCN.*

3. *This ECCN does not control mixtures when the controlled chemicals are normal ingredients in consumer goods packaged for retail sale for personal use. Such consumer goods are classified as EAR99.*

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
GBS: N/A

**List of Items Controlled**

*Related Controls:* 1. ECCN [1C350](#) controls mixtures containing 30 percent or higher concentrations of any single CWC Schedule

2 chemical identified in ECCN [1C350.b](#). ECCN [1C395](#) controls mixtures containing concentrations of more than 10 percent, but less than 30 percent, of any single CWC Schedule 2 chemical identified in ECCN [1C350.b](#). 2. ECCN [1C350](#) controls mixtures containing chemicals identified in ECCN [1C350.c](#) or [.d](#) that exceed the concentration levels indicated in [1C995.a.2](#). 3. ECCN [1C355](#) controls mixtures containing chemicals identified in ECCN [1C355](#) that exceed the concentration levels indicated in [1C995.b](#). 4. ECCN [1C395](#) controls “medical, analytical, diagnostic, and food testing kits” (as defined in the Related Controls paragraph of this ECCN) that contain CWC Schedule 2 or 3 chemicals listed in [1C350.b](#) or [.c](#). ECCN [1C350](#) controls any such testing kits in which the amount of any single chemical listed in [1C350.b](#), [.c](#), or [.d](#) exceeds 300 grams by weight.

*Related Definitions:* For the purpose of this entry, “medical, analytical, diagnostic, and food testing kits” are pre-packaged materials of defined composition that are specifically developed, packaged and marketed for medical, analytical, diagnostic, or public health purposes. Replacement reagents for medical, analytical, diagnostic, and food testing kits described in [1C995.c](#) are controlled by ECCN [1C350](#) if the reagents contain at least one of the precursor chemicals identified in that ECCN in concentrations equal to or greater than the control levels for mixtures indicated in [1C350.d](#).

*Items:*

a. Mixtures containing the following concentrations of precursor chemicals controlled by ECCN [1C350](#) (For controls on other mixtures containing these chemicals, see Notes 1 and 2 in the Related Controls paragraph of this ECCN.):

a.1. Mixtures containing 10 percent or less, by weight, of any single CWC Schedule 2 chemical controlled by ECCN [1C350.b](#);

a.2. Mixtures containing less than 30 percent, by weight, of:

a.2.a. Any single CWC Schedule 3 chemical controlled by ECCN [1C350.c](#); or

a.2.b. Any single precursor chemical controlled by ECCN [1C350.d](#).

b. Mixtures containing the following concentrations of toxic or precursor chemicals controlled by ECCN [1C355](#) (For controls on other mixtures containing these chemicals, see Note 3 in the Related Controls paragraph of this ECCN.):

b.1. Mixtures containing the following concentrations of CWC Schedule 2 chemicals controlled by ECCN [1C355.a](#):

b.1.a. Mixtures containing 1 percent or less, by weight, of any single CWC Schedule 2 chemical controlled by ECCN [1C355.a.1](#) (i.e., mixtures containing PFIB); or

b.1.b. Mixtures containing 10 percent or less, by weight, of any single CWC Schedule 2 chemical controlled by [1C355.a.2](#);

b.2. Mixtures containing less than 30 percent, by weight, of any single CWC Schedule 3 chemical controlled by ECCN [1C355.b](#).

c. “Medical, analytical, diagnostic, and food testing kits” (as defined in the Related Definitions for this ECCN) that contain precursor chemicals controlled by ECCN [1C350.d](#) in an amount *not* exceeding 300 grams per chemical. (For controls on other such test kits containing these and other controlled chemicals, see Note 4 in the Related Controls paragraph of this ECCN.)

**\*\*1C996** Hydraulic fluids containing synthetic hydrocarbon oils, not controlled by [1C006](#), having all the following characteristics (see List of Items Controlled).

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

- a. A flash point exceeding 477 K (204° C);
- b. A pour point at 239 K (-34° C) or less;
- c. A viscosity index of 75 or more; *and*
- d. A thermal stability at 616 K (343° C).

**\*\*1C997** Ammonium nitrate, including fertilizers and fertilizer blends containing more than 15% by weight ammonium nitrate, except liquid fertilizers (containing any amount of ammonium nitrate) or dry fertilizers containing less than 15% by weight ammonium nitrate.

**License Requirements**

*Reason for Control:* AT, RS

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1
RS applies to entire entry.	A license is required for items controlled by this entry for export or reexport to Iraq or

	transfer within Iraq for regional stability reasons. The Commerce Country Chart is not designed to determine RS license requirements for this entry. See §§742.6 and 746.3 of the EAR for additional information.
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**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1C998** Non-fluorinated polymeric substances, not controlled by 1C008, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

- a. Polyarylene ether ketones, as follows:
  - a.1 Polyether ether ketone (PEEK);
  - a.2. Polyether ketone ketone (PEKK);
  - a.3. Polyether ketone (PEK);
  - a.4. Polyether ketone ether ketone ketone (PEKEKK);
- b. [Reserved].

- a. Hardened steel and tungsten carbide precision ball bearings (3mm or greater diameter);
- b. 304 and 316 stainless steel plate, n.e.s.;
- c. Monel plate;
- d. Tributyl phosphate;
- e. Nitric acid in concentrations of 20 weight percent or greater;
- f. Fluorine;
- g. Alpha-emitting radionuclides, n.e.s.

**\*\*IC999** Specific materials, n.e.s., as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* AT, RS

*Control(s)*

AT applies to entire entry. A license is required for items controlled by this entry to North Korea for anti-terrorism reasons. The Commerce Country Chart is not designed to determine AT license requirements for this entry. See §742.19 of the EAR for additional information.

RS applies to entire entry. A license is required for items controlled by this entry for export or reexport to Iraq or transfer within Iraq for regional stability reasons. The Commerce Country Chart is not designed to determine RS license requirements for this entry. See §§742.6 and 746.3 of the EAR for additional information.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* See also [1C236](#)  
*Related Definitions:* N/A  
*Items:*

**D. “SOFTWARE”**

**\*\*1D001** “Software” “specially designed” or modified for the “development”, “production” or “use” of equipment controlled by 1B001 to 1B003.

**License Requirements**

*Reason for Control:* NS, MT, NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
MT applies to “software” for the “development,” “production,” operation, or maintenance of items controlled by 1B001 for MT reasons.	MT Column 1
NP applies to “software” for the “development”, “production” or “use” of items controlled by 1B001 for NP reasons	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: Yes, except N/A for MT

**List of Items Controlled**

*Related Controls:* (1) See ECCNs [1E101](#) (“use”) and [1E102](#) (“development” and “production”) for technology for items controlled by this entry. (2) Also see [1D002](#), [1D101](#), [1D201](#), and [1D999](#).

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1D002** “Software” for the “development” of organic “matrix”, metal “matrix” or carbon “matrix” laminates or “composites”.

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
AT applies to entire entry	AT Column 1

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: Yes

**Special Conditions for STA**

*STA:* License Exception STA may not be used to ship or transmit “software” for the “development” of organic

“matrix”, metal “matrix” or carbon “matrix” laminates or “composites” specified in ECCN [1A002](#) to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

**List of Items Controlled**

*Related Controls:* “Software” for items controlled by [1A102](#) are “subject to the ITAR” (see 22 CFR parts 120 through 130).

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1D003** “Software” “specially designed” or modified to enable equipment to perform the functions of equipment controlled under 1A004.c or 1A004.d.

**License Requirements**

*Reason for Control:* NS, RS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
RS applies to software for equipment controlled by 1A004.d	RS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1D018** “Software” specially designed or modified for the “development”, “production”, or “use” of items controlled by 1B018.b.

**License Requirements**

*Reason for Control:* NS, MT, AT, UN.

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
MT applies to “software” for the “development”, “production”, operation, or maintenance of items controlled by 1B018 for MT reasons.	MT Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry	See § 746.1(b) for UN controls.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* See ECCN 1D608 for “software” for items classified under ECCN 1B608 that, immediately prior to July 1, 2014, were classified under 1B018.a.

*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1D101** “Software” “specially designed” or modified for the operation or maintenance of commodities controlled by 1B101, 1B102, 1B115, 1B117, 1B118, or 1B119.

**License Requirements**

*Reason for Control:* MT, NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 2
NP applies to “software” for the “use” of items controlled by 1B101.a	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* See ECCNs [1E101](#) (“use”) and [1E102](#) (“development” and “production”) for technology for items controlled by this entry.

*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1D103** “Software” “specially designed” for reduced observables such as radar reflectivity, ultraviolet/infrared signatures and acoustic signatures, for applications usable in rockets, missiles, or unmanned aerial vehicles capable of delivering at least a 500 kg payload to a “range” equal to or greater than 300 km and their complete subsystems.

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
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MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* (1) This entry includes “software” “specially designed” for analysis of signature reduction. (2) For software that meets the definition of defense articles under 22 CFR 120.3 of the International Traffic in Arms Regulations (ITAR), which describes similar software that are “subject to the ITAR” (see 22 CFR parts 120 through 130, including USML Category XIII).

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1D201** “Software” “specially designed” or modified for the “use” of items controlled by 1B201.

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* See ECCNs [1E201](#) (“use”) and [1E203](#) (“development”) and

“production”) for technology for items controlled by this entry.

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1D390** “Software” for process control that is specifically configured to control or initiate “production” of chemicals controlled by 1C350.

**License Requirements**

*Reason for Control:* CB, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
CB applies to entire entry	CB Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* See Section 772.1 of the EAR for the definitions of “software,” “program,” and “microprogram.”

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1D607** “Software” “specially designed” for the “development,” “production,” operation, or maintenance of items controlled by 1A607, 1B607 or 1C607 (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry, except “software” for 1C607.a.10, .a.11, .a.12, and .a.14	NS Column 1
RS applies to entire entry	RS Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry	See § 746.1(b) for UN controls

**List Based License Exceptions (See Part 740 for a description of all license exceptions)**

TSR: N/A

**Special Conditions for STA**

STA: Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in 1D607.

**List of Items Controlled**

*Related Controls:* (1) “Software” directly related to articles enumerated or otherwise described in USML Category XIV is subject to the ITAR (see 22 CFR § 121.1, Category XIV(m)). “Software” controlled by USML Category XIV(m) includes “software” directly related to any equipment containing reagents, algorithms, coefficients, software, libraries, spectral databases, or alarm set point levels developed under U.S. Department of Defense contract or funding for the detection, identification, warning or monitoring of items controlled in paragraphs (a) or (b) of USML Category XIV, or for chemical or biological agents specified by U.S. Department of Defense funding or contract. (2) See ECCN 0A919 for “military commodities” located and produced outside the United States that incorporate more than a *de minimis* amount of US-origin “600 series” controlled content.

*Related Definitions:* N/A  
*Items:*

a. “Software” “specially designed” for the “development,” “production,” operation, or maintenance of commodities controlled by ECCN 1A607, 1B607, or 1C607.

b. [Reserved]

**\*\*1D608 “Software” “specially designed” for the “development,” “production,” operation, or maintenance of commodities controlled by 1B608 or 1C608 (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NS, RS, MT, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
RS applies to entire entry	RS Column 1
MT applies to “software” “specially designed” for the “use” of 1B608 equipment in the “production” and handling of materials controlled by 1C608.m or MT articles in USML Category V	MT Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry	See § 746.1(b) for UN controls

**List Based License Exceptions (See Part 740 for a description of all license exceptions)**

TSR: N/A

**Special Conditions for STA**

STA: Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in 1D608.

**List of Items Controlled**

*Related Controls:* (1) Software directly related to articles enumerated or otherwise described in USML Categories III, IV or V is subject to the controls of those USML Categories, respectively. (2) See ECCN 0A919 for foreign-made “military commodities” that incorporate more than a *de minimis* amount of U.S.-origin “600 series” items.

*Related Definitions:* N/A

*Items:*

a. “Software” “specially designed” for the “development,” “production,” operation, or maintenance of commodities controlled by ECCN 1B608 or 1C608.

b. [Reserved]

**\*\*1D613** “Software” “specially designed” for the “development,” “production,” operation, or maintenance of commodities controlled by 1A613 or 1B613, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry except 1D613.y	NS Column 1
RS applies to entire entry except 1D613.y	RS Column 1
RS applies 1D613.y	China, Russia, or Venezuela (see § 724.6(a)(7))
AT applies to entire entry	AT Column 1
UN applies to entire entry, except 1D613.y	See § 746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**Special Conditions for STA**

*STA:* Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any “software” in 1D613.

**List of Items Controlled**

*Related Controls:* (1) “Software” directly related to articles controlled by USML Category X is subject to the control of USML paragraph X(e) of the ITAR. (2) See ECCN 0A919 for foreign-made “military commodities” that incorporate more than a *de minimis* amount of US-origin “600 series” controlled content.

*Related Definitions:* N/A

*Items:*

a. “Software” (other than “software” controlled in paragraph .y of this entry) “specially designed” for the “development,” “production,” operation, or maintenance of commodities controlled by ECCNs 1A613 (except 1A613.y) or 1B613 (except 1B613.y).

b. to x. [Reserved]

y. Specific “software” “specially designed” for the “production,” “development,” operation, or maintenance of commodities controlled by ECCN 1A613.y.

**\*\*1D993** “Software” “specially designed” for the “development,” “production” or “use” of equipment or materials controlled by 1C210.b, or 1C990.

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1D999** Specific software, n.e.s., as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* AT

*Control(s)*

AT applies to entire entry. A license is required for items controlled by this entry to North Korea for anti-terrorism reasons. The Commerce Country Chart is not designed to determine AT licensing requirements for this entry. See §742.19 of the EAR for additional information.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* See also [1B999](#)  
*Related Definitions:* N/A  
*Items:*

- a. Software “specially designed” for industrial process control hardware/systems controlled by 1B999, n.e.s.;
- b. Software “specially designed” for equipment for the production of structural composites, fibers, prepregs and preforms controlled by 1B999, n.e.s.

**E. “TECHNOLOGY”**

**\*\*1E001** “Technology” according to the General Technology Note for the “development” or “production” of items controlled by 1A002, 1A003, 1A004, 1A005, 1A006.b, 1A007, 1A008 1A101, 1A231, 1B (except 1B608, 1B613 or 1B999), or 1C (except 1C355, 1C608, 1C980 to 1C984, 1C988, 1C990, 1C991, 1C995 to 1C999).

**License Requirements**

*Reason for Control:* NS, MT, NP, CB, RS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to “technology” for items controlled by 1A002, 1A003, 1A005, 1A006.b, 1A007, 1B001 to 1B003, 1B018, 1C001 to 1C011, or 1C018	NS Column 1.
NS applies to “technology” for items controlled by 1A004	NS Column 2.
MT applies to “technology” for items controlled by 1A101, 1B001, 1B101, 1B102, 1B115 to 1B119, 1C001, 1C007, 1C011, 1C101, 1C102, 1C107, 1C111, 1C116, 1C117, or 1C118 for MT reasons	MT Column 1.
NP applies to “technology” for items controlled by 1A002, 1A007, 1A231, 1B001, 1B101, 1B201, 1B225, 1B226, 1B228 to 1B234, 1C002, 1C010, 1C111, 1C116, 1C202, 1C210, 1C216, 1C225 to 1C237, or 1C239 to 1C241 for NP reasons	NP Column 1.
CB applies to “technology” for items controlled by 1C351, 1C353, or 1C354	CB Column 1.
CB applies to “technology” for materials controlled by 1C350 and for chemical detection systems and	CB Column 2.

dedicated detectors therefor, in 1A004.c, that also have the technical characteristics described in 2B351.a	
RS applies to technology for equipment controlled in 1A004.d	RS Column 2.
AT applies to entire entry	AT Column 1.

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

- TSR:* Yes, except for the following:
- 1) Items controlled for MT reasons; or
  - 2) Exports and reexports to destinations outside of those countries listed in Country Group A:5 (See Supplement No. 1 to part 740 of the EAR) of “technology” for the “development” or production” of the following:
    - (a) Items controlled by 1C001; or
    - (b) Items controlled by 1A002.a which are composite structures or laminates having an organic “matrix” and being made from materials listed under 1C010.c or 1C010.d.

**Special Conditions for STA**

*STA:* License Exception STA may not be used to ship or transmit “technology” according to the General Technology Note for the “development” or “production” of equipment and materials specified by ECCNs [1A002](#), [1C001](#), [1C007.c](#), [1C010.c](#) or [1C012](#) to any of the destinations listed in Country Group A:6 (See

Supplement No.1 to part 740 of the EAR).

**List of Items Controlled**

*Related Controls* (1) Also see ECCNs 1E101, 1E201, and 1E202. (2) See ECCN 1E608 for “technology” for items classified under ECCN 1B608 or 1C608 that, immediately prior to July 1, 2014, were classified under ECCN 1B018.a or 1C018.b through .m (note that ECCN 1E001 controls “development” and “production” “technology” for chlorine trifluoride controlled by ECCN 1C111.a.3.f – see ECCN 1E101 for controls on “use” “technology” for chlorine trifluoride). (3) See ECCN 1E002.g for control libraries (parametric technical databases) “specially designed” or modified to enable equipment to perform the functions of equipment controlled under ECCN 1A004.c (Nuclear, biological and chemical (NBC) detection systems) or ECCN 1A004.d (Equipment for detecting or identifying explosives residues). (4) “Technology” for lithium isotope separation (see related ECCN 1B233) and “technology” for items described in ECCN 1C012 are subject to the export licensing authority of the Department of Energy (see 10 CFR part 810). (5) “Technology” for items described in ECCN 1A102 is “subject to the ITAR” (see 22 CFR parts 120 through 130).

*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1E002 Other “technology” as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NS, MT, NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry, except 1E002.g	NS Column 1
NS applies to 1E002.g	NS Column 2
MT applies to 1E002.e	MT Column 1
NP applies to “technology” for items controlled by 1A002 for NP reasons.	NP Column 1
AT applies to entire entry	AT Column 1

### Reporting Requirements

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* Yes, except for 1E002.e and .f.

**License Exceptions Note:** License Exception TSU is not applicable for the repair “technology” controlled by 1E002.e or .f, see Supplement No. 2 to part 774.

### Special Conditions for STA

*STA:* License Exception STA may not be used to ship or transmit any item in 1E002.e or .f to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

### List of Items Controlled

*Related Controls:* See also [1E001](#), [1E101](#), [1E102](#), [1E202](#), and [1E994](#) for “technology” related to [1E002.e](#) or [.f](#).

*Related Definitions:* N/A  
*Items:*

a. “Technology” for the “development” or “production” of polybenzothiazoles or polybenzoxazoles;

b. “Technology” for the “development” or “production” of fluoroelastomer compounds containing at least one vinyl ether monomer;

c. “Technology” for the design or “production” of the following ceramic powders or non-“composite” ceramic materials:

c.1. Ceramic powders having all of the following:

c.1.a Any of the following compositions:

c.1.a.1. Single or complex oxides of zirconium and complex oxides of silicon or aluminum;

c.1.a.2. Single nitrides of boron (cubic crystalline forms);

c.1.a.3. Single or complex carbides of silicon or boron; or

c.1.a.4. Single or complex nitrides of silicon;

c.1.b. Any of the following total metallic impurities (excluding intentional additions):

c.1.b.1. Less than 1,000 ppm for single oxides or carbides; or

c.1.b.2. Less than 5,000 ppm for complex compounds or single nitrides; and

c.1.c. Being any of the following:

c.1.c.1. Zirconia (CAS 1314-23-4) with an average particle size equal to or less than 1 µm and no more than 10% of the particles larger than 5 µm; *or*

c.1.c.2. Other ceramic powders with an average particle size equal to or less than 5 µm and no more than 10% of the particles larger than 10 µm;

c.2. Non-“composite” ceramic materials composed of the materials described in 1E002.c.1;

*Note:* 1E002.c.2 does not control “technology” for abrasives.

d. [Reserved]

e. “Technology” for the installation, maintenance or repair of materials controlled by 1C001;

f. “Technology” for the repair of “composite” structures, laminates or materials controlled by 1A002 or 1C007.c;

*Note:* 1E002.f does not control “technology” for the repair of “civil aircraft” structures using carbon “fibrous or filamentary materials” and epoxy resins, contained in “aircraft” manufacturers’ manuals.

g. “Libraries” “specially designed” or modified to enable equipment to perform the functions of equipment controlled under 1A004.c or 1A004.d.

**\*\*1E101** “Technology”, in accordance with the General Technology Note, for the “use” of commodities and “software” controlled by 1A101, 1A102, 1B001, 1B101, 1B102, 1B115 to 1B119, 1C001, 1C007, 1C011, 1C101, 1C107, 1C111, 1C116, 1C117, 1C118, 1D001, 1D101, or 1D103.

**License Requirements**

*Reason for Control:* MT, NP, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
MT applies to “technology” for commodities and software controlled by 1A101, 1A102, 1B001, 1B101, 1B102, 1B115 to 1B119, 1C001, 1C007, 1C011, 1C101, 1C107,	MT Column 1

1C111, 1C116, 1C117, 1C118, 1D001, 1D101, or 1D103 for MT reasons	
NP applies to “technology” for items controlled by 1B001, 1B101, 1C111, 1C116, 1D001, or 1D101 for NP reasons	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* “Technology” for items controlled by [1A102](#) is “subject to the ITAR” (see 22 CFR parts 120 through 130).

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1E102** “Technology” according to the General Technology Note for the “development” of software controlled by 1D001, 1D101 or 1D103.

**License Requirements**

*Reason for Control:* MT, NP, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
MT applies to entire entry	MT Column 1
NP applies to “technology” for items controlled by 1D001 and 1D101 for NP reasons	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* This entry includes databases “specially designed” for analysis of signature reduction.

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1E103** “Technical data” (including processing conditions) and procedures for the regulation of temperature, pressure or atmosphere in autoclaves or hydroclaves, when used for the “production” of “composites” or partially processed “composites”, usable for equipment or materials specified in 1C007, 1C102, 1C107, 1C116, 1C117, 1C118, 9A110, and 9C110.

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* See also [1E203](#)

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1E104** “Technology” for the “production” of pyrolytically derived materials formed on a mold, mandrel or other substrate from precursor gases which decompose in the 1,573 K (1,300 °C) to 3,173 K (2,900 °C) temperature range at pressures of 130 Pa (1 mm Hg) to 20 kPa (150 mm Hg), including “technology” for the composition of precursor gases, flow-rates and process control schedules and parameters.

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1E201** “Technology” according to the General Technology Note for the “use” of items controlled by 1A002, 1A007, 1A202, 1A225 to 1A227, 1A231, 1B201, 1B225, 1B226, 1B228 to 1B232, 1B233.b, 1B234, 1C002.b.3 and b.4, 1C010.a, 1C010.b, 1C010.e.1, 1C202, 1C210, 1C216, 1C225 to 1C237, 1C239 to 1C241 or 1D201.

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry, for items controlled for NP reasons.	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1E202** “Technology” according to the General Technology Note for the “development” or “production” of goods controlled by 1A202 or 1A225 to 1A227.

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1E203** “Technology” according to the General Technology Note for the “development” or “production” of “software” controlled by 1D201.

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1E350** “Technology” according to the “General Technology Note” for facilities designed or intended to produce chemicals controlled by 1C350.

**License Requirements**

*Reason for Control:* CB, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
CB applies to entire entry	CB Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1E351** “Technology” according to the “General Technology Note” for the disposal of chemicals or microbiological materials controlled by 1C350, 1C351, 1C353, or 1C354.

**License Requirements**

*Reason for Control:* CB, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
CB applies to “technology” for the disposal of items controlled by 1C351, 1C353, or 1C354	CB Column 1
CB applies to “technology” for the disposal of items controlled by 1C350	CB Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1E355** Technology for the production of Chemical Weapons Convention (CWC) Schedule 2 and 3 chemicals, as follows (see List of Items Controlled):

**License Requirements**

*Reason for Control:* CW, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
CW applies to entire entry.	A license is required for CW reasons to CWC non-States Parties (destinations not listed in Supplement No. 2 to part 745), except for Israel and Taiwan. See §742.18 of the EAR. The Commerce Country Chart is not designed to determine licensing requirements for items controlled for CW reasons.
AT applies to the entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

a. Technology for the production of the following CWC Schedule 2 toxic chemicals:

a.1. PFIB: 1,1,3,3,3-Pentafluoro-2-(trifluoromethyl)-1-propene (382-21-8);

a.2. [Reserved]

b. Technology for the production of the following CWC Schedule 3 toxic chemicals:

b.1. Phosgene: Carbonyl dichloride (75-44-5);

b.2. Cyanogen chloride (506-77-4);

b.3. Hydrogen cyanide (74-90-8).

**\*\*1E607** “Technology” “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing of items controlled by ECCN 1A607, 1B607, 1C607, or 1D607 (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry, except “technology” for 1C607.a.10, .a.11, .a.12, and .a.14 and for 1D607 “software” therefor	NS Column 1
RS applies to entire entry	RS Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry	See § 746.1(b) for UN controls

**List Based License Exceptions (See Part 740 for a description of all license exceptions)**

*TSR:* N/A

**Special Conditions for STA**

*STA:* Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in 1E607.

**List of Items Controlled**

*Related Controls:* Technical data directly related to defense articles enumerated or otherwise described in USML Category XIV are subject to the ITAR (see 22 CFR § 121.1, Category XIV(m)). Technical data controlled by USML Category XIV(m) include technical data directly related to any equipment containing reagents, algorithms, coefficients, software, libraries, spectral databases, or alarm set point levels developed under U.S. Department of Defense contract or funding for the detection, identification, warning or monitoring of items controlled in paragraphs (a) or (b) of USML Category XIV, or for chemical or biological agents specified by U.S. Department of Defense funding or contract.

*Related Definitions:* N/A

*Items:*

a. “Technology” “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing of items controlled by ECCN 1A607, 1B607, 1C607 or 1D607.

*Note to 1E607.a:* ECCN 1E607.a includes “technology” “required” exclusively for the incorporation of “biocatalysts” controlled by ECCN 1C607.c.1 into military carrier substances or military material.

b. [Reserved]

**\*\*1E608** “Technology” “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing of equipment controlled in 1B608 or materials controlled by 1C608 (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, RS, MT, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
RS applies to entire entry	RS Column 1
MT applies to “technology” “required” for 1C608.m	MT Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry	See § 746.1(b) for UN controls

**List Based License Exceptions (See Part 740 for a description of all license exceptions)**

*TSR:* N/A

**Special Conditions for STA**

*STA:* Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in 1E608.

**List of Items Controlled**

*Related Controls:* (1) Technical data directly related to articles enumerated or otherwise described in USML Categories III, IV, or V are subject to the controls of those USML Categories, respectively.

(2) “Technology” for chlorine trifluoride is controlled under ECCN 1E001 (“development” and “production”) and ECCN 1E101 (“use”).

*Related Definitions:* N/A

*Items:*

a. “Technology” “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing of equipment controlled by ECCN 1B608 or materials controlled by ECCN 1C608.

b. “Technology” “required” for the

“development” or “production” of nitrocellulose with nitrogen content over 12.6% and at rates greater than 2000 pounds per hour.

c. “Technology” “required” for the “development” or “production” of nitrate esters (e.g., nitroglycerine) at rates greater than 2000 pounds per hour.

**\*\*1E613** “Technology” “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing of commodities controlled by 1A613 or 1B613 or “software” controlled by 1D613, as follows (see list of items controlled).

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry except 1E613.y	NS Column 1
RS applies to entire entry except 1E613.y	RS Column 1
RS applies 1E613.y	China, Russia, or Venezuela (see § 724.6(a)(7))
AT applies to entire entry	AT Column 1
UN applies to entire entry, except 1E613.y	See § 746.1(b) for UN controls

**List Based License Exceptions (See Part 740 for a description of all license exceptions)**

*TSR:* N/A

**Special Conditions for STA**

*STA:* Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any “technology” in 1E613.

**List of Items Controlled**

*Related Controls:* Technical data directly

related to articles controlled by USML Category X are subject to the control of USML paragraph X(e) of the ITAR.

*Related Definitions:* N/A

*Items:*

a. “Technology” (other than “technology” controlled by paragraph .y of this entry) “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing of commodities or “software” controlled by ECCNs 1A613 (except 1A613.y), 1B613 or 1D613 (except 1D613.y).

b. through x. [Reserved]

y. Specific “technology” “required” for the “production,” “development,” operation, installation, maintenance, repair, overhaul, or refurbishing of commodities or software controlled by ECCN 1A613.y or 1D613.y.

**\*\*1E994** “Technology” for the “development”, “production”, or “use” of fibrous and filamentary materials controlled by 1C990.

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*1E998** “Technology” for the “development” or “production” of processing equipment controlled by 1B999, and materials controlled by 1C996, 1C997, 1C998, or 1C999.

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**EAR99** Items subject to the EAR that are *not* elsewhere specified in this CCL Category or in any other category in the CCL are designated by the number **EAR99**.

**ANNEX to Category 1**

**List of Explosives (See ECCNs 1A004 and 1A008)**

- ADNBF (aminodinitrobenzofuroxan or 7-amino-4,6-dinitrobenzofurazane-1-oxide) (CAS 97096-78-1);
- BNCP (cis-bis (5-nitrotetrazolato) tetra amine-cobalt (III) perchlorate) (CAS 117412-28-9);

3. CL-14 (diamino dinitrobenzofuroxan or 5,7-diamino-4,6-dinitrobenzofurazane-1-oxide) (CAS 117907-74-1);
4. CL-20 (HNIW or Hexanitrohexaazaisowurtzitane) (CAS 135285-90-4); chlathrates of CL-20;
5. CP (2-(5-cyanotetrazolato) penta amine-cobalt (III) perchlorate) (CAS 70247-32-4);
6. DADE (1,1-diamino-2,2-dinitroethylene, FOX-7) (CAS 145250-81-3);
7. DATB (diaminotrinitrobenzene) (CAS 1630-08-6);
8. DDFP (1,4-dinitrodifurazanopiperazine);
9. DDPO (2,6-diamino-3,5-dinitropyrazine-1-oxide, PZO) (CAS 194486-77-6);
10. DIPAM (3,3'-diamino-2,2',4,4',6,6'-hexanitrobiphenyl or dipicramide) (CAS 17215-44-0);
11. DNGU (DINGU or dinitroglycoluril) (CAS 55510-04-8);
12. Furazans as follows:
- DAAOF (diaminoazoxyfurazan);
  - DAAzF (diaminoazofurazan) (CAS 78644-90-3);
13. HMX and derivatives, as follows:
- HMX (Cyclotetramethylenetetranitramine, octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazine, 1,3,5,7-tetranitro-1,3,5,7-tetraza-cyclooctane, octogen or octogene) (CAS 2691-41-0);
  - difluoroaminated analogs of HMX;
  - K-55 (2,4,6,8-tetranitro-2,4,6,8-tetraazabicyclo [3,3,0]-octanone-3, tetranitrosemiglycouril or keto-bicyclic HMX) (CAS 130256-72-3);
14. HNAD (hexanitroadamantane) (CAS 143850-71-9);
15. HNS (hexanitrostilbene) (CAS 20062-22-0);
16. Imidazoles as follows:
- BNNII (Octahydro-2,5-bis(nitroimino)imidazo [4,5-d]imidazole);
  - DNI (2,4-dinitroimidazole) (CAS 5213-49-0);
  - FDIA (1-fluoro-2,4-dinitroimidazole);
  - NTDNIA (N-(2-nitrotriazolo)-2,4-dinitroimidazole);
  - PTIA (1-picryl-2,4,5-trinitroimidazole);
17. NTNMH (1-(2-nitrotriazolo)-2-dinitromethylene hydrazine);
18. NTO (ONTA or 3-nitro-1,2,4-triazol-5-one) (CAS 932-64-9);
19. Polynitrocubanes with more than four nitro groups;
20. PYX (2,6-Bis(picrylamino)-3,5-dinitropyridine) (CAS 38082-89-2);
21. RDX and derivatives, as follows:
- RDX (cyclotrimethylenetrinitramine, cyclonite, T4, hexahydro-1,3,5-trinitro-1,3,5-triazine, 1,3,5-trinitro-1,3,5-triaza-cyclohexane, hexogen or hexogene) (CAS 121-82-4);
  - Keto-RDX (K-6 or 2,4,6-trinitro-2,4,6-triazacyclohexanone) (CAS 115029-35-1);

22. TAGN (triaminoguanidinenitrate) (CAS 4000-16-2);
23. TATB (triaminotrinitrobenzene) (CAS 3058-38-6);
24. TEDDZ (3,3,7,7-tetrakis(difluoroamine) octahydro-1,5-dinitro-1,5-diazocine);
25. Tetrazoles as follows:
- a. NTAT (nitrotriazol aminotetrazole);
  - b. NTNT (1-N-(2-nitrotriazolo)-4-nitrotetrazole);
26. Tetryl (trinitrophenylmethylnitramine) (CAS 479-45-8);
27. TNAD (1,4,5,8-tetranitro-1,4,5,8-tetraazadecalin) (CAS 135877-16-6);
28. TNAZ (1,3,3-trinitroazetidine) (CAS 97645-24-4);
29. TNGU (SORGUYL or tetranitroglycoluril) (CAS 55510-03-7);
30. TNP (1,4,5,8-tetranitro-pyridazino[4,5-d]pyridazine) (CAS 229176-04-9);
31. Triazines as follows:
- a. DNAM (2-oxy-4,6-dinitroamino-s-triazine) (CAS 19899-80-0);
  - b. NNHT (2-nitroimino-5-nitro-hexahydro-1,3,5-triazine) (CAS 130400-13-4);
32. Triazoles as follows:
- a. 5-azido-2-nitrotriazole;
  - b. ADHTDN (4-amino-3,5-dihydrazino-1,2,4-triazole dinitramide) (CAS 1614-08-0);
- c. ADNT (1-amino-3,5-dinitro-1,2,4-triazole);
  - d. BDNTA ((bis-dinitrotriazole)amine);
  - e. DBT (3,3'-dinitro-5,5-bi-1,2,4-triazole) (CAS 30003-46-4);
  - f. DNBT (dinitrobistriazole) (CAS 70890-46-9);
  - g. [Reserved]
  - h. NTDNT (1-N-(2-nitrotriazolo) 3,5-dinitrotriazole);
  - i. PDNT (1-picryl-3,5-dinitrotriazole);
  - j. TACOT (tetranitrobenzotriazolobenzotriazole) (CAS 25243-36-1);
33. "Explosives" not listed elsewhere in this list having a detonation velocity exceeding 8,700 m/s, at maximum density, or a detonation pressure exceeding 34 GPa (340 kbar);
34. [Reserved]
35. Nitrocellulose (containing more than 12.5% nitrogen) (CAS 9004-70-0);
36. Nitroglycol (CAS 628-96-6);
37. Pentaerythritol tetranitrate (PETN) (CAS 78-11-5);
38. Picryl chloride (CAS 88-88-0);
39. 2,4,6 Trinitrotoluene (TNT) (CAS 118-96-7);
40. Nitroglycerine (NG) (CAS 55-63-0);
41. Triacetone Triperoxide (TATP) (CAS 17088-37-8);
42. Guanidine nitrate (CAS 506-93-4);

43. Nitroguanidine (NQ) (CAS 556-88-7);
44. DNAN (2,4-dinitroanisole) (CAS 119-27-7);
45. TEX (4,10-Dinitro-2,6,8,12-tetraoxa-4,10-diazaisowurtzitane);
46. GUDN (Guanylurea dinitramide) FOX-12 (CAS 217464-38-5);
47. Tetrazines as follows:
- a. BTAT (Bis(2,2,2-trinitroethyl)-3,6-diaminotetrazine);
- b. LAX-112 (3,6-diamino-1,2,4,5-tetrazine-1,4-dioxide);
48. Energetic ionic materials melting between 343 K (70°C) and 373 K (100°C) and with detonation velocity exceeding 6,800 m/s or detonation pressure exceeding 18 GPa (180 kbar);
49. BTNEN (Bis(2,2,2-trinitroethyl)-nitramine) (CAS 19836-28-3);
50. FTDO (5,6-(3',4'-furazano)-1,2,3,4-tetrazine-1,3-dioxide).

**CATEGORY 2 - MATERIALS PROCESSING**

*Note:* For quiet running bearings, see the U.S. Munitions List.

**A. "END ITEMS," "EQUIPMENT," "ACCESSORIES," "ATTACHMENTS," "PARTS," "COMPONENTS," AND "SYSTEMS"**

**\*\*2A001** Anti-friction bearings and bearing systems, as follows, (see List of Items Controlled) and "components" therefor.

**License Requirements**

*Reason for Control:* NS, MT, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 2
MT applies to radial ball bearings having all tolerances specified in accordance with ISO 492 Tolerance Class 2 (or ANSI/ABMA Std 20 Tolerance Class ABEC-9, or other national equivalents) or better and having all the following characteristics: an inner ring bore diameter between 12 and 50 mm; an outer ring outside diameter between 25 and 100 mm; and a width between 10 and 20 mm.	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$3000, N/A for MT  
*GBS:* Yes, for 2A001.a, N/A for MT

**List of Items Controlled**

*Related Controls:* (1) See also [2A991](#). (2) Quiet running bearings are "subject to the ITAR" (see 22 CFR parts 120 through 130.)

*Related Definitions:* Annular Bearing Engineers Committee (ABEC).

*Items:*

*Note 1:* 2A001.a includes ball bearing and roller elements "specially designed" for the items specified therein.

*Note 2:* 2A001 does not control balls with tolerances specified by the manufacturer in accordance with ISO 3290:2001 as grade G5 (or national equivalents) or worse.

a. Ball bearings and solid roller bearings, having all tolerances specified by the manufacturer in accordance with ISO 492 Tolerance Class 2 or Class 4 (or national equivalents), or better, and having both 'rings' and 'rolling elements', made from monel or beryllium;

*Note:* 2A001.a does not control tapered roller bearings.

**Technical Notes:**

1. 'Ring' - annular part of a radial rolling bearing incorporating one or more raceways (ISO 5593:1997).

2. 'Rolling element'- ball or roller which rolls between raceways (ISO 5593:1997).

b. [Reserved]

c. Active magnetic bearing systems using any of the following:

c.1. Materials with flux densities of 2.0 T or greater and yield strengths greater than 414 MPa;

c.2. All-electromagnetic 3D homopolar bias designs for actuators; *or*

c.3. High temperature (450 K (177°C) and above) position sensors.

**\*\*2A101** Radial ball bearings having all tolerances specified in accordance with ISO 492 Tolerance Class 2 (or ANSI/ABMA Std 20 Tolerance Class ABEC-9 or other national equivalents), or better and having all the following characteristics (see List of Items Controlled).

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* See ECCN 2A001.

*Related Definitions:* N/A

*Items:*

a. An inner ring bore diameter between 12 and 50 mm;

b. An outer ring outside diameter between 25 and 100 mm; *and*

c. A width between 10 and 20 mm.

**\*\*2A225** Crucibles made of materials resistant to liquid actinide metals (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* See ECCNs [2E001](#) (“development”), [2E002](#) (“production”), and [2E201](#) (“use”) for technology for items controlled under this entry.

*Related Definitions:* N/A

*Items:*

a. Crucibles having both of the following characteristics:

a.1. A volume of between 150 cm<sup>3</sup> (150 ml) and 8,000 cm<sup>3</sup> (8 liters); *and*

a.2. Made of, or coated with, any of the following materials, or combination of the following materials, having an overall impurity level of 2% or less by weight:

a.2.a. Calcium fluoride (CaF<sub>2</sub>);

- a.2.b. Calcium zirconate (metazirconate) (CaZrO<sub>3</sub>);
- a.2.c. Cerium sulfide (Ce<sub>2</sub>S<sub>3</sub>);
- a.2.d. Erbium oxide (erbia) (Er<sub>2</sub>O<sub>3</sub>);
- a.2.e. Hafnium oxide (hafnia) (HfO<sub>2</sub>);
- a.2.f. Magnesium oxide (MgO);
- a.2.g. Nitrided niobium-titanium-tungsten alloy (approximately 50% Nb, 30% Ti, 20% W);
- a.2.h. Yttrium oxide (yttria) (Y<sub>2</sub>O<sub>3</sub>); *or*
- a.2.i. Zirconium oxide (zirconia) (ZrO<sub>2</sub>);

b. Crucibles having both of the following characteristics:

b.1. A volume of between 50 cm<sup>3</sup> and 2,000 cm<sup>3</sup> (2 liters); *and*

b.2. Made of or lined with tantalum, having a purity of 99.9% or greater by weight;

c. Crucibles having all of the following characteristics:

c.1. A volume of between 50 cm<sup>3</sup> and 2,000 cm<sup>3</sup> (2 liters);

c.2. Made of or lined with tantalum, having a purity of 98% or greater by weight; *and*

c.3. Coated with tantalum carbide, nitride, boride, or any combination thereof.

**\*\*2A226** Valves having all of the following characteristics (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NP, CB, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
CB applies to valves that meet or exceed the technical parameters in 2B350.g.	CB Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCNs [2E001](#) (“development”), [2E002](#) (“production”), and [2E201](#) (“use”) for technology for items controlled under this entry. (2) Also see ECCNs [2A992](#), [2B350.g](#) and [2B999](#). (3) Valves “specially designed” or prepared for certain nuclear uses are subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

*Related Definitions:* For valves with different inlet and outlet diameters, the “nominal size” in 2A226 refers to the smallest diameter.

*Items:*

a. A “nominal size” of 5 mm or greater;

b. Having a bellows seal; *and*

c. Wholly made of or lined with aluminum, aluminum alloy, nickel, or nickel alloy containing more than 60% nickel by weight.

**\*\*2A290** Generators and other equipment “specially designed,” prepared, or intended for use with nuclear plants.

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCN [2D290](#) for software for items controlled under this entry. (2) See ECCNs [2E001](#) (“development”), [2E002](#) (“production”), and [2E290](#) (“use”) for technology for items controlled under this entry. (3) Also see ECCN [2A291](#). (4) Certain nuclear equipment “specially designed” or prepared for use in nuclear plants is subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

*Related Definitions:* N/A

*Items:*

- a. Generators, turbine-generator sets, steam turbines, heat exchangers, and heat exchanger type condensers designed or intended for use in a nuclear reactor;
- b. Process control systems intended for use with the equipment controlled by 2A290.a.

**\*\*2A291** Equipment, except items controlled by 2A290, related to nuclear material handling and processing and to nuclear reactors, and “parts” and “components” and “accessories” therefor.

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCN [2D290](#) for software for items controlled under this entry. (2) See ECCNs [2E001](#) (“development”), [2E002](#) (“production”), and [2E290](#) (“use”) for technology for items controlled under this entry. (3) Also see ECCN [2A290](#). (4) Certain equipment “specially designed” or prepared for use in a nuclear reactor or in nuclear material handling is subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110). (5) Nuclear radiation detection and measurement devices “specially designed” or modified for military purposes are “subject to the ITAR” (see 22 CFR Parts 120 through 130).

*Related Definitions:* N/A

*Items:*

- a. Process control systems intended for use with nuclear reactors.

b. Simulators “specially designed” for “nuclear reactors”.

c. Casks that are “specially designed” for transportation of high-level radioactive material and that weigh more than 1,000 kg.

d. Commodities, “parts,” “components” and “accessories” “specially designed” or prepared for use with nuclear plants (e.g., snubbers, airlocks, pumps, reactor fuel charging and discharging equipment, containment equipment such as hydrogen recombiner and penetration seals, and reactor and fuel inspection equipment, including ultrasonic or eddy current test equipment).

e. Radiation detectors and monitors “specially designed” for detecting or measuring “special nuclear material” (as defined in 10 CFR Part 110) or for nuclear reactors.

**Technical Notes:**

1. 2A291.e does not control neutron flux detectors and monitors. These are subject to the export licensing authority of the Nuclear Regulatory Commission, pursuant to 10 CFR Part 110.

2. 2A291.e does not control general purpose radiation detection equipment, such as geiger counters and dosimeters. These items are controlled by ECCN 1A999.

**\*\*2A983** Explosives or detonator detection equipment, both bulk and trace based, consisting of an automated device, or combination of devices for automated decision making to detect the presence of different types of explosives, explosive residue, or detonators; and “parts” and “components,” n.e.s.

**License Requirements**

*Reason for Control:* RS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
RS applies to entire entry	RS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* Also see 1A004 and 1A995.

*Related Definitions:* 1) For the purpose of this entry, automated decision making is the ability of the equipment to detect explosives or detonators at the design or operator-selected level of sensitivity and provide an automated alarm when explosives or detonators at or above the sensitivity level are detected. This entry does not control equipment that depends on operator interpretation of indicators such as inorganic/organic color mapping of the items(s) being scanned. 2) Explosives and detonators include commercial charges and devices controlled by 1C018 and 1C992 and energetic materials controlled by ECCNs 1C011, 1C111, 1C239 and 22 CFR 121.1 Category V.

*Items:*

*Note:* Explosives or detonation detection equipment in 2A983 includes equipment for screening people, documents, baggage, other personal effects, cargo and/or mail.

a. Explosives detection equipment for automated decision making to detect and identify bulk explosives utilizing, but not limited to, x-ray (e.g., computed tomography, dual energy, or coherent scattering), nuclear (e.g., thermal neutron analysis, pulse fast neutron analysis, pulse fast neutron transmission spectroscopy, and gamma resonance absorption), or electromagnetic techniques (e.g., quadropole resonance and dielectrometry).

b.[RESERVED]

c. Detonator detection equipment for automated decision making to detect and identify initiation devices (e.g. detonators, blasting caps) utilizing, but not limited to, x-ray (e.g. dual energy or computed tomography) or electromagnetic techniques.

**\*\*2A984** Concealed object detection equipment operating in the frequency range from 30 GHz to 3000 GHz and having a spatial resolution of 0.1 milliradian up to and including 1 milliradian at a standoff distance of 100 meters; and “parts” and “components,” n.e.s.

**License Requirements**

*Reason for Control:* RS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
RS applies to entire entry	RS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
 GBS: N/A

**List of Items Controlled**

*Related Controls:* (1) Concealed object detection equipment operating in the frequency range from 30 GHz to 3000 GHz and having a spatial resolution less than 0.1 milliradian (a lower milliradian number means a more accurate image resolution) at a standoff distance of 100 meters is “subject to the ITAR” under USML Category XII(c). (2) Concealed object detection equipment operating in the frequency range from 30 GHz to 3000 GHz and having a spatial resolution greater than 1 milliradian (a higher milliradian number means a less accurate image resolution) at a standoff distance of 100 meters is designated as EAR99. (3) See ECCNs [2D984](#) and [2E984](#) for related software and technology controls.

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

*Note:* Concealed object detection equipment includes but is not limited to equipment for screening people, documents, baggage, other personal effects, cargo and/or mail.

**Technical Note:** The range of frequencies span what is generally considered as the millimeter-wave, submillimeter-wave and terahertz frequency regions.

**\*\*2A991** Bearings and bearing systems not controlled by 2A001 (see List of Items Controlled).

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A

GBS: N/A

**List of Items Controlled**

*Related Controls:* (1) This entry does not control balls with tolerance specified by the manufacturer in accordance with ISO 3290 as grade 5 or worse. (2) Quiet running bearings are “subject to the ITAR” (see 22 CFR parts 120 through 130).

*Related Definitions:* (1) (a) DN is the product of the bearing bore diameter in mm and the bearing rotational velocity in rpm. (b) Operating temperatures include those temperatures obtained when a gas turbine engine has stopped after operation. (2) Annular Bearing Engineers Committee (ABEC); American National Standards Institute (ANSI); Anti-Friction Bearing Manufacturers Association (AFBMA)

*Items:*

a. Ball bearings or Solid ball bearings, having tolerances specified by the manufacturer in accordance with ABEC 7, ABEC 7P, or ABEC 7T or ISO Standard Class 4 or better (or equivalents) and having any of the following characteristics.

a.1. Manufactured for use at operating temperatures above 573 K (300 °C) either by using special materials or by special heat treatment; *or*

a.2. With lubricating elements or “part” or “component” modifications that, according to the

manufacturer's specifications, are “specially designed” to enable the bearings to operate at speeds exceeding 2.3 million DN.

b. Solid tapered roller bearings, having tolerances specified by the manufacturer in accordance with ANSI/AFBMA Class 00 (inch) or Class A (metric) or better (or equivalents) and having either of the following characteristics.

b.1. With lubricating elements or “part” or “component” modifications that, according to the manufacturer's specifications, are “specially designed” to enable the bearings to operate at speeds exceeding 2.3 million DN; *or*

b.2. Manufactured for use at operating temperatures below 219 K (-54 °C) or above 423 K (150 °C).

c. Gas-lubricated foil bearing manufactured for use at operating temperatures of 561 K (288 °C) or higher and a unit load capacity exceeding 1 MPa.

d. Active magnetic bearing systems.

e. Fabric-lined self-aligning or fabric-lined journal sliding bearings manufactured for use at operating temperatures below 219 K(-54 °C) or above 423 K (150 °C).

**\*\*2A992 Piping, fittings and valves made of, or lined with stainless, copper-nickel alloy or other alloy steel containing 10% or more nickel and/or chromium.**

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCN 2D993 for software for items controlled under this entry. (2) See ECCNs 2E001 (“development”), 2E002 (“production”), and 2E993 (“use”) for technology for items controlled under this entry. (3) Also see ECCNs 2A226, 2B350 and 2B999.

*Related Definitions:* N/A

*Items:*

- a. Pressure tube, pipe, and fittings of 200 mm (8 in.) or more inside diameter, and suitable for operation at pressures of 3.4 MPa (500 psi) or greater;
- b. Pipe valves having all of the following characteristics that are not controlled by ECCN 2B350.g:
  - b.1. A pipe size connection of 200 mm (8 in.) or more inside diameter; *and*
  - b.2. Rated at 10.3 MPa (1,500 psi) or more.

**\*\*2A993 Pumps designed to move molten metals by electromagnetic forces.**

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCN 2D993 for software for items controlled under this entry. (2) See ECCNs 2E001 (“development”), 2E002 (“production”), and 2E993 (“use”) for technology for items controlled under this entry. (3) Pumps for use in liquid-metal-cooled reactors are subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*2A994 Portable electric generators and “specially designed” “parts” and components.”**

**License Requirements**

*Reason for Control:* AT

*Control(s)*

AT applies to entire entry. A license is required for items controlled by this entry to Iran and North Korea. The Commerce Country Chart is not designed to determine licensing requirements

for this entry. See part 746 of the EAR for additional information on Iran. See § 742.19 of the EAR for additional information on North Korea.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

### List of Items Controlled

*Related Controls:* See also [2D994](#) and [2E994](#)  
*Related Definitions:* ‘Portable electric generators’ – The generators that are in 2A994 are portable – 5,000 lbs. or less on wheels or transportable in a 2½ ton truck without a “special set up requirement.

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*2A999** Specific processing equipment, n.e.s., as follows (see List of Items Controlled).

### License Requirements

*Reason for Control:* AT

*Control(s)*

AT applies to entire entry. A license is required for items controlled by this entry to North Korea for anti-terrorism reasons. The Commerce Country Chart is not designed to determine AT licensing requirements for this entry. See §742.19 of the EAR for additional information.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

### List of Items Controlled

*Related Controls:* See also [2A226](#), [2B350](#)

*Related Definitions:* N/A

*Items:*

a. Bellows sealed valves;

b. [RESERVED].

### B. “TEST,” “INSPECTION” AND “PRODUCTION EQUIPMENT”

#### **TECHNICAL NOTES FOR 2B001 TO 2B009, 2B201, AND 2B991 TO 2B999:**

1. *Secondary parallel contouring axes, (e.g., the w-axis on horizontal boring mills or a secondary rotary axis the center line of which is parallel to the primary rotary axis) are not counted in the total number of contouring axes. Rotary axes need not rotate over 360°. A rotary axis can be driven by a linear device (e.g., a screw or a rack-and-pinion).*

2. *The number of axes which can be coordinated simultaneously for “contouring control” is the number of axes along or around which, during processing of the workpiece, simultaneous and interrelated motions are performed between the workpiece and a tool. This does not include any additional axes along or around which other relative motions within the machine are performed, such as:*

2.a. *Wheel-dressing systems in grinding machines;*

2.b. *Parallel rotary axes designed for mounting of separate workpieces;*

2.c. *Co-linear rotary axes designed for manipulating the same workpiece by holding it in*

a chuck from different ends.

3. Axis nomenclature shall be in accordance with International Standard ISO 841:2001, Industrial automation systems and integration - Numerical control of machines - Coordinate system and motion nomenclature.

4. A “tilting spindle” is counted as a rotary axis.

5. ‘Stated “unidirectional positioning repeatability”’ may be used for each specific machine model as an alternative to individual machine tests, and is determined as follows:

5.a. Select five machines of a model to be evaluated;

5.b. Measure the linear axis repeatability ( $R_{\uparrow}, R_{\downarrow}$ ) according to ISO 230-2:2014 and evaluate “unidirectional positioning repeatability” for each axis of each of the five machines;

5.c. Determine the arithmetic mean value of the “unidirectional positioning repeatability”-values for each axis of all five machines together. These arithmetic mean values “unidirectional positioning repeatability” ( $\overline{UPR}$ ) become the stated value of each axis for the model(=)( $\overline{UPR}_x, \overline{UPR}_y, \dots$ );

5.d. Since the Category 2 list refers to each linear axis there will be as many ‘stated “unidirectional positioning repeatability”’ values as there are linear axes;

5.e. If any axis of a machine model not controlled by 2B001.a. to 2B001.c. has a ‘stated “unidirectional positioning repeatability”’ equal to or less than the specified “unidirectional positioning repeatability” of each machine tool model plus 0.7  $\mu\text{m}$ , the builder should be required to reaffirm the accuracy level once every eighteen months.

6. For the purpose of 2B, measurement uncertainty for the “unidirectional positioning repeatability” of machine tools, as defined in the International Standard ISO 230-2:2014, shall not be considered.

7. For the purpose of 2B, the measurement of axes shall be made according to test procedures in 5.3.2. of ISO 230-2:2014. Tests for axes longer than 2 meters shall be made over 2 m segments. Axes longer than 4 m require multiple tests (e.g., two tests for axes longer than 4 m and up to 8 m, three tests for axes longer than 8 m and up to 12 m), each over 2 m segments and distributed in equal intervals over the axis length. Test segments are equally spaced along the full axis length, with any excess length equally divided at the beginning, in between, and at the end of the test segments. The smallest “unidirectional positioning repeatability”-value of all test segments is to be reported.

**\*\*2B001** Machine tools and any combination thereof, for removing (or cutting) metals, ceramics or “composites”, which, according to the manufacturer's technical specifications, can be equipped with electronic devices for “numerical control”; as follows (see List of Items Controlled).

LICENSE REQUIREMENTS

Reason for Control: NS, NP, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 2
NP applies to 2B001.a, .b, .c, and .d, EXCEPT: (1) turning machines under 2B001.a with a capacity no greater than 35 mm diameter; (2) bar	NP Column 1

<p>machines (Swissturn), limited to machining only bar feed through, if maximum bar diameter is equal to or less than 42 mm and there is no capability of mounting chucks. (Machines may have drilling and/or milling capabilities for machining “parts” or “components” with diameters less than 42 mm); or                  (3) milling machines under 2B001.b with x-axis travel greater than two meters and overall positioning accuracy according to ISO 230/2 (2006) on the x-axis more (worse) than 22.5 µm.</p>	
<p>AT applies to entire entry</p>	<p>AT Column 1</p>

*Note 1:* 2B001 does not control special purpose machine tools limited to the manufacture of gears. For such machines, see 2B003.

*Note 2:* 2B001 does not control special purpose machine tools limited to the manufacture of any of the following:

- a. Crank shafts or cam shafts;
  - b. Tools or cutters;
  - c. Extruder worms;
  - d. Engraved or faceted jewelry parts;
- or
- e. Dental prostheses.

*Note 3:* A machine tool having at least two of the three turning, milling or grinding capabilities (e.g., a turning machine with milling capability), must be evaluated against each applicable entry 2B001.a, .b or .c.

*Note 4:* A machine tool having an additive manufacturing capability in addition to a turning, milling or grinding capability must be evaluated against each applicable entry 2B001.a, .b or .c.

LIST BASED LICENSE EXCEPTIONS (SEE PART 740 FOR A DESCRIPTION OF ALL LICENSE EXCEPTIONS)

LVS: N/A  
 GBS: N/A

LIST OF ITEMS CONTROLLED

*Related Controls:* (1) See ECCN [2B002](#) for optical finishing machines. (2) See ECCNs [2D001](#) and [2D002](#) for software for items controlled under this entry. (3) See ECCNs [2E001](#) (“development”), [2E002](#) (“production”), and [2E201](#) (“use”) for technology for items controlled under this entry. (4) Also see ECCNs [2B201](#) and [2B991](#).

*Related Definitions:* N/A  
*Items:*

a. Machine tools for turning having two or more axes which can be coordinated simultaneously for “contouring control” having any of the following:

- a.1. "Unidirectional positioning repeatability" equal to or less (better) than 0.9 µm along one or more linear axis with a travel length less than 1.0 m; or
- a.2. “Unidirectional positioning repeatability” equal to or less (better) than 1.1 µm along one or more linear axis with a travel length equal to or greater than 1.0 m;

**Note 1:** *2B001.a does not control turning machines “specially designed” for producing contact lenses, having all of the following:*

*a. Machine controller limited to using ophthalmic based “software” for part programming data input; and*

*b. No vacuum chucking.*

**Note 2:** *2B001.a does not apply to bar machines (Swissturn), limited to machining only bar feed thru, if maximum bar diameter is equal to or less than 42 mm and there is no capability of mounting chucks. Machines may have drilling or milling capabilities for machining parts with diameters less than 42 mm.*

b. Machine tools for milling having any of the following:

b.1. Three linear axes plus one rotary axis which can be coordinated simultaneously for “contouring control” having any of the following:

b.1.a. “Unidirectional positioning repeatability” equal to or less (better) than 0.9  $\mu\text{m}$  along one or more linear axis with a travel length less than 1.0 m; *or*

b.1.b. “Unidirectional positioning repeatability” equal to or less (better) than 1.1  $\mu\text{m}$  along one or more linear axis with a travel length equal to or greater than 1.0 m;

b.2. Five or more axes which can be coordinated simultaneously for “contouring control” having any of the following:

b.2.a. “Unidirectional positioning repeatability” equal to or less (better) than 0.9  $\mu\text{m}$  along one or more linear axis with a travel length less than 1.0 m;

b.2.b. “Unidirectional positioning repeatability” equal to or less (better) than 1.4  $\mu\text{m}$

along one or more linear axis with a travel length equal to or greater than 1 m and less than 4 m; *or*

b.2.c. “Unidirectional positioning repeatability” equal to or less (better) than 6.0  $\mu\text{m}$  along one or more linear axis with a travel length equal to or greater than 4 m;

b.3. A “unidirectional positioning repeatability” for jig boring machines, equal to or less (better) than 1.1  $\mu\text{m}$  along one or more linear axis; *or*

b.4. Fly cutting machines having all of the following:

b.4.a. Spindle “run-out” and “camming” less (better) than 0.0004 mm TIR; *and*

b.4.b. Angular deviation of slide movement (yaw, pitch and roll) less (better) than 2 seconds of arc, TIR, over 300 mm of travel;

c. Machine tools for grinding having any of the following:

c.1. Having all of the following:

c.1.a. “Unidirectional positioning repeatability” equal to or less (better) than 1.1  $\mu\text{m}$  along one or more linear axis; *and*

c.1.b. Three or four axes which can be coordinated simultaneously for “contouring control”; *or*

c.2. Five or more axes which can be coordinated simultaneously for “contouring control” having any of the following:

c.2.a. “Unidirectional positioning repeatability” equal to or less (better) than 1.1  $\mu\text{m}$  along one or more linear axis with a travel length less than 1m;

c.2.b. “Unidirectional positioning repeatability” equal to or less (better) than 1.4  $\mu\text{m}$

along one or more linear axis with a travel length equal to or greater than 1 m and less than 4 m; *or*

c.2.c. “Unidirectional positioning repeatability” equal to or less (better) than 6.0 µm along one or more linear axis with a travel length equal to or greater than 4 m.

*Notes: 2B001.c does not control grinding machines as follows:*

a. *Cylindrical external, internal, and external-internal grinding machines, having all of the following:*

a.1. *Limited to cylindrical grinding; and*

a.2. *Limited to a maximum workpiece capacity of 150 mm outside diameter or length.*

b. *Machines designed specifically as jig grinders that do not have a z-axis or a w-axis, with a “unidirectional positioning repeatability” less (better) than 1.1 µm.*

c. *Surface grinders.*

d. Electrical discharge machines (EDM) of the non-wire type which have two or more rotary axes which can be coordinated simultaneously for “contouring control”;

e. Machine tools for removing metals, ceramics or “composites”, having all of the following:

e.1. Removing material by means of any of the following:

e.1.a. Water or other liquid jets, including those employing abrasive additives;

e.1.b. Electron beam; or

e.1.c. “Laser” beam; and

e.2. At least two rotary axes having all of the following:

e.2.a. Can be coordinated simultaneously for “contouring control”; *and*

e.2.b. A positioning “accuracy” of less (better) than 0.003°;

f. Deep-hole-drilling machines and turning machines modified for deep-hole-drilling, having a maximum depth-of-bore capability exceeding 5m.

**\*\*2B002 Numerically controlled optical finishing machine tools equipped for selective material removal to produce non-spherical optical surfaces having all of the following characteristics (See List of Items Controlled).**

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* See also [2B001](#).

*Related Definitions:* For the purposes of 2B002, ‘MRF’ is a material removal process using an abrasive magnetic fluid whose viscosity is controlled by a magnetic field. ‘ERF’ is a removal process using an abrasive

fluid whose viscosity is controlled by an electric field. 'Energetic particle beam finishing' uses Reactive Atom Plasmas (RAP) or ion-beams to selectively remove material. 'Inflatable membrane tool finishing' is a process that uses a pressurized membrane that deforms to contact the workpiece over a small area. 'Fluid jet finishing' makes use of a fluid stream for material removal.

*Items:*

- a. Finishing the form to less (better) than 1.0 µm;
- b. Finishing to a roughness less (better) than 100 nm rms;
- c. Four or more axes which can be coordinated simultaneously for “contouring control”; *and*
- d. Using any of the following processes;
  - d.1. ‘Magnetorheological finishing (MRF)’;
  - d.2. ‘Electrorheological finishing (ERF)’;
  - d.3 ‘Energetic particle beam finishing’;
  - d.4. ‘Inflatable membrane tool finishing’; *or*
  - d.5. ‘Fluid jet finishing’.

**\*\*2B003** “Numerically controlled” machine tools, “specially designed” for the shaving, finishing, grinding or honing of hardened ( $R_c = 40$  or more) spur, helical and double-helical gears having all of the following.

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$5000  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* See also [2B993](#)  
*Related Definitions:* N/A  
*Items:*

- a. A pitch diameter exceeding 1,250 mm;
- b. A face width of 15% of pitch diameter or larger; *and*
- c. A finished quality of AGMA 14 or better (equivalent to ISO 1328 class 3).

**\*\*2B004** Hot “isostatic presses” having all of the characteristics described in the List of Items Controlled, and “specially designed” “components” and “accessories” therefor.

**License Requirements**

*Reason for Control:* NS, MT NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2

MT applies to entire entry	MT Column 1
NP applies to entire entry, except 2B004.b.3 and presses with maximum working pressures below 69 MPa.	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
 GBS: N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCN [2D001](#) for software for items controlled under this entry. (2) See ECCNs [2E001](#) (“development”), [2E002](#) (“production”), and [2E101](#) (“use”) for technology for items controlled under this entry. (3) For “specially designed” dies, molds and tooling, see ECCNs 0B501, 0B602, 0B606, 1B003, 9B004, and 9B009.(4) For additional controls on dies, molds and tooling, see ECCNs 1B101.d, [2B104](#) and [2B204](#). (5) Also see ECCNs [2B117](#) and [2B999.a](#).

*Related Definitions:* N/A  
*Items:*

- a. A controlled thermal environment within the closed cavity and possessing a chamber cavity with an inside diameter of 406 mm or more; *and*
- b. Having any of the following:
  - b.1. A maximum working pressure exceeding 207 MPa;
  - b.2. A controlled thermal environment exceeding 1,773 K (1,500 °C); *or*

b.3. A facility for hydrocarbon impregnation and removal of resultant gaseous degradation products.

**Technical Note:** *The inside chamber dimension is that of the chamber in which both the working temperature and the working pressure are achieved and does not include fixtures. That dimension will be the smaller of either the inside diameter of the pressure chamber or the inside diameter of the insulated furnace chamber, depending on which of the two chambers is located inside the other.*

**\*\*2B005** Equipment “specially designed” for the deposition, processing and in-process control of inorganic overlays, coatings and surface modifications, as follows, for substrates specified in column 2, by processes shown in column 1 in the “Materials Processing Table; Deposition Techniques” following 2E003.f (see List of Items Controlled), and “specially designed” automated handling, positioning, manipulation and control “components” therefor.

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: \$1000  
 GBS: N/A

**List of Items Controlled**

*Related Controls:* (1) This entry does not control chemical vapor deposition, cathodic arc, sputter deposition, ion plating or ion implantation equipment, “specially designed” for cutting or machining tools. (2) Vapor deposition equipment for the production of filamentary materials are controlled by 1B001 or 1B101. (3) Chemical Vapor Deposition furnaces designed or modified for densification of carbon-carbon composites are controlled by [2B105](#). (4) See also [2B999.i](#).

*Related Definitions:* N/A

*Items:*

a. Chemical vapor deposition (CVD) production equipment having all of the following:

a.1. A process modified for one of the following:

a.1.a. Pulsating CVD;

a.1.b. Controlled nucleation thermal deposition (CNTD); *or*

a.1.c. Plasma enhanced or plasma assisted CVD; *and*

a.2. Having any of the following:

a.2.a. Incorporating high vacuum (equal to or less than 0.01 Pa) rotating seals; *or*

a.2.b. Incorporating in situ coating thickness control;

b. Ion implantation production equipment having beam currents of 5 mA or more;

c. Electron beam physical vapor deposition (EB-PVD) production equipment incorporating power systems rated for over 80 kW and having any of the following:

c.1. A liquid pool level “laser” control system which regulates precisely the ingots feed rate; *or*

c.2. A computer controlled rate monitor operating on the principle of photo-luminescence of the ionized atoms in the evaporant stream to control the deposition rate of a coating containing two or more elements;

d. Plasma spraying production equipment having any of the following:

d.1. Operating at reduced pressure controlled atmosphere (equal or less than 10 kPa measured above and within 300 mm of the gun nozzle exit) in a vacuum chamber capable of evacuation down to 0.01 Pa prior to the spraying process; *or*

d.2. Incorporating in situ coating thickness control;

e. Sputter deposition production equipment capable of current densities of 0.1 mA/mm<sup>2</sup> or higher at a deposition rate 15 μm/h or more;

f. Cathodic arc deposition production equipment incorporating a grid of electromagnets for steering control of the arc spot on the cathode;

g. Ion plating production equipment capable of in situ measurement of any of the following:

g.1. Coating thickness on the substrate and rate control; *or*

g.2. Optical characteristics.

**\*\*2B006 Dimensional inspection or measuring systems, equipment, position feedback units and “electronic assemblies”, as follows (see List of Items Controlled).**

**License Requirements**

Reason for Control: NS, NP, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 2
NP applies to those items in 2B006.a, .b.1, .b.3, and .c (angular displacement measuring instruments) that meet or exceed the technical parameters in 2B206.	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
 GBS: N/A

**List of Items Controlled**

Related Controls: (1) See ECCNs [2D001](#) and [2D002](#) for “software” for items controlled under this entry. (2) See ECCNs [2E001](#) (“development”), [2E002](#) (“production”), and [2E201](#) (“use”) for technology for items controlled under this entry. (3) Also see ECCNs [2B206](#) and [2B996](#).

Related Definitions: N/A  
 Items:

a. Computer controlled or “numerically controlled” Coordinate Measuring Machines (CMM), having a three dimensional length (volumetric) maximum permissible error of length measurement ( $E_{0,MPE}$ ) at any point within the operating range of the machine (*i.e.*, within the length of axes) equal to or less (better) than  $(1.7 + L/1,000) \mu\text{m}$  (L is the measured length in

mm) according to ISO 10360-2 (2009);

**Technical Note:** The  $E_{0,MPE}$  of the most accurate configuration of the CMM specified by the manufacturer (e.g., best of the following: Probe, stylus length, motion parameters, environment) and with “all compensations available” shall be compared to the  $1.7 + L/1,000 \mu\text{m}$  threshold.

b. Linear displacement measuring instruments or systems, linear position feedback units, and “electronic assemblies”, as follows:

**Note:** Interferometer and optical-encoder measuring systems containing a “laser” are only specified by 2B006.b.3.

b.1. ‘Non-contact type measuring systems’ with a ‘resolution’ equal to or less (better) than  $0.2 \mu\text{m}$  within 0 to 0.2 mm of the ‘measuring range’;

**Technical Notes:**

1. For the purposes of 2B006.b.1, ‘non-contact type measuring systems’ are designed to measure the distance between the probe and measured object along a single vector, where the probe or measured object is in motion.

2. For the purposes of 2B006.b.1, ‘measuring range’ means the distance between the minimum and maximum working distance.

b.2. Linear position feedback units “specially designed” for machine tools and having an overall “accuracy” less (better) than  $(800 + (600 \times L/1,000)) \text{ nm}$  (L equals effective length in mm);

b.3. Measuring systems having all of the following:

b.3.a. Containing a “laser”;

b.3.b. A ‘resolution’ over their full scale of

0.200 nm or less (better); *and*

b.3.c. Capable of achieving a “measurement uncertainty” equal to or less (better) than  $(1.6 + L/2,000)$  nm (L is the measured length in mm) at any point within a measuring range, when compensated for the refractive index of air and measured over a period of 30 seconds at a temperature of  $20 \pm 0.01^\circ\text{C}$ ; *or*

**Technical Note:** For the purposes of 2B006.b, ‘resolution’ is the least increment of a measuring device; on digital instruments, the least significant bit.

b.4. “Electronic assemblies” “specially designed” to provide feedback capability in systems controlled by 2B006.b.3;

c. Rotary position feedback units “specially designed” for machine tools or angular displacement measuring instruments, having an angular position “accuracy” equal to or less (better) than 0.9 second of arc;

**Note:** 2B006.c does not control optical instruments, such as autocollimators, using collimated light (e.g., “laser” light) to detect angular displacement of a mirror.

d. Equipment for measuring surface roughness (including surface defects), by measuring optical scatter with a sensitivity of 0.5 nm or less (better).

**Note:** 2B006 includes machine tools, other than those specified by 2B001, that can be used as measuring machines, if they meet or exceed the criteria specified for the measuring machine function.

**\*\*2B007 “Robots” having any of the following characteristics described in the List of Items**

**Controlled and “specially designed” controllers and “end-effectors” therefor.**

**License Requirements**

*Reason for Control:* NS, NP, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 2
NP applies to equipment that meets or exceeds the criteria in ECCNs 2B207	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$5000, except 2B007.b and .c  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCN [2D001](#) for “software” for items controlled under this entry. (2) See ECCNs [2E001](#) (“development”), [2E002](#) (“production”), and [2E201](#) (“use”) for technology for items controlled under this entry. (3) Also see ECCNs [2B207](#), [2B225](#) and [2B997](#).

*Related Definitions:* N/A

*Items:*

a. [Reserved]

b. “Specially designed” to comply with national safety standards applicable to potentially explosive munitions environments;

**Note:** 2B007.b does not apply to “robots” “specially designed” for paint-spraying booths.

c. “Specially designed” or rated as radiation-hardened to withstand a total radiation dose

greater than  $5 \times 10^3$  Gy (silicon) without operational degradation; *or*

**Technical Note:** *The term Gy (silicon) refers to the energy in Joules per kilogram absorbed by an unshielded silicon sample when exposed to ionizing radiation.*

d. “Specially designed” to operate at altitudes exceeding 30,000 m.

**\*\*2B008** ‘Compound rotary tables’ and “tilting spindles”, “specially designed” for machine tools, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* See also [2B998](#)  
*Related Definition:* N/A  
*Items:*

- a. [Reserved]
- b. [Reserved]
- c. ‘Compound rotary tables’ having all of the following:

c.1. Designed for machine tools for turning, milling or grinding; *and*

c.2. Two rotary axes designed to be coordinated simultaneously for “contouring control”.

**Technical Note:** *A ‘compound rotary table’ is a table allowing the workpiece to rotate and tilt about two non-parallel axes.*

d. “Tilting spindles” having all of the following:

d.1. Designed for machine tools for turning, milling or grinding; *and*

d.2. Designed to be coordinated simultaneously for “contouring control”.

**\*\*2B009** Spin-forming machines and flow-forming machines, which, according to the manufacturer's technical specifications, can be equipped with “numerical control” units or a computer control and having all of the following characteristics (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, MT, NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
MT applies to: spin-forming machines combining the functions of spin-forming and flow-forming; and flow-forming machines that meet or exceed the parameters of 2B009.a and 2B109	MT Column 1
NP applies to flow-forming	NP Column 1

machines, and spin-forming machines capable of flow-forming functions, that meet or exceed the parameters of 2B209	
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
 GBS: N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCN [2D001](#) for “software” for items controlled under this entry. (2) See ECCNs [2E001](#) (“development”), [2E002](#) (“production”), and [2E101](#) (“use”) for technology for items controlled under this entry. (3) Also see ECCNs [2B109](#) and [2B209](#) for additional flow-forming machines for MT and NP reasons.

*Related Definitions:* N/A

*Items:*

- a. Three or more axes which can be coordinated simultaneously for “contouring control”; and
- b. A roller force more than 60 kN.

**Technical Note:** For the purpose of 2B009, machines combining the function of spin-forming and flow-forming are regarded as flow-forming machines.

**\*\*2B018 Equipment on the Wassenaar Arrangement Munitions List.**

No commodities currently are controlled by this entry. Commodities formerly controlled by paragraphs .a through .d, .m, and .s of this entry are controlled in ECCN 0B606. Commodities formerly controlled by paragraphs .e through .l of

this entry are controlled by ECCN 0B602. Commodities formerly controlled by paragraphs .o through .r of this entry are controlled by ECCN 0B501. Commodities formerly controlled by paragraph .n of this entry are controlled in ECCN 0B501 if they are “specially designed” for the “production” of the items controlled in ECCN 0A501.a through .x or USML Category I and controlled in ECCN 0B602 if they are of the kind exclusively designed for use in the manufacture of items in ECCN 0A602 or USML Category II.

**\*\*2B104 “Isostatic presses”, other than those controlled by 2B004, having all of the following characteristics (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* MT, NP, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
MT applies to entire entry	MT Column 1
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
 GBS: N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCN [2D101](#) for “software” for items controlled under this entry. (2) See ECCNs [2E001](#) (“development”), [2E002](#) (“production”), and [2E101](#) (“use”) for technology for items

controlled under this entry. (3) Also see ECCNs [2B004](#), [2B204](#), and [2B117](#).

*Related Definitions:* The inside chamber dimension is that of the chamber in which both the working temperature and the working pressure are achieved and does not include fixtures. That dimension will be the smaller of either the inside diameter of the pressure chamber or the inside diameter of the insulated chamber, depending on which of the two chambers is located inside the other.

*Items:*

- a. Maximum working pressure equal to or greater than 69 MPa;
- b. Designed to achieve and maintain a controlled thermal environment of 873 K (600 °C) or greater; *and*
- c. Possessing a chamber cavity with an inside diameter of 254 mm or greater.

**\*\*2B105** Chemical vapor deposition (CVD) furnaces, other than those controlled by 2B005.a, designed or modified for the densification of carbon-carbon composites.

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCN [2D101](#) for “software” for items controlled under this entry. (2) See ECCNs [2E001](#) (“development”), [2E002](#) (“production”), and [2E101](#) (“use”) for technology for items controlled under this entry. (3) Also see ECCNs [2B005](#), [2B117](#), [2B226](#), and [2B227](#).

*Related Definitions:* N/A

*Items:*

The list of items controlled in contained in the ECCN heading.

**\*\*2B109** Flow forming machines, other than those controlled by 2B009, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* MT, NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
NP applies to items controlled by this entry that meet or exceed the technical parameters in 2B209	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCN [2D101](#) for “software” for items controlled under this entry. (2) See ECCNs [2E001](#) (“development”), [2E002](#) (“production”), and [2E101](#) (“use”) for technology for items controlled under this entry. (3) Also see ECCNs [2B009](#) and [2B209](#).

*Related Definitions:* N/A  
*Items:*

a. Flow-forming machines, usable in the “production” of propulsion components and equipment (e.g., motor cases and interstages) for “missiles”, having all of the following:

a.1. Equipped with, or according to the manufacturer’s technical specification are capable of being equipped with, “numerical control” units or a computer control, even when not equipped with such units at delivery; *and*

a.2. More than two axes which can be coordinated simultaneously for “contouring control.”

b. “Specially designed” “parts” and “components” for flow-forming machines controlled in 2B009 for MT reasons or 2B109.a.

**Technical Note:** 1. *Machines combining the function of spin forming and flow forming are for the purpose of 2B109 regarded as flow forming machines.*

**\*\*2B116** Vibration test systems and equipment, usable for rockets, missiles, or unmanned aerial vehicles capable of achieving a “range” equal to or greater than 300 km and their subsystems, and “parts” and “components” therefor, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* MT, NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
NP applies to vibration test systems in 2B116.a and to all items in 2B116.b, .c, and .d..	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCN [2D101](#) for “software” for items controlled under this entry. (2) See ECCNs [2E001](#) (“development”), [2E002](#) (“production”), and [2E101](#) (“use”) for technology for items controlled under this entry. (3) Also see ECCNs 9B106 and 9B990.

*Related Definitions:* Vibration test systems incorporating a digital controller are those systems, the functions of which are, partly or entirely, automatically controlled by stored and digitally coded electrical signals.

*Items:*

a. Vibration test systems employing feedback or closed loop techniques and incorporating a digital controller, capable of vibrating a system at an acceleration equal to or greater than 10 g rms between 20 Hz to 2,000 Hz while imparting forces equal to or greater than 50 kN (11,250 lbs.), measured ‘bare table’;

b. Digital controllers, combined with “specially designed” vibration test “software”, with a ‘real-time control bandwidth’ greater than 5 kHz and designed for use with vibration test systems described in 2B116.a;

c. Vibration thrusters (shaker units), with or without associated amplifiers, capable of imparting a force equal to or greater than 50 kN (11,250 lbs.), measured ‘bare table’, and usable in vibration test systems described in 2B116.a;

d. Test piece support structures and electronic units designed to combine multiple shaker units into a complete shaker system capable of providing an effective combined force equal to or greater than 50 kN, measured ‘bare table’, and usable in vibration test systems described in 2B116.a.

**Technical Notes:**

(1) ‘Bare table’ means a flat table, or surface, with no fixture or fitting.

(2) ‘Real-time control bandwidth’ is defined as the maximum rate at which a controller can execute complete cycles of sampling, processing data and transmitting control signals.

**\*\*2B117** Equipment and process controls, other than those controlled by 2B004, 2B005.a, 2B104 or 2B105, designed or modified for the densification and pyrolysis of structural composite rocket nozzles and reentry vehicle nose tips.

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
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MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCN [2D101](#) for “software” for items controlled under this entry. (2) See ECCNs [2E001](#) (“development”), [2E002](#) (“production”), and [2E101](#) (“use”) for technology for items controlled under this entry. (3) Also see ECCNs [2B004](#), [2B005](#), [2B104](#), [2B105](#), and [2B204](#).

*Related Definitions:* N/A  
*Items:*

The list of items controlled in contained in the ECCN heading.

**\*\*2B119** Balancing machines and related equipment, as follows (see List of Items Controlled).

**License Requirements:**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

GBS: N/A

**List of Items Controlled:**

*Related Controls:* See also 7B101.

*Related Definitions:* N/A

*Items:*

a. Balancing machines having all the following characteristics:

a.1. Not capable of balancing rotors/assemblies having a mass greater than 3 kg;

a.2. Capable of balancing rotors/assemblies at speeds greater than 12,500 rpm;

a.3. Capable of correcting unbalance in two planes or more; and

a.4. Capable of balancing to a residual specific unbalance of 0.2 g mm per kg of rotor mass.

*Note:* 2B119.a. does not control balancing machines designed or modified for dental or other medical equipment.

b. Indicator heads designed or modified for use with machines specified in 2B119.a.

*Note:* Indicator heads are sometimes known as balancing instrumentation.

**\*\*2B120 Motion simulators or rate tables (equipment capable of simulating motion), having all of the following characteristics (see List of Items Controlled).**

**License Requirements:**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A

GBS: N/A

**List of Items Controlled:**

*Related Controls:* (1) Rate tables not controlled by [2B120](#) and providing the characteristics of a positioning table are to be evaluated according to [2B121](#). (2) Equipment that has the characteristics specified in [2B121](#), which also meets the characteristics of [2B120](#) will be treated as equipment specified in [2B120](#). (3) See also [2B008](#), [2B121](#), 7B101 and 7B994.

*Related Definitions:* N/A

*Items:*

a. Two or more axes;

b. Designed or modified to incorporate slip rings or integrated non-contact devices capable of transferring electrical power, signal information, or both; and

c. Having any of the following characteristics:

c.1. For any single axis having all of the following:

c.1.a. Capable of rates of rotation of 400 degrees/s or more, or 30 degrees/s or less; and

c.1.b. A rate resolution equal to or less than 6 degrees/s and an accuracy equal to or less than 0.6 degrees/s; or

c.2. Having a worst-case rate stability equal to or better (less) than plus or minus 0.05% averaged over 10 degrees or more; *or*

c.3. A positioning “accuracy” equal to or better than 5 arc-second.

*Note:* 2B120 does not control rotary tables designed or modified for machine tools or for medical equipment. For controls on machine tool rotary tables see 2B008.

**\*\*2B121** Positioning tables (equipment capable of precise rotary position in any axis), other than those controlled in 2B120, having all the following characteristics (See List of Items Controlled).

**License Requirements:**

*Reason for Control:* MT, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled:**

*Related Controls:* (1) Equipment that has the characteristics specified in [2B121](#), which also meets the characteristics of [2B120](#) will be treated as equipment specified in [2B120](#).

(2) See also [2B008](#), [2B120](#), 7B101 and 7B994.

*Related Definitions:* N/A

*Items:*

a. Two or more axes; *and*

b. A positioning “accuracy” equal to or better than 5 arc-second.

*Note:* 2B121 does not control rotary tables designed or modified for machine tools or for medical equipment. For controls on machine tool rotary tables see 2B008.

**\*\*2B122** Centrifuges capable of imparting accelerations greater than 100 g and designed or modified to incorporate slip rings or integrated non-contact devices capable of transferring electrical power, signal information, or both.

**License Requirements:**

*Reason for Control:* MT, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* See also 7B101.

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*2B201** Machine tools, and any combination thereof, other than those controlled by 2B001, for removing or cutting metals, ceramics or “composites,” which, according to manufacturer’s technical specifications, can be equipped with electronic devices for simultaneous “contouring control” in two or more axes.

- a. Gears;
- b. Crank shafts or cam shafts;
- c. Tools or cutters;
- d. Extruder worms;

**Technical Note:** The identified positioning accuracy values in this entry are based on ISO 230/2(2006), which equates to the values based on ISO 230/2 (1988) that are used by the Nuclear Supplier’s Group (NSG). In 2B201.a and .b.1, this results in a change from 6 µm to 4.5 µm. In paragraph .b of the Note to 2B201.b, the resulting change is from 30 µm to 22.5 µm, In 2B201.c, the resulting change is from 4 µm to 3 µm.

**License Requirements**

Reason for Control: NP, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

a. Machine tools for turning, that have positioning accuracies according to ISO 230/2 (2006) with all compensations available better (less) than 4.5 µm along any linear axis (overall positioning) for machines capable of machining diameters greater than 35 mm;

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
GBS: N/A

**Note to 2B201.a:** 2B201.a. does not control bar machines (Swissturn), limited to machining only bar feed thru, if maximum bar diameter is equal to or less than 42 mm and there is no capability of mounting chucks. Machines may have drilling and/or milling capabilities for machining “parts” with diameters less than 42 mm.

**List of Items Controlled**

**Related Controls:** (1) See ECCNs [2D002](#) and [2D202](#) for “software” for items controlled by this entry. “Numerical control” units are controlled by their associated “software”. (2) See ECCNs [2E001](#) (“development”), [2E002](#) (“production”), and [2E201](#) (“use”) for technology for items controlled under this entry. (3) Also see ECCNs [2B001](#) and [2B991](#).

b. Machine tools for milling, having any of the following characteristics:

**Related Definitions:** N/A  
**Items:**

b.1. Positioning accuracies according to ISO 230/2 (2006) with “all compensations available” equal to or less (better) than 4.5 µm along any linear axis (overall positioning);

b.2. Two or more contouring rotary axes; or

**Note:** 2B201 does not control special purpose machine tools limited to the manufacture of any of the following parts:

b.3. Five or more axes which can be coordinated simultaneously for “contouring control.”

**Note to 2B201.b:** 2B201.b does not control milling machines having the following characteristics:

a. X-axis travel greater than 2 m; and

b. Overall positioning accuracy according to ISO 230/2 (2006) on the x-axis more (worse) than 22.5 µm.

c. Machine tools for grinding, having any of the following characteristics:

c.1. Positioning accuracies according to ISO 230/2 (2006) with “all compensations available” equal to or less (better) than 3 µm along any linear axis (overall positioning);

c.2. Two or more contouring rotary axes;  
or

c.3. Five or more axes which can be coordinated simultaneously for “contouring control.”

**Note to 2B201.c:** 2B201.c does not control the following grinding machines:

a. Cylindrical external, internal, and external-internal grinding machines having all of the following characteristics:

1. Limited to a maximum workpiece capacity of 150 mm outside diameter or length; and

2. Axes limited to x, z and c.

b. Jig grinders that do not have a z-axis or a w-axis with an overall positioning accuracy less (better) than 3 microns. Positioning accuracy is according to ISO 230/2 (2006).

**Technical Note:** 2B201.b.3 and c.3 include

machines based on a parallel linear kinematic design (e.g. hexapods) that have 5 or more axes none of which are rotary axes.

**\*\*2B204** “Isostatic presses”, other than those controlled by 2B004 or 2B104, and related equipment, as follows (see List of Items Controlled).

**License Requirements**

Reason for Control: NP, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
GBS: N/A

**List of Items Controlled**

**Related Controls:** (1) See ECCN [2D201](#) for “software” for items controlled under this entry. (2) See ECCNs [2E001](#) (“development”), [2E002](#) (“production”), and [2E201](#) (“use”) for technology for items controlled under this entry. (3) Also see ECCNs [2B004](#) and [2B104](#).

**Related Definitions:** The inside chamber dimension is that of the chamber in which both the working temperature and working pressure are achieved and does not include fixtures. That dimension will be the smaller of either the inside diameter of the pressure chamber or the inside diameter of the insulated chamber, depending on which of the two chambers is located inside the other.

*Items:*

a. “Isostatic presses” having both of the following characteristics:

a.1. Capable of achieving a maximum working pressure of 69 MPa or greater; *and*

a.2. A chamber cavity with an inside diameter in excess of 152 mm;

b. Dies, molds and controls, “specially designed” for “isostatic presses” controlled by 2B204.a.

**\*\*2B206** Dimensional inspection machines, instruments or systems, other than those described in 2B006, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCNs [2D002](#) and [2D201](#) for “software” for items controlled under this entry. (2) See ECCNs [2E001](#) (“development”), [2E002](#) (“production”), and [2E201](#) (“use”) for technology for items controlled under this

entry. (3) Also see ECCNs [2B006](#) and [2B996](#).

*Related Definitions:* N/A

*Items:*

**Control Notes to ECCN 2B206:**

(1) Machine tools that can be used as measuring machines are controlled by ECCN 2B206 if they meet or exceed the control parameters specified in this entry for the measuring machine function.

(2) The machines described in ECCN 2B206 are controlled by this entry if they exceed the specified control threshold anywhere in their operating range.

**Technical Note to ECCN 2B206:** All parameters of measurement values in this entry represent plus/minus, i.e., not total band.

a. Computer controlled or numerically controlled coordinate measuring machines (CMM) with either of the following characteristics:

a.1. Having only two axes with a maximum permissible error of length measurement along any axis (one dimension), identified as any combination of  $E_{0x}$  MPE,  $E_{0y}$  MPE or  $E_{0z}$  MPE, equal to or less (better) than  $(1.25 + L/1000)$   $\mu\text{m}$  (where L is the measured length in mm) at any point within the operating range of the machine (i.e., within the length of the axis), according to ISO 10360-2 (2009); *or*

a.2. Having three or more axes with a three dimensional (volumetric) maximum permissible error of length measurement, identified as  $E_0$ , MPE, equal to or less (better) than  $(1.7 + L/800)$   $\mu\text{m}$  (where L is the measured length in mm) at any point within the operating range of the machine (i.e., within the length of the axis), according to ISO 10360-2 (2009).

**Technical Note to 2B206.a.2:** The  $E_0$ , MPE of the most accurate configuration of the CMM

*specified according to ISO 10360-2 (2009) by the manufacturer (e.g., best of the following: Probe, stylus length, motion parameters, environment) and with all compensations available shall be compared to the  $1.7 + L/800 \mu\text{m}$  threshold.*

b. Systems for simultaneous linear-angular inspection of hemishells, having both of the following characteristics:

b.1. “Measurement uncertainty” along any linear axis equal to or less (better) than  $3.5 \mu\text{m}$  per 5 mm; *and*

b.2. “Angular position deviation” equal to or less than  $0.02^\circ$ .

c. Linear displacement measuring systems having both of the following characteristics:

c.1. Containing a “laser;” *and*

c.2. Capable of maintaining, for at least 12 hours over a temperature range of  $\pm 1 \text{ K}$  around a standard temperature and a standard pressure, both:

c.2.a. A “resolution” over their full scale of  $0.1 \mu\text{m}$  or better; *and*

c.2.b. A “measurement uncertainty” equal to or better (less) than  $(0.2 + L/2000) \mu\text{m}$  (L is the measured length in millimeters).

**Control Note to 2B206.c:** *2B206.c does not control measuring interferometer systems, without closed or open loop feedback, containing a “laser” to measure slide movement errors of machine tools, dimensional inspection machines, or similar equipment.*

**Technical Note to 2B206.c:** *In 2B206.c, “linear displacement” means the change of distance between the measuring probe and the measured object.*

d. Linear Variable Differential Transformer (LVDT) systems having all of the following:

d.1. Having any of the following:

d.1.a. “Linearity” equal to or less (better) than 0.1% measured from 0 to the full operating range, for LVDTs with a full operating range up to and including  $\pm 5 \text{ mm}$ ; *or*

d.1.b. “Linearity” equal to or less (better) than 0.1% measured from 0 to 5 mm for LVDTs with a ‘full operating range’ greater than  $\pm 5 \text{ mm}$ ; *and*

d.2. Drift equal to or less (better) than 0.1% per day at a standard ambient test room temperature  $\pm 1 \text{ K}$ .

**\*\*2B207 “Robots,” “end-effectors” and control units, other than those controlled by 2B007, as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCN [2D201](#) for “software” for items controlled under this

entry. (2) See ECCNs [2E001](#) (“development”), [2E002](#) (“production”), and [2E201](#) (“use”) for technology for items controlled under this entry. (3) Also see ECCNs [2B007](#), [2B225](#), and [2B997](#).

*Related Definitions:* N/A

*ECCN Controls:* This entry does not control “robots” “specially designed” for non-nuclear industrial applications, such as automobile paint-spraying booths.

*Items:*

- a. “Robots” or “end-effectors” “specially designed” to comply with national safety standards applicable to handling high explosives (for example, meeting electrical code ratings for high explosives);
- b. Control units “specially designed” for any of the “robots” or “end-effectors” controlled by 2B207.a.

**\*\*2B209** Flow forming machines, spin forming machines capable of flow forming functions, other than those controlled by 2B009 or 2B109, and mandrels, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
 GBS: N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCN [2D201](#) for “software” for items controlled under this entry. (2) See ECCNs [2E001](#) (“development”), [2E002](#) (“production”), and [2E201](#) (“use”) for technology for items controlled under this entry. (3) Also see ECCNs [2B009](#) and [2B109](#).

*Related Definitions:* N/A

*Items:*

- a. Machines having both of the following characteristics:
  - a.1. Three or more rollers (active or guiding); *and*
  - a.2. According to the manufacturer’s technical specifications, can be equipped with “numerical control” units or a computer control;

*Note:* 2B209.a includes machines that have only a single roller designed to deform metal, plus two auxiliary rollers that support the mandrel, but do not participate directly in the deformation process.

- b. Rotor-forming mandrels designed to form cylindrical rotors of inside diameter between 75 mm and 400 mm.

**\*\*2B225** Remote manipulators that can be used to provide remote actions in radiochemical separation operations or hot cells, having either of the following characteristics (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCNs [2E001](#) (“development”), [2E002](#) (“production”), and [2E201](#) (“use”) for technology for items controlled under this entry. (2) Also see ECCNs [2B007](#) and [2B207](#). (3) Remote manipulators “specially designed” or prepared for use in fuel reprocessing or for use in a reactor are subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

*Related Definitions:* N/A  
*Items:*

- a. A capability of penetrating 0.6 m or more of hot cell wall (through-the-wall operation); *or*
- b. A capability of bridging over the top of a hot cell wall with a thickness of 0.6 m or more (over-the-wall operation).

**Technical Note:** *Remote manipulators provide translation of human operator actions to a remote operating arm and terminal fixture. They may be of “master/slave” type or operated by joystick or keypad.*

**\*\*2B226** **Controlled atmosphere (vacuum or inert gas) induction furnaces, and power supplies therefor, as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCNs [2E001](#) (“development”), [2E002](#) (“production”), and [2E201](#) (“use”) for technology for items controlled under this entry. (2) Also see ECCN 2B227 and Category 3B.

*Related Definitions:* N/A

*ECCN Controls:* 2B226.a does not control furnaces designed for the processing of semiconductor wafers.

*Items:*

- a. Furnaces having all of the following characteristics:
  - a.1. Capable of operation above 1,123 K (850 °C);
  - a.2. Induction coils 600 mm or less in diameter; *and*
  - a.3. Designed for power inputs of 5 kW or more;

b. Power supplies, with a specified power output of 5 kW or more, “specially designed” for furnaces controlled by 2B226.a.

**\*\*2B227** Vacuum or other controlled atmosphere metallurgical melting and casting furnaces and related equipment, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCN [2D201](#) for “software” for items controlled under this entry. (2) See ECCNs [2E001](#) (“development”), [2E002](#) (“production”), and [2E201](#) (“use”) for technology for items controlled under this entry. (2) Also see ECCN [2B226](#).

*Related Definitions:* N/A

*Items:*

a. Arc remelt and casting furnaces having both of the following characteristics:

a.1. Consumable electrode capabilities between 1,000 cm<sup>3</sup> and 20,000 cm<sup>3</sup>; *and*

a.2. Capable of operating with melting

temperatures above 1,973 K (1,700 °C);

b. Electron beam melting furnaces and plasma atomization and melting furnaces, having both of the following characteristics:

b.1. A power of 50 kW or greater; *and*

b.2. Capable of operating with melting temperatures above 1,473 K (1,200 °C);

c. Computer control and monitoring systems specially configured for any of the furnaces controlled by 2B227.a or .b.

**\*\*2B228** Rotor fabrication and assembly equipment, rotor straightening equipment, bellows-forming mandrels and dies, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* See ECCNs [2E001](#) (“development”), [2E002](#) (“production”), and [2E201](#) (“use”) for technology for items controlled under this entry.

*Related Definitions:* N/A

*Items:*

a. Rotor assembly equipment for assembly of gas centrifuge rotor tube sections, baffles, and end-caps;

*Note:* 2B228.a includes precision mandrels, clamps, and shrink fit machines.

b. Rotor straightening equipment for alignment of gas centrifuge rotor tube sections to a common axis;

*Technical Note:* The rotor straightening equipment in 2B228.b normally consists of precision measuring probes linked to a computer that subsequently controls the action of, for example, pneumatic rams used for aligning the rotor tube sections.

c. Bellows-forming mandrels and dies for producing single-convolution bellows.

*Technical Note:* In 2B228.c, the bellows have all of the following characteristics:

1. Inside diameter between 75 mm and 400 mm;
2. Length equal to or greater than 12.7 mm;
3. Single convolution depth greater than 2 mm; and
4. Made of high-strength aluminum alloys, maraging steel or high strength “fibrous or filamentary materials”.

**\*\*2B229** Centrifugal multiplane balancing machines, fixed or portable, horizontal or vertical, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NP, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
GBS: N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCN [2D201](#) for “software” for items controlled under this entry. (2) See ECCNs [2E001](#) (“development”), [2E002](#) (“production”), and [2E201](#) (“use”) for technology for items controlled under this entry.

*Related Definitions:* N/A

*Items:*

a. Centrifugal balancing machines designed for balancing flexible rotors having a length of 600 mm or more and having all of the following characteristics:

- a.1. Swing or journal diameter greater than 75 mm;
- a.2. Mass capability of from 0.9 to 23 kg; and
- a.3. Capable of balancing speed of revolution greater than 5,000 r.p.m.;

b. Centrifugal balancing machines designed for balancing hollow cylindrical rotor “parts” or “components” and having all of the following characteristics:

- b.1. Journal diameter greater than 75 mm;
- b.2. Mass capability of from 0.9 to 23 kg;
- b.3. A minimum achievable residual specific unbalance equal to or less than 10 g-mm/kg per plane; *and*
- b.4. Belt drive type.

**\*\*2B230** All types of “pressure transducers” capable of measuring absolute pressures and having all of the characteristics described in this ECCN (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* See ECCNs [2E001](#) (“development”), [2E002](#) (“production”), and [2E201](#) (“use”) for technology for items controlled under this entry.

*Related Definitions:* (1) For purposes of this entry, “pressure transducers” are devices that convert pressure measurements into a signal. (2) For purposes of this entry, “accuracy” includes non-linearity, hysteresis and repeatability at ambient temperature.

*Items:*

- a. Pressure sensing elements made of or protected by aluminum, aluminum alloy, aluminum oxide (alumina or sapphire), nickel, nickel alloy with more than 60% nickel by weight, or fully fluorinated hydrocarbon polymers;
- b. Seals, if any, essential for sealing the pressure sensing element, and in direct contact with the process medium, made of or protected by aluminum, aluminum alloy, aluminum oxide (alumina or sapphire), nickel, nickel alloy with more than 60% nickel by weight, or fully fluorinated hydrocarbon polymers; *and*
- c. Either of the following characteristics:

- c.1. A full scale of less 13 kPa and an “accuracy” of better than ± 1% of full scale; *or*
- c.2. A full scale of 13 kPa or greater and an “accuracy” of better than ± 130 Pa when measuring at 13 kPa.

**\*\*2B231** Vacuum pumps having all of the characteristics described in this ECCN (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

GBS: N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCNs [2E001](#) (“development”), [2E002](#) (“production”), and [2E201](#) (“use”) for technology for items controlled under this entry. (2) Also see bellows-sealed scroll-type compressors and bellows-sealed scroll-type vacuum pumps controlled under ECCN 2B233. (3) Vacuum pumps “specially designed” or prepared for the separation of uranium isotopes are subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

*Related Definitions:* (1) The pumping speed is determined at the measurement point with nitrogen gas or air. (2) The ultimate vacuum is determined at the input of the pump with the input of the pump blocked off.

*Items:*

- a. Input throat size equal to or greater than 380 mm;
- b. Pumping speed equal to or greater than 15 m<sup>3</sup>/s; and
- c. Capable of producing an ultimate vacuum better than 13.3 mPa.

**\*\*2B232 High-velocity gun systems (propellant, gas, coil, electromagnetic, and electrothermal types, and other advanced systems) capable of accelerating projectiles to 1.5 km/s or greater.**

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
GBS: N/A

**List of Items Controlled**

*Related Controls:* See ECCNs [2E001](#) (“development”), [2E002](#) (“production”), and [2E201](#) (“use”) for technology for items controlled under this entry.

*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*2B233 Bellows-sealed scroll-type compressors and bellows-sealed scroll-type vacuum pumps having all of the characteristics described in this ECCN (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A

GBS: N/A

**List of Items Controlled**

*Related Controls:* See ECCNs [2E001](#) (“development”), [2E002](#) (“production”), and [2E201](#) (“use”) for technology for items controlled under this entry. (2) Also see vacuum pumps controlled under ECCN 2B231. (3) Vacuum pumps “specially designed” or prepared for the separation of uranium isotopes are subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

*Related Definitions:* N/A

*Items:*

- a. Capable of an inlet volume flow rate of 50 m<sup>3</sup>/h or greater;
- b. Capable of a pressure ratio of 2:1 or greater; *and*
- c. Having all surfaces that come in contact with the process gas made from any of the following:
  - c.1. Aluminum or aluminum alloy;
  - c.2. Aluminum oxide;
  - c.3. Stainless steel;
  - c.4. Nickel or nickel alloy;
  - c.5. Phosphor bronze; *or*
  - c.6. Fluoropolymers.

**Technical Notes:**

*1. In a scroll compressor or vacuum pump, crescent-shaped pockets of gas are trapped between one or more pairs of intermeshed spiral*

*vanes, or scrolls, one of which moves while the other remains stationary. The moving scroll orbits the stationary scroll; it does not rotate. As the moving scroll orbits the stationary scroll, the gas pockets diminish in size (i.e., they are compressed) as they move toward the outlet port of the machine.*

*2. In a bellows-sealed scroll compressor or vacuum pump, the process gas is totally isolated from the lubricated parts of the pump and from the external atmosphere by a metal bellows. One end of the bellows is attached to the moving scroll and the other end is attached to the stationary housing of the pump.*

*3. Fluoropolymers include, but are not limited to, the following materials:*

- a. Polytetrafluoroethylene (PTFE);*
- b. Fluorinated Ethylene Propylene (FEP);*
- c. Perfluoroalkoxy (PFA);*
- d. Polychlorotrifluoroethylene (PCTFE);*  
*and*
- e. Vinylidene fluoride-hexafluoropropylene copolymer.*

**\*\*2B350 Chemical manufacturing facilities and equipment, except valves controlled by 2A226, as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* CB, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
CB applies to entire entry	CB Column 2

AT applies to entire entry	AT Column 1
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**License Requirement Note:** *This ECCN does not control equipment that is both: (1) “specially designed” for use in civil applications (e.g., food processing, pulp and paper processing, or water purification) and (2) inappropriate, by the nature of its design, for use in storing, processing, producing or conducting and controlling the flow of the chemical weapons precursors controlled by 1C350.*

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

**LVS:** \$2,000 for all Country Group B destinations, except those also listed under Country Group D:3 (see Supplement No. 1 to part 740 of the EAR).

**GBS:** N/A

### List of Items Controlled

**Related Controls:** See also ECCNs [2A226](#), [2A992](#), [2A993](#), [2B231](#) and [2B999](#).

**Related Definitions:** For purposes of this entry the term ‘chemical warfare agents’ includes those agents “subject to the ITAR” (see 22 CFR parts 120 through 130).

**Items:**

a. Reaction vessels, reactors and prefabricated repair assemblies therefor, as follows:

a.1. Reaction vessels or reactors, with or without agitators, with total internal (geometric) volume greater than 0.1 m<sup>3</sup> (100 liters) and less than 20 m<sup>3</sup> (20,000 liters), where all surfaces that come in direct contact with the chemical(s) being processed or contained are made from any of the following materials:

a.1.a Alloys with more than 25% nickel and 20% chromium by weight;

a.1.b. Nickel or alloys with more than 40% nickel by weight;

a.1.c. Fluoropolymers (polymeric or elastomeric materials with more than 35% fluorine by weight);

a.1.d. Glass (including vitrified or enameled coating or glass lining);

a.1.e. Tantalum or tantalum alloys;

a.1.f. Titanium or titanium alloys;

a.1.g. Zirconium or zirconium alloys; *or*

a.1.h. Niobium (columbium) or niobium alloys;

a.2. Prefabricated repair assemblies, and their specially designed components, that:

a.2.a. Are designed for mechanical attachment to glass-lined reaction vessels or reactors described in 2B350.a.1; *and*

a.2.b. Have metallic surfaces that are made from tantalum or tantalum alloys and come in direct contact with the chemical(s) being processed.

b. Agitators designed for use in reaction vessels or reactors described in 2B350.a, and impellers, blades or shafts designed for such agitators, where all surfaces that come in direct contact with the chemical(s) being processed or contained are made from any of the following materials:

b.1. Alloys with more than 25% nickel and 20% chromium by weight;

b.2. Nickel or alloys with more than 40% nickel by weight;

b.3. Fluoropolymers (polymeric or elastomeric materials with more than 35% fluorine by weight);

b.4. Glass (including vitrified or enameled coatings or glass lining);

b.5. Tantalum or tantalum alloys;

b.6. Titanium or titanium alloys;

b.7. Zirconium or zirconium alloys; *or*

b.8. Niobium (columbium) or niobium alloys.

c. Storage tanks, containers, receivers and prefabricated repair assemblies therefor, as follows:

c.1. Storage tanks, containers or receivers with a total internal (geometric) volume greater than 0.1 m<sup>3</sup> (100 liters) where all surfaces that come in direct contact with the chemical(s) being processed or contained are made from any of the following materials:

c.1.a. Alloys with more than 25% nickel and 20% chromium by weight;

c.1.b. Nickel or alloys with more than 40% nickel by weight;

c.1.c. Fluoropolymers (polymeric or elastomeric materials with more than 35% fluorine by weight);

c.1.d. Glass (including vitrified or enameled coatings or glass lining);

c.1.e. Tantalum or tantalum alloys;

c.1.f. Titanium or titanium alloys;

c.1.g. Zirconium or zirconium alloys; *or*

c.1.h. Niobium (columbium) or niobium alloys;

c.2. Prefabricated repair assemblies, and their specially designed components, that:

c.2.a. Are designed for mechanical attachment to glass-lined storage tanks, containers or receivers described in 2B350.c.1; *and*

c.2.b. Have metallic surfaces that are made from tantalum or tantalum alloys and come in direct contact with the chemical(s) being processed.

d. Heat exchangers or condensers with a heat transfer surface area of less than 20 m<sup>2</sup>, but greater than 0.15 m<sup>2</sup>, and tubes, plates, coils or blocks (cores) designed for such heat exchangers or condensers, where all surfaces that come in direct contact with the chemical(s) being processed are made from any of the following materials:

d.1. Alloys with more than 25% nickel and 20% chromium by weight;

d.2. Nickel or alloys with more than 40% nickel by weight;

d.3. Fluoropolymers (polymeric or elastomeric materials with more than 35% fluorine by weight);

d.4. Glass (including vitrified or enameled coatings or glass lining);

d.5. Tantalum or tantalum alloys;

d.6. Titanium or titanium alloys;

- d.7. Zirconium or zirconium alloys;
- d.8. Niobium (columbium) or niobium alloys.
- d.9. Graphite or carbon-graphite;
- d.10. Silicon carbide; *or*
- d.11. Titanium carbide.
- e. Distillation or absorption columns of internal diameter greater than 0.1 m, and liquid distributors, vapor distributors or liquid collectors designed for such distillation or absorption columns, where all surfaces that come in direct contact with the chemical(s) being processed are made from any of the following materials:
- e.1. Alloys with more than 25% nickel and 20% chromium by weight;
- e.2. Nickel or alloys with more than 40% nickel by weight;
- e.3. Fluoropolymers (polymeric or elastomeric materials with more than 35% fluorine by weight);
- e.4. Glass (including vitrified or enameled coatings or glass lining);
- e.5. Tantalum or tantalum alloys;
- e.6. Titanium or titanium alloys;
- e.7. Zirconium or zirconium alloys;
- e.8. Niobium (columbium) or niobium alloys; *or*
- e.9. Graphite or carbon-graphite.
- f. Remotely operated filling equipment in which all surfaces that come in direct contact with the chemical(s) being processed are made from any of the following materials:
- f.1. Alloys with more than 25% nickel and 20% chromium by weight; *or*
- f.2. Nickel or alloys with more than 40% nickel by weight.
- g. Valves, as follows:
- g.1. Valves having both of the following characteristics:
- g.1.a. A nominal size greater than 1.0 cm (3/8 in.); *and*
- g.1.b. All surfaces that come in direct contact with the chemical(s) being produced, processed, or contained are made from materials identified in Technical Note 1 to 2B350.g.
- g.2. Valves, except for valves controlled by 2B350.g.1, having all of the following characteristics:
- g.2.a. A nominal size equal to or greater than 2.54 cm (1 inch) and equal to or less than 10.16 cm (4 inches);
- g.2.b. Casings (valve bodies) or preformed casing liners controlled by 2B350.g.3, in which all surfaces that come in direct contact with the chemical(s) being produced, processed, or contained are made from materials identified in Technical Note 1 to 2B350.g; *and*
- g.2.c. A closure element designed to be interchangeable.
- g.3. Casings (valve bodies) and preformed casing liners having both of the following characteristics:

g.3.a. Designed for valves in 2B350.g.1 or .g.2; and

g.3.b. All surfaces that come in direct contact with the chemical(s) being produced, processed, or contained are made from materials identified in Technical Note 1 to 2B350.g.

**Technical Note 1 to 2B350.g:** *All surfaces of the valves controlled by 2B350.g.1, and the casings (valve bodies) and preformed casing liners controlled by 2B350.g.3, that come in direct contact with the chemical(s) being produced, processed, or contained are made from the following materials:*

a. *Alloys with more than 25% nickel and 20% chromium by weight;*

b. *Nickel or alloys with more than 40% nickel by weight;*

c. *Fluoropolymers (polymeric or elastomeric materials with more than 35% fluorine by weight);*

d. *Glass (including vitrified or enameled coating or glass lining);*

e. *Tantalum or tantalum alloys;*

f. *Titanium or titanium alloys;*

g. *Zirconium or zirconium alloys;*

h. *Niobium (columbium) or niobium alloys;*  
or

i. *Ceramic materials, as follows:*

i.1. *Silicon carbide with a purity of 80% or more by weight;*

i.2. *Aluminum oxide (alumina) with a*

*purity of 99.9% or more by weight; or*

i.3. *Zirconium oxide (zirconia).*

**Technical Note 2 to 2B350.g:** *The 'nominal size' is defined as the smaller of the inlet and outlet port diameters.*

h. Multi-walled piping incorporating a leak detection port, in which all surfaces that come in direct contact with the chemical(s) being processed or contained are made from any of the following materials:

h.1. Alloys with more than 25% nickel and 20% chromium by weight;

h.2. Nickel or alloys with more than 40% nickel by weight;

h.3. Fluoropolymers (polymeric or elastomeric materials with more than 35% fluorine by weight);

h.4. Glass (including vitrified or enameled coatings or glass lining);

h.5. Tantalum or tantalum alloys;

h.6. Titanium or titanium alloys;

h.7. Zirconium or zirconium alloys;

h.8. Niobium (columbium) or niobium alloys; or

h.9. Graphite or carbon-graphite.

i. Multiple-seal and seal-less pumps with manufacturer's specified maximum flow-rate greater than 0.6 m<sup>3</sup> /hour (600 liters/hour), or vacuum pumps with manufacturer's specified maximum flow-rate greater than 5 m<sup>3</sup> /hour (5000 liters/hour) (under standard temperature (273 K (0 °C)) and pressure (101.3 kPa) conditions), and

casings (pump bodies), preformed casing liners, impellers, rotors or jet pump nozzles designed for such pumps, in which all surfaces that come into direct contact with the chemical(s) being processed are made from any of the following materials:

i.1. Alloys with more than 25% nickel and 20% chromium by weight;

i.2. Nickel or alloys with more than 40% nickel by weight;

i.3. Fluoropolymers (polymeric or elastomeric materials with more than 35% fluorine by weight);

i.4. Glass (including vitrified or enameled coatings or glass lining);

i.5. Tantalum or tantalum alloys;

i.6. Titanium or titanium alloys;

i.7. Zirconium or zirconium alloys;

i.8. Niobium (columbium) or niobium alloys.

i.9. Graphite or carbon-graphite;

i.10. Ceramics; or

i.11. Ferrosilicon (high silicon iron alloys).

**Technical Note to 2B350.i:** *The seals referred to in 2B350.i come into direct contact with the chemical(s) being processed (or are designed to do so), and provide a sealing function where a rotary or reciprocating drive shaft passes through a pump body.*

j. Incinerators designed to destroy chemical warfare agents, chemical weapons precursors

controlled by 1C350, or chemical munitions having “specially designed” waste supply systems, special handling facilities and an average combustion chamber temperature greater than 1000° C in which all surfaces in the waste supply system that come into direct contact with the waste products are made from or lined with any of the following materials:

j.1. Alloys with more than 25% nickel and 20% chromium by weight;

j.2. Nickel or alloys with more than 40% nickel by weight; or

j.3. Ceramics.

**Technical Note 1:** *Carbon-graphite is a composition consisting primarily of graphite and amorphous carbon, in which the graphite is 8 percent or more by weight of the composition.*

**Technical Note 2:** *For the items listed in 2B350, the term ‘alloy,’ when not accompanied by a specific elemental concentration, is understood as identifying those alloys where the identified metal is present in a higher percentage by weight than any other element.*

**Technical Note 3:** *The materials used for gaskets, packing, seals, screws or washers, or other materials performing a sealing function, do not determine the control status of the items in this ECCN, provided that such components are designed to be interchangeable.*

**Note:** *See Categories V and XIV of the United States Munitions List for all chemicals that are “subject to the ITAR” (see 22 CFR parts 120 through 130).*

**\*\*2B351 Toxic gas monitors and monitoring systems, and their dedicated detecting “parts” and “components” (i.e., detectors, sensor**

devices, and replaceable sensor cartridges), as follows, except those systems and detectors controlled by ECCN 1A004.c (see List of Items Controlled).

### License Requirements

*Reason for Control:* CB, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
CB applies to entire entry	CB Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

### List of Items Controlled

*Related Controls:* See ECCN [2D351](#) for “software” for toxic gas monitors and monitoring systems and their dedicated detecting “parts” and “components” controlled by this ECCN. Also see ECCN [1A004](#), which controls chemical detection systems and “specially designed” “parts” and “components” therefor that are “specially designed” or modified for detection or identification of chemical warfare agents, but not “specially designed” for military use, and ECCN [1A995](#), which controls certain detection equipment, “parts” and “components” not controlled by ECCN 1A004 or by this ECCN.

*Related Definitions:* (1) For the purposes of this entry, the term “*dedicated*” means committed entirely to a single purpose or device. (2) For the purposes of this entry, the term “*continuous operation*” describes the capability of the equipment to operate on

line without human intervention. The intent of this entry is to control toxic gas monitors and monitoring systems capable of collection and detection of samples in environments such as chemical plants, rather than those used for batch-mode operation in laboratories.

*Items:*

- a. Designed for continuous operation and usable for the detection of chemical warfare agents or chemicals controlled by 1C350 at concentrations of less than 0.3mg/m<sup>3</sup>; *or*
- b. Designed for the detection of cholinesterase-inhibiting activity.

**\*\*2B352** Equipment capable of use in handling biological materials, as follows (see List of Items Controlled).

### License Requirements

*Reason for Control:* CB, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
CB applies to entire entry	CB Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

### List of Items Controlled

*Related Controls:* See ECCNs 1A004 and 1A995 for protective equipment that is not covered by this entry. Also see ECCN 9A120 for controls on certain “UAV”

systems designed or modified to dispense an aerosol and capable of carrying elements of a payload in the form of a particulate or liquid, other than fuel “parts” or “components” of such vehicles, of a volume greater than 20 liters.

*Related Definitions:* (1) “Lighter than air vehicles” – balloons and airships that rely on hot air or on lighter-than-air gases, such as helium or hydrogen, for their lift. (2) “UAVs” – Unmanned Aerial Vehicles. (3) ‘VMD’ – Volume Median Diameter.

*Items:*

a. Containment facilities and related equipment, as follows:

a.1. Complete containment facilities at P3 or P4 containment level.

***Technical Note to 2B352.a.1:*** P3 or P4 (BL3, BL4, L3, L4) containment levels are as specified in the WHO Laboratory Biosafety Manual (3rd edition, Geneva, 2004).

a.2. Equipment designed for fixed installation in containment facilities specified in paragraph a.1 of this ECCN, as follows:

a.2.a. Double-door pass-through decontamination autoclaves;

a.2.b. Breathing air suit decontamination showers;

a.2.c. Mechanical-seal or inflatable-seal walkthrough doors.

b. Fermenters and components as follows:

b.1. Fermenters capable of cultivation of micro-organisms or of live cells for the production of viruses or toxins, without the

propagation of aerosols, having a total internal volume of 20 liters or greater.

b.2. Components designed for such fermenters, as follows:

b.2.a. Cultivation chambers designed to be sterilized or disinfected in situ;

b.2.b. Cultivation chamber holding devices; *or*

b.2.c. Process control units capable of simultaneously monitoring and controlling two or more fermentation system parameters (e.g., temperature, pH, nutrients, agitation, dissolved oxygen, air flow, foam control).

***Technical Notes to 2B352.b: 1. Fermenters include bioreactors (including single-use (disposable) bioreactors), chemostats and continuous-flow systems.***

***2. Cultivation chamber holding devices controlled by 2B352.b.2.b include single-use cultivation chambers with rigid walls.***

c. Centrifugal separators capable of the continuous separation of pathogenic microorganisms, without the propagation of aerosols, and having all of the following characteristics:

c.1. One or more sealing joints within the steam containment area;

c.2. A flow rate greater than 100 liters per hour;

c.3. “Parts” or “components” of polished stainless steel or titanium; *and*

c.4. Capable of in-situ steam sterilization in a closed state.

**Technical Note to 2B352.c:** *Centrifugal separators include decanters.*

d. Cross (tangential) flow filtration equipment and “accessories,” as follows:

d.1. Cross (tangential) flow filtration equipment capable of separation of microorganisms, viruses, toxins or cell cultures having all of the following characteristics:

d.1.a. A total filtration area equal to or greater than 1 square meter (1 m<sup>2</sup>); *and*

d.1.b. Having any of the following characteristics:

d.1.b.1. Capable of being sterilized or disinfected in-situ; *or*

d.1.b.2. Using disposable or single-use filtration “parts” or “components”.

**N.B.:** *2B352.d.1 does not control reverse osmosis and hemodialysis equipment, as specified by the manufacturer.*

d.2. Cross (tangential) flow filtration “parts” or “components” (e.g., modules, elements, cassettes, cartridges, units or plates) with filtration area equal to or greater than 0.2 square meters (0.2 m<sup>2</sup>) for each component and designed for use in cross (tangential) flow filtration equipment controlled by 2B352.d.1.

**Technical Note:** *In this ECCN, “sterilized” denotes the elimination of all viable microbes from the equipment through the use of either physical (e.g., steam) or chemical agents. “Disinfected” denotes the destruction of potential microbial infectivity in the equipment through the use of chemical agents with a germicidal effect. “Disinfection” and “sterilization” are distinct from “sanitization”, the latter referring to cleaning procedures*

*designed to lower the microbial content of equipment without necessarily achieving elimination of all microbial infectivity or viability.*

e. Steam, gas or vapor sterilizable freeze-drying equipment with a condenser capacity of 10 kg of ice or greater in 24 hours (10 liters of water or greater in 24 hours) and less than 1000 kg of ice in 24 hours (less than 1,000 liters of water in 24 hours).

f. Spray-drying equipment capable of drying toxins or pathogenic microorganisms having all of the following characteristics:

f.1. A water evaporation capacity of  $\geq 0.4$  kg/h and  $\leq 400$  kg/h;

f.2. The ability to generate a typical mean product particle size of  $\leq 10$  micrometers with existing fittings or by minimal modification of the spray-dryer with atomization nozzles enabling generation of the required particle size; and

f.3. Capable of being sterilized or disinfected in situ.

g. Protective and containment equipment, as follows:

g.1. Protective full or half suits, or hoods dependent upon a tethered external air supply and operating under positive pressure;

**Technical Note to 2B352.g.1:** *2B352.g.1 does not control suits designed to be worn with self-contained breathing apparatus.*

g.2. Biocontainment chambers, isolators, or biological safety cabinets having all of the following characteristics, for normal operation:

g.2.a. Fully enclosed workspace where

the operator is separated from the work by a physical barrier;

g.2.b. Able to operate at negative pressure;

g.2.c. Means to safely manipulate items in the workspace; *and*

g.2.d. Supply and exhaust air to and from the workspace is high-efficiency particulate air (HEPA) filtered.

**Note 1 to 2B352.g.2:** *2B352.g.2 controls class III biosafety cabinets, as specified in the WHO Laboratory Biosafety Manual (3rd edition, Geneva, 2004) or constructed in accordance with national standards, regulations or guidance.*

**Note 2 to 2B352.g.2:** *2B352.g.2 does not control isolators “specially designed” for barrier nursing or transportation of infected patients.*

h. Aerosol inhalation equipment designed for aerosol challenge testing with microorganisms, viruses or toxins, as follows:

h.1. Whole-body exposure chambers having a capacity of 1 cubic meter or greater.

h.2. Nose-only exposure apparatus utilizing directed aerosol flow and having a capacity for the exposure of 12 or more rodents, or two or more animals other than rodents, and closed animal restraint tubes designed for use with such apparatus.

i. Spraying or fogging systems and “parts” and “components” therefor, as follows:

i.1. Complete spraying or fogging systems, “specially designed” or modified for fitting to “aircraft,” “lighter than air vehicles,” or “UAVs,” capable of delivering, from a liquid suspension, an initial droplet ‘VMD’ of less than 50 microns

at a flow rate of greater than 2 liters per minute;

i.2. Spray booms or arrays of ‘aerosol generating units’, “specially designed” or modified for fitting to “aircraft,” “lighter than air vehicles,” or “UAVs,” capable of delivering, from a liquid suspension, an initial droplet ‘VMD’ of less than 50 microns at a flow rate of greater than 2 liters per minute;

i.3. ‘Aerosol generating units’ “specially designed” for fitting to the systems specified in paragraphs i.1 and i.2 of this ECCN.

**Technical Notes to 2B352.i:**

1. ‘Aerosol generating units’ are devices “specially designed” or modified for fitting to “aircraft” and include nozzles, rotary drum atomizers and similar devices..

2. This ECCN does not control spraying or fogging systems, “parts” and “components,” as specified in 2B352.i, that are demonstrated not to be capable of delivering biological agents in the form of infectious aerosols.

3. Volume Median Diameter ‘VMD’ for droplets produced by spray equipment or nozzles “specially designed” for use on “aircraft” or “UAVs” should be measured using either of the following methods (pending the adoption of internationally accepted standards):

a. Doppler “laser” method

b. Forward “laser” diffraction method.

j. Nucleic acid assemblers and synthesizers that are both:

j.1 Partly or entirely automated; *and*

j.2. Designed to generate continuous nucleic acids greater than 1.5 kilobases in length with

error rates less than 5% in a single run.

**\*\*2B991 Numerical control units for machine tools and “numerically controlled” machine tools, n.e.s. (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* Also see ECCNs [2B001](#) and [2B201](#).

*Related Definitions:* N/A

*Items:*

- a. “Numerical control” units for machine tools:
  - a.1. Having four interpolating axes that can be coordinated simultaneously for “contouring control”; *or*
  - a.2. Having two or more axes that can be coordinated simultaneously for “contouring control” and a minimum programmable increment better (less) than 0.001 mm;
  - a.3. “Numerical control” units for machine tools having two, three or four interpolating axes that can be coordinated simultaneously for “contouring control”, and capable of receiving directly (on-line) and processing

computer-aided-design (CAD) data for internal preparation of machine instructions; *or*

b. “Motion control boards” “specially designed” for machine tools and having any of the following characteristics:

b.1. Interpolation in more than four axes;

b.2. Capable of “real-time processing” of data to modify tool path, feed rate and spindle data, during the machining operation, by any of the following:

b.2.a. Automatic calculation and modification of part program data for machining in two or more axes by means of measuring cycles and access to source data; *or*

b.2.b. “Adaptive control” with more than one physical variable measured and processed by means of a computing model (strategy) to change one or more machining instructions to optimize the process.

b.3. Capable of receiving and processing CAD data for internal preparation of machine instructions; *or*

c. “Numerically controlled” machine tools that, according to the manufacturer's technical specifications, can be equipped with electronic devices for simultaneous “contouring control” in two or more axes and that have both of the following characteristics:

c.1. Two or more axes that can be coordinated simultaneously for contouring control; *and*

c.2. Positioning accuracies according to ISO 230/2 (2006), with all compensations available:

c.2.a. Better than 15 µm along any

linear axis (overall positioning) for grinding machines;

c.2.b. Better than 15 µm along any linear axis (overall positioning) for milling machines; *or*

c.2.c. Better than 15 µm along any linear axis (overall positioning) for turning machines; *or*

d. Machine tools, as follows, for removing or cutting metals, ceramics or composites, that, according to the manufacturer's technical specifications, can be equipped with electronic devices for simultaneous “contouring control” in two or more axes:

d.1. Machine tools for turning, grinding, milling or any combination thereof, having two or more axes that can be coordinated simultaneously for “contouring control” and having any of the following characteristics:

d.1.a. One or more contouring “tilting spindles”;

*Note: 2B991.d.1.a. applies to machine tools for grinding or milling only.*

d.1.b. “Camming” (axial displacement) in one revolution of the spindle less (better) than 0.0006 mm total indicator reading (TIR);

*Note: 2B991.d.1.b. applies to machine tools for turning only.*

d.1.c. “Run out” (out-of-true running) in one revolution of the spindle less (better) than 0.0006 mm total indicator reading (TIR);

d.1.d. The “positioning accuracies”, with all compensations available, are less (better) than: 0.001° on any rotary axis;

d.2. Electrical discharge machines (EDM) of the wire feed type that have five or more axes that can be coordinated simultaneously for “contouring control”.

**\*\*2B992 Non-"numerically controlled" machine tools for generating optical quality surfaces, (see List of Items Controlled) and "specially designed" "parts" and "components" therefor.**

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

a. Turning machines using a single point cutting tool and having all of the following characteristics:

a.1. Slide positioning accuracy less (better) than 0.0005 mm per 300 mm of travel;

a.2. Bidirectional slide positioning repeatability less (better) than 0.00025 mm per 300 mm of travel;

a.3. Spindle “run out” and “camming” less (better) than 0.0004 mm total indicator reading (TIR);

a.4. Angular deviation of the slide movement (yaw, pitch and roll) less (better) than 2 seconds of arc, TIR, over full travel; *and*

a.5. Slide perpendicularity less (better) than 0.001 mm per 300 mm of travel;

**Technical Note:** *The bidirectional slide positioning repeatability (R) of an axis is the maximum value of the repeatability of positioning at any position along or around the axis determined using the procedure and under the conditions specified in part 2.11 of ISO 230/2: 1988.*

b. Fly cutting machines having all of the following characteristics:

b.1. Spindle “run out” and “camming” less (better) than 0.0004 mm TIR; *and*

b.2. Angular deviation of slide movement (yaw, pitch and roll) less (better) than 2 seconds of arc, TIR, over full travel.

**\*\*2B993 Gearmaking and/or finishing machinery not controlled by 2B003 capable of producing gears to a quality level of better than AGMA 11.**

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*2B996 Dimensional inspection or measuring systems or equipment not controlled by 2B006 or 2B206, as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

a. Manual dimensional inspection machines, having both of the following characteristics:

- a.1. Two or more axes; *and*
- a.2. A measurement uncertainty equal to or less (better) than  $(3 + L/300)$  micrometer in any axes (L measured length in mm).

**\*\*2B997** “Robots” not controlled by 2B007 or 2B207 that are capable of employing feedback information in real-time processing from one or more sensors to generate or modify “programs” or to generate or modify numerical program data.

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*2B998** Assemblies, circuit boards or inserts “specially designed” for machine tools controlled by 2B991, or for equipment controlled by 2B993, 2B996 or 2B997.

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* This entry does not control measuring interferometer systems, without closed or open loop feedback, containing a laser to measure slide movement errors of machine-tools, dimensional inspection machines or similar equipment.

*Related Definition:* N/A

*Items:*

- a. Spindle assemblies, consisting of spindles and bearings as a minimal assembly, with radial (“run out”) or axial (“camming”) axis motion in one revolution of the spindle less (better) than 0.0006 mm total indicator reading (TIR);
- b. Single point diamond cutting tool inserts, having all of the following characteristics:
  - b.1. Flawless and chip-free cutting edge when magnified 400 times in any direction;
  - b.2. Cutting radius from 0.1 to 5 mm inclusive; *and*
  - b.3. Cutting radius out-of-roundness less (better) than 0.002 mm TIR.
- c. “Specially designed” printed circuit boards

with mounted “parts” or “components” capable of upgrading, according to the manufacturer's specifications, “numerical control” units, machine tools or feed-back devices to or above the levels specified in ECCNs 2B991, 2B993, 2B996, 2B997, or 2B998.

**\*\*2B999 Specific processing equipment, n.e.s., as follows (see List of Items Controlled).**

### License Requirements

*Reason for Control:* AT

### *Control(s)*

AT applies to entire entry. A license is required for items controlled by this entry to North Korea for anti-terrorism reasons. The Commerce Country Chart is not designed to determine AT licensing requirements for this entry. See §742.19 of the EAR for additional information.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

### List of Items Controlled

*Related Controls:* (1) See also 1B233, 2A992, 2A993, 2B001.f, 2B004, 2B009, 2B104, 2B109, 2B204, 2B209, 2B228, 2B229, 2B231, and 2B350. (2) Certain nuclear related processing equipment is subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

*Related Definitions:* N/A

*Items:*

a. Isostatic presses, n.e.s.;

b. Bellows manufacturing equipment, including hydraulic forming equipment and bellows forming dies;

c. Laser welding machines;

d. MIG welders;

e. E-beam welders;

f. Monel equipment, including valves, piping, tanks and vessels;

g. 304 and 316 stainless steel valves, piping, tanks and vessels;

*Note:* Fittings are considered part of “piping” for purposes of 2B999.g.

h. Mining and drilling equipment, as follows:

h.1. Large boring equipment capable of drilling holes greater than two feet in diameter;

h.2. Large earth-moving equipment used in the mining industry;

i. Electroplating equipment designed for coating parts with nickel or aluminum;

j. Pumps designed for industrial service and for use with an electrical motor of 5 HP or greater;

k. Vacuum valves, piping, flanges, gaskets and related equipment “specially designed” for use in high-vacuum service, n.e.s.;

l. Spin forming and flow forming machines, n.e.s.;

m. Centrifugal multiplane balancing machines, n.e.s.;

n. Austenitic stainless steel plate, valves, piping, tanks and vessels.

TSR: Yes, except N/A for MT

**C. “MATERIALS” [RESERVED]**

**D. “SOFTWARE”**

**\*\*2D001** “Software”, other than that controlled by 2D002, as follows (See list of Items Controlled).

**License Requirements**

*Reason for Control:* NS, MT, NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
MT applies to “software” for equipment controlled by 2B004 and 2B009 for MT reasons.	MT Column 1
NP applies to specially designed or modified “software” for equipment controlled by 2B001 for NP reasons, and to “specially designed” “software” for equipment controlled by 2B004, 2B006, 2B007, or 2B009 for NP reasons.	NP Column 1
AT applies to entire entry	AT Column 1

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

**Special Conditions for STA**

*STA:* License Exception STA may not be used to ship or transmit “software”, other than that specified by ECCN 2D002, “specially designed” for the “development” or “production” of equipment as follows: ECCN 2B001 entire entry; or “Numerically controlled” or manual machine tools as specified in 2B003 to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

**List of Items Controlled**

*Related Controls:* (1) See ECCNs [2E001](#) (“development”) and [2E101](#) (“use”) for technology for “software” controlled under this entry. (2) Also see ECCNs [2D101](#) and [2D201](#).

*Related Definitions:* N/A

*Items:*

a. “Software” “specially designed” or modified for the “development” or “production” of equipment controlled by 2A001 or 2B001 to 2B009;

b. “Software” “specially designed” or modified for the “use” of equipment specified by 2A001.c., 2B001, or 2B003 to 2B009.

*Note:* 2D001 does not apply to part programming “software” that generates “numerical control” codes for machining various parts.

**\*\*2D002** “Software” for electronic devices, even when residing in an electronic device or system, enabling such devices or systems to

function as a “numerical control” unit, capable of coordinating simultaneously more than 4 axes for “contouring control”.

**License Requirements**

*Reason for Control:* NS, NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* Yes

**List of Items Controlled**

*Related Controls:* (1) See ECCNs [2E001](#) (“development”) and [2E201](#) (“use”) for technology for “software” controlled under this entry. (2) Also see ECCN [2D202](#).

*Related Definitions:* N/A

*Items:*

**Note 1:** 2D002 does not control “software” “specially designed” or modified for the operation of items not specified by Category 2.

**Note 2:** 2D002 does not control “software” for items specified by 2B002. See 2D001 and 2D003 for “software” for items specified by 2B002.

**Note 3:** 2D002 does not apply to “software” that is exported with, and the minimum necessary for the operation of, items not specified by Category 2.

The list of items controlled is contained in the ECCN heading.

**\*\*2D003** “Software”, designed or modified for the operation of equipment specified by 2B002, that converts optical design, workpiece measurements and material removal functions into “numerical control” commands to achieve the desired workpiece form.

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* Yes

**List of Items Controlled**

*Related Controls:* See ECCN [2E001](#) (“development”) for technology for “software” controlled under this entry.

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*2D018** “Software” for the “development”, “production” or “use” of equipment controlled by 2B018.

No software is currently controlled under this entry. See ECCNs 0D501, 0D602, and 0D606 for software formerly controlled under this entry.

**\*\*2D101** “Software” “specially designed” or modified for the “use” of equipment controlled by 2B104, 2B105, 2B109, 2B116, 2B117, or 2B119 to 2B122.

**License Requirements**

*Reason for Control:* MT, NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
NP applies to “software” “specially designed” for the “use” of items controlled by 2B104, 2B109, or 2B116 for NP reasons.	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCNs [2E001](#) (“development”) and [2E101](#) (“use”) for technology for “software” controlled under this entry. (2) Also see ECCN 9D004.

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*2D201** “Software” “specially designed” or modified for the “use” of equipment controlled

by 2B204, 2B206, 2B207, 2B209, 2B227, or 2B229.

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCNs [2E001](#) (“development”) and [2E201](#) (“use”) for technology for “software” controlled under this entry. (2) Also see ECCNs [2D002](#) and [2D202](#).

*Related Definitions:* N/A

*ECCN Controls:* “Software” “specially designed” or modified for systems controlled by 2B206.b includes “software” for simultaneous measurements of wall thickness and contour.

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*2D202** “Software” “specially designed” or modified for the “development”, “production” or “use” of equipment controlled by 2B201.

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*ECCN Controls:* ECCN 2D202 does not control part programming “software” that generates “numerical control” command codes, but does not allow direct use of equipment for machining various parts.

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*2D290** “Software” “specially designed” or modified for the “development,” “production,” or “use” of items controlled by 2A290 or 2A291.

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* See ECCN [2E001](#) (“development”) for technology for “software” controlled under this entry.

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*2D351** Dedicated “software” for toxic gas monitors and monitoring systems, and their dedicated detecting “parts” and “components,” controlled by ECCN 2B351.

**License Requirements**

*Reason for Control:* CB, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
CB applies to entire entry	CB Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* (1) For the purposes of this entry, the term “dedicated” means committed entirely to a single purpose or device. (2) See Section 772.1 of the EAR for the definitions of “software,” “program,” and “microprogram.”

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*2D983** “Software” “specially designed” or modified for the “development”, “production” or “use” of equipment controlled by 2A983.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**License Requirements**

**List of Items Controlled**

*Reason for Control:* RS, AT

*Related Controls:* (1) “Software” “required” for the “development,” “production” or “use” of concealed object detection equipment operating in the frequency range from 30 GHz to 3000 GHz and having a spatial resolution less than 0.5 milliradian (a lower milliradian number means a more accurate image resolution) at a standoff distance of 100 meters is “subject to the ITAR” (see 22 CFR parts 120 through 130). (2) “Software” “required” for the “development”, “production” or “use” of concealed object detection equipment operating in the frequency range from 30 GHz to 3000 GHz and having a spatial resolution greater than 1 milliradian spatial resolution (a higher milliradian number means a less accurate image resolution) at a standoff distance of 100 meters is designated as EAR99. (3) See ECCNs [2A984](#) and [2E984](#) for related commodity and technology controls.

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
RS applies to entire entry	RS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*2D984** “Software” “required” for the “development”, “production” or “use” of concealed object detection equipment controlled by 2A984.

*Related Definitions:* N/A  
*Items:*

**License Requirements**

The list of items controlled is contained in the ECCN heading.

*Reason for Control:* RS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
RS applies to entire entry	RS Column 2
AT applies to entire entry	AT Column 1

**\*\*2D991** “Software” “specially designed” for the “development”, “production”, or “use” of equipment controlled by 2B991, 2B993, or 2B996, 2B997, and 2B998.

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*2D992** Specific “software”, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

a. “Software” to provide “adaptive control” and having both of the following characteristics:

a.1. For “flexible manufacturing units” (FMUs) which consist at least of equipment described in b.1 and b.2 of the definition of “flexible manufacturing unit” contained in part 772 of the EAR; *and*

a.2. Capable of generating or modifying, in “real-time processing”, programs or data by using the signals obtained simultaneously by means of at least two detection techniques, such as:

a.2.a. Machine vision (optical ranging);

a.2.b. Infrared imaging;

a.2.c. Acoustical imaging (acoustical ranging);

a.2.d. Tactile measurement;

a.2.e. Inertial positioning;

a.2.f. Force measurement; *and*

a.2.g. Torque measurement.

**Note:** 2D992.a does not control “software” which only provides rescheduling of functionally identical equipment within “flexible manufacturing units” using pre-stored part programs and a pre-stored strategy for the distribution of the part programs.

b. [RESERVED].

**\*\*2D993** “Software” “specially designed” or modified for the “development,” “production,” or “use” of items controlled by 2A992 or 2A993.

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* See ECCN 2E001 (“development”) for “technology” for “software” controlled under this entry.

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*2D994** “Software” “specially designed” for the “development” or “production” of portable electric generators controlled by 2A994.

**License Requirements**

*Reason for Control:* AT

*Control(s)*

AT applies to entire entry. A license is required for items controlled by this entry to Iran and North Korea for anti-terrorism reasons. The Commerce Country Chart is not designed to determine licensing requirements for this entry. See part 746 of the EAR for additional information on Iran. See § 742.19 of the EAR for additional information on North Korea.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**E. “TECHNOLOGY”**

**\*\*2E001** “Technology” according to the General Technology Note for the “development” of equipment or “software” controlled by 2A (except 2A983, 2A984, 2A991, or 2A994), 2B (except 2B991, 2B993, 2B996, 2B997, 2B998, or 2B999), or 2D (except 2D983, 2D984, 2D991, 2D992, or 2D994).

**License Requirements**

*Reason for Control:* NS, MT, NP, CB, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to “technology” for items controlled by 2A001, 2B001 to 2B009, 2D001 or 2D002	NS Column 1
MT applies to “technology” for items controlled by 2B004, 2B009, 2B104, 2B105, 2B109, 2B116, 2B117, 2B119 to 2B122, 2D001, or 2D101 for MT	MT Column 1

reasons	
NP applies to “technology” for items controlled by 2A225, 2A226, 2B001, 2B004, 2B006, 2B007, 2B009, 2B104, 2B109, 2B116, 2B201, 2B204, 2B206, 2B207, 2B209, 2B225 to 2B233, 2D001, 2D002, 2D101, 2D201 or 2D202 for NP reasons	NP Column 1
NP applies to “technology” for items controlled by 2A290, 2A291, or 2D290 for NP reasons	NP Column 2
CB applies to “technology” for equipment controlled by 2B350 to 2B352, valves controlled by 2A226 having the characteristics of those controlled by 2B350.g, and software controlled by 2D351	CB Column 2
AT applies to entire entry	AT Column 1

2D001 or for the “development” of equipment as follows: ECCN 2B001 entire entry; or “Numerically controlled” or manual machine tools as specified in 2B003 to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

**List of Items Controlled**

*Related Controls:* See also [2E101](#), [2E201](#), and [2E301](#)

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

*Note:* ECCN 2E001 includes “technology” for the integration of probe systems into coordinate measurement machines specified by 2B006.a.

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* Yes, except N/A for MT

**Special Conditions for STA**

*STA:* License Exception STA may not be used to ship or transmit “technology” according to the General Technology Note for the “development” of “software” specified in the License Exception STA paragraph in the License Exception section of ECCN

**\*\*2E002** “Technology” according to the General Technology Note for the “production” of equipment controlled by 2A (except 2A983, 2A984, 2A991, or 2A994), or 2B (except 2B991, 2B993, 2B996, 2B997, 2B998, or 2B999).

**License Requirements**

*Reason for Control:* NS, MT, NP, CB, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to “technology” for items controlled by 2A001, 2B001 to 2B009.	NS Column 1
MT applies to “technology” for equipment controlled by 2B004, 2B009, 2B104, 2B105, 2B109, 2B116, 2B117, or 2B119 to	MT Column 1

2B122 for MT reasons.	
NP applies to “technology” for equipment controlled by 2A225, 2A226, 2B001, 2B004, 2B006, 2B007, 2B009, 2B104, 2B109, 2B116, 2B201, 2B204, 2B206, 2B207, 2B209, 2B225 to 2B233 for NP reasons	NP Column 1
NP applies to “technology” for equipment controlled by 2A290 or 2A291 for NP reasons	NP Column 2
CB applies to “technology” for equipment Controlled by 2B350 to 2B352 and for valves controlled by 2A226 having the characteristics of those controlled by 2B350.g	CB Column 2
AT applies to entire entry	AT Column 1

740 of the EAR).

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*2E003** Other “technology”, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, AT

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* Yes, except N/A for MT

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* Yes, except 2E003.b, .e and .f

**Special Conditions for STA**

*STA:* License Exception STA may not be used to ship or transmit “technology” according to the General Technology Note for the “production” of equipment as follows: ECCN 2B001 entire entry; or “Numerically controlled” or manual machine tools as specified in 2B003 to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part

**List of Items Controlled**

*Related Controls:* See [2E001](#), [2E002](#), and [2E101](#) for “development” and “use” technology for equipment that are designed or modified for densification of carbon-carbon composites, structural composite rocket nozzles and reentry vehicle nose tips.  
*Related Definitions:* N/A  
*Items:*

- a. [Reserved]
- b. “Technology” for metal-working

manufacturing processes, as follows:

b.1. “Technology” for the design of tools, dies or fixtures “specially designed” for any of the following processes:

b.1.a. “Superplastic forming”;

b.1.b. “Diffusion bonding”; *or*

b.1.c. ‘Direct-acting hydraulic pressing’;

b.2. Technical data consisting of process methods or parameters as listed below used to control:

b.2.a. “Superplastic forming” of aluminum alloys, titanium alloys or “superalloys”:

b.2.a.1. Surface preparation;

b.2.a.2. Strain rate;

b.2.a.3. Temperature;

b.2.a.4. Pressure;

b.2.b. “Diffusion bonding” of “superalloys” or titanium alloys:

b.2.b.1. Surface preparation;

b.2.b.2. Temperature;

b.2.b.3. Pressure;

b.2.c. ‘Direct-acting hydraulic pressing’ of aluminum alloys or titanium alloys:

b.2.c.1. Pressure;

b.2.c.2. Cycle time;

b.2.d. ‘Hot isostatic densification’ of

titanium alloys, aluminum alloys or “superalloys”:

b.2.d.1. Temperature;

b.2.d.2. Pressure;

b.2.d.3. Cycle time;

**Technical Notes:**

1. ‘Direct-acting hydraulic pressing’ is a deformation process which uses a fluid-filled flexible bladder in direct contact with the workpiece.

2. ‘Hot isostatic densification’ is a process of pressurizing a casting at temperatures exceeding 375 K (102°C) in a closed cavity through various media (gas, liquid, solid particles, etc.) to create equal force in all directions to reduce or eliminate internal voids in the casting.

c. “Technology” for the “development” or “production” of hydraulic stretch-forming machines and dies therefor, for the manufacture of airframe structures;

d. [Reserved]

e. “Technology” for the “development” of integration “software” for incorporation of expert systems for advanced decision support of shop floor operations into “numerical control” units;

f. “Technology” for the application of inorganic overlay coatings or inorganic surface modification coatings (specified in column 3 of the following table) to non-electronic substrates (specified in column 2 of the following table), by processes specified in column 1 of the following table and defined in the Technical Note.

*N.B. This table should be read to control the*

*technology of a particular ‘Coating Process’ only when the resultant coating in column 3 is in a paragraph directly across from the relevant ‘Substrate’ under column 2. For example, Chemical Vapor Deposition (CVD) ‘coating process’ control the “technology” for a particular application of ‘silicides’ to ‘Carbon-carbon, Ceramic and Metal “matrix” “composites” substrates, but are not controlled*

*for the application of ‘silicides’ to ‘Cemented tungsten carbide (16), Silicon carbide (18)’ substrates. In the second case, the resultant coating is not listed in the paragraph under column 3 directly across from the paragraph under column 2 listing ‘Cemented tungsten carbide (16), Silicon carbide (18)’.*

**Category 2E - Materials Processing Table; Deposition Techniques**

1. Coating Process (1) <sup>1</sup>	2. Substrate	3. Resultant Coating
A. Chemical Vapor Deposition (CVD)	“Superalloys”	Aluminides for internal passages
	Ceramics (19) and Low-expansion glasses(14)	Silicides Carbides Dielectric layers (15) Diamond Diamond-like carbon (17)
	Carbon-carbon, Ceramic, and Metal “matrix” “composites”	Silicides Carbides Refractory metals Mixtures thereof (4) Dielectric layers (15) Aluminides Alloyed aluminides (2) Boron nitride
	Cemented tungsten carbide (16), Silicon carbide (18)	Carbides Tungsten Mixtures thereof (4) Dielectric layers (15)
	Molybdenum and Molybdenum alloys	Dielectric layers (15)
	Beryllium and Beryllium alloys	Dielectric layers (15) Diamond Diamond-like carbon (17)

<sup>1</sup> The numbers in parenthesis refer to the Notes following this Table.

1. <i>Coating Process</i> (1) <sup>1</sup>	2. <i>Substrate</i>	3. <i>Resultant Coating</i>
	Sensor window materials (9)	Dielectric layers (15) Diamond Diamond-like carbon (17)
B. Thermal-Evaporation Physical Vapor		
1. Physical Vapor Deposition (PVD): Deposition (TE-PVD) Electron-Beam (EB-PVD)	“Superalloys”	Alloyed silicides Alloyed aluminides (2) MCrAlX (5) Modified zirconia (12) Silicides Aluminides Mixtures thereof (4)
	Ceramics (19) and Low-expansion glasses (14)	Dielectric layers (15)
	Corrosion resistant steel (7)	MCrAlX (5) Modified zirconia (12) Mixtures thereof (4)
	Carbon-carbon, Ceramic and Metal “matrix” “composites”	Silicides Carbides Refractory metals Mixtures thereof (4) Dielectric layers (15) Boron nitride
	Cemented tungsten carbide (16), Silicon carbide (18)	Carbides Tungsten Mixtures thereof (4) Dielectric layers (15)
	Molybdenum and Molybdenum alloys	Dielectric layers (15)
	Beryllium and Beryllium alloys	Dielectric layers (15) Borides Beryllium
	Sensor window materials (9)	Dielectric layers (15)

1. Coating Process (1) <sup>1</sup>	2. Substrate	3. Resultant Coating
	Titanium alloys (13)	Borides Nitrides
2. Ion assisted resistive heating Physical Vapor Deposition (PVD)(Ion Plating)	Ceramics (19) and Low-expansion glasses (14)	Dielectric layers (15) Diamond-like carbon (17)
	Carbon-carbon, Ceramic and Metal “matrix” “composites”	Dielectric layers (15)
	Cemented tungsten carbide (16) Silicon carbide	Dielectric layers (15)
	Molybdenum and Molybdenum alloys	Dielectric layers (15)
	Beryllium and Beryllium alloys	Dielectric layers (15)
	Sensor window materials (9)	Dielectric Layers (15) Diamond-like carbon (17)
3. Physical Vapor Deposition (PVD): “Laser” Vaporization	Ceramics (19) and Low-expansion glasses (14)	Silicides Dielectric layers (15) Diamond-like carbon (17)
	Carbon-carbon,Ceramic and Metal “matrix” “composites”	Dielectric layers (15)
	Cemented tungsten carbide (16), Silicon carbide	Dielectric Layers (15)
	Molybdenum and Molybdenum alloys	Dielectric layers (15)
	Beryllium and Beryllium alloys	Dielectric layers (15)
	Sensor window materials (9)	Dielectric layers (15) Diamond-like carbon
4. Physical Vapor Deposition (PVD): Cathodic Arc Discharge.	“Superalloys”	Alloyed silicides Alloyed Aluminides (2) MCrAlX (5)

1. <i>Coating Process</i> (1) <sup>1</sup>	2. <i>Substrate</i>	3. <i>Resultant Coating</i>
	Polymers (11) and Organic “matrix” “composites”	Borides Carbides Nitrides Diamond-like carbon (17)
C. Pack cementation (see A above for out-of-pack cementation) (10)	Carbon-carbon, Ceramic and Metal “matrix” “composites”	Silicides Carbides Mixtures thereof (4)
	Titanium alloys (13)	Silicides Aluminides Alloyed aluminides (2)
	Refractory metals and alloys (8)	Silicides Oxides
D. Plasma spraying	“Superalloys”	MCrAlX (5) Modified zirconia (12) Mixtures thereof (4) Abradable Nickel-Graphite Abradable materials containing Ni-Cr-Al Abradable Al-Si-Polyester Alloyed aluminides (2)
	Aluminum alloys (6)	MCrAlX (5) Modified zirconia (12) Silicides Mixtures thereof (4)
	Refractory metals and alloys (8), Carbides, Corrosion resistant steel (7)	Aluminides Silicides MCrAlX (5) Modified zirconia (12) Mixtures thereof (4)
D. Plasma spraying (continued)	Titanium alloys (13)	Carbides Aluminides Silicides Alloyed aluminides (2)

1. <i>Coating Process</i> (1) <sup>1</sup>	2. <i>Substrate</i>	3. <i>Resultant Coating</i>
	Abradable Nickel Graphite	Abradable materials containing Ni-Cr-Al Abradable Al-Si-Polyester
E. Slurry Deposition	Refractory metals and alloys (8)	Fused silicides Fused aluminides except for resistance heating elements
	Carbon-carbon, Ceramic and Metal “matrix” “composites”	Silicides Carbides Mixtures thereof (4)
F. Sputter Deposition	“Superalloys”	Alloyed silicides Alloyed aluminides (2) Noble metal modified aluminides (3) MCrAlX (5) Modified zirconia (12) Platinum Mixtures thereof (4)
	Ceramics and Low-expansion glasses (14)	Silicides Platinum Mixtures thereof (4) Dielectric layers (15) Diamond-like carbon (17)
	Titanium alloys (13)	Borides Nitrides Oxides Silicides Aluminides Alloyed aluminides (2) Carbides
F. Sputter Deposition (continued)	Carbon-carbon, Ceramic and Metal “matrix” “Composites”	Silicides Carbides Refractory metals Mixtures thereof (4) Dielectric layers (15) Boron nitride

1. Coating Process (1) <sup>1</sup>	2. Substrate	3. Resultant Coating
	Cemented tungsten carbide (16), Silicon carbide (18)	Carbides Tungsten Mixtures thereof (4) Dielectric layers (15) Boron nitride
	Molybdenum and Molybdenum alloys	Dielectric layers (15)
	Beryllium and Beryllium alloys	Borides Dielectric layers (15) Beryllium
	Sensor window materials (9)	Dielectric layers (15) Diamond-like carbon (17)
	Refractory metals and alloys (8)	Aluminides Silicides Oxides Carbides
G. Ion Implantation	High temperature bearing steels	Additions of Chromium, Tantalum, or Niobium (Columbium)
	Titanium alloys (13)	Borides Nitrides
	Beryllium and Beryllium alloys	Borides
	Cemented tungsten carbide (16)	Carbides Nitrides

**Notes to Table on Deposition Techniques:**

1. The term “coating process” includes coating repair and refurbishing as well as original coating.

2. The term “alloyed aluminide coating” includes single or multiple-step coatings in which an element or elements are deposited prior to or during application of the aluminide coating, even if these elements are deposited by another

coating process. It does not, however, include the multiple use of single-step pack cementation processes to achieve alloyed aluminides.

3. The term “noble metal modified aluminide” coating includes multiple-step coatings in which the noble metal or noble metals are laid down by some other coating process prior to application of the aluminide coating.

4. The term “mixtures thereof” includes

*infiltrated material, graded compositions, co-deposits and multilayer deposits and are obtained by one or more of the coating processes specified in the Table.*

5. *MCrAlX refers to a coating alloy where M equals cobalt, iron, nickel or combinations thereof and X equals hafnium, yttrium, silicon, tantalum in any amount or other intentional additions over 0.01% by weight in various proportions and combinations, except:*

a. *CoCrAlY coatings which contain less than 22% by weight of chromium, less than 7% by weight of aluminum and less than 2% by weight of yttrium;*

b. *CoCrAlY coatings which contain 22 to 24% by weight of chromium, 10 to 12% by weight of aluminum and 0.5 to 0.7% by weight of yttrium; or*

c. *NiCrAlY coatings which contain 21 to 23% by weight of chromium, 10 to 12% by weight of aluminum and 0.9 to 1.1% by weight of yttrium.*

6. *The term “aluminum alloys” refers to alloys having an ultimate tensile strength of 190 MPa or more measured at 293 K (20 °C).*

7. *The term “corrosion resistant steel” refers to AISI (American Iron and Steel Institute) 300 series or equivalent national standard steels.*

8. *“Refractory metals and alloys” include the following metals and their alloys: niobium (columbium), molybdenum, tungsten and tantalum.*

9. *“Sensor window materials”, as follows: alumina, silicon, germanium, zinc sulphide, zinc selenide, gallium arsenide, diamond, gallium phosphide, sapphire and the following metal halides: sensor window materials of more than 40 mm diameter for zirconium fluoride and*

*hafnium fluoride.*

10. *Category 2 does not include “technology” for single-step pack cementation of solid airfoils.*

11. *“Polymers”, as follows: polyimide, polyester, polysulfide, polycarbonates and polyurethanes.*

12. *“Modified zirconia” refers to additions of other metal oxides, (e.g., calcia, magnesia, yttria, hafnia, rare earth oxides) to zirconia in order to stabilize certain crystallographic phases and phase compositions. Thermal barrier coatings made of zirconia, modified with calcia or magnesia by mixing or fusion, are not controlled.*

13. *“Titanium alloys” refers only to aerospace alloys having an ultimate tensile strength of 900 MPa or more measured at 293 K (20 °C).*

14. *“Low-expansion glasses” refers to glasses which have a coefficient of thermal expansion of  $1 \times 10^{-7} \text{ K}^{-1}$  or less measured at 293 K (20 °C).*

15. *“Dielectric layers” are coatings constructed of multi-layers of insulator materials in which the interference properties of a design composed of materials of various refractive indices are used to reflect, transmit or absorb various wavelength bands. Dielectric layers refers to more than four dielectric layers or dielectric/metal “composite” layers.*

16. *“Cemented tungsten carbide” does not include cutting and forming tool materials consisting of tungsten carbide/(cobalt, nickel), titanium carbide/(cobalt, nickel), chromium carbide/nickel-chromium and chromium carbide/nickel.*

17. *“Technology” for depositing diamond-*

like carbon on any of the following is not controlled: magnetic disk drives and heads, equipment for the manufacture of disposables, valves for faucets, acoustic diaphragms for speakers, engine parts for automobiles, cutting tools, punching-pressing dies, office automation equipment, microphones, medical devices or molds, for casting or molding of plastics, manufactured from alloys containing less than 5% beryllium.

18. "Silicon carbide" does not include cutting and forming tool materials.

19. Ceramic substrates, as used in this entry, does not include ceramic materials containing 5% by weight, or greater, clay or cement content, either as separate constituents or in combination.

**Technical Note to Table on Deposition Techniques:** Processes specified in Column 1 of the Table are defined as follows:

a. Chemical Vapor Deposition (CVD) is an overlay coating or surface modification coating process wherein a metal, alloy, "composite", dielectric or ceramic is deposited upon a heated substrate. Gaseous reactants are decomposed or combined in the vicinity of a substrate resulting in the deposition of the desired elemental, alloy or compound material on the substrate. Energy for this decomposition or chemical reaction process may be provided by the heat of the substrate, a glow discharge plasma, or "laser" irradiation.

**Note 1:** CVD includes the following processes: directed gas flow out-of-pack deposition, pulsating CVD, controlled nucleation thermal decomposition (CNTD), plasma enhanced or plasma assisted CVD processes.

**Note 2:** Pack denotes a substrate immersed in a powder mixture.

**Note 3:** The gaseous reactants used in the out-of-pack process are produced using the same basic reactions and parameters as the pack cementation process, except that the substrate to be coated is not in contact with the powder mixture.

b. Thermal Evaporation-Physical Vapor Deposition (TE-PVD) is an overlay coating process conducted in a vacuum with a pressure less than 0.1 Pa wherein a source of thermal energy is used to vaporize the coating material. This process results in the condensation, or deposition, of the evaporated species onto appropriately positioned substrates. The addition of gases to the vacuum chamber during the coating process to synthesize compound coatings is an ordinary modification of the process. The use of ion or electron beams, or plasma, to activate or assist the coating's deposition is also a common modification in this technique. The use of monitors to provide in-process measurement of optical characteristics and thickness of coatings can be a feature of these processes. Specific TE-PVD processes are as follows:

1. Electron Beam PVD uses an electron beam to heat and evaporate the material which forms the coating;

2. Ion Assisted Resistive Heating PVD employs electrically resistive heating sources in combination with impinging ion beam(s) to produce a controlled and uniform flux of evaporated coating species;

3. "Laser" Vaporization uses either pulsed or continuous wave "laser" beams to vaporize the material which forms the coating;

4. Cathodic Arc Deposition employs a consumable cathode of the material which forms the coating and has an arc discharge established

on the surface by a momentary contact of a ground trigger. Controlled motion of arcing erodes the cathode surface creating a highly ionized plasma. The anode can be either a cone attached to the periphery of the cathode, through an insulator, or the chamber. Substrate biasing is used for non line-of-sight deposition;

**Note:** This definition does not include random cathodic arc deposition with non-biased substrates.

5. Ion Plating is a special modification of a general TE-PVD process in which a plasma or an ion source is used to ionize the species to be deposited, and a negative bias is applied to the substrate in order to facilitate the extraction of the species from the plasma. The introduction of reactive species, evaporation of solids within the process chamber, and the use of monitors to provide in-process measurement of optical characteristics and thicknesses of coatings are ordinary modifications of the process.

c. Pack Cementation is a surface modification coating or overlay coating process wherein a substrate is immersed in a powder mixture (a pack), that consists of:

1. The metallic powders that are to be deposited (usually aluminum, chromium, silicon or combinations thereof);

2. An activator (normally a halide salt); and

3. An inert powder, most frequently alumina.

**Note:** The substrate and powder mixture is contained within a retort which is heated to between 1,030 K (757 °C) to 1,375 K (1,102 °C) for sufficient time to deposit the coating.

d. Plasma Spraying is an overlay coating

process wherein a gun (spray torch) which produces and controls a plasma accepts powder or wire coating materials, melts them and propels them towards a substrate, whereon an integrally bonded coating is formed. Plasma spraying constitutes either low pressure plasma spraying or high velocity plasma spraying.

**Note 1:** Low pressure means less than ambient atmospheric pressure.

**Note 2:** High velocity refers to nozzle-exit gas velocity exceeding 750 m/s calculated at 293 K (20 °C) at 0.1 MPa.

e. Slurry Deposition is a surface modification coating or overlay coating process wherein a metallic or ceramic powder with an organic binder is suspended in a liquid and is applied to a substrate by either spraying, dipping or painting, subsequent air or oven drying, and heat treatment to obtain the desired coating.

f. Sputter Deposition is an overlay coating process based on a momentum transfer phenomenon, wherein positive ions are accelerated by an electric field towards the surface of a target (coating material). The kinetic energy of the impacting ions is sufficient to cause target surface atoms to be released and deposited on an appropriately positioned substrate.

**Note 1:** The Table refers only to triode, magnetron or reactive sputter deposition which is used to increase adhesion of the coating and rate of deposition and to radio frequency (RF) augmented sputter deposition used to permit vaporization of non-metallic coating materials.

**Note 2:** Low-energy ion beams (less than 5 keV) can be used to activate the deposition.

g. Ion Implantation is a surface modification coating process in which the element to be

*alloyed is ionized, accelerated through a potential gradient and implanted into the surface region of the substrate. This includes processes in which ion implantation is performed simultaneously with electron beam physical vapor deposition or sputter deposition.*

***Accompanying Technical Information to Table on Deposition Techniques:***

*1. Technical information for pretreatments of the substrates listed in the Table, as follows:*

*a. Chemical stripping and cleaning bath cycle parameters, as follows:*

*1. Bath composition;*

*a. For the removal of old or defective coatings corrosion product or foreign deposits;*

*b. For preparation of virgin substrates;*

*2. Time in bath;*

*3. Temperature of bath;*

*4. Number and sequences of wash cycles;*

*b. Visual and macroscopic criteria for acceptance of the cleaned part;*

*c. Heat treatment cycle parameters, as follows:*

*1. Atmosphere parameters, as follows:*

*a. Composition of the atmosphere;*

*b. Pressure of the atmosphere;*

*2. Temperature for heat treatment;*

*3. Time of heat treatment;*

*d. Substrate surface preparation parameters, as follows:*

*1. Grit blasting parameters, as follows:*

*a. Grit composition;*

*b. Grit size and shape;*

*c. Grit velocity;*

*2. Time and sequence of cleaning cycle after grit blast;*

*3. Surface finish parameters;*

*4. Application of binders to promote adhesion;*

*e. Masking technique parameters, as follows:*

*1. Material of mask;*

*2. Location of mask;*

*2. Technical information for in situ quality assurance techniques for evaluation of the coating processes listed in the Table, as follows:*

*a. Atmosphere parameters, as follows:*

*1. Composition of the atmosphere;*

*2. Pressure of the atmosphere;*

*b. Time parameters;*

*c. Temperature parameters;*

*d. Thickness parameters;*

*e. Index of refraction parameters;*

*f. Control of composition;*

3. *Technical information for post deposition treatments of the coated substrates listed in the Table, as follows:*

a. *Shot peening parameters, as follows:*

1. *Shot composition;*
2. *Shot size;*
3. *Shot velocity;*

b. *Post shot peening cleaning parameters;*

c. *Heat treatment cycle parameters, as follows:*

1. *Atmosphere parameters, as follows:*

- a. *Composition of the atmosphere;*
- b. *Pressure of the atmosphere;*

2. *Time-temperature cycles;*

d. *Post heat treatment visual and macroscopic criteria for acceptance of the coated substrates;*

4. *Technical information for quality assurance techniques for the evaluation of the coated substrates listed in the Table, as follows:*

a. *Statistical sampling criteria;*

b. *Microscopic criteria for:*

1. *Magnification;*
2. *Coating thickness, uniformity;*
3. *Coating integrity;*
4. *Coating composition;*

5. *Coating and substrates bonding;*

6. *Microstructural uniformity.*

c. *Criteria for optical properties assessment (measured as a function of wavelength):*

1. *Reflectance;*
2. *Transmission;*
3. *Absorption;*
4. *Scatter;*

5. *Technical information and parameters related to specific coating and surface modification processes listed in the Table, as follows:*

a. *For Chemical Vapor Deposition (CVD):*

1. *Coating source composition and formulation;*
2. *Carrier gas composition;*
3. *Substrate temperature;*
4. *Time-temperature-pressure cycles;*
5. *Gas control and part manipulation;*

b. *For Thermal Evaporation-Physical Vapor Deposition (PVD):*

1. *Ingot or coating material source composition;*
2. *Substrate temperature;*
3. *Reactive gas composition;*
4. *Ingot feed rate or material vaporization rate;*

5. *Time-temperature-pressure cycles;*
6. *Beam and part manipulation;*
7. *“Laser” parameters, as follows:*
  - a. *Wave length;*
  - b. *Power density;*
  - c. *Pulse length;*
  - d. *Repetition ratio;*
  - e. *Source;*
- c. *For Pack Cementation:*
  1. *Pack composition and formulation;*
  2. *Carrier gas composition;*
  3. *Time-temperature-pressure cycles;*
- d. *For Plasma Spraying:*
  1. *Powder composition, preparation and size distributions;*
  2. *Feed gas composition and parameters;*
  3. *Substrate temperature;*
  4. *Gun power parameters;*
  5. *Spray distance;*
  6. *Spray angle;*
  7. *Cover gas composition, pressure and flow rates;*
  8. *Gun control and part manipulation;*
- e. *For Sputter Deposition:*
  1. *Target composition and fabrication;*
  2. *Geometrical positioning of part and target;*
  3. *Reactive gas composition;*
  4. *Electrical bias;*
  5. *Time-temperature-pressure cycles;*
  6. *Triode power;*
  7. *Part manipulation;*
- f. *For Ion Implantation:*
  1. *Beam control and part manipulation;*
  2. *Ion source design details;*
  3. *Control techniques for ion beam and deposition rate parameters;*
  4. *Time-temperature-pressure cycles.*
- g. *For Ion Plating:*
  1. *Beam control and part manipulation;*
  2. *Ion source design details;*
  3. *Control techniques for ion beam and deposition rate parameters;*
  4. *Time-temperature-pressure cycles;*
  5. *Coating material feed rate and vaporization rate;*
  6. *Substrate temperature;*
  7. *Substrate bias parameters.*

*Reason for Control:* MT, NP, AT

**\*\*2E018** “Technology” for the “use” of equipment controlled by 2B018.

**License Requirements**

*Reason for Control:* NS, MT, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
MT applies to “technology” for equipment controlled by 2B018 for MT reasons	MT Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry	See § 746.1(b) for UN controls.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* Yes

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*2E101** “Technology” according to the General Technology Note for the “use” of equipment or “software” controlled by 2B004, 2B009, 2B104, 2B105, 2B109, 2B116, 2B117, 2B119 to 2B122, 2D001, 2D002 or 2D101.

**License Requirements**

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to “technology” for items controlled by 2B004, 2B009, 2B104, 2B105, 2B109, 2B116, 2B117, 2B119 to 2B122, 2D001, or 2D101 for MT reasons.	MT Column 1
NP applies to “technology” for items controlled by 2B004, 2B009, 2B104, 2B109, 2B116, 2D001, 2D002 or 2D101 for NP reasons.	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* (1) This entry controls only “technology” for [2B009](#) and [2B109](#) for spin forming machines combining the functions of spin forming and flow forming, and flow forming machines. (2) Also see [2E201](#).  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*2E201** “Technology” according to the General Technology Note for the “use” of equipment or “software” controlled by 2A225, 2A226, 2B001, 2B006, 2B007.b, 2B007.c, 2B201, 2B204, 2B206, 2B207, 2B209, 2B225 to 2B233, 2D002, 2D201 or 2D202 for NP reasons.

**License Requirements**

*Reason for Control:* NP, CB, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
CB applies to “technology” for valves controlled by 2A226 that meet or exceed the technical parameters in 2B350.g	CB Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* Also see [2E290](#) and [2E991](#).

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*2E290** “Technology” according to the General Technology Note for the “use” of equipment controlled by 2A290 or 2A291.

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*2E301** “Technology” according to the “General Technology Note” for “use” of items controlled by 2B350, 2B351 and 2B352.

**License Requirements**

*Reason for Control:* CB, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
CB applies to entire entry	CB Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

The lists of items controlled are contained in the ECCN headings.

**\*\*2E983** “Technology” “specially designed” or modified for the “development”, “production” or “use” of equipment controlled by 2A983, or the “development” of software controlled by 2D983.

**License Requirements**

*Reason for Control:* RS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
RS applies to entire entry	RS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*2E984** “Technology” “required” for the “development, “production” or “use” of equipment controlled by 2A984 or “required” for the “development” of “software” controlled by 2D984.

**License Requirements**

*Reason for Control:* RS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
RS applies to entire entry	RS Column 2

AT applies to entire entry	AT Column 1
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**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* (1) “Technology” “required” for the “development”, “production” or “use” of concealed object detection equipment operating in the frequency range from 30 GHz to 3000 GHz and having a spatial resolution less than 0.5 milliradian (a lower milliradian number means a more accurate image resolution) at a standoff distance of 100 meters or “required” for the “development” of “software” “required” for the “development,” “production” or “use” of concealed object detection equipment operating in the frequency range from 30 GHz to 3000 GHz and having a spatial resolution less than 0.5 milliradian at a standoff distance of 100 meters is “subject to the ITAR” (see 22 CFR parts 120 through 130). (2) “Technology” “required” for the “development”, “production” or “use” of concealed object detection equipment operating in the frequency range from 30 GHz to 3000 GHz and having a spatial resolution greater than 1 milliradian spatial resolution (a higher milliradian number means a less accurate image resolution) at a standoff distance of 100 meters or “required” for the “development” of “software” “required” for the “development”, “production” or “use” of concealed object detection equipment operating in the frequency range from 30 GHz to 3000 GHz and having a spatial resolution greater than 1 milliradian spatial resolution (a higher milliradian number means a less accurate image resolution) at a standoff distance of 100 meters is designated

as EAR99. (3) See ECCNs [2A984](#) and [2D984](#) for related commodity and software controls.

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*2E991** “Technology” for the “use” of equipment controlled by 2B991, 2B993, 2B996, or 2B997.

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*2E993** “Technology” according to the General Technology Note for the “use” of equipment controlled by 2A992 or 2A993.

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*2E994** “Technology” for the “use” of portable electric generators controlled by 2A994.

**License Requirements**

*Reason for Control:* AT

*Control(s)*

AT applies to entire entry. A license is required for items controlled by this entry to Iran and North Korea for anti-terrorism reasons. The Commerce Country Chart is not designed to determine licensing requirements for this entry. See part 746 of the EAR for additional information on Iran. See § 742.19 of the EAR for additional information on North Korea.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**EAR99** Items subject to the EAR that are *not* elsewhere specified in this CCL Category *or* in any other category in the CCL are designated by the number *EAR99*.

**CATEGORY 3 - ELECTRONICS**

**A. “END ITEMS,” “EQUIPMENT,” “ACCESSORIES,” “ATTACHMENTS,” “PARTS,” “COMPONENTS,” AND “SYSTEMS”**

**Note 1:** *The control status of equipment and “components” described in 3A001 or 3A002, other than those described in 3A001.a.3 to 3A001.a.10, or 3A001.a.12 to 3A001.a.14, which are “specially designed” for or which have the same functional characteristics as other equipment is determined by the control status of the other equipment.*

**Note 2:** *The control status of integrated circuits described in 3A001.a.3 to 3A001.a.9, or 3A001.a.12 to 3A001.a.14 that are unalterably programmed or designed for a specific function for other equipment is determined by the control status of the other equipment.*

**N.B.:** *When the manufacturer or applicant cannot determine the control status of the other equipment, the control status of the integrated circuits is determined in 3A001.a.3 to 3A001.a.9, or 3A001.a.12 to 3A001.a.14.*

**Note 3:** *The status of wafers (finished or unfinished), in which the function has been determined, is to be evaluated against the parameters of 3A001.a, 3A001.b, 3A001.d, 3A001.e.4, 3A001.g, 3A001.h, or 3A001.i.*

**\*\*3A001** Electronic items as follows (see List of Items Controlled).

**Reason for Control:** NS, RS, MT, NP, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
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NS applies to “Monolithic Microwave Integrated Circuit” (“MMIC”) amplifiers in 3A001.b.2 and discrete microwave transistors in 3A001.b.3, except those 3A001.b.2 and b.3 items being exported or reexported for use in civil telecommunications applications	NS Column 1
NS applies to entire entry	NS Column 2
RS applies “Monolithic Microwave Integrated Circuit” (“MMIC”) amplifiers in 3A001.b.2 and discrete microwave transistors in 3A001.b.3, except those 3A001.b.2 and b.3 items being exported or reexported for use in civil telecommunications applications	RS Column 1
MT applies to 3A001.a.1.a when usable in “missiles”; and to 3A001.a.5.a when “designed or modified” for military use, hermetically sealed and rated for operation in the temperature range from below -54°C to above +125°C	MT Column 1
NP applies to pulse discharge capacitors	NP Column 1

<p>in 3A001.e.2 and superconducting solenoidal electromagnets in 3A001.e.3 that meet or exceed the technical parameters in 3A201.a and 3A201.b, respectively</p>	
<p>AT applies to entire entry</p>	<p>AT Column 1</p>

**Reporting Requirements:** See §743.1 of the EAR for reporting requirements for exports under 3A001.b.2 or b.3 under License Exceptions, and Validated End-User authorizations.

**License Requirements Note:** See § 744.17 of the EAR for additional license requirements for microprocessors having a processing speed of 5 GFLOPS or more and an arithmetic logic unit with an access width of 32 bit or more, including those incorporating “information security” functionality, and associated “software” and “technology” for the “production” or “development” of such microprocessors.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

**LVS:** N/A for MT or NP; N/A for “Monolithic Microwave Integrated Circuit” (“MMIC”) amplifiers in 3A001.b.2 and discrete microwave transistors in 3A001.b.3, except those that are being exported or reexported for use in civil telecommunications applications

Yes for:

\$1500: 3A001.c

\$3000: 3A001.b.1, b.2 (exported or reexported for use in civil telecommunications applications), b.3 (exported or reexported for use in civil telecommunications applications), b.9, .d, .e, .f, and .g.

\$5000: 3A001.a (except a.1.a and a.5.a when controlled for MT), .b.4 to b.7, and b.12.

**GBS:** Yes for 3A001.a.1.b, a.2 to a.14 (except .a.5.a when controlled for MT), b.2 (exported or reexported for use in civil telecommunications applications), b.8 (except for “vacuum electronic devices” exceeding 18 GHz), b.9., b.10, .g, and .h, and .i.

**Special Conditions for STA**

**STA:** License Exception STA may not be used to ship any item in 3A001.b.2 or b.3, except those that are being exported or reexported for use in civil telecommunications applications, to any of the destinations listed in Country Group A:5 or A:6 (See Supplement No.1 to part 740 of the EAR).

**List of Items Controlled**

**Related Controls:** (1) See Category XV of the USML for certain “space-qualified” electronics and Category XI of the USML for certain ASICs, ‘transmit/receive modules,’ or ‘transmit modules’ “subject to the ITAR” (see 22 CFR parts 120 through 130). (2) See also [3A101](#), [3A201](#), [3A611](#), [3A991](#), and 9A515.

**Related Definitions:** ‘Microcircuit’ means a device in which a number of passive or active elements are considered as indivisibly associated on or within a continuous structure to perform the function of a circuit. For the purposes of integrated circuits in 3A001.a.1,  $5 \times 10^3 \text{ Gy(Si)} = 5 \times 10^5 \text{ Rads (Si)}$ ;  $5 \times 10^6 \text{ Gy (Si)/s} = 5 \times 10^8 \text{ Rads (Si)/s}$ .

**Items:**

a. General purpose integrated circuits, as follows:

**Note 1:** *Integrated circuits include the following types:*

- “Monolithic integrated circuits”;
- “Hybrid integrated circuits”;
- “Multichip integrated circuits”;
- Film type integrated circuits, including silicon-on-sapphire integrated circuits”;
- “Optical integrated circuits”;
- “Three dimensional integrated circuits”;
- “Monolithic Microwave Integrated Circuits” (“MMICs”).

a.1. Integrated circuits designed or rated as radiation hardened to withstand any of the following:

a.1.a. A total dose of  $5 \times 10^3$  Gy (Si), or higher;

a.1.b. A dose rate upset of  $5 \times 10^6$  Gy (Si)/s, or higher; *or*

a.1.c. A fluence (integrated flux) of neutrons (1 MeV equivalent) of  $5 \times 10^{13}$  n/cm<sup>2</sup> or higher on silicon, or its equivalent for other materials;

**Note:** 3A001.a.1.c does not apply to Metal Insulator Semiconductors (MIS).

a.2. “Microprocessor microcircuits,” “microcomputer microcircuits,” microcontroller microcircuits, storage integrated circuits manufactured from a compound semiconductor, analog-to-digital converters, integrated circuits that contain analog-to-digital converters and store or process the digitized data, digital-to-analog converters, electro-optical or “optical integrated circuits” designed for “signal processing”, field programmable logic devices, custom integrated circuits for which either the function is unknown or the control status of the equipment in which the integrated circuit will be used is unknown, Fast Fourier Transform (FFT) processors, Static Random-Access Memories (SRAMs), or ‘non-volatile memories,’ having any of the following:

**Technical Note:** ‘Non-volatile memories’ are memories with data retention over a period of time after a power shutdown.

a.2.a. Rated for operation at an ambient temperature above 398 K (+125°C);

a.2.b. Rated for operation at an ambient temperature below 218 K (-55°C); *or*

a.2.c. Rated for operation over the entire ambient temperature range from 218 K (-55°C) to 398 K (+125°C);

**Note:** 3A001.a.2 does not apply to integrated circuits designed for civil automobile or railway train applications.

a.3. “Microprocessor microcircuits”, “microcomputer microcircuits” and microcontroller microcircuits, manufactured from a compound semiconductor and operating at a clock frequency exceeding 40 MHz;

**Note:** 3A001.a.3 includes digital signal processors, digital array processors and digital coprocessors.

a.4. [Reserved]

a.5. Analog-to-Digital Converter (ADC) and Digital-to-Analog Converter (DAC) integrated circuits, as follows:

a.5.a. ADCs having any of the following:

a.5.a.1. A resolution of 8 bit or more, but less than 10 bit, with a “sample rate” greater than 1.3 Giga Samples Per Second (GSPS);

a.5.a.2. A resolution of 10 bit or more, but less than 12 bit, with a “sample rate” greater than 600 Mega Samples Per Second (MSPS);

a.5.a.3. A resolution of 12 bit or more, but less than 14 bit, with a “sample rate” greater than 400 MSPS;

a.5.a.4. A resolution of 14 bit or more, but less than 16 bit, with a “sample rate” greater than 250 MSPS; *or*

a.5.a.5. A resolution of 16 bit or more with a “sample rate” greater than 65 MSPS;

*N.B.: For integrated circuits that contain analog-to-digital converters and store or process the digitized data see 3A001.a.14.*

**Technical Notes:**

1. A resolution of  $n$  bit corresponds to a quantization of  $2^n$  levels.

2. The resolution of the ADC is the number of bits of the digital output that represents the measured analog input. Effective Number of Bits (ENOB) is not used to determine the resolution of the ADC.

3. For “multiple channel ADCs”, the “sample rate” is not aggregated and the “sample rate” is the maximum rate of any single channel.

4. For “interleaved ADCs” or for “multiple channel ADCs” that are specified to have an interleaved mode of operation, the “sample rates” are aggregated and the “sample rate” is the maximum combined total rate of all of the interleaved channels.

a.5.b. Digital-to-Analog Converters (DAC) having any of the following:

a.5.b.1. A resolution of 10-bit or more but less than 12-bit, with an ‘adjusted update rate’ of exceeding 3,500 MSPS; or

a.5.b.2. A resolution of 12-bit or more and having any of the following:

a.5.b.2.a. An ‘adjusted update rate’ exceeding 1,250 MSPS but not exceeding 3,500 MSPS, and having any of the following:

a.5.b.2.a.1. A settling time less than 9 ns to arrive at or within 0.024 % of full scale from a full scale step; or

a.5.b.2.a.2. A ‘Spurious Free Dynamic Range’ (SFDR) greater than 68 dBc (carrier) when synthesizing a full scale analog signal of 100 MHz or the highest full scale analog signal frequency specified below 100 MHz; or

a.5.b.2.b. An ‘adjusted update rate’ exceeding 3,500 MSPS;

**Technical Notes:**

1. ‘Spurious Free Dynamic Range’ (SFDR) is defined as the ratio of the RMS value of the carrier frequency (maximum signal component) at the input of the DAC to the RMS value of the next largest noise or harmonic distortion component at its output.

2. SFDR is determined directly from the specification table or from the characterization plots of SFDR versus frequency.

3. A signal is defined to be full scale when its amplitude is greater than -3 dBfs (full scale).

4. ‘Adjusted update rate’ for DACs is:

a. For conventional (non-interpolating) DACs, the ‘adjusted update rate’ is the rate at which the digital signal is converted to an analog signal and the output analog values are changed by the DAC. For DACs where the interpolation mode may be bypassed (interpolation factor of one), the DAC should be considered as a conventional (non-interpolating) DAC.

b. For interpolating DACs (oversampling DACs), the ‘adjusted update rate’ is defined as the DAC update rate divided by the smallest interpolating factor. For interpolating DACs, the ‘adjusted update rate’ may be referred to by different terms including:

- input data rate
- input word rate
- input sample rate
- maximum total input bus rate
- maximum DAC clock rate for DAC clock input.

a.6. Electro-optical and “optical integrated circuits”, designed for “signal processing” and having all of the following:

a.6.a. One or more than one internal “laser” diode;

a.6.b. One or more than one internal light detecting element; *and*

a.6.c. Optical waveguides;

a.7. ‘Field programmable logic devices’ having any of the following:

a.7.a. A maximum number of single-ended digital input/outputs of greater than 700; *or*

a.7.b. An ‘aggregate one-way peak serial transceiver data rate’ of 500 Gb/s or greater;

**Note:** 3A001.a.7 includes:

-Complex Programmable Logic Devices (CPLDs);

-Field Programmable Gate Arrays (FPGAs);

-Field Programmable Logic Arrays (FPLAs);

-Field Programmable Interconnects (FPICs).

**N.B.:** For integrated circuits having field programmable logic devices that are combined with an analog-to-digital converter, see 3A001.a.14.

**Technical Notes:**

1. Maximum number of digital input/outputs in 3A001.a.7.a is also referred to as maximum user input/outputs or maximum available input/outputs, whether the integrated circuit is packaged or bare die.

2. ‘Aggregate one-way peak serial transceiver data rate’ is the product of the peak

*serial one-way transceiver data rate times the number of transceivers on the FPGA.*

a.8. [Reserved]

a.9. Neural network integrated circuits;

a.10. Custom integrated circuits for which the function is unknown, or the control status of the equipment in which the integrated circuits will be used is unknown to the manufacturer, having any of the following:

a.10.a. More than 1,500 terminals;

a.10.b. A typical “basic gate propagation delay time” of less than 0.02 ns; *or*

a.10.c. An operating frequency exceeding 3 GHz;

a.11. Digital integrated circuits, other than those described in 3A001.a.3 to 3A001.a.10 and 3A001.a.12, based upon any compound semiconductor and having any of the following:

a.11.a. An equivalent gate count of more than 3,000 (2 input gates); *or*

a.11.b. A toggle frequency exceeding 1.2 GHz;

a.12. Fast Fourier Transform (FFT) processors having a rated execution time for an N-point complex FFT of less than  $(N \log_2 N)/20,480$  ms, where N is the number of points;

**Technical Note:** When N is equal to 1,024 points, the formula in 3A001.a.12 gives an execution time of 500  $\mu$ s.

a.13. Direct Digital Synthesizer (DDS) integrated circuits having any of the following:

a.13.a. A Digital-to-Analog Converter (DAC) clock frequency of 3.5 GHz or more and a DAC resolution of 10 bit or more, but less than 12 bit; *or*

a.13.b. A DAC clock frequency of 1.25 GHz or more and a DAC resolution of 12 bit or more;

**Technical Note:** *The DAC clock frequency may be specified as the master clock frequency or the input clock frequency.*

a.14. Integrated circuits that perform or are programmable to perform all of the following:

a.14.a. Analog-to-digital conversions meeting any of the following:

a.14.a.1. A resolution of 8 bit or more, but less than 10 bit, with a “sample rate” greater than 1.3 Giga Samples Per Second (GSPS);

a.14.a.2. A resolution of 10 bit or more, but less than 12 bit, with a “sample rate” greater than 1.0 GSPS;

a.14.a.3. A resolution of 12 bit or more, but less than 14 bit, with a “sample rate” greater than 1.0 GSPS;

a.14.a.4. A resolution of 14 bit or more, but less than 16 bit, with a “sample rate” greater than 400 Mega Samples Per Second (MSPS); *or*

a.14.a.5. A resolution of 16 bit or more with a “sample rate” greater than 180 MSPS; *and*

a.14.b. Any of the following:

a.14.b.1. Storage of digitized data; *or*

a.14.b.2. Processing of digitized data;

**N.B. 1:** *For analog-to-digital converter integrated circuits see 3A001.a.5.a.*

**N.B. 2:** *For field programmable logic devices see 3A001.a.7.*

**Technical Notes:**

1. *A resolution of  $n$  bit corresponds to a quantization of  $2^n$  levels.*

2. *The resolution of the ADC is the number of bits of the digital output of the ADC that represents the measured analog input. Effective Number of Bits (ENOB) is not used to determine the resolution of the ADC.*

3. *For integrated circuits with non-interleaving “multiple channel ADCs”, the “sample rate” is not aggregated and the “sample rate” is the maximum rate of any single channel.*

4. *For integrated circuits with “interleaved ADCs” or with “multiple channel ADCs” that are specified to have an interleaved mode of operation, the “sample rates” are aggregated and the “sample rate” is the maximum combined total rate of all of the interleaved channels.*

b. Microwave or millimeter wave items, as follows:

**Technical Note:** *For purposes of 3A001.b, the parameter peak saturated power output may also be referred to on product data sheets as output power, saturated power output, maximum power output, peak power output, or peak envelope power output.*

b.1. “Vacuum electronic devices” and cathodes, as follows:

**Note 1:** *3A001.b.1 does not control “vacuum electronic devices” designed or rated for operation in any frequency band and having all of the following:*

*a. Does not exceed 31.8 GHz; and*

*b. Is “allocated by the ITU” for radio-communications services, but not for radio-determination.*

**Note 2:** 3A001.b.1 does not control non-“space-qualified” “vacuum electronic devices” having all the following:

a. An average output power equal to or less than 50 W; and

b. Designed or rated for operation in any frequency band and having all of the following:

1. Exceeds 31.8 GHz but does not exceed 43.5 GHz; and

2. Is “allocated by the ITU” for radio-communications services, but not for radio-determination.

b.1.a. Traveling-wave “vacuum electronic devices,” pulsed or continuous wave, as follows:

b.1.a.1. Devices operating at frequencies exceeding 31.8 GHz;

b.1.a.2. Devices having a cathode heater with a turn on time to rated RF power of less than 3 seconds;

b.1.a.3. Coupled cavity devices, or derivatives thereof, with a “fractional bandwidth” of more than 7% or a peak power exceeding 2.5 kW;

b.1.a.4. Devices based on helix, folded waveguide, or serpentine waveguide circuits, or derivatives thereof, having any of the following:

b.1.a.4.a. An “instantaneous bandwidth” of more than one octave, and average power (expressed in kW) times frequency (expressed in GHz) of more than 0.5;

b.1.a.4.b. An “instantaneous bandwidth” of one octave or less, and average power (expressed in kW) times frequency (expressed in GHz) of more than 1;

b.1.a.4.c. Being “space-qualified”; *or*

b.1.a.4.d. Having a gridded electron gun;

b.1.a.5. Devices with a “fractional bandwidth” greater than or equal to 10%, with any of the following:

b.1.a.5.a. An annular electron beam;

b.1.a.5.b. A non-axisymmetric electron beam; *or*

b.1.a.5.c. Multiple electron beams;

b.1.b. Crossed-field amplifier “vacuum electronic devices” with a gain of more than 17 dB;

b.1.c. Thermionic cathodes, designed for “vacuum electronic devices,” producing an emission current density at rated operating conditions exceeding 5 A/cm<sup>2</sup> or a pulsed (non-continuous) current density at rated operating conditions exceeding 10 A/cm<sup>2</sup>;

b.1.d. “Vacuum electronic devices” with the capability to operate in a ‘dual mode.’

**Technical Note:** ‘Dual mode’ means the “vacuum electronic device” beam current can be intentionally changed between continuous-wave and pulsed mode operation by use of a grid and produces a peak pulse output power greater than the continuous-wave output power.

b.2. “Monolithic Microwave Integrated Circuit” (“MMIC”) amplifiers that are any of the following:

**N.B.:** For “MMIC” amplifiers that have an integrated phase shifter see 3A001.b.12.

b.2.a. Rated for operation at frequencies exceeding 2.7 GHz up to and including 6.8 GHz with a “fractional bandwidth” greater than 15%, and having any of the following:

b.2.a.1. A peak saturated power output greater than 75 W (48.75 dBm) at any frequency exceeding 2.7 GHz up to and including 2.9 GHz;

b.2.a.2. A peak saturated power output greater than 55 W (47.4 dBm) at any frequency exceeding 2.9 GHz up to and including 3.2 GHz;

b.2.a.3. A peak saturated power output greater than 40 W (46 dBm) at any frequency exceeding 3.2 GHz up to and including 3.7 GHz;  
*or*

b.2.a.4. A peak saturated power output greater than 20 W (43 dBm) at any frequency exceeding 3.7 GHz up to and including 6.8 GHz;

b.2.b. Rated for operation at frequencies exceeding 6.8 GHz up to and including 16 GHz with a “fractional bandwidth” greater than 10%, and having any of the following:

b.2.b.1. A peak saturated power output greater than 10 W (40 dBm) at any frequency exceeding 6.8 GHz up to and including 8.5 GHz;  
*or*

b.2.b.2. A peak saturated power output greater than 5 W (37 dBm) at any frequency exceeding 8.5 GHz up to and including 16 GHz;

b.2.c. Rated for operation with a peak saturated power output greater than 3 W (34.77 dBm) at any frequency exceeding 16 GHz up to and including 31.8 GHz, and with a “fractional bandwidth” of greater than 10%;

b.2.d. Rated for operation with a peak saturated power output greater than 0.1 nW (-70 dBm) at any frequency exceeding 31.8 GHz up to and including 37 GHz;

b.2.e. Rated for operation with a peak saturated power output greater than 1 W (30 dBm) at any frequency exceeding 37 GHz up to and including 43.5 GHz, and with a “fractional bandwidth” of greater than 10%;

b.2.f. Rated for operation with a peak saturated power output greater than 31.62 mW (15 dBm) at any frequency exceeding 43.5 GHz up to and including 75 GHz, and with a “fractional bandwidth” of greater than 10%;

b.2.g. Rated for operation with a peak saturated power output greater than 10 mW (10 dBm) at any frequency exceeding 75 GHz up to and including 90 GHz, and with a “fractional bandwidth” of greater than 5%; *or*

b.2.h. Rated for operation with a peak saturated power output greater than 0.1 nW (-70 dBm) at any frequency exceeding 90 GHz;

**Note 1:** *[Reserved]*

**Note 2:** *The control status of the “MMIC” whose rated operating frequency includes frequencies listed in more than one frequency range, as defined by 3A001.b.2.a through 3A001.b.2.h, is determined by the lowest peak saturated power output control threshold.*

**Note 3:** *Notes 1 and 2 following the Category 3 heading for product group A. Systems, Equipment, and Components mean that 3A001.b.2 does not control “MMICs” if they are “specially designed” for other applications, e.g., telecommunications, radar, automobiles.*

b.3. Discrete microwave transistors that are any of the following:

b.3.a. Rated for operation at frequencies exceeding 2.7 GHz up to and including 6.8 GHz and having any of the following:

b.3.a.1. A peak saturated power output greater than 400 W (56 dBm) at any frequency exceeding 2.7 GHz up to and including 2.9 GHz;

b.3.a.2. A peak saturated power output greater than 205 W (53.12 dBm) at any frequency exceeding 2.9 GHz up to and including 3.2 GHz;

b.3.a.3. A peak saturated power output greater than 115 W (50.61 dBm ) at any frequency exceeding 3.2 GHz up to and including 3.7 GHz; *or*

b.3.a.4. A peak saturated power output greater than 60 W (47.78 dBm) at any frequency exceeding 3.7 GHz up to and including 6.8 GHz;

b.3.b. Rated for operation at frequencies exceeding 6.8 GHz up to and including 31.8 GHz and having any of the following:

b.3.b.1. A peak saturated power output greater than 50 W (47 dBm) at any frequency exceeding 6.8 GHz up to and including 8.5 GHz;

b.3.b.2. A peak saturated power output greater than 15 W (41.76 dBm) at any frequency exceeding 8.5 GHz up to and including 12 GHz;

b.3.b.3. A peak saturated power output greater than 40 W (46 dBm) at any frequency exceeding 12 GHz up to and including 16 GHz; *or*

b.3.b.4. A peak saturated power output greater than 7 W (38.45 dBm) at any frequency exceeding 16 GHz up to and including 31.8 GHz;

b.3.c. Rated for operation with a peak saturated power output greater than 0.5 W (27 dBm) at any frequency exceeding 31.8 GHz up to and including 37 GHz;

b.3.d. Rated for operation with a peak saturated power output greater than 1 W (30 dBm) at any frequency exceeding 37 GHz up to and including 43.5 GHz;

b.3.e. Rated for operation with a peak saturated power output greater than 0.1 nW (-70 dBm) at any frequency exceeding 43.5 GHz; *or*

b.3.f. Other than those specified by 3A001.b.3.a to 3A001.b.3.e and rated for operation with a peak saturated power output

greater than 5 W (37.0 dBm) at all frequencies exceeding 8.5 GHz up to and including 31.8 GHz;

**Note 1:** *The control status of a transistor in 3A001.b.3.a through 3A001.b.3.e, whose rated operating frequency includes frequencies listed in more than one frequency range, as defined by 3A001.b.3.a through 3A001.b.3.e, is determined by the lowest peak saturated power output control threshold.*

**Note 2:** *3A001.b.3 includes bare dice, dice mounted on carriers, or dice mounted in packages. Some discrete transistors may also be referred to as power amplifiers, but the status of these discrete transistors is determined by 3A001.b.3.*

b.4. Microwave solid state amplifiers and microwave assemblies/modules containing microwave solid state amplifiers, that are any of the following:

b.4.a. Rated for operation at frequencies exceeding 2.7 GHz up to and including 6.8 GHz with a “fractional bandwidth” greater than 15%, and having any of the following:

b.4.a.1. A peak saturated power output greater than 500 W (57 dBm) at any frequency exceeding 2.7 GHz up to and including 2.9 GHz;

b.4.a.2. A peak saturated power output greater than 270 W (54.3 dBm) at any frequency exceeding 2.9 GHz up to and including 3.2 GHz;

b.4.a.3. A peak saturated power output greater than 200 W (53 dBm) at any frequency exceeding 3.2 GHz up to and including 3.7 GHz; *or*

b.4.a.4. A peak saturated power output greater than 90 W (49.54 dBm) at any frequency exceeding 3.7 GHz up to and including 6.8 GHz;

b.4.b. Rated for operation at frequencies exceeding 6.8 GHz up to and including 31.8 GHz with a “fractional

bandwidth” greater than 10%, and having any of the following:

b.4.b.1. A peak saturated power output greater than 70 W (48.54 dBm) at any frequency exceeding 6.8 GHz up to and including 8.5 GHz;

b.4.b.2. A peak saturated power output greater than 50 W (47 dBm) at any frequency exceeding 8.5 GHz up to and including 12 GHz;

b.4.b.3. A peak saturated power output greater than 30 W (44.77 dBm) at any frequency exceeding 12 GHz up to and including 16 GHz;  
*or*

b.4.b.4. A peak saturated power output greater than 20 W (43 dBm) at any frequency exceeding 16 GHz up to and including 31.8 GHz;

b.4.c. Rated for operation with a peak saturated power output greater than 0.5 W (27 dBm) at any frequency exceeding 31.8 GHz up to and including 37 GHz;

b.4.d. Rated for operation with a peak saturated power output greater than 2 W (33 dBm) at any frequency exceeding 37 GHz up to and including 43.5 GHz, and with a “fractional bandwidth” of greater than 10%;

b.4.e. Rated for operation at frequencies exceeding 43.5 GHz and having any of the following:

b.4.e.1. A peak saturated power output greater than 0.2 W (23 dBm) at any frequency exceeding 43.5 GHz up to and including 75 GHz, and with a “fractional bandwidth” of greater than 10%;

b.4.e.2. A peak saturated power output greater than 20 mW (13 dBm) at any frequency exceeding 75 GHz up to and including 90 GHz, and with a “fractional bandwidth” of greater than 5%; *or*

b.4.e.3. A peak saturated power output greater than 0.1 nW (-70 dBm) at any frequency exceeding 90 GHz; *or*

b.4.f. [Reserved]

***N.B.:***

1. For “*MMIC*” *amplifiers* see 3A001.b.2.

2. For ‘*transmit/receive modules*’ and ‘*transmit modules*’ see 3A001.b.12.

3. For *converters and harmonic mixers, designed to extend the operating or frequency range of signal analyzers, signal generators, network analyzers or microwave test receivers, see 3A001.b.7.*

***Note 1:*** [Reserved]

***Note 2:*** *The control status of an item whose rated operating frequency includes frequencies listed in more than one frequency range, as defined by 3A001.b.4.a through 3A001.b.4.e, is determined by the lowest peak saturated power output control threshold.*

b.5. Electronically or magnetically tunable band-pass or band-stop filters, having more than 5 tunable resonators capable of tuning across a 1.5:1 frequency band ( $f_{\max}/f_{\min}$ ) in less than 10  $\mu$ s and having any of the following:

b.5.a. A band-pass bandwidth of more than 0.5% of center frequency; *or*

b.5.b. A band-stop bandwidth of less than 0.5% of center frequency;

b.6. [Reserved]

b.7. Converters and harmonic mixers, that are any of the following:

b.7.a. Designed to extend the frequency range of “*signal analyzers*” beyond 90 GHz;

b.7.b. Designed to extend the operating range of signal generators as follows:

b.7.b.1. Beyond 90 GHz;

b.7.b.2. To an output power greater than 100 mW (20 dBm) anywhere within the frequency range exceeding 43.5 GHz but not exceeding 90 GHz;

b.7.c. Designed to extend the operating range of network analyzers as follows:

b.7.c.1. Beyond 110 GHz;

b.7.c.2. To an output power greater than 31.62 mW (15 dBm) anywhere within the frequency range exceeding 43.5 GHz but not exceeding 90 GHz;

b.7.c.3. To an output power greater than 1 mW (0 dBm) anywhere within the frequency range exceeding 90 GHz but not exceeding 110 GHz; *or*

b.7.d. Designed to extend the frequency range of microwave test receivers beyond 110 GHz;

b.8. Microwave power amplifiers containing “vacuum electronic devices” controlled by 3A001.b.1 and having all of the following:

b.8.a. Operating frequencies above 3 GHz;

b.8.b. An average output power to mass ratio exceeding 80 W/kg; *and*

b.8.c. A volume of less than 400 cm<sup>3</sup>;

**Note:** 3A001.b.8 does not control equipment designed or rated for operation in any frequency band which is “allocated by the ITU” for radio-communications services, but not for radio-determination.

b.9. Microwave Power Modules (MPM) consisting of, at least, a traveling-wave “vacuum

electronic device,” a “Monolithic Microwave Integrated Circuit” (“MMIC”) and an integrated electronic power conditioner and having all of the following:

b.9.a. A ‘turn-on time’ from off to fully operational in less than 10 seconds;

b.9.b. A volume less than the maximum rated power in Watts multiplied by 10 cm<sup>3</sup>/W; *and*

b.9.c. An “instantaneous bandwidth” greater than 1 octave ( $f_{\max} > 2f_{\min}$ ) and having any of the following:

b.9.c.1. For frequencies equal to or less than 18 GHz, an RF output power greater than 100 W; *or*

b.9.c.2. A frequency greater than 18 GHz;

**Technical Notes:**

1. To calculate the volume in 3A001.b.9.b, the following example is provided: for a maximum rated power of 20 W, the volume would be:  $20\text{ W} \times 10\text{ cm}^3/\text{W} = 200\text{ cm}^3$ .

2. The ‘turn-on time’ in 3A001.b.9.a refers to the time from fully-off to fully operational, i.e., it includes the warm-up time of the MPM.

b.10. Oscillators or oscillator assemblies, specified to operate with a single sideband (SSB) phase noise, in dBc/Hz, less (better) than  $-(126 + 20\log_{10}F - 20\log_{10}f)$  anywhere within the range of  $10\text{ Hz} \leq F \leq 10\text{ kHz}$ ;

**Technical Note:** In 3A001.b.10,  $F$  is the offset from the operating frequency in Hz and  $f$  is the operating frequency in MHz.

b.11. ‘Frequency synthesizer’ “electronic assemblies” having a “frequency switching time” as specified by any of the following:

b.11.a. Less than 143 ps;

b.11.b. Less than 100  $\mu\text{s}$  for any frequency change exceeding 2.2 GHz within the synthesized frequency range exceeding 4.8 GHz but not exceeding 31.8 GHz;

b.11.c. [Reserved]

b.11.d. Less than 500  $\mu\text{s}$  for any frequency change exceeding 550 MHz within the synthesized frequency range exceeding 31.8 GHz but not exceeding 37 GHz;

b.11.e. Less than 100  $\mu\text{s}$  for any frequency change exceeding 2.2 GHz within the synthesized frequency range exceeding 37 GHz but not exceeding 90 GHz; *or*

b.11.f. [Reserved]

b.11.g. Less than 1 ms within the synthesized frequency range exceeding 90 GHz;

**Technical Note:** A ‘frequency synthesizer’ is any kind of frequency source, regardless of the actual technique used, providing a multiplicity of simultaneous or alternative output frequencies, from one or more outputs, controlled by, derived from or disciplined by a lesser number of standard (or master) frequencies.

**N.B.:** For general purpose “signal analyzers”, signal generators, network analyzers and microwave test receivers, see 3A002.c, 3A002.d, 3A002.e and 3A002.f, respectively.

b.12. ‘Transmit/receive modules,’ ‘transmit/receive MMICs,’ ‘transmit modules,’ and ‘transmit MMICs,’ rated for operation at frequencies above 2.7 GHz and having all of the following:

b.12.a. A peak saturated power output (in watts),  $P_{\text{sat}}$ , greater than 505.62 divided by the maximum operating frequency (in GHz) squared [ $P_{\text{sat}} > 505.62 \text{ W} \cdot \text{GHz}^2 / f_{\text{GHz}}^2$ ] for any channel;

b.12.b. A “fractional bandwidth” of 5% or greater for any channel;

b.12.c. Any planar side with length  $d$  (in cm) equal to or less than 15 divided by the lowest operating frequency in GHz [ $d \leq 15 \text{ cm} \cdot \text{GHz} \cdot N / f_{\text{GHz}}$ ] where  $N$  is the number of transmit or transmit/receive channels; *and*

b.12.d. An electronically variable phase shifter per channel.

**Technical Notes:**

1. A ‘transmit/receive module’ is a multifunction “electronic assembly” that provides bi-directional amplitude and phase control for transmission and reception of signals.

2. A ‘transmit module’ is an “electronic assembly” that provides amplitude and phase control for transmission of signals.

3. A ‘transmit/receive MMIC’ is a multifunction “MMIC” that provides bi-directional amplitude and phase control for transmission and reception of signals.

4. A ‘transmit MMIC’ is a “MMIC” that provides amplitude and phase control for transmission of signals.

5. 2.7 GHz should be used as the lowest operating frequency ( $f_{\text{GHz}}$ ) in the formula in 3A001.b.12.c for transmit/receive or transmit modules that have a rated operation range extending downward to 2.7 GHz and below [ $d \leq 15 \text{ cm} \cdot \text{GHz} \cdot N / 2.7 \text{ GHz}$ ].

6. 3A001.b.12 applies to ‘transmit/receive modules’ or ‘transmit modules’ with or without a heat sink. The value of  $d$  in 3A001.b.12.c does not include any portion of the ‘transmit/receive module’ or ‘transmit module’ that functions as a heat sink.

7. ‘Transmit/receive modules’ or ‘transmit modules,’ ‘transmit/receive MMICs’ or ‘transmit MMICs’ may or may not have  $N$  integrated

*radiating antenna elements where N is the number of transmit or transmit/receive channels.*

c. Acoustic wave devices as follows and “specially designed” “components” therefor:

c.1. Surface acoustic wave and surface skimming (shallow bulk) acoustic wave devices, having any of the following:

c.1.a. A carrier frequency exceeding 6 GHz;

c.1.b. A carrier frequency exceeding 1 GHz, but not exceeding 6 GHz and having any of the following:

c.1.b.1. A ‘frequency side-lobe rejection’ exceeding 65 dB;

c.1.b.2. A product of the maximum delay time and the bandwidth (time in  $\mu\text{s}$  and bandwidth in MHz) of more than 100;

c.1.b.3. A bandwidth greater than 250 MHz;  
*or*

c.1.b.4. A dispersive delay of more than 10  $\mu\text{s}$ ; *or*

c.1.c. A carrier frequency of 1 GHz or less and having any of the following:

c.1.c.1. A product of the maximum delay time and the bandwidth (time in  $\mu\text{s}$  and bandwidth in MHz) of more than 100;

c.1.c.2. A dispersive delay of more than 10  $\mu\text{s}$ ; *or*

c.1.c.3. A ‘frequency side-lobe rejection’ exceeding 65 dB and a bandwidth greater than 100 MHz;

**Technical Note:** *‘Frequency side-lobe rejection’ is the maximum rejection value specified in data sheet.*

c.2. Bulk (volume) acoustic wave devices that permit the direct processing of signals at frequencies exceeding 6 GHz;

c.3. Acoustic-optic “signal processing” devices employing interaction between acoustic waves (bulk wave or surface wave) and light waves that permit the direct processing of signals or images, including spectral analysis, correlation or convolution;

**Note:** *3A001.c does not control acoustic wave devices that are limited to a single band pass, low pass, high pass or notch filtering, or resonating function.*

d. Electronic devices and circuits containing “components,” manufactured from “superconductive” materials, “specially designed” for operation at temperatures below the “critical temperature” of at least one of the “superconductive” constituents and having any of the following:

d.1. Current switching for digital circuits using “superconductive” gates with a product of delay time per gate (in seconds) and power dissipation per gate (in watts) of less than  $10^{-14}$  J; *or*

d.2. Frequency selection at all frequencies using resonant circuits with Q-values exceeding 10,000;

e. High energy devices as follows:

e.1. ‘Cells’ as follows:

e.1.a ‘Primary cells’ having any of the following at 20°C:

e.1.a.1. ‘Energy density’ exceeding 550 Wh/kg and a ‘continuous power density’ exceeding 50 W/kg; *or*

e.1.a.2. ‘Energy density’ exceeding 50 Wh/kg and a ‘continuous power density’ exceeding 350 W/kg;

e.1.b. ‘Secondary cells’ having an ‘energy density’ exceeding 350 Wh/kg at 20°C;

**Technical Notes:**

1. For the purpose of 3A001.e.1, ‘energy density’ (Wh/kg) is calculated from the nominal voltage multiplied by the nominal capacity in ampere-hours (Ah) divided by the mass in kilograms. If the nominal capacity is not stated, energy density is calculated from the nominal voltage squared then multiplied by the discharge duration in hours divided by the discharge load in Ohms and the mass in kilograms.

2. For the purpose of 3A001.e.1, a ‘cell’ is defined as an electrochemical device, which has positive and negative electrodes, an electrolyte, and is a source of electrical energy. It is the basic building block of a battery.

3. For the purpose of 3A001.e.1.a, a ‘primary cell’ is a ‘cell’ that is not designed to be charged by any other source.

4. For the purpose of 3A001.e.1.b, a ‘secondary cell’ is a ‘cell’ that is designed to be charged by an external electrical source.

5. For the purpose of 3A001.e.1.a, ‘continuous power density’ (W/kg) is calculated from the nominal voltage multiplied by the specified maximum continuous discharge current in ampere (A) divided by the mass in kilograms. ‘Continuous power density’ is also referred to as specific power.

**Note:** 3A001.e does not control batteries, including single-cell batteries.

e.2. High energy storage capacitors as follows:

e.2.a. Capacitors with a repetition rate of less than 10 Hz (single shot capacitors) and having all of the following:

e.2.a.1. A voltage rating equal to or more than 5 kV;

e.2.a.2. An energy density equal to or more than 250 J/kg; and

e.2.a.3. A total energy equal to or more than 25 kJ;

e.2.b. Capacitors with a repetition rate of 10 Hz or more (repetition rated capacitors) and having all of the following:

e.2.b.1. A voltage rating equal to or more than 5 kV;

e.2.b.2. An energy density equal to or more than 50 J/kg;

e.2.b.3. A total energy equal to or more than 100 J; and

e.2.b.4. A charge/discharge cycle life equal to or more than 10,000;

e.3. “Superconductive” electromagnets and solenoids, “specially designed” to be fully charged or discharged in less than one second and having all of the following:

**Note:** 3A001.e.3 does not control “superconductive” electromagnets or solenoids “specially designed” for Magnetic Resonance Imaging (MRI) medical equipment.

e.3.a. Energy delivered during the discharge exceeding 10 kJ in the first second;

e.3.b. Inner diameter of the current carrying windings of more than 250 mm; and

e.3.c. Rated for a magnetic induction of more than 8 T or “overall current density” in the winding of more than 300 A/mm<sup>2</sup>;

**e.4. Solar cells, cell-interconnect-coverglass (CIC) assemblies, solar panels, and solar arrays, which are “space-qualified,” having a minimum average efficiency exceeding 20% at an operating temperature of 301 K (28°C) under simulated**

'AMO' illumination with an irradiance of 1,367 Watts per square meter ( $W/m^2$ );

**Technical Note:** 'AMO', or 'Air Mass Zero', refers to the spectral irradiance of sun light in the earth's outer atmosphere when the distance between the earth and sun is one astronomical unit (AU).

f. Rotary input type absolute position encoders having an "accuracy" equal to or less (better) than 1.0 second of arc and "specially designed" encoder rings, discs or scales therefor;

g. Solid-state pulsed power switching thyristor devices and 'thyristor modules', using either electrically, optically, or electron radiation controlled switch methods and having any of the following:

g.1. A maximum turn-on current rate of rise ( $di/dt$ ) greater than 30,000 A/ $\mu s$  and off-state voltage greater than 1,100 V; *or*

g.2. A maximum turn-on current rate of rise ( $di/dt$ ) greater than 2,000 A/ $\mu s$  and having all of the following:

g.2.a. An off-state peak voltage equal to or greater than 3,000 V; *and*

g.2.b. A peak (surge) current equal to or greater than 3,000 A;

**Note 1:** 3A001.g. includes:

- Silicon Controlled Rectifiers (SCRs)
- Electrical Triggering Thyristors (ETTs)
- Light Triggering Thyristors (LTTs)
- Integrated Gate Commutated Thyristors (IGCTs)
- Gate Turn-off Thyristors (GTOs)
- MOS Controlled Thyristors (MCTs)

Note: See definition of "AMO".

- Solidtrons

**Note 2:** 3A001.g does not control thyristor devices and 'thyristor modules' incorporated into equipment designed for civil railway or "civil aircraft" applications.

**Technical Note:** For the purposes of 3A001.g, a 'thyristor module' contains one or more thyristor devices.

h. Solid-state power semiconductor switches, diodes, or 'modules', having all of the following:

h.1. Rated for a maximum operating junction temperature greater than 488 K (215°C);

h.2. Repetitive peak off-state voltage (blocking voltage) exceeding 300 V; *and*

h.3. Continuous current greater than 1 A.

**Technical Note:** For the purposes of 3A001.h, 'modules' contain one or more solid-state power semiconductor switches or diodes.

**Note 1:** Repetitive peak off-state voltage in 3A001.h includes drain to source voltage, collector to emitter voltage, repetitive peak reverse voltage and peak repetitive off-state blocking voltage.

**Note 2:** 3A001.h includes:

- Junction Field Effect Transistors (JFETs)
- Vertical Junction Field Effect Transistors (VJFETs)
- Metal Oxide Semiconductor Field Effect Transistors (MOSFETs)
- Double Diffused Metal Oxide Semiconductor Field Effect Transistor (DMOSFET)
- Insulated Gate Bipolar Transistor (IGBT)

- High Electron Mobility Transistors (HEMTs)
- Bipolar Junction Transistors (BJTs)
- Thyristors and Silicon Controlled Rectifiers (SCRs)
- Gate Turn-Off Thyristors (GTOs)
- Emitter Turn-Off Thyristors (ETOs)
- PiN Diodes
- Schottky Diodes

**Note 3:** 3A001.h does not apply to switches, diodes, or ‘modules’, incorporated into equipment designed for civil automobile, civil railway, or “civil aircraft” applications.

i. Intensity, amplitude, or phase electro-optic modulators, designed for analog signals and having any of the following:

i.1. A maximum operating frequency of more than 10 GHz but less than 20 GHz, an optical insertion loss equal to or less than 3 dB and having any of the following:

i.1.a. A ‘half-wave voltage’ ( $V\pi$ ) less than 2.7 V when measured at a frequency of 1 GHz or below; or

i.1.b. A  $V\pi$  of less than 4 V when measured at a frequency of more than 1 GHz; or

i.2. A maximum operating frequency equal to or greater than 20 GHz, an optical insertion loss equal to or less than 3 dB and having any of the following:

i.2.a. A  $V\pi$  less than 3.3 V when measured at a frequency of 1 GHz or below; or

i.2.b. A  $V\pi$  less than 5 V when measured at a frequency of more than 1 GHz.

**Note:** 3A001.i includes electro-optic modulators having optical input and output connectors (e.g., fiber-optic pigtails).

**Technical Note:** For the purposes of 3A001.i, a ‘half-wave voltage’ ( $V\pi$ ) is the applied voltage necessary to make a phase change of 180 degrees in the wavelength of light propagating through the optical modulator.

**\*\*3A002** General purpose “electronic assemblies,” modules and equipment, as follows (see List of Items Controlled).

**License Requirements**

**Reason for Control:** NS, MT, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 2
MT applies to 3A002.h when the parameters in 3A101.a.2.b are met or exceeded	MT Column 1
AT applies to entire entry	AT Column 1

**Reporting Requirements:** See §743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

- LVS: \$3000: 3A002.a, .e, .f, and .g  
\$5000: 3A002.c to .d, and .h (unless controlled for MT);
- GBS: Yes, for 3A002.h (unless controlled for MT)

**Special Conditions for STA**

STA: License Exception STA may not be used to ship any item in 3A002.g.1 to any of the destinations listed in Country

Group A:6 (See Supplement No.1 to part 740 of the EAR).

### List of Items Controlled

*Related Controls:* See Category XV(e)(9) of the USML for certain “space-qualified” atomic frequency standards “subject to the ITAR” (see 22 CFR parts 120 through 130). See also [3A101](#), [3A992](#) and 9A515.x.

*Related Definitions:* Constant percentage bandwidth filters are also known as octave or fractional octave filters.

*Items:*

a. Recording equipment and oscilloscopes, as follows:

a.1. to a.5. [Reserved]

**N.B.:** For waveform digitizers and transient recorders, see 3A002.h.

a.6. Digital data recorders having all of the following:

a.6.a. A sustained ‘continuous throughput’ of more than 6.4 Gbit/s to disk or solid-state drive memory; *and*

a.6.b. “Signal processing” of the radio frequency signal data while it is being recorded;

#### **Technical Notes:**

1. For recorders with a parallel bus architecture, the ‘continuous throughput’ rate is the highest word rate multiplied by the number of bits in a word.

2. ‘Continuous throughput’ is the fastest data rate the instrument can record to disk or solid-state drive memory without the loss of any information while sustaining the input digital data rate or digitizer conversion rate.

a.7. Real-time oscilloscopes having a vertical root-mean-square (rms) noise voltage of less than 2% of full-scale at the vertical scale setting that provides the lowest noise value for any input 3dB bandwidth of 60 GHz or greater per channel;

*Note:* 3A002.a.7 does not apply to equivalent-time sampling oscilloscopes.

b. [Reserved]

c. “Signal analyzers” as follows:

c.1. “Signal analyzers” having a 3 dB resolution bandwidth (RBW) exceeding 40 MHz anywhere within the frequency range exceeding 31.8 GHz but not exceeding 37 GHz;

c.2. “Signal analyzers” having Displayed Average Noise Level (DANL) less (better) than -150 dBm/Hz anywhere within the frequency range exceeding 43.5 GHz but not exceeding 90 GHz;

c.3. “Signal analyzers” having a frequency exceeding 90 GHz;

c.4. “Signal analyzers” having all of the following:

c.4.a. ‘Real-time bandwidth’ exceeding 170 MHz; *and*

c.4.b. Having any of the following:

c.4.b.1. 100% probability of discovery, with less than a 3 dB reduction from full amplitude due to gaps or windowing effects, of signals having a duration of 15 μs or less; *or*

c.4.b.2. A ‘frequency mask trigger’ function, with 100% probability of trigger (capture) for signals having a duration of 15 μs or less;

#### **Technical Notes:**

1. ‘Real-time bandwidth’ is the widest

*frequency range for which the analyzer can continuously transform time-domain data entirely into frequency-domain results, using a Fourier or other discrete time transform that processes every incoming time point, without a reduction of measured amplitude of more than 3 dB below the actual signal amplitude caused by gaps or windowing effects, while outputting or displaying the transformed data.*

*2. Probability of discovery in 3A002.c.4.b.1 is also referred to as probability of intercept or probability of capture.*

*3. For the purposes of 3A002.c.4.b.1, the duration for 100% probability of discovery is equivalent to the minimum signal duration necessary for the specified level measurement uncertainty.*

*4. A 'frequency mask trigger' is a mechanism where the trigger function is able to select a frequency range to be triggered on as a subset of the acquisition bandwidth while ignoring other signals that may also be present within the same acquisition bandwidth. A 'frequency mask trigger' may contain more than one independent set of limits.*

*Note: 3A002.c.4 does not apply to those "signal analyzers" using only constant percentage bandwidth filters (also known as octave or fractional octave filters).*

c.5. [Reserved]

d. Signal generators having any of the following:

d.1. Specified to generate pulse-modulated signals having all of the following, anywhere within the frequency range exceeding 31.8 GHz but not exceeding 37 GHz:

d.1.a. 'Pulse duration' of less than 25 ns;  
and

d.1.b. On/off ratio equal to or exceeding 65 dB;

d.2. An output power exceeding 100 mW (20 dBm) anywhere within the frequency range exceeding 43.5 GHz but not exceeding 90 GHz;

d.3. A "frequency switching time" as specified by any of the following:

d.3.a. [Reserved]

d.3.b. Less than 100  $\mu$ s for any frequency change exceeding 2.2 GHz within the frequency range exceeding 4.8 GHz but not exceeding 31.8 GHz;

d.3.c. [Reserved]

d.3.d. Less than 500  $\mu$ s for any frequency change exceeding 550 MHz within the frequency range exceeding 31.8 GHz but not exceeding 37 GHz; or

d.3.e. Less than 100  $\mu$ s for any frequency change exceeding 2.2 GHz within the frequency range exceeding 37 GHz but not exceeding 90 GHz;

d.3.f. [Reserved]

d.4. Single sideband (SSB) phase noise, in dBc/Hz, specified as being any of the following:

d.4.a. Less (better) than  $-(126 + 20 \log_{10} F - 20 \log_{10} f)$  for anywhere within the range of 10 Hz  $\leq F \leq$  10 kHz anywhere within the frequency range exceeding 3.2 GHz but not exceeding 90 GHz; or

d.4.b. Less (better) than  $-(206 - 20 \log_{10} f)$  for anywhere within the range of 10 kHz  $< F \leq$  100 kHz anywhere within the frequency range exceeding 3.2 GHz but not exceeding 90 GHz;

**Technical Note:** In 3A002.d.4,  $F$  is the offset from the operating frequency in Hz and  $f$  is the operating frequency in MHz.

d.5. An 'RF modulation bandwidth' of digital

baseband signals as specified by any of the following:

d.5.a. Exceeding 2.2 GHz within the frequency range exceeding 4.8 GHz but not exceeding 31.8 GHz;

d.5.b. Exceeding 550 MHz within the frequency range exceeding 31.8 GHz but not exceeding 37 GHz; *or*

d.5.c. Exceeding 2.2 GHz within the frequency range exceeding 37 GHz but not exceeding 90 GHz; *or*

**Technical Note:** ‘RF modulation bandwidth’ is the Radio Frequency (RF) bandwidth occupied by a digitally encoded baseband signal modulated onto an RF signal. It is also referred to as information bandwidth or vector modulation bandwidth. I/Q digital modulation is the technical method for producing a vector-modulated RF output signal, and that output signal is typically specified as having an ‘RF modulation bandwidth’.

d.6. A maximum frequency exceeding 90 GHz;

**Note 1:** For the purpose of 3A002.d, signal generators include arbitrary waveform and function generators.

**Note 2:** 3A002.d does not control equipment in which the output frequency is either produced by the addition or subtraction of two or more crystal oscillator frequencies, or by an addition or subtraction followed by a multiplication of the result.

**Technical Notes:**

1. The maximum frequency of an arbitrary waveform or function generator is calculated by dividing the sample rate, in samples/second, by a factor of 2.5.

2. For the purposes of 3A002.d.1.a, ‘pulse duration’ is defined as the time interval from the

point on the leading edge that is 50% of the pulse amplitude to the point on the trailing edge that is 50% of the pulse amplitude.

e. Network analyzers having any of the following:

e.1. An output power exceeding 31.62 mW (15 dBm) anywhere within the operating frequency range exceeding 43.5 GHz but not exceeding 90 GHz;

e.2. An output power exceeding 1 mW (0 dBm) anywhere within the operating frequency range exceeding 90 GHz but not exceeding 110 GHz;

e.3. ‘Nonlinear vector measurement functionality’ at frequencies exceeding 50 GHz but not exceeding 110 GHz; *or*

**Technical Note:** ‘Nonlinear vector measurement functionality’ is an instrument’s ability to analyze the test results of devices driven into the large-signal domain or the non-linear distortion range.

e.4. A maximum operating frequency exceeding 110 GHz;

f. Microwave test receivers having all of the following:

f.1. Maximum operating frequency exceeding 110 GHz; *and*

f.2. Being capable of measuring amplitude and phase simultaneously;

g. Atomic frequency standards being any of the following:

g.1. “Space-qualified”;

g.2. Non-rubidium and having a long-term stability less (better) than  $1 \times 10^{-11}$ /month; *or*

g.3. Non-”space-qualified” and having all of the following:

g.3.a. Being a rubidium standard;

g.3.b. Long-term stability less (better) than  $1 \times 10^{-11}$ /month; and

g.3.c. Total power consumption of less than 1 Watt.

h. “Electronic assemblies,” modules or equipment, specified to perform all of the following:

h.1. Analog-to-digital conversions meeting any of the following:

h.1.a. A resolution of 8 bit or more, but less than 10 bit, with a “sample rate” greater than 1.3 Giga Samples Per Second (GSPS);

h.1.b. A resolution of 10 bit or more, but less than 12 bit, with a “sample rate” greater than 1.0 GSPS;

h.1.c. A resolution of 12 bit or more, but less than 14 bit, with a “sample rate” greater than 1.0 GSPS;

h.1.d. A resolution of 14 bit or more but less than 16 bit, with a “sample rate” greater than 400 Mega Samples Per Second (MSPS); or

h.1.e. A resolution of 16 bit or more with a “sample rate” greater than 180 MSPS; and

h.2. Any of the following:

h.2.a. Output of digitized data;

h.2.b. Storage of digitized data; or

h.2.c. Processing of digitized data;

*N.B.:* Digital data recorders, oscilloscopes, “signal analyzers,” signal generators, network analyzers and microwave test receivers, are specified by 3A002.a.6, 3A002.a.7, 3A002.c, 3A002.d, 3A002.e and 3A002.f, respectively.

**Technical Notes:**

1. A resolution of  $n$  bit corresponds to a quantization of  $2^n$  levels.

2. The resolution of the ADC is the number of bits in of the digital output of the ADC that represents the measured analog input word. Effective Number of Bits (ENOB) is not used to determine the resolution of the ADC.

3. For non-interleaved multiple-channel “electronic assemblies”, modules, or equipment, the “sample rate” is not aggregated and the “sample rate” is the maximum rate of any single channel.

4. For interleaved channels on multiple-channel “electronic assemblies”, modules, or equipment, the “sample rates” are aggregated and the “sample rate” is the maximum combined total rate of all the interleaved channels.

**Note:** 3A002.h includes ADC cards, waveform digitizers, data acquisition cards, signal acquisition boards and transient recorders.

**\*\*3A003** Spray cooling thermal management systems employing closed loop fluid handling and reconditioning equipment in a sealed enclosure where a dielectric fluid is sprayed onto electronic “components” using “specially designed” spray nozzles that are designed to maintain electronic “components” within their operating temperature range, and “specially designed” “components” therefor.

**License Requirements**

Reason for Control: NS, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to entire	NS Column 2

entry	
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
 GBS: N/A

**List of Items Controlled**

Related Controls: N/A  
 Related Definitions: N/A  
 Items:

The list of items controlled is contained in the ECCN heading.

**\*\*3A101** Electronic equipment, devices, “parts” and “components,” other than those controlled by 3A001, as follows (see List of Items Controlled).

**License Requirements**

Reason for Control: MT, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
 GBS: N/A

**List of Items Controlled**

Related Controls: See also ECCN 3A002.h for controls on analog-to-digital “electronic

assemblies,” modules or equipment.

Related Definitions: N/A  
 Items:

a. Analog-to-digital converters usable in “missiles,” and having any of the following characteristics:

a.1. “Specially designed” to meet military specifications for ruggedized equipment;

a.2. “Specially designed” for military use and being any of the following types:

a.2.a. Analog-to-digital converter microcircuits which are radiation-hardened or have all of the following characteristics:

a.2.a.1. Rated for operation in the temperature range from below -54°C to above +125°C; and

a.2.a.2. Hermetically sealed; or

a.2.b. Electrical input type analog-to-digital converter printed circuit boards or modules, having all of the following characteristics:

a.2.b.1. Rated for operation in the temperature range from below -45°C to above +80°C; and

a.2.b.2. Incorporating microcircuits identified in 3A101.a.2 .a;

b. Accelerators capable of delivering electromagnetic radiation produced by bremsstrahlung from accelerated electrons of 2 MeV or greater, and systems containing those accelerators, usable for the “missiles” or the subsystems of “missiles”.

*Note:* 3A101.b above does not include equipment “specially designed” for medical purposes.

**\*\*3A201** Electronic “parts” and “components,” other than those controlled by 3A001, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCNs [3E001](#) (“development” and “production”) and [3E201](#) (“use”) for technology for items controlled under this entry. (2) Also see [3A001.e.2](#) (capacitors) and [3A001.e.3](#) (superconducting electromagnets). (3) Superconducting electromagnets “specially designed” or prepared for use in separating uranium isotopes are subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

*Related Definitions:* N/A

*Items:*

a. Pulse discharge capacitors having either of the following sets of characteristics:

a.1. Voltage rating greater than 1.4 kV, energy storage greater than 10 J, capacitance greater than 0.5 μF, and series inductance less than 50 nH; *or*

a.2. Voltage rating greater than 750 V, capacitance greater than 0.25 μF, and series inductance less than 10 nH;

b. Superconducting solenoidal electromagnets having all of the following characteristics:

b.1. Capable of creating magnetic fields greater than 2 T;

b.2. A ratio of length to inner diameter greater than 2;

b.3. Inner diameter greater than 300 mm; *and*

b.4. Magnetic field uniform to better than 1% over the central 50% of the inner volume;

*Note:* 3A201.b does not control magnets “specially designed” for and exported “as parts of” medical nuclear magnetic resonance (NMR) imaging systems. The phrase “as part of” does not necessarily mean physical part in the same shipment; separate shipments from different sources are allowed, provided the related export documents clearly specify that the shipments are dispatched “as part of” the imaging systems.

c. Flash X-ray generators or pulsed electron accelerators having either of the following sets of characteristics:

c.1. An accelerator peak electron energy of 500 keV or greater, but less than 25 MeV, and with a “figure of merit” (K) of 0.25 or greater; *or*

c.2. An accelerator peak electron energy of 25 MeV or greater, and a “peak power” greater than 50 MW;

*Note:* 3A201.c does not control accelerators that are “parts” or “components” of devices designed for purposes other than electron beam or X-ray radiation (electron microscopy, for example) nor those designed for medical purposes.

**Technical Notes:**

1. The “figure of merit” K is defined as:  $K = 1.7 \times 10^3 V^{2.65} Q$ . V is the peak electron energy in

million electron volts. If the accelerator beam pulse duration is less than or equal to 1  $\mu$ s, then  $Q$  is the total accelerated charge in Coulombs. If the accelerator beam pulse duration is greater than 1  $\mu$ s, then  $Q$  is the maximum accelerated charge in 1  $\mu$ s.  $Q$  equals the intergral of  $i$  with respect to  $t$ , over the lesser of 1  $\mu$ s or the time duration of the beam pulse ( $Q = \int i dt$ ), where  $i$  is beam current in amperes and  $t$  is time in seconds.

2. "Peak power" = (peak potential in volts)  $\times$  (peak beam current in amperes).

3. In machines based on microwave accelerating cavities, the time duration of the beam pulse is the lesser of 1  $\mu$ s or the duration of the bunched beam packet resulting from one microwave modulator pulse.

4. In machines based on microwave accelerating cavities, the peak beam current is the average current in the time duration of a bunched beam packet.

**\*\*3A225** Frequency changers (a.k.a. converters or inverters) and generators, except those subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110), that are usable as a variable frequency or fixed frequency motor drive and have all of the characteristics described in this ECCN (see List of Items Controlled).

**License Requirements**

Reason for Control: NP, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
GBS: N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCN 3D201 for "software" "specially designed" for the "use" of equipment described in this entry. (2) See ECCN 3D202 for "software" "specially designed" to enhance or release the performance characteristics of frequency changers or generators to meet or exceed the level of the performance characteristics described in this entry. (3) See ECCNs [3E001](#) ("development" and "production") and [3E201](#) ("use") for technology for items controlled under this entry. (4) Frequency changers (a.k.a. converters or inverters) "specially designed" or prepared for use in separating uranium isotopes are subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

*Related Definitions:* N/A

*Items:*

- a. Multiphase output providing a power of 40 VA or greater;
- b. Operating at a frequency of 600 Hz or more; *and*
- c. Frequency control better (less) than 0.2%.

*Notes:*

1. This ECCN controls frequency changers intended for use in specific industrial machinery and/or consumer goods (machine tools, vehicles, etc.) only if the frequency changers can meet the performance characteristics described in this entry when removed from the machinery and/or goods. This Note does not exclude from control under this entry any frequency changer described herein that is the principal element of a non-controlled item and can feasibly be removed or used for other purposes.

2. To determine whether a particular frequency

*changer meets or exceeds the performance characteristics described in this entry, both hardware and “software” performance constraints must be considered.*

**Technical Notes:**

1. *Frequency changers controlled by this ECCN are also known as converters or inverters.*

2. *The performance characteristics described in this ECCN also may be met by certain equipment marketed as: generators, electronic test equipment, AC power supplies, variable speed motor drives, variable speed drives (VSDs), variable frequency drives (VFDs), adjustable frequency drives (AFDs), or adjustable speed drives (ASDs).*

**\*\*3A226** High-power direct current power supplies having both of the following characteristics (see List of Items Controlled) , excluding items that are subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCNs [3E001](#)

(“development” and “production”) and [3E201](#) (“use”) for technology for items controlled under this entry. (2) Also see ECCN [3A227](#). (3) Direct current power supplies “specially designed” or prepared for use in separating uranium isotopes are subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

*Related Definitions:* N/A

*Items:*

- a. Capable of continuously producing, over a time period of 8 hours, 100 V or greater with current output of 500 A or greater; *and*
- b. Current or voltage stability better than 0.1% over a time period of 8 hours.

**\*\*3A227** High-voltage direct current power supplies, having both of the following characteristics (see List of Items Controlled) , excluding items that are subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCNs [3E001](#)

(“development” and “production”) and [3E201](#) (“use”) for technology for items controlled under this entry. (2) Also see ECCN [3A226](#). (3) Direct current power supplies “specially designed” or prepared for use in separating uranium isotopes are subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

*Related Definitions:* N/A

*Items:*

- a. Capable of continuously producing, over a time period of 8 hours, 20 kV or greater with current output of 1 A or greater; *and*
- b. Current or voltage stability better than 0.1% over a time period of 8 hours.

**\*\*3A228** Switching devices, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCNs [3E001](#) (“development” and “production”) and [3E201](#) (“use”) for technology for items controlled under this entry. (2) Also see ECCN [3A991.k](#).

*Related Definitions:* N/A

*Items:*

a. Cold-cathode tubes, whether gas filled or not, operating similarly to a spark gap, having all of the following characteristics:

- a.1. Containing three or more electrodes;
- a.2. Anode peak voltage rating of 2.5 kV or more;
- a.3. Anode peak current rating of 100 A or more; *and*
- a.4. Anode delay time of 10 μs or less.

**Technical Note:** 3A228.a includes gas krytron tubes and vacuum sprayon tubes.

b. Triggered spark-gaps having both of the following characteristics:

- b.1. An anode delay time of 15μs or less; *and*
- b.2. Rated for a peak current of 500 A or more.

c. Modules or assemblies with a fast switching function having all of the following characteristics:

- c.1. Anode peak voltage rating greater than 2 kV;
- c.2. Anode peak current rating of 500 A or more; *and*
- c.3. Turn-on time of 1μs or less.

**\*\*3A229** Firing sets and equivalent high-current pulse generators for detonators controlled by 3A232 (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NP, AT, Foreign policy

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1
Russian industry sector sanctions apply to entire entry.	See § 746.5 for specific license requirements and license review policy.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
 GBS: N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCNs [3E001](#) and 1E001 (“development” and “production”) and [3E201](#) and 1E201 (“use”) for technology for items controlled under this entry. (2) See 1A007.a for explosive detonator firing sets designed to drive explosive detonators controlled by 1A007.b. (3) High explosives and related equipment for military use are “subject to the ITAR” (see 22 CFR parts 120 through 130).

*Related Definitions:* N/A

*ECCN Controls:* (1) Optically driven firing sets include both those employing laser initiation and laser charging. (2) Explosively driven firing sets include both explosive ferroelectric and explosive ferromagnetic firing set types. (3) 3A229.b includes xenon flash-lamp drivers.

*Items:*

- a. Detonator firing sets (initiation systems, firesets), including electronically-charged, explosively-driven and optically-driven firing sets designed to drive multiple controlled detonators controlled by 3A232;
- b. Modular electrical pulse generators (pulsers)

having all of the following characteristics:

- b.1. Designed for portable, mobile, or ruggedized use;
- b.2. Capable of delivering their energy in less than 15 μs into loads of less than 40 Ω (ohms);
- b.3. Having an output greater than 100 A;
- b.4. No dimension greater than 30 cm;
- b.5. Weight less than 30 kg; *and*
- b.6. Specified for use over an extended temperature range 223 K (−50 °C) to 373 K (100 °C) or specified as suitable for aerospace applications.

c. Micro-firing units having all of the following characteristics:

- c.1. No dimension greater than 35 mm;
- c.2. Voltage rating of equal to or greater than 1 kV; *and*
- c.3. Capacitance of equal to or greater than 100 nF.

**\*\*3A230 High-speed pulse generators, and pulse heads therefor, having both of the following characteristics (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for

a description of all license exceptions)

LVS: N/A

GBS: N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCNs [3E001](#) (“development” and “production”) and [3E201](#) (“use”) for technology for items controlled under this entry. (2) See ECCNs 3A002.d.1, [3A992.a](#) and 3A999.d.

*Related Definitions:* 1. In 3A230.b, the term “pulse transition time” is defined as the time interval between 10% and 90% voltage amplitude. 2. Pulse heads are impulse forming networks designed to accept a voltage step function and shape it into a variety of pulse forms that can include rectangular, triangular, step, impulse, exponential, or monocycle types. Pulse heads can be an integral part of the pulse generator, they can be a plug-in module to the device or they can be an externally connected device.

*Items:*

- a. Output voltage greater than 6 V into a resistive load of less than 55 ohms; *and*
- b. “Pulse transition time” less than 500 ps.

**\*\*3A231** Neutron generator systems, including tubes, having both of the characteristics described in this ECCN (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NP, AT , Foreign policy

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

Russian industry sector sanctions apply to entire entry.	See § 746.5 for specific license requirements and license review policy.
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**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A

GBS: N/A

**List of Items Controlled**

*Related Controls:* See ECCNs [3E001](#) (“development” and “production”) and [3E201](#) (“use”) for technology for items controlled under this entry.

*Related Definitions:* N/A

*Items:*

- a. Designed for operation without an external vacuum system; *and*
- b. Utilizing electrostatic acceleration to induce:
  - b.1. A tritium-deuterium nuclear reaction; *or*
  - b.2. A deuterium-deuterium nuclear reaction and capable of an output of 3 x 10<sup>9</sup> neutrons/s or greater.

**\*\*3A232** Detonators and multipoint initiation systems, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NP, AT, Foreign policy

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

Russian industry sector sanctions apply to entire entry.	See § 746.5 for specific license requirements and license review policy.
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**licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).**

**License Requirements**

*Reason for Control:* NP, AT

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
GBS: N/A

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List of Items Controlled**

*Related Controls:* (1) See ECCNs 0A604 and 1A007 for electrically driven explosive detonators. (2) See ECCNs [3E001](#) (“development” and “production”) and [3E201](#) (“use”) for technology for items controlled under this entry. (3) High explosives and related equipment for military use are “subject to the ITAR” (see 22 CFR parts 120 through 130).

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
GBS: N/A

*Related Definitions:* N/A

*ECCN Controls:* This entry does not control detonators using only primary explosives, such as lead azide.

*Items:*

- a. [Reserved]
- b. Arrangements using single or multiple detonators designed to nearly simultaneously initiate an explosive surface over an area greater than 5,000 mm<sup>2</sup> from a single firing signal with an initiation timing spread over the surface of less than 2.5 μs.

**Technical Note:** *The word initiator is sometimes used in place of the word detonator.*

**\*\*3A233** Mass spectrometers, capable of measuring ions of 230 atomic mass units or greater and having a resolution of better than 2 parts in 230, and ion sources therefor, excluding items that are subject to the export

**List of Items Controlled**

*Related Controls:* (1) See ECCNs [3E001](#) (“development” and “production”) and [3E201](#) (“use”) for technology for items controlled under this entry. (2) Mass spectrometers “specially designed” or prepared for analyzing on-line samples of UF<sub>6</sub> gas streams are subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).  
*Related Definitions:* N/A

*Items:*

- a. Inductively coupled plasma mass spectrometers (ICP/MS);
- b. Glow discharge mass spectrometers (GDMS);
- c. Thermal ionization mass spectrometers (TIMS);
- d. Electron bombardment mass spectrometers having both of the following features:
  - d.1. A molecular beam inlet system that injects a collimated beam of analyte molecules into a region of the ion source where the molecules are

ionized by an electron beam; *and*

d.2. One or more cold traps that can be cooled to a temperature of 193 K (-80 °C) or less in order to trap analyte molecules that are not ionized by the electron beam;

e. Mass spectrometers equipped with a microfluorination ion source designed for actinides or actinide fluorides.

**Technical Notes:**

1. ECCN 3A233.d controls mass spectrometers that are typically used for isotopic analysis of UF<sub>6</sub> gas samples.

2. Electron bombardment mass spectrometers in ECCN 3A233.d are also known as electron impact mass spectrometers or electron ionization mass spectrometers.

3. In ECCN 3A233.d.2, a “cold trap” is a device that traps gas molecules by condensing or freezing them on cold surfaces. For the purposes of this ECCN, a closed-loop gaseous helium cryogenic vacuum pump is not a cold trap.

**\*\*3A234** Striplines to provide low inductance path to detonators with the following characteristics (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NP, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
GBS: N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

- a. Voltage rating greater than 2 kV; *and*
- b. Inductance of less than 20 nH.

**\*\*3A611** Military electronics, as follows (see List of Items Controlled).

*Reason for Control:* NS, RS, AT, UN

Control(s)	Country Chart (see Supp. No. 1 to part 738)
NS applies to entire entry except 3A611.y	NS Column 1
RS applies to entire entry except 3A611.y	RS Column 1
RS applies to 3A611.y	China, Russia, or Venezuela (see § 742.6(a)(7))
AT applies to entire entry	AT Column 1
UN applies to entire entry except 3A611.y	See § 746.1(b) for UN controls

**List Based License Exceptions** (see Part 740 for a description of all license exceptions)

LVS: \$1500 for 3A611.a, .d through .h and .x; N/A for ECCN 3A611.c.  
GBS: N/A

**Special Conditions for STA**

STA: Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in 3A611.

**List of Items Controlled**

*Related Controls:* (1) Electronic items that are

enumerated in USML Category XI or other USML categories, and technical data (including software) directly related thereto, are subject to the ITAR. (2) Application specific integrated circuits (ASICs) and programmable logic devices (PLD) that are programmed for defense articles that are subject to the ITAR are controlled in USML Category XI(c)(1). (3) See ECCN 3A001.a.7 for controls on unprogrammed programmable logic devices (PLD). (4) Printed circuit boards and populated circuit cards with a layout that is “specially designed” for defense articles are controlled in USML Category XI(c)(2). (5) Multichip modules for which the pattern or layout is “specially designed” for defense articles are controlled in USML Category XI(c)(3). (6) Electronic items “specially designed” for military application that are not controlled in any USML category but are within the scope of another “600 series” ECCN or a 9x515 ECCN are controlled by that “600 series” ECCN or 9x515 ECCN. For example, electronic components not enumerated on the USML or a “600 series” other than 3A611 that are “specially designed” for a military aircraft controlled by USML Category VIII or ECCN 9A610 are controlled by the catch-all control in ECCN 9A610.x. Electronic components not enumerated on the USML or another “600 series” entry that are “specially designed” for a military vehicle controlled by USML Category VII or ECCN 0A606 are controlled by ECCN 0A606.x. Electronic components not enumerated on the USML that are “specially designed” for a missile controlled by USML Category IV are controlled by ECCN 9A604.(7) Certain radiation-hardened microelectronic circuits are controlled by ECCN 9A515.d or 9A515.e, when “specially designed” for defense articles, “600 series” items, or items controlled by 9A515.

*Related Definitions:* N/A

*Items:*

a. Electronic “equipment,” “end items,” and “systems” “specially designed” for a military application that are not enumerated or otherwise described in either a USML category or another

“600 series” ECCN.

*Note to 3A611.a:* ECCN 3A611.a includes any radar, telecommunications, acoustic or computer equipment, end items, or systems “specially designed” for military application that are not enumerated or otherwise described in any USML category or controlled by another “600 series” ECCN.

b. [Reserved]

c. [Reserved]

d. [Reserved]

e. High frequency (HF) surface wave radar that maintains the positional state of maritime surface or low altitude airborne objects of interest in a received radar signal through time.

*Note to 3A611.e:* ECCN 3A611.e does not apply to systems, equipment, and assemblies “specially designed” for marine traffic control.

f. Application specific integrated circuits (ASICs) and programmable logic devices (PLD) that are not controlled by paragraph .y of this entry and that are programmed for “600 series” items.

*Note to paragraph .f:* In this paragraph, the term ‘application specific integrated circuit’ means an integrated circuit developed and produced for a specific application or function regardless of number of customers for which the integrated circuit is developed or produced.

**g.** Printed circuit boards and populated circuit card assemblies that are not controlled by paragraph .y of this entry and for which the layout is “specially designed” for “600 series” items.

**h.** Multichip modules that are not controlled by paragraph .y of this entry and for which the pattern or layout is “specially designed” for “600 series” items.

**i.** through w. [Reserved]

**x.** “Parts,” “components,” “accessories,” and “attachments” that are “specially designed” for a commodity controlled by this entry or for an article controlled by USML Category XI, and not enumerated or described in any USML category or in any paragraph other than the .x paragraph of another 600 series ECCN or in paragraph .y of this entry.

**Note 1 to ECCN 3A611.x:** ECCN 3A611.x includes “parts,” “components,” “accessories,” and “attachments” “specially designed” for a radar, telecommunications, acoustic system or equipment or computer “specially designed” for military application that are neither controlled in any USML category nor controlled in any paragraph other than the .x paragraph of another “600 series” ECCN.

**Note 2 to ECCN 3A611.x:** ECCN 3A611.x controls “parts” and “components” “specially designed” for underwater sensors or projectors controlled by USML Category XI(c)(12) containing single-crystal lead magnesium niobate lead titanate (PMN-PT) based piezoelectrics.

**Note 3 to ECCN 3A611.x:** “Parts,” “components,” “accessories,” and “attachments” subject to the EAR and within the scope of any 600 series .x entry that are of a type that are or would potentially be for use in or with multiple platforms (e.g., military electronics, military vehicles, and military aircraft) may be classified under 3A611.x.

**y.** Specific “parts,” “components,” “accessories,” and “attachments” “specially designed” for a commodity subject to control in a “600 series” ECCN or a defense article and not elsewhere specified in any paragraph other than the .y paragraph of a “600 series” ECCN or the USML as follows, and “parts,” “components,” “accessories,” and “attachments” “specially designed” therefor:

y.1. Electrical connectors;

y.2. Electric fans;

y.3. Heat sinks;

y.4. Joy sticks;

y.5. Mica paper capacitors;

y.6. Microphones;

y.7. Potentiometers;

y.8. Rheostats;

y.9. Electric connector backshells;

y.10. Solenoids;

y.11. Speakers;

y.12. Trackballs;

y.13. Electric transformers;

y.14. Application specific integrated circuits (ASICs) and programmable logic devices (PLD) that are programmed for commodities controlled in the .y paragraph of any “600 series” ECCN;

y.15. Printed circuit boards and populated circuit card assemblies for which the layout is “specially designed” for an item controlled by the .y paragraph of any “600 series” ECCN;

y.16. Multichip modules for which the pattern or layout is “specially designed” for an item in the .y paragraph of a “600 series” ECCN;

y.17. Circuit breakers;

y.18. Ground fault circuit interrupters;

y.19. Electrical contacts;

y.20. Electrical guide pins;

y.21. Filtered and unfiltered mechanical

**Note:** We classify HUD cameras and their parts as 9A610.x. Historically, HUD cameras for, say, an F-16, would be classified as ITAR on the USML's Cat. XIII(a). But USML XIII(a) is now deleted from the ITAR, so the HUD camera moves to the EAR under 9A610.x. A PCB in a HUD camera could be 3A611.g (or .h), 3A611.x, or 9A610.x. There is no difference in “Reasons for Control”, etc. For simplicity and consistency, it is best to classify a PCB or other parts/components in a 9A610.x as themselves also being 9A610.x.

**Old ITAR USML Cat. XIII(a):** “Cameras and specialized processing equipment therefor, photointerpretation, stereoscopic plotting, and photogrammetry equipment which are specifically designed, developed, modified, adapted, or configured for military purposes, and components specifically designed or modified therefor.”

**Current ITAR USML Cat. XIII(a):** “[Reserved]”

switches;

*Reason for Control:* CC

y.22. Thumbwheels;

y.23. Fixed resistors;

y.24. Electrical jumpers;

y.25. Grounding straps;

y.26. Indicator dials;

y.27. Contactors;

y.28. Touchpads;

y.29. Mechanical caps;

y.30. Mechanical plugs;

y.31. Finger barriers;

y.32. Flip-guards;

y.33. Identification plates and nameplates;

y.34. Knobs;

y.35. Hydraulic, pneumatic, fuel and lubrication gauges.

*Note to ECCN 3A611:* When applying the “specially designed” definition to determine whether a printed circuit board, populated circuit card assembly or multichip module is controlled by paragraph .g, .h, .y.15 or .y.16 of this entry, the layout of the board or assembly and the pattern and layout of the module are the only characteristics that need be evaluated under the “specially designed” definition.

**\*\*3A980** Voice print identification and analysis equipment and “specially designed” “components” therefor, n.e.s.

**License Requirements**

<i>Control(s)</i>	<i>Country Chart See Supp. No. 1 to part 738)</i>
CC applies to entire entry	CC Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*3A981** Polygraphs (except biomedical recorders designed for use in medical facilities for monitoring biological and neurophysical responses); fingerprint analyzers, cameras and equipment, n.e.s.; automated fingerprint and identification retrieval systems, n.e.s.; psychological stress analysis equipment; electronic monitoring restraint devices; and “specially designed” “components” and “accessories” therefor, n.e.s.

**License Requirements**

*Reason for Control:* CC

<i>Control(s)</i>	<i>Country Chart See Supp. No. 1 to part 738)</i>
CC applies to entire entry	CC Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

GBS: N/A

**List of Items Controlled**

*Related Controls:* See ECCN [0A982](#) for other types of restraint devices  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

*Note to ECCN 3A981. In this ECCN, electronic monitoring restraint devices are devices used to record or report the location of confined persons for law enforcement or penal reasons. The term does not include devices that confine memory impaired patients to appropriate medical facilities.*

**\*\*3A991 Electronic devices, and “components” not controlled by 3A001.**

**License Requirements**

*Reason for Control:* AT

Control(s)	Country Chart See Supp. No. 1 to part 738)
AT applies to entire entry	AT Column 1

**License Requirements Note:** See § 744.17 of the EAR for additional license requirements for microprocessors having a processing speed of 5 GFLOPS or more and an arithmetic logic unit with an access width of 32 bit or more, including those incorporating “information security” functionality, and associated “software” and “technology” for the “production” or “development” of such microprocessors.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A

GBS: N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

a. “Microprocessor microcircuits”, “microcomputer microcircuits”, and microcontroller microcircuits having any of the following:

a.1. A performance speed of 5 GFLOPS or more and an arithmetic logic unit with an access width of 32 bit or more;

a.2. A clock frequency rate exceeding 25 MHz;  
*or*

a.3. More than one data or instruction bus or serial communication port that provides a direct external interconnection between parallel “microprocessor microcircuits” with a transfer rate of 2.5 Mbyte/s;

b. Storage integrated circuits, as follows:

b.1. Electrical erasable programmable read-only memories (EEPROMs) with a storage capacity;

b.1.a. Exceeding 16 Mbits per package for flash memory types; *or*

b.1.b. Exceeding either of the following limits for all other EEPROM types:

b.1.b.1. Exceeding 1 Mbit per package; *or*

b.1.b.2. Exceeding 256 kbit per package and a maximum access time of less than 80 ns;

b.2. Static random access memories (SRAMs) with a storage capacity:

b.2.a. Exceeding 1 Mbit per package; *or*

**\*\*multiple \*\*connections  
\*\*terminals \*\*144 terminals**

b.2.b. Exceeding 256 kbit per package and a maximum access time of less than 25 ns;

c. Analog-to-digital converters having any of the following:

c.1. A resolution of 8 bit or more, but less than 12 bit, with an output rate greater than 200 million words per second;

c.2. A resolution of 12 bit with an output rate greater than 105 million words per second;

c.3. A resolution of more than 12 bit but equal to or less than 14 bit with an output rate greater than 10 million words per second; *or*

c.4. A resolution of more than 14 bit with an output rate greater than 2.5 million words per second;

d. Field programmable logic devices having a maximum number of single-ended digital input/outputs between 200 and 700;

e. Fast Fourier Transform (FFT) processors having a rated execution time for a 1,024 point complex FFT of less than 1 ms;

f. Custom integrated circuits for which either the function is unknown, or the control status of the equipment in which the integrated circuits will be used is unknown to the manufacturer, having any of the following:

f.1. **More than 144 terminals; *or***

f.2. A typical “basic propagation delay time” of less than 0.4 ns;

g. Traveling-wave “vacuum electronic devices,” pulsed or continuous wave, as follows:

g.1. Coupled cavity devices, or derivatives thereof;

g.2. Helix devices based on helix, folded waveguide, or serpentine waveguide circuits, *or* derivatives thereof, with any of the following:

g.2.a. An “instantaneous bandwidth” of half an octave or more; *and*

g.2.b. The product of the rated average output power (expressed in kW) and the maximum operating frequency (expressed in GHz) of more than 0.2;

g.2.c. An “instantaneous bandwidth” of less than half an octave; *and*

g.2.d. The product of the rated average output power (expressed in kW) and the maximum operating frequency (expressed in GHz) of more than 0.4;

h. Flexible waveguides designed for use at frequencies exceeding 40 GHz;

i. Surface acoustic wave and surface skimming (shallow bulk) acoustic wave devices (i.e., “signal processing” devices employing elastic waves in materials), having either of the following:

i.1. A carrier frequency exceeding 1 GHz; *or*

i.2. A carrier frequency of 1 GHz or less; *and*

i.2.a. A frequency side-lobe rejection exceeding 55 Db;

i.2.b. A product of the maximum delay time and bandwidth (time in microseconds and bandwidth in MHz) of more than 100; *or*

i.2.c. A dispersive delay of more than 10 microseconds;

j. Cells as follows:

j.1. Primary cells having an energy density of 550 Wh/kg or less at 293 K (20°C);

j.2. Secondary cells having an energy density of 350 Wh/kg or less at 293 K (20°C);

*Note:* 3A991.j does not control batteries, including single cell batteries.

**Technical Notes:**

1. For the purpose of 3A991.j energy density (Wh/kg) is calculated from the nominal voltage multiplied by the nominal capacity in ampere-hours divided by the mass in kilograms. If the nominal capacity is not stated, energy density is calculated from the nominal voltage squared then multiplied by the discharge duration in hours divided by the discharge load in Ohms and the mass in kilograms.

2. For the purpose of 3A991.j, a ‘cell’ is defined as an electrochemical device, which has positive and negative electrodes, and electrolyte, and is a source of electrical energy. It is the basic building block of a battery.

3. For the purpose of 3A991.j.1, a ‘primary cell’ is a ‘cell’ that is not designed to be charged by any other source.

4. For the purpose of 3A991.j.2, a ‘secondary cell’ is a ‘cell’ that is designed to be charged by an external electrical source.

k. “Superconductive” electromagnets or solenoids “specially designed” to be fully charged or discharged in less than one minute, having all of the following:

*Note:* 3A991.k does not control “superconductive” electromagnets or solenoids designed for Magnetic Resonance Imaging (MRI) medical equipment.

k.1. Maximum energy delivered during the discharge divided by the duration of the discharge of more than 500 kJ per minute;

k.2. Inner diameter of the current carrying windings of more than 250 mm; and

k.3. Rated for a magnetic induction of more than 8T or “overall current density” in the winding of more than 300 A/mm<sup>2</sup>;

l. Circuits or systems for electromagnetic energy storage, containing “components” manufactured from “superconductive” materials “specially designed” for operation at temperatures below the “critical temperature” of at least one of their “superconductive” constituents, having all of the following:

l.1. Resonant operating frequencies exceeding 1 MHz;

l.2. A stored energy density of 1 MJ/M<sup>3</sup> or more; and

l.3. A discharge time of less than 1 ms;

m. Hydrogen/hydrogen-isotope thyratrons of ceramic-metal construction and rate for a peak current of 500 A or more;

n. Digital integrated circuits based on any compound semiconductor having an equivalent gate count of more than 300 (2 input gates);

**o. Solar cells, cell-interconnect-coverglass (CIC) assemblies, solar panels, and solar arrays, which are “space qualified” and not controlled by 3A001.e.4.** For “solar cells” also see 3A001.e.4 and 9A515.x

**\*\*3A992 General purpose electronic equipment not controlled by 3A002.**

**License Requirements**

Reason for Control: AT

Control(s)	Country Chart See Supp. No. 1 to part 738)
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for

a description of all license exceptions)

LVS: N/A

GBS: N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

- a. Electronic test equipment, n.e.s.
- b. Digital instrumentation magnetic tape data recorders having any of the following characteristics;
  - b.1. A maximum digital interface transfer rate exceeding 60 Mbit/s and employing helical scan techniques;
  - b.2. A maximum digital interface transfer rate exceeding 120 Mbit/s and employing fixed head techniques; *or*
  - b.3. “Space qualified”;
- c. Equipment, with a maximum digital interface transfer rate exceeding 60 Mbit/s, designed to convert digital video magnetic tape recorders for use as digital instrumentation data recorders;
- d. Non-modular analog oscilloscopes having a bandwidth of 1 GHz or greater;
- e. Modular analog oscilloscope systems having either of the following characteristics:
  - e.1. A mainframe with a bandwidth of 1 GHz or greater; *or*
  - e.2. Plug-in modules with an individual bandwidth of 4 GHz or greater;
- f. Analog sampling oscilloscopes for the analysis of recurring phenomena with an effective bandwidth greater than 4 GHz;

g. Digital oscilloscopes and transient recorders, using analog-to-digital conversion techniques, capable of storing transients by sequentially sampling single-shot inputs at successive intervals of less than 1 ns (greater than 1 giga-sample per second), digitizing to 8 bits or greater resolution and storing 256 or more samples.

*Note: This ECCN controls the following “specially designed” “parts” and “components” for analog oscilloscopes:*

- 1. *Plug-in units;*
- 2. *External amplifiers;*
- 3. *Pre-amplifiers;*
- 4. *Sampling devices;*
- 5. *Cathode ray tubes.*

**\*\*3A999 Specific processing equipment, n.e.s., as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart See Supp. No. 1 to part 738)</i>
AT applies to entire entry	A license is required for items controlled by this entry to North Korea for anti-terrorism reasons. The Commerce Country Chart is not designed to determine AT licensing requirements for this entry. See §742.19 of the EAR for additional information.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A

GBS: N/A

**List of Items Controlled**

*Related Controls:* (1) See also, [3A225](#) (for frequency changes capable of operating in the

frequency range of 600 Hz and above), and [3A233](#). (2) Certain auxiliary systems, equipment, “parts” and “components” for isotope separation plants, made of or protected by UF<sub>6</sub> resistant materials are subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

*Related Definitions:* N/A

*Items:*

- a. Frequency changers capable of operating in the frequency range from 300 up to 600 Hz, n.e.s.;
- b. Mass spectrometers n.e.s.;
- c. All flash x-ray machines, and “parts” or “components” of pulsed power systems designed thereof, including Marx generators, high power pulse shaping networks, high voltage capacitors, and triggers;
- d. Pulse amplifiers, n.e.s.;
- e. Electronic equipment for time delay generation or time interval measurement, as follows:
  - e.1. Digital time delay generators with a resolution of 50 nanoseconds or less over time intervals of 1 microsecond or greater; *or*
  - e.2. Multi-channel (three or more) or modular time interval meter and chronometry equipment with resolution of 50 nanoseconds or less over time intervals of 1 microsecond or greater;
- f. Chromatography and spectrometry analytical instruments.

**B. TEST, INSPECTION AND “PRODUCTION EQUIPMENT”**

**\*\*3B001** Equipment for the manufacturing of semiconductor devices or materials, as follows (see List of Items Controlled) and “specially designed” “components” and “accessories” therefor.

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$500

*GBS:* Yes, except a.3 (molecular beam epitaxial growth equipment using gas sources), .e (automatic loading multi-chamber central wafer handling systems *only* if connected to equipment controlled by 3B001. a.3, or .f), and .f (lithography equipment).

**List of Items Controlled**

*Related Controls:* See also [3B991](#)

*Related Definitions:* N/A

*Items:*

- a. Equipment designed for epitaxial growth as follows:
  - a.1. Equipment designed or modified to produce a layer of any material other than silicon with a thickness uniform to less than  $\pm 2.5\%$  across a distance of 75 mm or more;

*Note:* 3B001.a.1 includes atomic layer epitaxy (ALE) equipment.

- a.2. Metal Organic Chemical Vapor Deposition (MOCVD) reactors designed for compound semiconductor epitaxial growth of material having two or more of the following elements: aluminum, gallium, indium, arsenic, phosphorus, antimony, or nitrogen;

a.3. Molecular beam epitaxial growth equipment using gas or solid sources;

b. Equipment designed for ion implantation and having any of the following:

b.1. [Reserved]

b.2. Being designed and optimized to operate at a beam energy of 20 keV or more and a beam current of 10 mA or more for hydrogen, deuterium, or helium implant;

b.3. Direct write capability;

b.4. A beam energy of 65 keV or more and a beam current of 45 mA or more for high energy oxygen implant into a heated semiconductor material “substrate”; *or*

b.5. Being designed and optimized to operate at beam energy of 20 keV or more and a beam current of 10mA or more for silicon implant into a semiconductor material “substrate” heated to 600 °C or greater;

c. [Reserved]

d. [Reserved]

e. Automatic loading multi-chamber central wafer handling systems having all of the following:

e.1. Interfaces for wafer input and output, to which more than two functionally different ‘semiconductor process tools’ controlled by 3B001.a.1, 3B001.a.2, 3B001.a.3 or 3B001.b are designed to be connected; *and*

e.2. Designed to form an integrated system in a vacuum environment for ‘sequential multiple wafer processing’;

*Note:* 3B001.e does not control automatic robotic wafer handling systems “specially designed” for parallel wafer processing.

**Technical Notes:**

1. For the purpose of 3B001.e, ‘semiconductor process tools’ refers to modular tools that provide physical processes for semiconductor production that are functionally different, such as deposition, implant or thermal processing.

2. For the purpose of 3B001.e, ‘sequential multiple wafer processing’ means the capability to process each wafer in different ‘semiconductor process tools’, such as by transferring each wafer from one tool to a second tool and on to a third tool with the automatic loading multi-chamber central wafer handling systems.

f. Lithography equipment as follows:

f.1. Align and expose step and repeat (direct step on wafer) or step and scan (scanner) equipment for wafer processing using photo-optical or X-ray methods and having any of the following:

f.1.a. A light source wavelength shorter than 193 nm; *or*

f.1.b. Capable of producing a pattern with a “Minimum Resolvable Feature size” (MRF) of 45 nm or less;

**Technical Note:** The ‘Minimum Resolvable Feature size’ (MRF) is calculated by the following formula:

$$MRF = \frac{(an\ exposure\ light\ source\ wavelength\ in\ nm) \times (K\ factor)}{numerical\ aperture}$$

where the K factor = 0.35

f.2 Imprint lithography equipment capable of production features of 45 nm or less;

**Note:** 3B001.f.2 includes:

- *Micro contact printing tools*
- *Hot embossing tools*
- *Nano-imprint lithography tools*
- *Step and flash imprint lithography (S-FIL) tools*

f.3. Equipment “specially designed” for mask making having all of the following:

f.3.a. A deflected focused electron beam, ion beam or “laser” beam; *and*

f.3.b. Having any of the following:

f.3.b.1. A Full-Width Half-Maximum (FWHM) spot size smaller than 65 nm and an image placement less than 17 nm (mean + 3 sigma); *or*

f.3.b.2. [Reserved]

f.3.b.3. A second-layer overlay error of less than 23 nm (mean + 3 sigma) on the mask;

f.4. Equipment designed for device processing using direct writing methods, having all of the following:

f.4.a. A deflected focused electron beam; *and*

f.4.b. Having any of the following:

f.4.b.1. A minimum beam size equal to or smaller than 15 nm; *or*

f.4.b.2. An overlay error less than 27 nm (mean + 3 sigma);

g. Masks and reticles, designed for integrated circuits controlled by 3A001;

h. Multi-layer masks with a phase shift layer not specified by 3B001.g and designed to be used by

lithography equipment having a light source wavelength less than 245 nm;

*Note:* 3B001.h. does not control multi-layer masks with a phase shift layer designed for the fabrication of memory devices not controlled by 3A001.

i. Imprint lithography templates designed for integrated circuits by 3A001;

j. Mask “substrate blanks” with multilayer reflector structure consisting of molybdenum and silicon, and having all of the following:

j.1. “Specially designed” for ‘Extreme Ultraviolet (EUV)’ lithography; *and*

j.2. Compliant with SEMI Standard P37.

*Technical Note:* ‘Extreme Ultraviolet (EUV)’ refers to electromagnetic spectrum wavelengths greater than 5 nm and less than 124 nm.

**\*\*3B002** Test equipment “specially designed” for testing finished or unfinished semiconductor devices as follows (see List of Items Controlled) and “specially designed” “components” and “accessories” therefor.

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: \$500  
 GBS: Yes

**List of Items Controlled**

*Related Controls:* See also [3A999.a](#) and [3B992](#)  
*Related Definitions:* N/A  
*Items:*

- a. For testing S-parameters of items specified by 3A001.b.3;
- b. [Reserved]
- c. For testing microwave integrated circuits controlled by 3A001.b.2.

**\*\*3B611** Test, inspection, and production commodities for military electronics, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
RS applies to entire entry	RS Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry	See § 746.1(b) for UN controls

**List Based License Exceptions** (see Part 740 for a description of all license exceptions)

LVS: \$1500  
 GBS: N/A

**Special Conditions for STA**

STA: Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in 3B611.

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

- a. Test, inspection, and production end items and equipment “specially designed” for the “development,” “production,” repair, overhaul or refurbishing of items controlled in ECCN 3A611 (except 3A611.y) or USML Category XI that are not enumerated in USML Category XI or controlled by another “600 series” ECCN.

b. through w. [Reserved]

- x. “Parts,” “components,” “accessories” and “attachments” that are “specially designed” for a commodity listed in this entry and that are not enumerated on the USML or controlled by another “600 series” ECCN.

**\*\*3B991** Equipment not controlled by 3B001 for the manufacture of electronic “parts,” “components” and materials, and “specially designed” “parts,” “components” and “accessories” therefor.

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
 GBS: N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* ‘Sputtering’ is an

overlay coating process wherein positively charged ions are accelerated by an electric field towards the surface of a target (coating material). The kinetic energy of the impacting ions is sufficient to cause target surface atoms to be released and deposited on the substrate. (Note: Triode, magnetron or radio frequency sputtering to increase adhesion of coating and rate of deposition are ordinary modifications of the process.)

*Items:*

a. Equipment “specially designed” for the manufacture of electron tubes, optical elements and “specially designed” “parts” and “components” therefor controlled by 3A001 or 3A991;

b. Equipment “specially designed” for the manufacture of semiconductor devices, integrated circuits and “electronic assemblies”, as follows, and systems incorporating or having the characteristics of such equipment:

*Note: 3B991.b also controls equipment used or modified for use in the manufacture of other devices, such as imaging devices, electro-optical devices, acoustic-wave devices.*

b.1. Equipment for the processing of materials for the manufacture of devices, “parts” and “components” as specified in the heading of 3B991.b, as follows:

*Note: 3B991 does not control quartz furnace tubes, furnace liners, paddles, boats (except “specially designed” caged boats), bubblers, cassettes or crucibles “specially designed” for the processing equipment controlled by 3B991.b.1.*

b.1.a. Equipment for producing polycrystalline silicon and materials controlled by 3C001;

b.1.b. Equipment “specially designed” for purifying or processing III/V and II/VI

semiconductor materials controlled by 3C001, 3C002, 3C003, 3C004, or 3C005 except crystal pullers, for which see 3B991.b.1.c below;

b.1.c. Crystal pullers and furnaces, as follows:

*Note: 3B991.b.1.c does not control diffusion and oxidation furnaces.*

b.1.c.1. Annealing or recrystallizing equipment other than constant temperature furnaces employing high rates of energy transfer capable of processing wafers at a rate exceeding 0.005 m<sup>2</sup> per minute;

b.1.c.2. “Stored program controlled” crystal pullers having any of the following characteristics:

b.1.c.2.a. Rechargeable without replacing the crucible container;

b.1.c.2.b. Capable of operation at pressures above  $2.5 \times 10^5$  Pa; *or*

b.1.c.2.c. Capable of pulling crystals of a diameter exceeding 100 mm;

b.1.d. “Stored program controlled” equipment for epitaxial growth having any of the following characteristics:

b.1.d.1. Capable of producing silicon layer with a thickness uniform to less than  $\pm 2.5\%$  across a distance of 200 mm or more;

b.1.d.2. Capable of producing a layer of any material other than silicon with a thickness uniformity across the wafer of equal to or better than  $\pm 3.5\%$ ; *or*

b.1.d.3. Rotation of individual wafers during processing;

b.1.e. Molecular beam epitaxial growth equipment;

b.1.f. Magnetically enhanced ‘sputtering’

equipment with “specially designed” integral load locks capable of transferring wafers in an isolated vacuum environment;

b.1.g. Equipment “specially designed” for ion implantation, ion-enhanced or photo-enhanced diffusion, having any of the following characteristics:

b.1.g.1. Patterning capability;

b.1.g.2. Beam energy (accelerating voltage) exceeding 200 keV;

b.1.g.3 Optimized to operate at a beam energy (accelerating voltage) of less than 10 keV;  
*or*

b.1.g.4. Capable of high energy oxygen implant into a heated “substrate”;

b.1.h. “Stored program controlled” equipment for the selective removal (etching) by means of anisotropic dry methods (e.g., plasma), as follows:

b.1.h.1. Batch types having either of the following:

b.1.h.1.a. End-point detection, other than optical emission spectroscopy types; *or*

b.1.h.1.b. Reactor operational (etching) pressure of 26.66 Pa or less;

b.1.h.2. Single wafer types having any of the following:

b.1.h.2.a. End-point detection, other than optical emission spectroscopy types;

b.1.h.2.b. Reactor operational (etching) pressure of 26.66 Pa or less; *or*

b.1.h.2.c. Cassette-to-cassette and load locks wafer handling;

**Notes:** 1. “Batch types” refers to machines not

“specially designed” for production processing of single wafers. Such machines can process two or more wafers simultaneously with common process parameters, e.g., RF power, temperature, etch gas species, flow rates.

2. “Single wafer types” refers to machines “specially designed” for production processing of single wafers. These machines may use automatic wafer handling techniques to load a single wafer into the equipment for processing. The definition includes equipment that can load and process several wafers but where the etching parameters, e.g., RF power or end point, can be independently determined for each individual wafer.

b.1.i. “Chemical vapor deposition” (CVD) equipment, e.g., plasma-enhanced CVD (PECVD) or photo-enhanced CVD, for semiconductor device manufacturing, having either of the following capabilities, for deposition of oxides, nitrides, metals or polysilicon:

b.1.i.1. “Chemical vapor deposition” equipment operating below  $10^5$  Pa; *or*

b.1.i.2. PECVD equipment operating either below 60 Pa (450 millitorr) or having automatic cassette-to-cassette and load lock wafer handling;

**Note:** 3B991.b.1.i does not control low pressure “chemical vapor deposition” (LPCVD) systems or reactive “sputtering” equipment.

b.1.j. Electron beam systems “specially designed” or modified for mask making or semiconductor device processing having any of the following characteristics:

b.1.j.1. Electrostatic beam deflection;

b.1.j.2. Shaped, non-Gaussian beam profile;

b.1.j.3. Digital-to-analog conversion rate exceeding 3 MHz;

b.1.j.4. Digital-to-analog conversion

accuracy exceeding 12 bit; *or*

b.1.j.5. Target-to-beam position feedback control precision of 1 micrometer or finer;

*Note: 3B991.b.1.j does not control electron beam deposition systems or general purpose scanning electron microscopes.*

b.1.k. Surface finishing equipment for the processing of semiconductor wafers as follows:

b.1.k.1. “Specially designed” equipment for backside processing of wafers thinner than 100 micrometer and the subsequent separation thereof; *or*

b.1.k.2. “Specially designed” equipment for achieving a surface roughness of the active surface of a processed wafer with a two-sigma value of 2 micrometer or less, total indicator reading (TIR);

*Note: 3B991.b.1.k does not control single-side lapping and polishing equipment for wafer surface finishing.*

b.1.l. Interconnection equipment which includes common single or multiple vacuum chambers “specially designed” to permit the integration of any equipment controlled by 3B991 into a complete system;

b.1.m. “Stored program controlled” equipment using “lasers” for the repair or trimming of “monolithic integrated circuits” with either of the following characteristics:

b.1.m.1. Positioning accuracy less than  $\pm 1$  micrometer; *or*

b.1.m.2. Spot size (kerf width) less than 3 micrometer.

b.2. Masks, mask “substrates,” mask-making equipment and image transfer equipment for the manufacture of devices, “parts” and “components” as specified in the heading of

3B991, as follows:

*Note: The term “masks” refers to those used in electron beam lithography, X-ray lithography, and ultraviolet lithography, as well as the usual ultraviolet and visible photo-lithography.*

b.2.a. Finished masks, reticles and designs therefor, except:

b.2.a.1. Finished masks or reticles for the production of unembargoed integrated circuits; *or*

b.2.a.2. Masks or reticles, having both of the following characteristics:

b.2.a.2.a. Their design is based on geometries of 2.5 micrometer or more; *and*

b.2.a.2.b. The design does not include special features to alter the intended use by means of production equipment or “software”;

b.2.b. Mask “substrates” as follows:

b.2.b.1. Hard surface (e.g., chromium, silicon, molybdenum) coated “substrates” (e.g., glass, quartz, sapphire) for the preparation of masks having dimensions exceeding 125 mm x 125 mm; *or*

b.2.b.2. “Substrates” “specially designed” for X-ray masks;

b.2.c. Equipment, other than general purpose computers, “specially designed” for computer aided design (CAD) of semiconductor devices or integrated circuits;

b.2.d. Equipment or machines, as follows, for mask or reticle fabrication:

b.2.d.1. Photo-optical step and repeat cameras capable of producing arrays larger than 100 mm x 100 mm, or capable of producing a single exposure larger than 6 mm x 6 mm in the image (i.e., focal) plane, or capable of producing line widths of less than 2.5 micrometer in the

photoresist on the “substrate”;

b.2.d.2. Mask or reticle fabrication equipment using ion or “laser” beam lithography capable of producing line widths of less than 2.5 micrometer; *or*

b.2.d.3. Equipment or holders for altering masks or reticles or adding pellicles to remove defects;

*Note: 3B991.b.2.d.1 and b.2.d.2 do not control mask fabrication equipment using photo-optical methods which was either commercially available before the 1st January, 1980, or has a performance no better than such equipment.*

b.2.e. “Stored program controlled” equipment for the inspection of masks, reticles or pellicles with:

b.2.e.1. A resolution of 0.25 micrometer or finer; *and*

b.2.e.2. A precision of 0.75 micrometer or finer over a distance in one or two coordinates of 63.5 mm or more;

*Note: 3B991.b.2.e does not control general purpose scanning electron microscopes except when “specially designed” and instrumented for automatic pattern inspection.*

b.2.f. Align and expose equipment for wafer production using photo-optical or X-ray methods, e.g., lithography equipment, including both projection image transfer equipment and step and repeat (direct step on wafer) or step and scan (scanner) equipment, capable of performing any of the following functions:

*Note: 3B991.b.2.f does not control photo-optical contact and proximity mask align and expose equipment or contact image transfer equipment.*

b.2.f.1. Production of a pattern size of less than 2.5 micrometer;

b.2.f.2. Alignment with a precision finer than  $\pm 0.25$  micrometer (3 sigma);

b.2.f.3. Machine-to-machine overlay no better than  $\pm 0.3$  micrometer; *or*

b.2.f.4. A light source wavelength shorter than 400 nm;

b.2.g. Electron beam, ion beam or X-ray equipment for projection image transfer capable of producing patterns less than 2.5 micrometer;

*Note: For focused, deflected-beam systems (direct write systems), see 3B991.b.1.j or b.10.*

b.2.h. Equipment using “lasers” for direct write on wafers capable of producing patterns less than 2.5 micrometer.

b.3. Equipment for the assembly of integrated circuits, as follows:

b.3.a. “Stored program controlled” die bonders having all of the following characteristics:

b.3.a.1. “Specially designed” for “hybrid integrated circuits”;

b.3.a.2. X-Y stage positioning travel exceeding 37.5 x 37.5 mm; *and*

b.3.a.3. Placement accuracy in the X-Y plane of finer than  $\pm 10$  micrometer;

b.3.b. “Stored program controlled” equipment for producing multiple bonds in a single operation (e.g., beam lead bonders, chip carrier bonders, tape bonders);

b.3.c. Semi-automatic or automatic hot cap sealers, in which the cap is heated locally to a higher temperature than the body of the package, “specially designed” for ceramic microcircuit packages controlled by 3A001 and that have a throughput equal to or more than one package per

minute.

*Note:* 3B991.b.3 does not control general purpose resistance type spot welders.

b.4. Filters for clean rooms capable of providing an air environment of 10 or less particles of 0.3 micrometer or smaller per 0.02832 m<sup>3</sup> and filter materials therefor.

**\*\*3B992 Equipment not controlled by 3B002 for the inspection or testing of electronic “components” and materials, and “specially designed” “parts,” “components” and “accessories” therefor.**

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
GBS: N/A

**List of Items Controlled**

*Related Controls:* See also [3A992.a](#).  
*Related Definitions:* N/A  
*Items:*

- a. Equipment “specially designed” for the inspection or testing of electron tubes, optical elements and “specially designed” “parts” and “components” therefor controlled by 3A001 or 3A991;
- b. Equipment “specially designed” for the inspection or testing of semiconductor devices, integrated circuits and “electronic assemblies”, as follows, and systems incorporating or having the

characteristics of such equipment:

*Note:* 3B992.b also controls equipment used or modified for use in the inspection or testing of other devices, such as imaging devices, electro-optical devices, acoustic-wave devices.

b.1. “Stored program controlled” inspection equipment for the automatic detection of defects, errors or contaminants of 0.6 micrometer or less in or on processed wafers, “substrates”, other than printed circuit boards or chips, using optical image acquisition techniques for pattern comparison;

*Note:* 3B992.b.1 does not control general purpose scanning electron microscopes, except when “specially designed” and instrumented for automatic pattern inspection.

b.2. “Specially designed” “stored program controlled” measuring and analysis equipment, as follows:

b.2.a. “Specially designed” for the measurement of oxygen or carbon content in semiconductor materials;

b.2.b. Equipment for line width measurement with a resolution of 1 micrometer or finer;

b.2.c. “Specially designed” flatness measurement instruments capable of measuring deviations from flatness of 10 micrometer or less with a resolution of 1 micrometer or finer.

b.3. “Stored program controlled” wafer probing equipment having any of the following characteristics:

b.3.a. Positioning accuracy finer than 3.5 micrometer;

b.3.b. Capable of testing devices having more than 68 terminals; *or*

b.3.c. Capable of testing at a frequency exceeding 1 GHz;

b.4. Test equipment as follows:

b.4.a. “Stored program controlled” equipment “specially designed” for testing discrete semiconductor devices and unencapsulated dice, capable of testing at frequencies exceeding 18 GHz;

**Technical Note:** *Discrete semiconductor devices include photocells and solar cells.*

b.4.b. “Stored program controlled” equipment “specially designed” for testing integrated circuits and “electronic assemblies” thereof, capable of functional testing:

b.4.b.1. At a ‘pattern rate’ exceeding 20 MHz; *or*

b.4.b.2. At a ‘pattern rate’ exceeding 10 MHz but not exceeding 20 MHz and capable of testing packages of more than 68 terminals.

**Notes:** *3B992.b.4.b does not control test equipment “specially designed” for testing:*

**1.** *Memories;*

**2.** *“Assemblies” or a class of “electronic assemblies” for home and entertainment applications; and*

**3.** *Electronic “parts,” “components,” “assemblies” and integrated circuits not controlled by 3A001 or 3A991 provided such test equipment does not incorporate computing facilities with “user accessible programmability”.*

**Technical Note:** *For purposes of 3B992.b.4.b, ‘pattern rate’ is defined as the maximum frequency of digital operation of a tester. It is therefore equivalent to the highest data rate that a tester can provide in non-multiplexed mode. It is also referred to as test speed, maximum digital frequency or maximum digital speed.*

b.4.c. Equipment “specially designed” for determining the performance of focal-plane arrays at wavelengths of more than 1,200 nm, using “stored program controlled” measurements or computer aided evaluation and having any of the following characteristics:

b.4.c.1. Using scanning light spot diameters of less than 0.12 mm;

b.4.c.2. Designed for measuring photosensitive performance parameters and for evaluating frequency response, modulation transfer function, uniformity of responsivity or noise; *or*

b.4.c.3. Designed for evaluating arrays capable of creating images with more than 32 x 32 line elements;

b.5. Electron beam test systems designed for operation at 3 keV or below, or “laser” beam systems, for non-contactive probing of powered-up semiconductor devices having any of the following:

b.5.a. Stroboscopic capability with either beam blanking or detector strobing;

b.5.b. An electron spectrometer for voltage measurements with a resolution of less than 0.5 V; *or*

b.5.c. Electrical tests fixtures for performance analysis of integrated circuits;

**Note:** *3B992.b.5 does not control scanning electron microscopes, except when “specially designed” and instrumented for non-contactive probing of a powered-up semiconductor device.*

b.6. “Stored program controlled” multifunctional focused ion beam systems “specially designed” for manufacturing, repairing, physical layout analysis and testing of masks or semiconductor devices and having either of the following characteristics:

b.6.a. Target-to-beam position feedback control precision of 1 micrometer or finer; *or*

b.6.b. Digital-to-analog conversion accuracy exceeding 12 bit;

b.7. Particle measuring systems employing “lasers” designed for measuring particle size and concentration in air having both of the following characteristics:

b.7.a. Capable of measuring particle sizes of 0.2 micrometer or less at a flow rate of 0.02832 m<sup>3</sup> per minute or more; *and*

b.7.b. Capable of characterizing Class 10 clean air or better.

*Related Controls:* This entry does not control equipment or material whose functionality has been unalterably disabled are not controlled.

*Related Definitions:* N/A

*Items:*

- a. Silicon (Si);
- b. Germanium (Ge);
- c. Silicon Carbide (SiC); *or*
- d. “III/V compounds” of gallium or indium.

*Note:* 3C001.d does not apply to a “substrate” having one or more P-type epitaxial layers of GaN, InGaN, AlGaN, InAlN, InAlGaN, GaP, GaAs, AlGaAs, InP, InGaP, AlInP or InGaAlP, independent of the sequence of the elements, except if the P-type epitaxial layer is between N-type layers.

**C. “MATERIALS”**

**\*\*3C001 Hetero-epitaxial materials consisting of a “substrate” having stacked epitaxially grown multiple layers of any of the following (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

AT applies to entire entry      AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: \$3000

GBS: N/A

**List of Items Controlled**

**\*\*3C002 Resist materials as follows (see List of Items Controlled) and “substrates” coated with the following resists.**

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: \$3000

GBS: Yes for 3C002.a provided that they are not also controlled by 3C002.b through .e.

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

- a. Resists designed for semiconductor lithography as follows:
  - a.1. Positive resists adjusted (optimized) for use at wavelengths less than 193 nm but equal to or greater than 15 nm;
  - a.2. Resists adjusted (optimized) for use at wavelengths less than 15 nm but greater than 1 nm;
- b. All resists designed for use with electron beams or ion beams, with a sensitivity of 0.01  $\mu\text{coulomb}/\text{mm}^2$  or better;
- c. [Reserved]
- d. All resists optimized for surface imaging technologies;
- e. All resists designed or optimized for use with imprint lithography equipment specified by 3B001.f.2 that use either a thermal or photo-curable process.

**\*\*3C003** Organo-inorganic compounds as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$3000  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* This entry controls only compounds whose metallic, partly metallic or non-metallic element is directly linked to carbon in the organic part of the molecule.

*Related Definition:* N/A  
*Items:*

- a. Organo-metallic compounds of aluminum, gallium or indium, having a purity (metal basis) better than 99.999%;
- b. Organo-arsenic, organo-antimony and organo-phosphorus compounds, having a purity (inorganic element basis) better than 99.999%.

**\*\*3C004** Hydrides of phosphorus, arsenic or antimony, having a purity better than 99.999%, even diluted in inert gases or hydrogen.

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$3000  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definition:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

*Note:* This entry does not control hydrides containing 20% molar or more of inert gases or hydrogen.

**\*\*3C005** High resistivity materials as follows (See List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$3000  
*GBS:* Yes

**List of Items Controlled**

*Related Controls:* See ECCN [3E001](#) for related development and production technology, and ECCN [3B991.b.1.b](#) for related production equipment.  
*Related Definition:* N/A  
*Items:*

a. Silicon carbide (SiC), gallium nitride (GaN), aluminum nitride (AlN) or aluminum gallium nitride (AlGaN) semiconductor “substrates”, or ingots, boules, or other preforms of those

materials, having resistivities greater than 10,000 ohm-cm at 20°C;

b. Polycrystalline “substrates” or polycrystalline ceramic “substrates”, having resistivities greater than 10,000 ohm-cm at 20°C and having at least one non-epitaxial single-crystal layer of silicon (Si), silicon carbide (SiC), gallium nitride (GaN), aluminum nitride (AlN), or aluminum gallium nitride (AlGaN) on the surface of the “substrate”.

**\*\*3C006** Materials, not specified by 3C001, consisting of a “substrate” specified by 3C005 with at least one epitaxial layer of silicon carbide, gallium nitride, aluminum nitride or aluminum gallium nitride.

**License Requirements**

*Reason for Control:* NS, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$3000  
*GBS:* Yes

**List of Items Controlled**

*Related Controls:* See ECCN [3D001](#) for related “development” or “production” “software”, ECCN [3E001](#) for related “development” and “production” “technology”, and ECCN [3B991.b.1.b](#) for related “production” equipment.

*Related Definition:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*3C992** Positive resists designed for semiconductor lithography specially adjusted (optimized) for use at wavelengths between 370 and 193 nm.

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**D. “SOFTWARE”**

**\*\*3D001** “Software” “specially designed” for the “development” or “production” of equipment controlled by 3A001.b to 3A002.h or 3B (except 3B991 and 3B992).

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
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NS applies to “software” for equipment controlled by 3A001.b to 3A001.h, 3A002, and 3B	NS Column 1
AT applies to entire entry	AT Column 1

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, Special Comprehensive Licenses, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* Yes, except for “software” “specially designed” for the “development” or “production” of Traveling Wave Tube Amplifiers described in 3A001.b.8 having operating frequencies exceeding 18 GHz.

**Special Conditions for STA**

*STA:* License Exception STA may not be used to ship or transmit “software” “specially designed” for the “development” or “production” of equipment specified by 3A002.g.1 or 3B001.a.2 to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*3D002** “Software” “specially designed” for the “use” of equipment controlled by 3B001.a to .f, or 3B002.

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
AT applies to entire entry	AT Column 1

**License Requirements Note:** See § 744.17 of the EAR for additional license requirements for microprocessors having a processing speed of 5 GFLOPS or more and an arithmetic logic unit with an access width of 32 bit or more, including those incorporating “information security” functionality, and associated “software” and “technology” for the “production” or “development” of such microprocessors.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* Yes

**List of Items Controlled**

*Related Controls:* Also see [3D991](#).

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*3D003** ‘Computational lithography’ “software” “specially designed” for the “development” of patterns on EUV-lithography masks or reticles.

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* Yes

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* ‘Computational lithography’ is the use of computer modelling to predict, correct, optimize and verify imaging performance of the lithography process over a range of patterns, processes, and system conditions.

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*3D004** “Software” “specially designed” for the “development” of equipment controlled by 3A003.

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: Yes

**List of Items Controlled**

Related Controls: N/A  
 Related Definitions: N/A  
 Items:

The list of items controlled is contained in the ECCN heading.

**\*\*3D005** “Software” “specially designed” to restore normal operation of a microcomputer, “microprocessor microcircuit” or “microcomputer microcircuit” within 1 ms after an Electromagnetic Pulse (EMP) or Electrostatic Discharge (ESD) disruption, without loss of continuation of operation.

**License Requirements**

Reason for Control: NS, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**Special Conditions for STA**

STA: License Exception STA may not be used to ship or transmit “software” to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

**List of Items Controlled**

Related Controls: N/A

Related Definitions: N/A  
 Items:

The list of items controlled is contained in the ECCN heading.

**\*\*3D101** “Software” “specially designed” or modified for the “use” of equipment controlled by 3A101.b.

**License Requirements**

Reason for Control: MT, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738).
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

Related Controls: N/A  
 Related Definitions: N/A  
 Items:

The list of items controlled is contained in the ECCN heading.

**\*\*3D201** “Software” “specially designed” for the “use” of equipment described in ECCN 3A225.

**License Requirements**

Reason for Control: NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* See ECCN 3E202 (“development,” “production,” and “use”) for “technology” for items controlled under this entry.

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*3D202** “Software” “specially designed” to enhance or release the performance characteristics of frequency changers or generators to meet or exceed the level of the performance characteristics described in ECCN 3A225.

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* See ECCN 3E202 (“development,” “production,” and “use”) for “technology” for items controlled under this entry.

*Related Definitions:* N/A

*Items:*

a. “Software” or encryption keys/codes “specially designed” to enhance or release the performance characteristics of equipment not controlled by ECCN 3A225, so that such equipment meets or exceeds the performance characteristics of equipment controlled by that ECCN.

b. “Software” “specially designed” to enhance or release the performance characteristics of equipment controlled by ECCN 3A225.

**\*\*3D611** “Software” “specially designed” for military electronics, as follows (see **List of Items Controlled**).

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry except 3D611.y	NS Column 1
RS applies to entire entry except 3D611.y	RS Column 1
RS applies to 3D611.y	China, Russia, or Venezuela (see § 742.6(a)(7))
AT applies to entire entry	AT Column 1
UN applies to entire entry except 3D611.y	See § 746.1(b) for UN controls

**List Based License Exceptions** (see Part 740 for a description of all license exceptions)

TSR: N/A

**Special Conditions for STA**

- STA: 1. Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any “software” in 3D611.
2. Except for “build-to-print” software, License Exception STA is not eligible for software enumerated in ECCN 3D611.b.

**List of Items Controlled**

*Related Controls:* “Software” directly related to articles enumerated in USML Category XI is controlled in USML Category XI(d).

*Related Definitions:* N/A

*Items:*

- a. “Software” “specially designed” for the “development,” “production,” operation, or maintenance of commodities controlled by ECCN 3A611 (other than 3A611.y) and 3B611.
- b. “Software” “specially designed” for the “development,” “production,” operation or maintenance of technology in ECCN 3E611.b.
- c. through x. [Reserved]
- y. “Software” “specially designed” for the “production,” “development,” operation or maintenance of commodities enumerated in ECCNs 3A611.y.

**\*\*3D980** “Software” “specially designed” for the “development,” “production”, or “use” of commodities controlled by 3A980 and 3A981.

**License Requirements**

*Reason for Control:* CC, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
CC applies to entire	CC Column 1

entry	
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*3D991** “Software” “specially designed” for the “development”, “production”, or “use” of electronic devices, “parts” or “components” controlled by 3A991, general purpose electronic equipment controlled by 3A992, or manufacturing and test equipment controlled by 3B991 and 3B992; or “software” “specially designed” for the “use” of equipment controlled by 3B001.g and .h.

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**License Requirements Note:** See § 744.17 of the EAR for additional license requirements for microprocessors having a processing speed of 5 GFLOPS or more and an arithmetic logic unit with an access width of 32 bit or more, including those incorporating “information security” functionality, and associated “software” and “technology” for the “production” or

“development” of such microprocessors.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

Related Controls: N/A

Related Definitions: N/A

Items:

The list of items controlled is contained in the ECCN heading.

**E. “TECHNOLOGY”**

**\*\*3E001** “Technology” according to the General Technology Note for the “development” or “production” of equipment or materials controlled by 3A (except 3A980, 3A981, 3A991, 3A992, or 3A999), 3B (except 3B991 or 3B992) or 3C (except 3C992).

**License Requirements**

Reason for Control: NS, MT, NP, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to “technology” for items controlled by 3A001, 3A002, 3A003, 3B001, 3B002, or 3C001 to 3C006.	NS Column 1
MT applies to “technology” for equipment controlled by 3A001 or 3A101 for MT reasons	MT Column 1
NP applies to “technology” for equipment controlled by 3A001, 3A201, or 3A225 to 3A234 for NP reasons	NP Column 1
AT applies to entire entry	AT Column 1

**License Requirements Note:** See § 744.17 of the EAR for additional license requirements for microprocessors having a processing speed of 5 GFLOPS or more and an arithmetic logic unit with an access width of 32 bit or more, including those incorporating “information security” functionality, and associated “software” and “technology” for the “production” or “development” of such microprocessors.

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, Special Comprehensive Licenses, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: Yes, except N/A for MT, and “technology” for the “development” or “production” of: (a) Vacuum electronic device amplifiers described in 3A001.b.8, having operating frequencies exceeding 19 GHz; (b) solar cells, coverglass-interconnect-cells or covered-interconnect-cells (CIC) “assemblies”, solar arrays and/or solar panels described in 3A001.e.4; (c) “Monolithic Microwave Integrated Circuit” (“MMIC”) amplifiers in 3A001.b.2; and (d) discrete microwave transistors in 3A001.b.3.

**Special Conditions for STA**

STA: License Exception STA may not be used to ship or transmit “technology” according to the General Technology Note for the “development” or “production” of equipment specified by ECCNs 3A002.g.1 or 3B001.a.2 to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR). License Exception STA may not be

used to ship or transmit “technology” according to the General Technology Note for the “development” or “production” of components specified by ECCN 3A001.b.2 or b.3 to any of the destinations listed in Country Group A:5 or A:6 (See Supplement No.1 to part 740 of the EAR).

**List of Items Controlled**

*Related Controls:* (1)“Technology” according to the General Technology Note for the “development” or “production” of certain “space-qualified” atomic frequency standards described in Category XV(e)(9), MMICs described in Category XV(e)(14), and oscillators described in Category XV(e)(15) of the USML are “subject to the ITAR” (see 22 CFR parts 120 through 130). See also 3E101, 3E201 and 9E515. (2) “Technology” for “development” or “production” of “Microwave Monolithic Integrated Circuits” (“MMIC”) amplifiers in 3A001.b.2 is controlled in this ECCN 3E001; 5E001.d refers only to that additional “technology” “required” for telecommunications.

*Related Definition:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**Note 1:** 3E001 does not control “technology” for equipment or “components” controlled by 3A003.

**Note 2:** 3E001 does not control “technology” for integrated circuits controlled by 3A001.a.3 to a.14, having all of the following:

- a) Using “technology” at or above 0.130 μm; and
- b) Incorporating multi-layer structures with three or fewer metal layers.

**Note 3:** 3E001 does not apply to ‘Process Design Kits’ (‘PDKs’) unless they include libraries implementing functions or technologies for items specified by 3A001.

**Technical Note:** A ‘Process Design Kit’ (‘PDK’) is a software tool provided by a semiconductor manufacturer to ensure that the required design practices and rules are taken into account in order to successfully produce a specific integrated circuit design in a specific semiconductor process, in accordance with technological and manufacturing constraints (each semiconductor manufacturing process has its particular ‘PDK’).

**\*\*3E002 “Technology” according to the General Technology Note other than that controlled in 3E001 for the “development” or “production” of a “microprocessor microcircuit”, “micro-computer microcircuit” and microcontroller microcircuit core, having an arithmetic logic unit with an access width of 32 bits or more and any of the following features or characteristics (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NS, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 1
AT applies to entire entry	AT Column 1

**License Requirements Note:** See § 744.17 of the EAR for additional license requirements for microprocessors having a processing speed of 5 GFLOPS or more and an arithmetic logic unit with an access width of 32 bit or more, including those incorporating “information security” functionality, and associated “software” and “technology” for the “production” or

“development” of such microprocessors.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: Yes

**List of Items Controlled**

Related Controls: N/A

Related Definitions: N/A

Items:

a. A ‘vector processor unit’ designed to perform more than two calculations on floating-point vectors (one dimensional arrays of 32-bit or larger numbers) simultaneously;

**Technical Note:** A ‘vector processor unit’ is a processor element with built-in instructions that perform multiple calculations on floating-point vectors (one-dimensional arrays of 32-bit or larger numbers) simultaneously, having at least one vector arithmetic logic unit and vector registers of at least 32 elements each.

b. Designed to perform more than four 64-bit or larger floating-point operation results per cycle; or

c. Designed to perform more than eight 16-bit fixed-point multiply-accumulate results per cycle (e.g., digital manipulation of analog information that has been previously converted into digital form, also known as digital “signal processing”).

**Note 1:** 3E002 does not control “technology” for multimedia extensions.

**Note 2:** 3E002 does not control “technology” for microprocessor cores, having all of the following:

a. Using “technology” at or above 0.130 μm; and

b. Incorporating multi-layer structures with five or fewer metal layers.

**Note 3:** 3E002 includes “technology” for the “development” or “production” of digital signal processors and digital array processors.

**\*\*3E003** Other “technology” for the “development” or “production” of the following (see List of Items Controlled).

**License Requirements**

Reason for Control: NS, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: Yes, except .f and .g

**List of Items Controlled**

Related Controls: See 3E001 for silicon-on-insulation (SOI) technology for the “development” or “production” related to radiation hardening of integrated circuits.

Related Definitions: N/A

Items:

a. Vacuum microelectronic devices;

b. Hetero-structure semiconductor electronic devices such as high electron mobility transistors (HEMT), hetero-bipolar transistors (HBT), quantum well and super lattice devices;

**Note:** 3E003.b does not control “technology” for high electron mobility transistors (HEMT) operating at frequencies lower than 31.8 GHz

and hetero-junction bipolar transistors (HBT) operating at frequencies lower than 31.8 GHz.

- c. “Superconductive” electronic devices;
- d. Substrates of films of diamond for electronic components;
- e. Substrates of silicon-on-insulator (SOI) for integrated circuits in which the insulator is silicon dioxide;
- f. Substrates of silicon carbide for electronic components;
- g. “Vacuum electronic devices” operating at frequencies of 31.8 GHz or higher.

**\*\*3E004** “Technology” “required” for the slicing, grinding and polishing of 300 mm diameter silicon wafers to achieve a ‘Site least sQuares Range’ (‘SFQR’) less than or equal to 20 nm at any site of 26 mm x 8 mm on the front surface of the wafer and an edge exclusion less than or equal to 2 mm.

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* Yes

**LIST OF ITEMS CONTROLLED**

*Related Controls:* N/A

*Related Definitions:* For the purpose of 3E004, ‘Site Front least sQuares Range’ (‘SFQR’) is the range of maximum deviation and minimum deviation from front reference plane, calculated by least square method with all front surface data including site boundary within a site.

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*3E101** “Technology” according to the General Technology Note for the “use” of equipment or “software” controlled by 3A001.a.1 or .2, 3A101, or 3D101.

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*3E102** “Technology” according to the General Technology Note for the “development” of “software” controlled by 3D101.

a description of all license exceptions)

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*3E201** “Technology” according to the General Technology Note for the “use” of equipment controlled by 3A001.e.2 or .e.3, 3A201 or 3A225 to 3A234.

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to “technology” for equipment controlled by 3A001.e.2, or .e.3, 3A201 or 3A225 to 3A234 for NP reasons	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*3E202** “Technology” according to the General Technology Note for the “development,” “production,” or “use” of “software” controlled by 3D201 or 3D202.

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*3E611** “Technology” “required” for military electronics, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry except 3E611.y	NS Column 1
RS applies to entire entry except 3E611.y	RS Column 1
RS applies to 3E611.y	China, Russia, or Venezuela (see § 742.6(a)(7))
AT applies to entire entry	AT Column 1
UN applies to entire entry except 3E611.y	See § 746.1(b) for UN controls

**List Based License Exceptions** (see Part 740 for a description of all license exceptions)

*TSR:* N/A

**Special Conditions for STA**

- STA:* 1. Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any “technology” in 3E611.
2. Except for “build-to-print technology,” License Exception STA is not eligible for “technology” enumerated in ECCN 3E611.b.

**List of Items Controlled**

*Related Controls:* Technical data directly related to articles enumerated in USML Category XI is controlled in USML Category XI(d).

*Related Definitions:* N/A

*Items:*

- a. “Technology” (other than that controlled by 3E611.b or 3E611.y) “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing of commodities or software

controlled by ECCN 3A611, 3B611 or 3D611.

- b. “Technology” “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing of the following if controlled by ECCN 3A611, including 3A611.x:

- b.1. Helix traveling wave tubes (TWTs);
- b.2. Transmit/receive or transmit modules.

c. through x. [Reserved]

- y. “Technology” “required” for the “production,” “development,” operation, installation, maintenance, repair, overhaul, or refurbishing of commodities or software enumerated in ECCNs 3A611.y or 3D611.y.

**\*\*3E980** “Technology” “specially designed” for “development”, “production”, or “use” of commodities controlled by 3A980 and 3A981.

**License Requirements**

*Reason for Control:* CC, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
CC applies to entire entry	CC Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**EAR99** Items subject to the EAR that are *not* elsewhere specified in this CCL Category *or* in any other category in the CCL are designated by the number *EAR99*.

**\*\*3E991** “Technology” for the “development,” “production” or “use” of electronic devices, “parts” or “components” controlled by 3A991, general purpose electronic equipment controlled by 3A992, or manufacturing and test equipment controlled by 3B991 or 3B992, or materials controlled by 3C992.

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

*License Requirements Note:* See § 744.17 of the EAR for additional license requirements for microprocessors having a processing speed of 5 GFLOPS or more and an arithmetic logic unit with an access width of 32 bit or more, including those incorporating “information security” functionality, and associated “software” and “technology” for the “production” or “development” of such microprocessors.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**CATEGORY 4 - COMPUTERS**

**Note 1:** Computers, related equipment and “software” performing telecommunications or “local area network” functions must also be evaluated against the performance characteristics of Category 5, Part 1 (Telecommunications).

**Note 2:** Control units that directly interconnect the buses or channels of central processing units, ‘main storage’ or disk controllers are not regarded as telecommunications equipment described in Category 5, Part 1 (Telecommunications).

**N.B.:** For the control status of “software” “specially designed” for packet switching, see **ECCN 5D001**. (Telecommunications).

**Technical Note:** ‘Main storage’ is the primary storage for data or instructions for rapid access by a central processing unit. It consists of the internal storage of a “digital computer” and any hierarchical extension thereto, such as cache storage or non-sequentially accessed extended storage.

**A. “END ITEMS,” “EQUIPMENT,” “ACCESSORIES,” “ATTACHMENTS,” “PARTS,” “COMPONENTS,” AND “SYSTEMS”**

**\*\*4A001** Electronic computers and related equipment, having any of the following (see List of Items Controlled), and “electronic assemblies” and “specially designed” “components” therefor.

**License Requirements**

Reason for Control: NS, MT, AT, NP

Control(s)	Country Chart (See
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	Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 2
MT applies to items in 4A001.a when the parameters in 4A101 are met or exceeded	MT Column 1
AT applies to entire entry	AT Column 1
NP applies, unless a License Exception is available. See §742.3(b) of the EAR for information on applicable licensing review policies.	N/A

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: \$5000 for 4A001.a; N/A for MT.  
GBS: N/A

**Special Conditions for STA**

STA: License Exception STA may not be used to ship any commodity in 4A001.a.2 to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

**List of Items Controlled**

*Related Controls:* See also [4A101](#) and [4A994](#). Equipment designed or rated for transient ionizing radiation is “subject to the ITAR” (see 22 CFR parts 120 through 130).  
*Related Definitions:* For the purposes of integrated circuits in 4A001.a.2, 5 x 10<sup>3</sup> Gy(Si) = 5 x 10<sup>5</sup> Rads (Si); 5 x 10<sup>6</sup> Gy (Si)/s = 5 x 10<sup>8</sup> Rads (Si)/s.  
*Items:*

a. “Specially designed” to have any of the following:

a.1. Rated for operation at an ambient temperature below 228 K (-45°C) or above 358 K (85°C); or

*Note: 4A001.a.1 does not apply to computers “specially designed” for civil automobile, railway train or “civil aircraft” applications.*

a.2. Radiation hardened to exceed any of the following specifications:

a.2.a. A total dose of  $5 \times 10^3$  Gy (Si);

a.2.b. A dose rate upset of  $5 \times 10^6$  Gy (Si)/s; or

a.2.c. Single Event Upset of  $1 \times 10^{-8}$  Error/bit/day;

*Note: 4A001.a.2 does not apply to computers “specially designed” for “civil aircraft” applications.*

b. [Reserved]

**\*\*4A003** “Digital computers”, “electronic assemblies”, and related equipment therefor, as follows (see List of Items Controlled) and “specially designed” “components” therefor.

**License Requirements**

**Reason for Control:** NS, CC, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to 4A003.b and .c	NS Column 1
NS applies to 4A003.e and .g	NS Column 2
CC applies to “digital computers” for computerized finger-print equipment	CC Column 1

AT applies to entire entry (refer to 4A994 for controls on “digital computers” with a APP > 0.0128 but ≤ 29 WT)	AT Column 1
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*Note: : For all destinations, except those countries in Country Group E:1 or E:2 of Supplement No. 1 to part 740 of the EAR, no license is required (NLR) for computers with an “Adjusted Peak Performance” (“APP”) not exceeding 29 Weighted TeraFLOPS (WT) and for “electronic assemblies” described in 4A003.c that are not capable of exceeding an “Adjusted Peak Performance” (“APP”) exceeding 29 Weighted TeraFLOPS (WT) in aggregation, except certain transfers as set forth in § 746.3 (Iraq).*

**Reporting Requirements**

Special Post Shipment Verification reporting and recordkeeping requirements for exports of computers to destinations in Computer Tier 3 may be found in §743.2 of the EAR.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$5000; N/A for 4A003.b and .c.

*GBS:* Yes, for 4A003.g and “specially designed” “parts” and “components” therefor, exported separately or as part of a system.

*APP:* Yes, for computers controlled by 4A003.b, and “electronic assemblies” controlled by 4A003.c, to the exclusion of other technical parameters. See §740.7 of the EAR.

**List of Items Controlled**

*Related Controls:* See also [4A994](#) and [4A980](#)

*Related Definitions:* N/A

*Items:*

*Note 1:* 4A003 includes the following:

- ‘Vector processors’ (as defined in Note 7 of the “Technical Note on “Adjusted Peak Performance” (“APP”));

- Array processors;

- Digital signal processors;

- Logic processors;

- Equipment designed for “image enhancement.”

**Note 2:** The control status of the “digital computers” and related equipment described in 4A003 is determined by the control status of other equipment or systems provided:

a. The “digital computers” or related equipment are essential for the operation of the other equipment or systems;

b. The “digital computers” or related equipment are not a “principal element” of the other equipment or systems; and

**N.B. 1:** The control status of “signal processing” or “image enhancement” equipment “specially designed” for other equipment with functions limited to those required for the other equipment is determined by the control status of the other equipment even if it exceeds the “principal element” criterion.

**N.B. 2:** For the control status of “digital computers” or related equipment for telecommunications equipment, see Category 5, Part 1 (Telecommunications).

c. The “technology” for the “digital computers” and related equipment is determined by 4E.

a. [Reserved]

b. “Digital computers” having an “Adjusted Peak Performance” (“APP”) exceeding 29

Weighted TeraFLOPS (WT);

c. “Electronic assemblies” “specially designed” or modified to be capable of enhancing performance by aggregation of processors so that the “APP” of the aggregation exceeds the limit in 4A003.b.;

**Note 1:** 4A003.c applies only to “electronic assemblies” and programmable interconnections not exceeding the limit in 4A003.b when shipped as unintegrated “electronic assemblies.”

**Note 2:** 4A003.c does not control “electronic assemblies” “specially designed” for a product or family of products whose maximum configuration does not exceed the limit of 4A003.b.

d. to f. [Reserved]

**N.B.:** For “electronic assemblies,” modules or equipment, performing analog-to-digital conversions, see 3A002.h.

g. Equipment “specially designed” for aggregating the performance of “digital computers” by providing external interconnections which allow communications at unidirectional data rates exceeding 2.0 Gbyte/s per link.

**Note:** 4A003.g does not control internal interconnection equipment (e.g., backplanes, buses) passive interconnection equipment, “network access controllers” or “communication channel controllers”.

**\*\*4A004** Computers as follows (see List of Items Controlled) and “specially designed” related equipment, “electronic assemblies” and “components” therefor.

#### License Requirements

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: \$5000  
GBS: N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

- a. ‘Systolic array computers’;
- b. ‘Neural computers’;
- c. ‘Optical computers’.

**Technical Notes:**

1. ‘Systolic array computers’ are computers where the flow and modification of the data is dynamically controllable at the logic gate level by the user.

2. ‘Neural computers’ are computational devices designed or modified to mimic the behaviour of a neuron or a collection of neurons, i.e., computational devices which are distinguished by their hardware capability to modulate the weights and numbers of the interconnections of a multiplicity of computational components based on previous data.

3. ‘Optical computers’ are computers designed or modified to use light to represent data and whose computational logic elements are based on directly coupled optical devices.

**\*\*4A101** Analog computers, “digital computers” or digital differential analyzers, other than those controlled by 4A001 designed or modified for use in “missiles”, having any of the following (see List of Items Controlled).

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
GBS: N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

- a. Rated for continuous operation at temperatures from below 228 K (-45° C) to above 328 K (+55°C); or
- b. Designed as ruggedized or ‘radiation hardened’.

*Note:* ‘Radiation hardened’ means that the “part,” “component” or equipment is designed or rated to withstand radiation levels which meet or exceed a total irradiation dose of 5 X 10<sup>5</sup> rads (Si).

**\*\*4A102** “Hybrid computers” “specially designed” for modelling, simulation or design

integration of “missiles” or their subsystems. (These items are “subject to the ITAR” See 22 CFR parts 120 through 130.)

**\*\*4A611** Computers, and “parts,” “components,” “accessories,” and “attachments” “specially designed” therefor, “specially designed” for a military application that are not enumerated in any USML category are controlled by ECCN 3A611.

**\*\*4A980** Computers for fingerprint equipment, n.e.s.

**License Requirements**

*Reason for Control:* CC, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
CC applies to entire entry	CC Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

*Note:* 4A980 does not control equipment limited to one finger and designed for user authentication or access control.

**\*\*4A994** Computers, “electronic assemblies” and related equipment, not controlled by 4A001 or 4A003, and “specially designed” “parts” and “components” therefor (see List of Items Controlled).

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

*Note 1:* The control status of the “digital computers” and related equipment described in 4A994 is determined by the control status of other equipment or systems provided:

a. The “digital computers” or related equipment are essential for the operation of the other equipment or systems;

b. The “digital computers” or related equipment are not a “principal element” of the other equipment or systems; and

**N.B. 1:** The control status of “signal processing” or “image enhancement” equipment “specially designed” for other equipment with functions limited to those required for the other equipment is determined by the control status of the other equipment even if it exceeds the “principal element” criterion.

**N.B. 2:** For the control status of “digital computers” or related equipment for telecommunications equipment, see Category 5, Part 1 (Telecommunications).

c. The “technology” for the “digital computers” and related equipment is determined by 4E.

a. Electronic computers and related equipment, and “electronic assemblies” and “specially designed” “parts” and “components” therefor, rated for operation at an ambient temperature above 343 K (70°C);

b. “Digital computers”, including equipment of “signal processing” or image enhancement”, having an “Adjusted Peak Performance” (“APP”) equal to or greater than 0.0128 Weighted TeraFLOPS (WT);

c. “Electronic assemblies” that are “specially designed” or modified to enhance performance by aggregation of processors, as follows:

c.1. Designed to be capable of aggregation in configurations of 16 or more processors;

c.2. [Reserved];

**Note 1:** 4A994.c applies only to “electronic assemblies” and programmable interconnections with a “APP” not exceeding the limits in 4A994.b, when shipped as unintegrated “electronic assemblies”. It does not apply to “electronic assemblies” inherently limited by nature of their design for use as related equipment controlled by 4A994.k.

**Note 2:** 4A994.c does not control any “electronic assembly” “specially designed” for a product or family of products whose maximum configuration does not exceed the limits of 4A994.b.

d. [Reserved];

e. [Reserved];

f. Equipment for “signal processing” or “image enhancement” having an “Adjusted Peak Performance” (“APP”) equal to or greater than 0.0128 Weighted TeraFLOPS WT;

g. [Reserved];

h. [Reserved];

i. Equipment containing “terminal interface equipment” exceeding the limits in 5A991;

j. Equipment “specially designed” to provide external interconnection of “digital computers” or associated equipment that allows communications at data rates exceeding 80 Mbyte/s.

**Note:** 4A994.j does not control internal interconnection equipment (e.g., backplanes, buses) passive interconnection equipment, “network access controllers” or “communication channel controllers”.

k. “Hybrid computers” and “electronic assemblies” and “specially designed” “parts” and “components” therefor containing analog-to-digital converters having all of the following characteristics:

k.1. 32 channels or more; and

k.2. A resolution of 14 bit (plus sign bit) or more with a conversion rate of 200,000 conversions/s or more.

## B. TEST, INSPECTION AND “PRODUCTION EQUIPMENT”

[Reserved]

## C. “MATERIALS”

[Reserved]

**D. “SOFTWARE”**

*Note: The control status of “software” for equipment described in other Categories is dealt with in the appropriate Category.*

**\*\*4D001 “Software” as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NS, CC, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
CC applies to “software” for computerized finger-print equipment controlled by 4A003 for CC reasons	CC Column 1
AT applies to entire entry	AT Column 1

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

**TSR:** Yes, except for “software” for the “development” or “production” of commodities with an “Adjusted Peak Performance” (“APP”) exceeding 29 WT.

**APP:** Yes to specific countries (see §740.7 of the EAR for eligibility criteria)

**Special Conditions for STA**

**STA:** License Exception STA may not be used to ship or transmit “software” “specially designed” for the “development” or “production” of equipment specified by ECCN 4A001.a.2 or for the “development” or “production” of “digital computers” having an ‘Adjusted Peak Performance’ (‘APP’) exceeding 29 Weighted TeraFLOPS (WT) to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

a. “Software” “specially designed” or modified for the “development” or “production”, of equipment or “software” controlled by 4A001, 4A003, 4A004, or 4D (except 4D980, 4D993 or 4D994).

b. “Software”, other than that controlled by 4D001.a, “specially designed” or modified for the “development” or “production” of equipment as follows:

b.1. “Digital computers” having an “Adjusted Peak Performance” (“APP”) exceeding 15 Weighted TeraFLOPS (WT);

b.2. “Electronic assemblies” “specially designed” or modified for enhancing performance by aggregation of processors so that the “APP” of the aggregation exceeds the limit in 4D001.b.1.

**\*\*4D980 “Software” “specially designed” for the “development,” “production” or “use” of**

**commodities controlled by 4A980.**

TSR: N/A

**License Requirements**

*Reason for Control:* CC, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
CC applies to entire entry	CC Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*4D993** “Program” proof and validation “software,” “software” allowing the automatic generation of “source codes,” and operating system “software” that are “specially designed” for “real-time processing” equipment (see List of Items Controlled). **License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* “Global interrupt latency time” is the time taken by the computer system to recognize an interrupt due to the event, service the interrupt and perform a context switch to an alternate memory-resident task waiting on the interrupt.

*Items:*

- a. “Program” proof and validation “software” using mathematical and analytical techniques and designed or modified for “programs” having more than 500,000 “source code” instructions;
- b. “Software” allowing the automatic generation of “source codes” from data acquired on line from external sensors described in the Commerce Control List; *or*
- c. Operating system “software” “specially designed” for “real-time processing” equipment that guarantees a “global interrupt latency time” of less than 20 microseconds.

**\*\*4D994** “Software” other than that controlled in 4D001 “specially designed” or modified for the “development”, “production”, or “use” of equipment controlled by 4A101, 4A994.

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for

a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

Related Controls: N/A

Related Definitions: N/A

Items:

The list of items controlled is contained in the ECCN heading.

**E. “TECHNOLOGY”**

**\*\*4E001 “Technology” as follows (see List of Items Controlled).**

**License Requirements**

Reason for Control: NS, MT, CC, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 1.
MT applies to “technology” for items controlled by 4A001.a and 4A101 for MT reasons	MT Column 1.
CC applies to “software” for computerized finger-print equipment controlled by 4A003 for CC reasons	CC Column 1.
AT applies to entire entry	AT Column 1.

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: Yes, except for “technology” for the “development” or “production” of commodities with an “Adjusted Peak Performance” (“APP”) exceeding 29 WT.

APP: Yes to specific countries (see §740.7 of the EAR for eligibility criteria).

**Special Conditions for STA**

STA: License Exception STA may not be used to ship or transmit “technology” according to the General Technology Note for the “development” or “production” of any of the following equipment or “software”: a. Equipment specified by ECCN 4A001.a.2; b. “Digital computers” having an ‘Adjusted Peak Performance’ (‘APP’) exceeding 29 Weighted TeraFLOPS (WT); or c. “software” specified in the License Exception STA paragraph found in the License Exception section of ECCN 4D001 to any of the destinations listed in Country Group A:6 (See Supplement No. 1 to part 740 of the EAR).

**List of Items Controlled**

Related Controls: N/A

Related Definitions: N/A

Items:

a. “Technology” according to the General Technology Note, for the “development”, “production”, or “use” of equipment or “software” controlled by 4A (except 4A980 or 4A994) or 4D (except 4D980, 4D993, 4D994).

b. “Technology” according to the General Technology Note, other than that controlled by 4E001.a, for the “development” or “production” of equipment as follows:

b.1. “Digital computers” having an “Adjusted Peak Performance” (“APP”) exceeding 15 Weighted TeraFLOPS (WT);

b.2. “Electronic assemblies” “specially designed” or modified for enhancing performance by aggregation of processors so that the “APP” of the aggregation exceeds the limit in 4E001.b.1.

**\*\*4E980** “Technology” for the “development,” “production” or “use” of commodities controlled by 4A980.

**License Requirements**

*Reason for Control:* CC, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
CC applies to entire entry	CC Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*4E992** “Technology” other than that controlled in 4E001 for the “development,” “production,” or “use” of equipment controlled by 4A994, or “software” controlled

by 4D993 or 4D994.

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*4E993** “Technology” for the “development” or “production” of equipment designed for “multi-data-stream processing.”

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

Related Controls: N/A  
 Related Definitions: N/A  
 Items:

The list of items controlled is contained in the ECCN heading.

**EAR99** Items subject to the EAR that are *not* elsewhere specified in this CCL Category or in any other category in the CCL are designated by the number **EAR99**.

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#### **TECHNICAL NOTE ON “ADJUSTED PEAK PERFORMANCE” (“APP”)**

“APP” is an adjusted peak rate at which “digital computers” perform 64-bit or larger floating point additions and multiplications.

##### **Abbreviations used in this Technical Note**

$n$  number of processors in the “digital computer”  
 $I$  processor number ( $i, \dots, n$ )  
 $t_i$  processor cycle time ( $t_i = 1/F_i$ )  
 $F_i$  processor frequency  
 $R_i$  peak floating point calculating rate  
 $W_i$  architecture adjustment factor

“APP” is expressed in Weighted TeraFLOPS (WT), in units of  $10^{12}$  adjusted floating point operations per second.

##### **Outline of “APP” calculation method**

1. For each processor  $i$ , determine the peak number of 64-bit or larger floating-point operations,  $FPO_i$ , performed per cycle for each processor in the “digital computer”.

**Note:** In determining  $FPO$ , include only 64-bit or larger floating point additions or multiplications. All floating point operations

must be expressed in operations per processor cycle; operations requiring multiple cycles may be expressed in fractional results per cycle. For processors not capable of performing calculations on floating-point operands of 64-bits or more the effective calculating rate  $R$  is zero.

2. Calculate the floating point rate  $R$  for each processor

$$R_i = FPO_i/t_i.$$

3. Calculate “APP” as

$$“APP” = W_1 \times R_1 + W_2 \times R_2 + \dots + W_n \times R_n.$$

4. For ‘vector processors,’  $W_i = 0.9$ . For non-‘vector processors,’  $W_i = 0.3$ .

**Note 1:** For processors that perform compound operations in a cycle, such as an addition and multiplication, each operation is counted.

**Note 2:** For a pipelined processor the effective calculating rate  $R$  is the faster of the pipelined rate, once the pipeline is full, or the non-pipelined rate.

**Note 3:** The calculating rate  $R$  of each contributing processor is to be calculated at its maximum value theoretically possible before the “APP” of the combination is derived. Simultaneous operations are assumed to exist when the computer manufacturer claims concurrent, parallel, or simultaneous operation or execution in a manual or brochure for the computer.

**Note 4:** Do not include processors that are limited to input/output and peripheral functions (e.g., disk drive, communication and video display) when calculating “APP”.

**Note 5:** “APP” values are not to be calculated for processor combinations(inter)connected by “Local Area

*Networks”, Wide Area Networks, I/O shared connections/devices, I/O controllers and any communication interconnection implemented by “software”.*

***Note 6:** “APP” values must be calculated for processor combinations containing processors “specially designed” to enhance performance by aggregation, operating simultaneously and sharing memory*

**Technical Notes**

*1. Aggregate all processors and accelerators operating simultaneously and located on the same die.*

*2. Processor combinations share memory when any processor is capable of accessing any memory location in the system through the hardware transmission of cache lines or memory words, without the involvement of any software mechanism, which may be achieved using “electronic assemblies” specified in 4A003.c.*

***Note 7:** A ‘vector processor’ is defined as a processor with built-in instructions that perform multiple calculations on floating-point vectors (one-dimensional arrays of 64-bit or larger numbers) simultaneously, having at least 2 vector functional units and at least 8 vector registers of at least 64 elements each.*

**CATEGORY 5 –  
TELECOMMUNICATIONS AND  
“INFORMATION SECURITY”  
Part 1 – TELECOMMUNICATIONS**

**Notes:**

1. The control status of “components,” test and “production” equipment, and “software” therefor which are “specially designed” for telecommunications equipment or systems is determined in Category 5, Part 1.

**N.B.:** For “lasers” “specially designed” for telecommunications equipment or systems, see ECCN 6A005.

2. “Digital computers”, related equipment “software”, when essential for the operation and support of telecommunications equipment described in this Category, are regarded as “specially designed” “components,” provided they are the standard models customarily supplied by the manufacturer. This includes operation, administration, maintenance, engineering or billing computer systems.

**A. – “END ITEMS,” “EQUIPMENT,”  
“ACCESSORIES,” “ATTACHMENTS,”  
“PARTS,” “COMPONENTS,” AND  
“SYSTEMS”**

**\*\*5A001** Telecommunications systems, equipment, “components” and “accessories,” as follows (see List of Items Controlled).

**License Requirements**

Reason for Control: NS, SL, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to 5A001.a, b.5, .e, .f.3 and .h	NS Column 1

NS applies to 5A001.b (except .b.5), .c, .d, .f (except f.3), and .g.	NS Column 2
SL applies to 5A001.f.1	A license is required for all destinations, as specified in §742.13 of the EAR. Accordingly, a column specific to this control does not appear on the Commerce Country Chart (Supplement No. 1 to Part 738 of the EAR).  <i>Note to SL paragraph: This licensing requirement does not supersede, nor does it implement, construe or limit the scope of any criminal statute, including, but not limited to the Omnibus Safe Streets Act of 1968, as amended.</i>
AT applies to entire entry	AT Column 1

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

**LVS:** N/A for 5A001.a, b.5, .e, f.3 and .h; \$5000 for 5A001.b.1, .b.2, .b.3, .b.6, .d, f.2, f.4, and .g; \$3000 for 5A001.c.  
**GBS:** Yes, except 5A001.a, b.5, e, and h.

**Special Conditions for STA**

*STA:* License Exception STA may not be used to ship any commodity in 5A001.b.3, .b.5 or .h to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

### List of Items Controlled

*Related Controls:* (1) See USML Category XI for controls on direction-finding “equipment” including types of “equipment” in ECCN 5A001.e and any other military or intelligence electronic “equipment” that is “subject to the ITAR.” (2) See USML Category XI(a)(4)(iii) for controls on electronic attack and jamming “equipment” defined in 5A001.f and .h that are subject to the ITAR. (3) See also ECCNs 5A101, 5A980, and 5A991.

*Related Definitions:* N/A

*Items:*

a. Any type of telecommunications equipment having any of the following characteristics, functions or features:

a.1. “Specially designed” to withstand transitory electronic effects or electromagnetic pulse effects, both arising from a nuclear explosion;

a.2. Specially hardened to withstand gamma, neutron or ion radiation;

a.3. “Specially designed” to operate below 218 K (-55°C); *or*

a.4. “Specially designed” to operate above 397 K (124° C);

*Note:* 5A001.a.3 and 5A001.a.4 apply only to electronic equipment.

b. Telecommunication systems and equipment, and “specially designed” “components” and

“accessories” therefor, having any of the following characteristics, functions or features:

b.1 Being underwater untethered communications systems having any of the following:

b.1.a. An acoustic carrier frequency outside the range from 20 kHz to 60 kHz;

b.1.b. Using an electromagnetic carrier frequency below 30 kHz; *or*

b.1.c. Using electronic beam steering techniques; *or*

b.1.d. Using “lasers” or light-emitting diodes (LEDs), with an output wavelength greater than 400 nm and less than 700 nm, in a “local area network”;

b.2. Being radio equipment operating in the 1.5 MHz to 87.5 MHz band and having all of the following:

b.2.a. Automatically predicting and selecting frequencies and “total digital transfer rates” per channel to optimize the transmission; *and*

b.2.b. Incorporating a linear power amplifier configuration having a capability to support multiple signals simultaneously at an output power of 1 kW or more in the frequency range of 1.5 MHz or more but less than 30 MHz, or 250 W or more in the frequency range of 30 MHz or more but not exceeding 87.5 MHz, over an “instantaneous bandwidth” of one octave or more and with an output harmonic and distortion content of better than -80 dB;

b.3. Being radio equipment employing “spread spectrum” techniques, including “frequency hopping” techniques, not controlled in 5A001.b.4 and having any of the following :

b.3.a. User programmable spreading codes; *or*

b.3.b. A total transmitted bandwidth which is 100 or more times the bandwidth of any one information channel and in excess of 50 kHz;

**Note:** 5A001.b.3.b does not control radio equipment “specially designed” for use with any of the following:

a. Civil cellular radio-communications systems; *or*

b. Fixed or mobile satellite Earth stations for commercial civil telecommunications.

**Note:** 5A001.b.3 does not control equipment operating at an output power of 1 W or less.

b.4. Being radio equipment employing ultra-wideband modulation techniques, having user programmable channelizing codes, scrambling codes, or network identification codes and having any of the following:

b.4.a. A bandwidth exceeding 500 MHz; *or*

b.4.b. A “fractional bandwidth” of 20% or more;

b.5. Being digitally controlled radio receivers having all of the following:

b.5.a. More than 1,000 channels;

b.5.b. A ‘channel switching time’ of less than 1 ms;

b.5.c. Automatic searching or scanning of a part of the electromagnetic spectrum; *and*

b.5.d. Identification of the received signals or the type of transmitter; *or*

**Note:** 5A001.b.5 does not control radio equipment “specially designed” for use with civil cellular radio-communications systems.

**Technical Note:** ‘Channel switching time’: the time (i.e., delay) to change from one receiving frequency to another, to arrive at or within  $\pm 0.05\%$  of the final specified receiving frequency. Items having a specified frequency range of less than  $\pm 0.05\%$  around their center frequency are defined to be incapable of channel frequency switching.

b.6. Employing functions of digital “signal processing” to provide ‘voice coding’ output at rates of less than 700 bit/s.

**Technical Notes:**

1. For variable rate ‘voice coding’, 5A001.b.6 applies to the ‘voice coding’ output of continuous speech.

2. For the purpose of 5A001.b.6, ‘voice coding’ is defined as the technique to take samples of human voice and then convert these samples of human voice into a digital signal taking into account specific characteristics of human speech.

c. Optical fibers of more than 500 m in length and specified by the manufacturer as being capable of withstanding a ‘proof test’ tensile stress of  $2 \times 10^9$  N/m<sup>2</sup> or more;

**N.B.:** For underwater umbilical cables, see 8A002.a.3.

**Technical Note:** ‘Proof Test’: on-line or off-line production screen testing that dynamically applies a prescribed tensile stress over a 0.5 to 3 m length of fiber at a running rate of 2 to 5 m/s while passing between capstans approximately 150 mm in diameter. The ambient temperature is a nominal 293 K (20°C) and relative humidity 40%. Equivalent national standards may be used for executing the proof test.

d. “Electronically steerable phased array antennae” as follows:

d.1. Rated for operation above 31.8 GHz, but not exceeding 57 GHz, and having an Effective Radiated Power (ERP) equal to or greater than +20 dBm (22.15 dBm Effective Isotropic Radiated Power (EIRP));

d.2. Rated for operation above 57 GHz, but not exceeding 66 GHz, and having an ERP equal to or greater than +24 dBm (26.15 dBm EIRP);

d.3. Rated for operation above 66 GHz, but not exceeding 90 GHz, and having an ERP equal to or greater than +20 dBm (22.15 dBm EIRP);

d.4. Rated for operation above 90 GHz;

**Note 1:** *5A001.d does not control ‘electronically steerable phased array antennae’ for landing systems with instruments meeting ICAO standards covering Microwave Landing Systems (MLS).*

**Note 2:** *5A001.d does not apply to antennae specially designed for any of the following:*

a. *Civil cellular or WLAN radio-communications systems;*

b. *IEEE 802.15 or wireless HDMI; or*

c. *Fixed or mobile satellite earth stations for commercial civil telecommunications.*

**Technical Note:** *For the purposes of 5A001.d ‘electronically steerable phased array antenna’ is an antenna which forms a beam by means of phase coupling, (i.e., the beam direction is controlled by the complex excitation coefficients of the radiating elements) and the direction of that beam can be varied (both in transmission and reception) in azimuth or in elevation, or both, by application of an electrical signal.*

e. Radio direction finding equipment operating at frequencies above 30 MHz and having all of the following, and “specially designed” “components” therefor:

e.1. “Instantaneous bandwidth” of 10 MHz or more; and

e.2. Capable of finding a Line Of Bearing (LOB) to non-cooperating radio transmitters with a signal duration of less than 1 ms;

f. Mobile telecommunications interception or jamming equipment, and monitoring equipment therefor, as follows, and “specially designed” “components” therefor:

f.1. Interception equipment designed for the extraction of voice or data, transmitted over the air interface;

f.2. Interception equipment not specified in 5A001.f.1, designed for the extraction of client device or subscriber identifiers (e.g., IMSI, TIMSI or IMEI), signaling, or other metadata transmitted over the air interface;

f.3. Jamming equipment “specially designed” or modified to intentionally and selectively interfere with, deny, inhibit, degrade or seduce mobile telecommunication services and performing any of the following:

f.3.a. Simulate the functions of Radio Access Network (RAN) equipment;

f.3.b. Detect and exploit specific characteristics of the mobile telecommunications protocol employed (e.g., GSM); *or*

f.3.c. Exploit specific characteristics of the mobile telecommunications protocol employed (e.g., GSM);

f.4. Radio Frequency (RF) monitoring equipment designed or modified to identify the

operation of items specified in 5A001.f.1, 5A001.f.2 or 5A001.f.3.

*Note:* 5A001.f.1 and 5A001.f.2 do not apply to any of the following:

a. Equipment “specially designed” for the interception of analog Private Mobile Radio (PMR), IEEE 802.11 WLAN;

b. Equipment designed for mobile telecommunications network operators; or

c. Equipment designed for the “development” or “production” of mobile telecommunications equipment or systems.

**N.B. 1:** See also the International Traffic in Arms Regulations (ITAR) (22 CFR Parts 120-130). For items specified by 5A001.f.1 (including as previously specified by 5A001.i), see also 5A980 and the U.S. Munitions List (22 CFR part 121).

**N.B. 2:** For radio receivers see 5A001.b.5.

g. Passive Coherent Location (PCL) systems or equipment, “specially designed” for detecting and tracking moving objects by measuring reflections of ambient radio frequency emissions, supplied by non-radar transmitters.

**Technical Note:** Non-radar transmitters may include commercial radio, television or cellular telecommunications base stations.

*Note:* 5A001.g. does not control:

a. Radio-astronomical equipment; or

b. Systems or equipment, that require any radio transmission from the target.

h. Counter Improvised Explosive Device (IED) equipment and related equipment, as follows:

h.1. Radio Frequency (RF) transmitting equipment, not specified by 5A001.f, designed or modified for prematurely activating or preventing the initiation of Improvised Explosive Devices (IEDs);

h.2. Equipment using techniques designed to enable radio communications in the same frequency channels on which co-located equipment specified by 5A001.h.1 is transmitting.

**N.B.:** See also Category XI of the International Traffic in Arms Regulations (ITAR) (22 CFR Parts 120-130).

i. [Reserved]

**N.B.:** See 5A001.f.1 for items previously specified by 5A001.i.

**\*\*5A101** Telemetry and telecontrol equipment, including ground equipment, designed or modified for unmanned aerial vehicle (including cruise missiles, target drones, and reconnaissance drones) or rocket systems (including ballistic missiles, space launch vehicles, and sounding rockets) capable of a maximum “range” equal to or greater than 300 km.

**License Requirements**

*Reason for Control:* MT, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A

GBS: N/A

### List of Items Controlled

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**NOTE: 5A101 does not control:**

1. *Telecontrol equipment “specially designed” to be used for remote control of recreational model planes, boats or vehicles and having an electric field strength of not more than 200 microvolts per meter at a distance of 500 meters;*

2. *Equipment designed or modified for manned aircraft or satellites;*

3. *Ground based equipment designed or modified for terrestrial or marine applications;*

4. *Equipment designed for commercial, civil, or safety of life (e.g., data integrity or flight safety) Global Navigation Satellite System services.*

**NOTE:** *ECCN 5A101 does not include items not designed or modified for unmanned aerial vehicles (including cruise missiles, target drones, and reconnaissance drones) or rocket systems (including ballistic missiles, space launch vehicles and sounding rockets) capable of a maximum “range” equal to or greater than 300km (e.g., telemetry circuit cards limited by design to reception only and designed for use in personal computers).*

**\*\*5A611** **Telecommunications equipment, and “parts,” “components,” “accessories,” and “attachments” “specially designed” therefor, “specially designed” for a military**

**application that are not enumerated in any USML category are controlled by ECCN 3A611.**

**\*\*5A980** **Devices primarily useful for the surreptitious interception of wire, oral, or electronic communications, other than those controlled under 5A001.f.1; and “parts,” “components” and “accessories” therefor.**

### License Requirements

*Reason for Control:* SL, AT

*Control(s):* SL and AT apply to entire entry. A license is required for all destinations, as specified in §742.13 of the EAR. Accordingly, a column specific to this control does not appear on the Commerce Country Chart (Supplement No. 1 to Part 738 of the EAR).

**Note:** *This licensing requirement does not supersede, nor does it implement, construe or limit the scope of any criminal statute, including, but not limited to the Omnibus Safe Streets Act of 1968, as amended.*

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

### List of Items Controlled

*Related Controls:* (1) See ECCN 5A001.f.1 for systems or equipment, “specially designed” or modified to intercept and process the air interface of 'mobile telecommunications', and “specially designed” components therefor. (2) See ECCN 5D980 for “software” for the “development”, “production” or “use” of equipment controlled by 5A980. (3) See ECCN 5E980 for the “technology” for the

“development”, “production”, and “use” of equipment controlled by 5A980.

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*5A991 Telecommunication equipment, not controlled by 5A001 (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* See also 5E101 and 5E991.

*Related Definitions:* 1) ‘Asynchronous transfer mode’ (*ATM*) is a transfer mode in which the information is organized into cells; it is asynchronous in the sense that the recurrence of cells depends on the required or instantaneous bit rate. 2) ‘Bandwidth of one voice channel’ is data communication equipment designed to operate in one voice channel of 3,100 Hz, as defined in CCITT Recommendation G.151. 3) ‘Communications channel controller’ is the physical interface that controls the flow of synchronous or asynchronous digital information. It is an assembly that can be integrated into computer or telecommunications

equipment to provide communications access. 4) ‘Datagram’ is a self-contained, independent entity of data carrying sufficient information to be routed from the source to the destination data terminal equipment without reliance on earlier exchanges between this source and destination data terminal equipment and the transporting network. 5) ‘Fast select’ is a facility applicable to virtual calls that allows data terminal equipment to expand the possibility to transmit data in call set-up and clearing ‘packets’ beyond the basic capabilities of a virtual call. 6) ‘Gateway’ is the function, realized by any combination of equipment and “software”, to carry out the conversion of conventions for representing, processing or communicating information used on one system into the corresponding, but different conventions used in another system. 7) ‘Integrated Services Digital Network’ (ISDN) is a unified end-to-end digital network, in which data originating from all types of communication (*e.g.*, voice, text, data, still and moving pictures) are transmitted from one port (terminal) in the exchange (switch) over one access line to and from the subscriber. 8) ‘Packet’ is a group of binary digits including data and call control signals that is switched as a composite whole. The data, call control signals, and possible error control information are arranged in a specified format.

*Items:*

- a. Any type of telecommunications equipment, not controlled by 5A001.a, “specially designed” to operate outside the temperature range from 219 K (-54 EC) to 397 K (124 EC).
- b. Telecommunication transmission equipment and systems, and “specially designed” “parts,” “components” and “accessories” therefor, having any of the following characteristics, functions or features:

**Note:** Telecommunication transmission equipment:

a. Categorized as follows, or combinations thereof:

1. Radio equipment (e.g., transmitters, receivers and transceivers);
2. Line terminating equipment;
3. Intermediate amplifier equipment;
4. Repeater equipment;
5. Regenerator equipment;
6. Translation encoders (transcoders);
7. Multiplex equipment (statistical multiplex included);
8. Modulators/demodulators (modems);
9. Transmultiplex equipment (see CCITT Rec. G701);
10. "Stored program controlled" digital crossconnection equipment;
11. 'Gateways' and bridges;
12. "Media access units"; and

b. Designed for use in single or multi-channel communication via any of the following:

1. Wire (line);
2. Coaxial cable;
3. Optical fiber cable;
4. Electromagnetic radiation; or

5. Underwater acoustic wave propagation.

b.1. Employing digital techniques, including digital processing of analog signals, and designed to operate at a "digital transfer rate" at the highest multiplex level exceeding 45 Mbit/s or a "total digital transfer rate" exceeding 90 Mbit/s;

**Note:** 5A991.b.1 does not control equipment "specially designed" to be integrated and operated in any satellite system for civil use.

b.2. Modems using the 'bandwidth of one voice channel' with a "data signaling rate" exceeding 9,600 bits per second;

b.3. Being "stored program controlled" digital cross connect equipment with "digital transfer rate" exceeding 8.5 Mbit/s per port.

b.4. Being equipment containing any of the following:

b.4.a. 'Network access controllers' and their related common medium having a "digital transfer rate" exceeding 33 Mbit/s; or

b.4.b. "Communication channel controllers" with a digital output having a "data signaling rate" exceeding 64,000 bit/s per channel;

**Note:** If any uncontrolled equipment contains a "network access controller", it cannot have any type of telecommunications interface, except those described in, but not controlled by 5A991.b.4.

b.5. Employing a "laser" and having any of the following characteristics:

b.5.a. A transmission wavelength exceeding 1,000 nm; or

b.5.b. Employing analog techniques and having a bandwidth exceeding 45 MHz;

*Note: 5A991.b.5.b does not control commercial TV systems.*

b.5.c. Employing coherent optical transmission or coherent optical detection techniques (also called optical heterodyne or homodyne techniques);

b.5.d. Employing wavelength division multiplexing techniques; *or*

b.5.e. Performing “optical amplification”;

b.6. Radio equipment operating at input or output frequencies exceeding:

b.6.a. 31 GHz for satellite-earth station applications; *or*

b.6.b. 26.5 GHz for other applications;

*Note: 5A991.b.6. does not control equipment for civil use when conforming with an International Telecommunications Union (ITU) allocated band between 26.5 GHz and 31 GHz.*

b.7. Being radio equipment employing any of the following:

b.7.a. Quadrature-amplitude-modulation (QAM) techniques above level 4 if the “total digital transfer rate” exceeds 8.5 Mbit/s;

b.7.b. QAM techniques above level 16 if the “total digital transfer rate” is equal to or less than 8.5 Mbit/s;

b.7.c. Other digital modulation techniques and having a “spectral efficiency” exceeding 3 bit/s/Hz; *or*

b.7.d. Operating in the 1.5 MHz to 87.5 MHz band and incorporating adaptive techniques providing more than 15 dB suppression of an interfering signal.

**Notes:**

1. 5A991.b.7 does not control equipment “specially designed” to be integrated and operated in any satellite system for civil use.

2. 5A991.b.7 does not control radio relay equipment for operation in an ITU allocated band:

a. Having any of the following:

a.1. Not exceeding 960 MHz; *or*

a.2. With a “total digital transfer rate” not exceeding 8.5 Mbit/s; *and*

b. Having a “spectral efficiency” not exceeding 4 bit/s/Hz.

c. “Stored program controlled” switching equipment and related signaling systems, having any of the following characteristics, functions or features, and “specially designed” “parts,” “components” and “accessories” therefor:

*Note: Statistical multiplexers with digital input and digital output which provide switching are treated as “stored program controlled” switches.*

c.1. “Data (message) switching” equipment or systems designed for “packet-mode operation” and “parts,” electronic assemblies and “components” therefor, n.e.s.

c.2. [Reserved];

c.3. Routing or switching of ‘datagram’ packets;

c.4. [Reserved]

*Note: The restrictions in 5A991.c.3 do not apply to networks restricted to using only*

*‘network access controllers’ or to ‘network access controllers’ themselves.*

c.5. Multi-level priority and pre-emption for circuit switching;

*Note: 5A991.c.5 does not control single-level call preemption.*

c.6. Designed for automatic hand-off of cellular radio calls to other cellular switches or automatic connection to a centralized subscriber data base common to more than one switch;

c.7. Containing “stored program controlled” digital cross connect equipment with “digital transfer rate” exceeding 8.5 Mbit/s per port.

c.8. “Common channel signaling” operating in either non-associated or quasi-associated mode of operation;

c.9. ‘Dynamic adaptive routing’;

c.10. Being packet switches, circuit switches and routers with ports or lines exceeding any of the following:

c.10.a. A “data signaling rate” of 64,000 bit/s per channel for a ‘communications channel controller’; *or*

*Note: 5A991.c.10.a does not control multiplex composite links composed only of communication channels not individually controlled by 5A991.b.1.*

c.10.b. A “digital transfer rate” of 33 Mbit/s for a ‘network access controller’ and related common media;

*Note: 5A991.c.10 does not control packet switches or routers with ports or lines not exceeding the limits in 5A991.c.10.*

c.11. “Optical switching”;

c.12. Employing ‘Asynchronous Transfer Mode’ (‘ATM’) techniques.

d. Optical fibers and optical fiber cables of more than 50 m in length designed for single mode operation;

e. Centralized network control having all of the following characteristics:

e.1. Receives data from the nodes; *and*

e.2. Process these data in order to provide control of traffic not requiring operator decisions, and thereby performing ‘dynamic adaptive routing’;

*Note: 5A991.e does not preclude control of traffic as a function of predictable statistical traffic conditions.*

f. Phased array antennas, operating above 10.5 GHz, containing active elements and distributed “parts” or “components,” and designed to permit electronic control of beam shaping and pointing, except for landing systems with instruments meeting International Civil Aviation Organization (ICAO) standards (microwave landing systems (MLS)).

g. Mobile communications equipment, n.e.s., and “parts,” electronic assemblies and “components” therefor; *or*

h. Radio relay communications equipment designed for use at frequencies equal to or exceeding 19.7 GHz and “parts” and “components” therefor, n.e.s.

## B. TEST, INSPECTION AND “PRODUCTION EQUIPMENT”

**\*\*5B001** Telecommunication test, inspection and production equipment, “components” and

“accessories,” as follows (See List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$5000  
*GBS:* Yes

**Special Conditions for STA**

*STA:* License Exception STA may not be used to ship 5B001.a equipment and “specially designed” components or “accessories” therefor, “specially designed” for the “development” or “production” of equipment, functions or features specified by in ECCN 5A001.b.3, .b.5 or .h to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

**List of Items Controlled**

*Related Controls:* See also [5B991](#).  
*Related Definition:* N/A  
*Items:*

a. Equipment and “specially designed” “components” or “accessories” therefor, “specially designed” for the “development” or “production” of equipment, functions or features, controlled by 5A001;

*Note:* 5B001.a does not apply to optical fiber characterization equipment.

b. Equipment and “specially designed” “components” or “accessories” therefor, “specially designed” for the “development” of any of the following telecommunication transmission or switching equipment:

b.1. [Reserved]

b.2. Equipment employing a “laser” and having any of the following:

b.2.a. A transmission wavelength exceeding 1750 nm; or

b.2.b. [Reserved]

b.2.c. [Reserved]

b.2.d. Employing analog techniques and having a bandwidth exceeding 2.5 GHz; or

*Note:* 5B001.b.2.d. does not include equipment “specially designed” for the “development” of commercial TV systems.

b.3. [Reserved]

b.4. Radio equipment employing Quadrature-Amplitude-Modulation (QAM) techniques above level 1,024.

**\*\*5B991 Telecommunications test equipment, n.e.s.**

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**C.="MATERIALS"**

**\*\*5C991** Preforms of glass or of any other material optimized for the manufacture of optical fibers controlled by 5A991.

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738).</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* N/A

**D. "SOFTWARE"**

**\*\*5D001** "Software" as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, SL, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No.1 to part 738)</i>
NS applies to entire entry	NS Column 1.
SL applies to the entire entry as applicable for equipment, functions, features, or characteristics controlled by 5A001.f.1	A license is required for all destinations, as specified in § 742.13 of the EAR. Accordingly, a column specific to this control does not appear on the Commerce Country Chart (Supplement No. 1 to Part 738 of the EAR).  <i>Note to SL paragraph:</i> This licensing requirement does not supersede, implement, construe or limit the scope of any criminal statute, including, but not limited to, the Omnibus Safe Streets Act of 1968, as amended.
AT applies to entire entry	AT Column 1.

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License

Exceptions and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* Yes, except for exports and reexports to destinations outside of those countries listed in Country Group A:5 (See Supplement No. 1 to part 740 of the EAR) of the following:

- (1) “Software” controlled by 5D001.a and “specially designed” for items controlled by 5A001.b.5 and 5A001.h. or
- (2) “Software” controlled by 5D001.e.

**Special Conditions for STA**

*STA:* License Exception STA may not be used to ship or transmit 5D001.a “software” “specially designed” for the “development” or “production” of equipment, functions or features, specified by ECCN 5A001.b.3, .b.5 or .h. for “software” “specially designed” or modified to support “technology” specified by the STA paragraph in the License Exception section of ECCN 5E001 to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

**List of Items Controlled**

*Related Controls:* See also [5D980](#) and [5D991](#).

*Related Definitions:* N/A

*Items:*

a. “Software” “specially designed” or modified for the “development”, “production” or “use” of equipment, functions or features controlled by 5A001;

b. [Reserved]

c. Specific “software” “specially designed” or modified to provide characteristics, functions or features of equipment, controlled by 5A001 or 5B001;

d. “Software” “specially designed” or modified for the “development” of any of the following telecommunication transmission or switching equipment:

d.1.[Reserved]

d.2. Equipment employing a “laser” and having any of the following:

d.2.a. A transmission wavelength exceeding 1,750 nm; *or*

d.2.b. Employing analog techniques and having a bandwidth exceeding 2.5 GHz; *or*

*Note:* 5D001.d.2.b does not control “software” “specially designed” or modified for the “development” of commercial TV systems.

d.3. [Reserved]

d.4. Radio equipment employing Quadrature-Amplitude-Modulation (QAM) techniques above level 1,024;

e. “Software”, other than that specified by 5D001.a or 5D001.c, “specially designed” or modified for monitoring or analysis by law enforcement, providing all of the following:

e.1. Execution of searches on the basis of “hard selectors” of either the content of communication or metadata acquired from a communications service provider using a ‘handover interface’; *and*

**Technical Notes:**

1. For the purposes of 5D001.e, a ‘handover interface’ is a physical and logical interface, designed for use by an authorised law

enforcement authority, across which targeted interception measures are requested from a communications service provider and the results of interception are delivered from a communications service provider to the requesting authority. The ‘handover interface’ is implemented within systems or equipment (e.g., mediation devices) that receive and validate the interception request, and deliver to the requesting authority only the results of interception that fulfil the validated request.

2. ‘Handover interfaces’ may be specified by international standards (including but not limited to ETSI TS 101 331, ETSI TS 101 671, 3GPP TS 33.108) or national equivalents.

e.2. Mapping of the relational network or tracking the movement of targeted individuals based on the results of searches on content of communication or metadata or searches as described in 5D001.e.1.

*Note:* 5D001.e does not apply to “software” “specially designed” or modified for any of the following:

- a. Billing purposes;
- b. Network Quality of Service (QoS);
- c. Quality of Experience (QoE);
- d. Mediation devices; or
- e. Mobile payment or banking use.

**\*\*5D101** “Software” “specially designed” or modified for the “use” of equipment controlled by 5A101.

**License Requirements**

*Reason for Control:* MT, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
MT applies to entire entry	MT Column 1

AT applies to entire entry	AT Column 1
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**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*5D980** Other “software”, other than that controlled by 5D001 (for the equipment, functions, features, or characteristics controlled by 5A001. f.1, or to support certain “technology” controlled by 5E001.a), as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* SL, AT

*Controls:* SL and AT apply to entire entry. A license is required for all destinations, as specified in §742.13 of the EAR. Accordingly, a column specific to this control does not appear on the Commerce Country Chart (Supplement No. 1 to Part 738 of the EAR).

*Note:* This licensing requirement does not supersede, nor does it implement, construe or limit the scope of any criminal statute, including, but not limited to the Omnibus Safe Streets Act of 1968, as amended.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* See also [5D001.a](#) and .c for software controls for equipment, functions, features or characteristics controlled by [5A001.f.1](#) and also [5D001.b](#) for controls on “software” “specially designed” or modified to support “technology” controlled by [5E001.a](#) (for [5A001.f.1](#) equipment, functions or features, and for [5D001.a](#) “software” for [5A001.f.1](#) equipment). See [5E980](#) for “technology” for the “development”, “production”, and “use” of equipment controlled by [5A980](#) or “software” controlled by [5D980](#).

*Related Definitions:* N/A

*Items:*

- a. “Software” primarily useful for the surreptitious interception of wire, oral, and electronic communications.
- b. “Software” primarily useful for the “development”, “production”, or “use” of equipment controlled by 5A980.

**\*\*5D991** “Software” “specially designed” or modified for the “development,” “production” or “use” of equipment controlled by 5A991 and 5B991, and dynamic adaptive routing software as described as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

- a. “Software”, other than in machine-executable form, “specially designed” for “dynamic adaptive routing”.
- b. [Reserved]

**E. “TECHNOLOGY”**

**\*\*5E001** “Technology” as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, SL, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 1.
SL applies to “technology” for the “development” or “production” of equipment, functions or features controlled by 5A001.f.1, or for the “development” or “production” of “software” controlled by ECCN 5D001.a (for 5A001.f.1)	A license is required for all destinations, as specified in § 742.13 of the EAR. Accordingly, a column specific to this control does not appear on the Commerce Country Chart (Supplement No. 1 to Part 738 of the EAR).  <i>Note to SL paragraph: This licensing requirement does not supersede, implement, construe or limit the scope of any criminal statute, including, but not limited to, the Omnibus Safe Streets Act of 1968, as amended.</i>
AT applies to entire	AT Column 1.

entry	
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### Reporting Requirements

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions and Validated End-User authorizations.

### List Based License Exceptions (See Part 740 for a description of all license exceptions)

*TSR:* Yes, except for exports or reexports to destinations outside of those countries listed in Country Group A:5 (See Supplement No. 1 to part 740 of the EAR) of “technology” controlled by 5E001.a for the “development” or “production” of the following:

- (1) Items controlled by 5A001.b.5 or 5A001.h;
- (2) “Software” controlled by 5D001.a that is “specially designed” for the “development” or “production” of equipment, functions or features controlled by 5A001.b.5 or 5A001.h.; or
- (3) “Software” controlled by 5D001.e.

### Special Conditions for STA

*STA:* License Exception STA may not be used to ship or transmit “technology” according to the General Technology Note for the “development” or “production” of equipment, functions or features specified by 5A001.b.3, .b.5 or .h; or for “software” in 5D001.a that is specified in the STA paragraph in the License Exception section of ECCN 5D001 to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

### List of Items Controlled

*Related Controls:* (1) See also [5E101](#), [5E980](#) and [5E991](#). (2) “Technology” for “development” or “production” of “Monolithic Microwave Integrated Circuit” (“MMIC”) amplifiers that meet the control criteria given at 3A001.b.2 is controlled in 3E001; [5E001.d](#) refers only to that additional “technology” “required” for telecommunications.

*Related Definitions:* N/A

*Items:*

a. “Technology” according to the General Technology Note for the “development”, “production” or “use” (excluding operation) of equipment, functions or features, controlled by 5A001 or “software” controlled by 5D001.a or 5D001.e.

b. Specific “technology”, as follows:

b.1. “Technology” “required” for the “development” or “production” of telecommunications equipment “specially designed” to be used on board satellites;

b.2. “Technology” for the “development” or “use” of “laser” communication techniques with the capability of automatically acquiring and tracking signals and maintaining communications through exoatmosphere or sub-surface (water) media;

b.3. “Technology” for the “development” of digital cellular radio base station receiving equipment whose reception capabilities that allow multi-band, multi-channel, multi-mode, multi-coding algorithm or multi-protocol operation can be modified by changes in “software”;

b.4. “Technology” for the “development” of “spread spectrum” techniques, including “frequency hopping” techniques.

*Note:* 5E001.b.4 does not apply to “technology” for the “development” of any of the following:

- a. Civil cellular radio-communications systems; or
- b. Fixed or mobile satellite Earth stations for commercial civil telecommunications.

c. “Technology” according to the General Technology Note for the “development” or “production” of any of the following:

c.1. [Reserved]

c.2. Equipment employing a “laser” and having any of the following:

c.2.a. A transmission wavelength exceeding 1,750 nm;

c.2.b. [Reserved]

c.2.c. [Reserved]

c.2.d. Employing wavelength division multiplexing techniques of optical carriers at less than 100 GHz spacing; or

c.2.e. Employing analog techniques and having a bandwidth exceeding 2.5 GHz;

*Note:* 5E001.c.2.e does not control “technology” for commercial TV systems.

**N.B.:** For “technology” for the “development” or “production” of non-telecommunications equipment employing a “laser”, see Product Group E of Category 6, e.g., 6E00x

c.3. Equipment employing “optical switching” and having a switching time less than 1 ms; or

c.4. Radio equipment having any of the following:

c.4.a. Quadrature-Amplitude-Modulation (QAM) techniques above level 1,024; or

c.4.b. Operating at input or output frequencies exceeding 31.8 GHz; or

*Note:* 5E001.c.4.b does not control “technology” for equipment designed or modified for operation in any frequency band which is “allocated by the ITU” for radio-communications services, but not for radio-determination.

c.4.c. Operating in the 1.5 MHz to 87.5 MHz band and incorporating adaptive techniques providing more than 15 dB suppression of an interfering signal; or

c.5. [Reserved]

c.6. Mobile equipment having all of the following:

c.6.a. Operating at an optical wavelength greater than or equal to 200nm and less than or equal to 400nm; and

c.6.b. Operating as a “local area network”;

d. “Technology” according to the General Technology Note for the “development” or “production” of “Monolithic Microwave Integrated Circuit” (“MMIC”) amplifiers “specially designed” for telecommunications and that are any of the following:

**Technical Note:** For purposes of 5E001.d, the parameter peak saturated power output may also be referred to on product data sheets as output power, saturated power output, maximum power output, peak power output, or peak envelope power output.

d.1. Rated for operation at frequencies

exceeding 2.7 GHz up to and including 6.8 GHz with a “fractional bandwidth” greater than 15%, and having any of the following:

d.1.a. A peak saturated power output greater than 75 W (48.75 dBm) at any frequency exceeding 2.7 GHz up to and including 2.9 GHz;

d.1.b. A peak saturated power output greater than 55 W (47.4 dBm) at any frequency exceeding 2.9 GHz up to and including 3.2 GHz;

d.1.c. A peak saturated power output greater than 40 W (46 dBm) at any frequency exceeding 3.2 GHz up to and including 3.7 GHz;  
*or*

d.1.d. A peak saturated power output greater than 20 W (43 dBm) at any frequency exceeding 3.7 GHz up to and including 6.8 GHz;

d.2. Rated for operation at frequencies exceeding 6.8 GHz up to and including 16 GHz with a “fractional bandwidth” greater than 10%, and having any of the following:

d.2.a. A peak saturated power output greater than 10W (40 dBm) at any frequency exceeding 6.8 GHz up to and including 8.5 GHz;  
*or*

d.2.b. A peak saturated power output greater than 5W (37 dBm) at any frequency exceeding 8.5 GHz up to and including 16 GHz;

d.3. Rated for operation with a peak saturated power output greater than 3 W (34.77 dBm) at any frequency exceeding 16 GHz up to and including 31.8 GHz, and with a “fractional bandwidth” of greater than 10%;

d.4. Rated for operation with a peak saturated power output greater than 0.1 nW (-70 dBm) at any frequency exceeding 31.8 GHz up to and including 37 GHz;

d.5. Rated for operation with a peak saturated

power output greater than 1 W (30 dBm) at any frequency exceeding 37 GHz up to and including 43.5 GHz, and with a “fractional bandwidth” of greater than 10%;

d.6. Rated for operation with a peak saturated power output greater than 31.62 mW (15 dBm) at any frequency exceeding 43.5 GHz up to and including 75 GHz, and with a “fractional bandwidth” of greater than 10%;

d.7. Rated for operation with a peak saturated power output greater than 10 mW (10 dBm) at any frequency exceeding 75 GHz up to and including 90 GHz, and with a “fractional bandwidth” of greater than 5%; *or*

d.8. Rated for operation with a peak saturated power output greater than 0.1 nW (-70 dBm) at any frequency exceeding 90 GHz;

e. “Technology” according to the General Technology Note for the “development” or “production” of electronic devices and circuits, “specially designed” for telecommunications and containing “components” manufactured from “superconductive” materials, “specially designed” for operation at temperatures below the “critical temperature” of at least one of the “superconductive” constituents and having any of the following:

e.1. Current switching for digital circuits using “superconductive” gates with a product of delay time per gate (in seconds) and power dissipation per gate (in watts) of less than  $10^{-14}$  J; *or*

e.2. Frequency selection at all frequencies using resonant circuits with Q-values exceeding 10,000.

**\*\*5E101** “Technology” according to the General Technology Note for the “development”,

“production” or “use” of equipment or software controlled by 5A101 or 5D101.

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*5E980** “Technology”, other than that controlled by 5E001.a (for 5A001.f.1 and for 5D001.a (for 5A001.f.1)), primarily useful for the “development”, “production”, or “use” of equipment, functions or features, of equipment controlled by 5A980 or “software” controlled by 5D980.

**License Requirements**

*Reason for Control:* SL, AT

*Controls:* SL and AT apply to entire entry. A license is required for all destinations, as specified in §742.13 of the EAR. Accordingly, a column specific to this control does not appear on the Commerce Country Chart (Supplement No. 1 to Part 738 of the EAR).

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* See also 5D001.a and .c (for 5A001.f.1 equipment), 5D001.b (supporting 5E001.a “technology” for 5A001.f.1 equipment, or for 5D001.a “software” (for 5A001.f.1 equipment)), and 5E001.a (for 5A001.f.1 equipment, or for 5D001.a “software” for 5A001.f.1 equipment).

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*5E991** “Technology” for the “development”, “production” or “use” of equipment controlled by 5A991 or 5B991, or “software” controlled by 5D991, and other “technologies” as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* 1) ‘Synchronous digital hierarchy’ (SDH) is a digital hierarchy

providing a means to manage, multiplex, and access various forms of digital traffic using a synchronous transmission format on different types of media. The format is based on the Synchronous Transport Module (STM) that is defined by CCITT Recommendation G.703, G.707, G.708, G.709 and others yet to be published. The first level rate of 'SDH' is 155.52 Mbits/s.

2) 'Synchronous optical network' (SONET) is a network providing a means to manage, multiplex and access various forms of digital traffic using a synchronous transmission format on fiber optics. The format is the North America version of 'SDH' and also uses the Synchronous Transport Module (STM). However, it uses the Synchronous Transport Signal (STS) as the basic transport module with a first level rate of 51.81 Mbits/s. The SONET standards are being integrated into those of 'SDH'.

*Items:*

a. Specific "technologies" as follows:

a.1. "Technology" for the processing and application of coatings to optical fiber "specially designed" to make it suitable for underwater use;

a.2. "Technology" for the "development" of equipment employing 'Synchronous Digital Hierarchy' ('SDH') or 'Synchronous Optical Network' ('SONET') techniques.

**EAR99 Items subject to the EAR that are *not* elsewhere specified in this CCL Category *or* in any other category in the CCL are designated by the number EAR99.**

**\*\*Note 3 to Category 5 Part 2 - \*\*Cryptography Note:**

So according to N.B. to Note 3 (Cryptography Note), an item can qualify as "mass market", but (if >64bit) **still** require ENC review.

**\*\*Category 5.2 = 9 ECCNs**

Commerce Control List

Supplement No. 1 to Part 774

**Category 5 - Info. Security**—page 1

**CATEGORY 5 – TELECOMMUNICATIONS  
AND “INFORMATION SECURITY”**

**Part 2 – “INFORMATION SECURITY”**

**Note 1:** [RESERVED]

**Note 2:** Category 5–Part 2, “information security” products, when accompanying their user for the user's personal use or as tools of trade, are eligible for License Exceptions TMP or BAG, subject to the terms and conditions of these license exceptions.

**Note 3:** Cryptography Note: ECCNs 5A002, 5D002.a.1, .b, and .c.1, do not control items as follows:

**a.** Items meeting all of the following:

- 1.** Generally available to the public by being sold, without restriction, from stock at retail selling points by means of any of the following:
  - a. Over-the-counter transactions;
  - b. Mail order transactions;
  - c. Electronic transactions; or
  - d. Telephone call transactions;
- 2.** The cryptographic functionality cannot be easily changed by the user;
- 3.** Designed for installation by the user without further substantial support by the supplier; and
- 4.** When necessary, details of the items are accessible and will be provided, upon request, to the appropriate authority in the exporter's country in order to ascertain compliance with conditions described in paragraphs a.1 through a.3 of this Note;

**b.** Hardware components or ‘executable software’, of existing items described in paragraph a. of this Note, that have been designed for these existing items, and meeting all of the following:

- 1.** “Information security” is not the primary function or set of functions of the component or ‘executable software’;
- 2.** The component or ‘executable software’ does not change any cryptographic functionality of the existing items, or add new cryptographic functionality to the existing items;
- 3.** The feature set of the component or ‘executable software’ is fixed and is not designed or modified to customer specification; and
- 4.** When necessary, as determined by the appropriate authority in the exporter's country, details of the component or ‘executable software’, and details of relevant end-items are accessible and will be provided to the authority upon request, in order to ascertain compliance with conditions described above.

**Technical Note:** For the purpose of the Cryptography Note, ‘executable software’ means “software” in executable form, from an existing hardware component excluded from 5A002, by the Cryptography Note.

**Note:** ‘Executable software’ does not include complete binary images of the “software” running on an end-item.

**Note to the Cryptography Note:**

- 1.** To meet paragraph a. of Note 3, all of the following must apply:
  - a. The item is of potential interest to a wide range of individuals and businesses; and

**NOTE:** Commodities and software pending mass market review are authorized by License Exception ENC under ECCNs 5A002 and 5D002. After the mass market review is complete, such commodities and software **may be exported under ECCNs 5A992 and 5D992** using No License Required (NLR).

b. The price and information about the main functionality of the item are available before purchase without the need to consult the vendor or supplier. A simple price inquiry is not considered to be a consultation.

2. In determining eligibility of paragraph a. of Note 3, BIS may take into account relevant factors such as quantity, price, required technical skill, existing sales channels, typical customers, typical use or any exclusionary practices of the supplier.

**N.B. to Note 3 (Cryptography Note):** You must submit a classification request or self-classification report to BIS for mass market encryption commodities and software eligible for the Cryptography Note employing a key length greater than 64 bits for the symmetric algorithm (or, for commodities and software not implementing any symmetric algorithms, employing a key length greater than 768 bits for asymmetric algorithms described by Technical note 2.b to 5A002.a or greater than 128 bits for elliptic curve algorithms, or any asymmetric algorithm described by Technical Note 2.c to 5A002.a) in accordance with the requirements of § 740.17(b) of the EAR in order to be released from the “EI” and “NS” controls of ECCN 5A002 or 5D002.

"Note 4 a. thru c." is now deleted; which formerly began "Category 5 - Part 2 does not apply to items incorporating or using "cryptography" and meeting all of the following.

**A. “END ITEMS,” “EQUIPMENT,”  
“ACCESSORIES,” “ATTACHMENTS,”  
“PARTS,” “COMPONENTS,” AND  
“SYSTEMS”**

**I. CRYPTOGRAPHIC  
“INFORMATION SECURITY”**

**\*\*5A002** “Information security” systems, equipment and “components,” as follows (see List of Items Controlled).

**License Requirements**

Reason for Control: **NS, AT, EI**

Note that "EI" has no country chart column. Must refer to 742.15 of the EAR.

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 1
AT applies to entire entry	AT Column 1
EI applies to entire entry	Refer to §742.15 of the EAR.

**License Requirements:** EI Control not in the country charts; must see 742.15 EAR for additional license requirements for microprocessors having a processing speed of 5 GFLOPS or more and an arithmetic logic unit with an access width of 32 bit or more, including those incorporating “information security” functionality, and associated “software” and “technology” for the “production” or “development” of such microprocessors.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

**LVS:** Yes: \$500 for “components”.  
N/A for systems and equipment.

**GBS:** N/A

**ENC:** Yes for certain EI controlled commodities, see §740.17 of the EAR for eligibility.

**List of Items Controlled**

*Related Controls:* (1) ECCN 5A002.a controls “component” providing the means or functions necessary for “information security.” All such “components” are presumptively “specially designed” and controlled by 5A002.a. (2) See USML Categories XI (including XI(b)) and XIII(b) (including XIII(b)(2)) for controls on systems, equipment, and components described in 5A002.d or .e that are subject to

the ITAR. (3) For “satellite navigation system” receiving equipment containing or employing decryption see 7A005, and for related decryption “software” and “technology” see 7D005 and 7E001. (4) Noting that items may be controlled elsewhere on the CCL, examples of items not controlled by ECCN 5A002.a.4 include the following: (a) An automobile where the only ‘cryptography for data confidentiality’ having a ‘described security algorithm’ is performed by a Category 5 – Part 2 Note 3 eligible mobile telephone that is built into the car. In this case, secure phone communications support a non-primary function of the automobile but the mobile telephone (equipment), as a standalone item, is not controlled by ECCN 5A002 because it is excluded by the Cryptography Note (Note 3) (See ECCN [5A992.c](#)). (b) An exercise bike with an embedded Category 5 – Part 2 Note 3 eligible web browser, where the only controlled cryptography is performed by the web browser. In this case, secure web browsing supports a non-primary function of the exercise bike but the web browser (“software”), as a standalone item, is not controlled by ECCN [5D002](#) because it is excluded by the Cryptography Note (Note 3) (See ECCN [5D992.c](#)). (5) After classification or self-classification in accordance with § 740.17(b) of the EAR, mass market encryption commodities that meet eligibility requirements are released from “EI” and “NS” controls. These commodities are designated [5A992.c](#).

*Related Definitions:* N/A

*Items:*

a. Designed or modified to use ‘cryptography for data confidentiality’ having a ‘described security algorithm’, where that cryptographic capability is useable, has been activated, or can be activated by means of “cryptographic activation” not employing a secure mechanism, as follows:

a.1. Items having “information security” as a primary function;

a.2. Digital communication or networking systems, equipment or components, not specified in paragraph 5A002.a.1;

a.3. Computers, other items having information storage or processing as a primary function, and components therefor, not specified in paragraphs 5A002.a.1 or .a.2;

*N.B.:* For operating systems see also [5D002.a.1](#) and [.c.1](#).

a.4. Items, not specified in paragraphs 5A002.a.1 to a.3, where the ‘cryptography for data confidentiality’ having a ‘described security algorithm’ meets all of the following:

a.4.a. It supports a non-primary function of the item; *and*

a.4.b. It is performed by incorporated equipment or “software” that would, as a standalone item, be specified by ECCNs 5A002, 5A003, 5A004, 5B002 or 5D002.

*N.B. to paragraph a.4:* See Related Control Paragraph (4) of this ECCN 5A002 for examples of items not controlled by 5A002.a.4.

**Technical Notes:**

**1.** For the purposes of 5A002.a, ‘cryptography for data confidentiality’ means “cryptography” that employs digital techniques and performs any cryptographic function other than any of the following:

**1.a.** “Authentication;”

**1.b.** Digital signature;

**1.c.** Data integrity;

*1.d. Non-repudiation;*

*1.e. Digital rights management, including the execution of copy-protected “software;”*

*1.f. Encryption or decryption in support of entertainment, mass commercial broadcasts or medical records management; or*

*1.g. Key management in support of any function described in paragraphs 1.a to 1.f of this Technical Note paragraph 1.*

*2. For the purposes of 5A002.a, ‘described security algorithm’ means any of the following:*

*2.a. A “symmetric algorithm” employing a key length in excess of 56 bits, not including parity bits;*

*2.b. An “asymmetric algorithm” where the security of the algorithm is based on any of the following:*

*2.b.1. Factorization of integers in excess of 512 bits (e.g., RSA);*

*2.b.2. Computation of discrete logarithms in a multiplicative group of a finite field of size greater than 512 bits (e.g., Diffie-Hellman over  $Z/pZ$ ); or*

*2.b.3. Discrete logarithms in a group other than mentioned in paragraph 2.b.2 of this Technical Note in excess of 112 bits (e.g., Diffie-Hellman over an elliptic curve); or*

*2.c. An “asymmetric algorithm” where the security of the algorithm is based on any of the following:*

*2.c.1. Shortest vector or closest vector problems associated with lattices (e.g., NewHope, Frodo, NTRUEncrypt, Kyber, Titanium);*

*2.c.2. Finding isogenies between Supersingular elliptic curves (e.g., Supersingular Isogeny Key Encapsulation); or*

*2.c.3. Decoding random codes (e.g., McEliece, Niederreiter).*

**Technical Note:** An algorithm described by Technical Note 2.c. may be referred to as being post-quantum, quantum-safe or quantum-resistant.

**Note 1:** Details of items must be accessible and provided upon request, in order to establish any of the following:

*a. Whether the item meets the criteria of 5A002.a.1 to a.4; or*

*b. Whether the cryptographic capability for data confidentiality specified by 5A002.a is usable without “cryptographic activation.”*

**Note 2:** 5A002.a does not control any of the following items, or specially designed “information security” components therefor:

*a. Smart cards and smart card ‘readers/writers’ as follows:*

*a.1. A smart card or an electronically readable personal document (e.g., token coin, e-passport) that meets any of the following:*

*a.1.a. The cryptographic capability meets all of the following:*

*a.1.a.1. It is restricted for use in any of the following:*

*a.1.a.1.a. Equipment or systems, not described by 5A002.a.1 to a.4;*

*a.1.a.1.b. Equipment or systems, not using ‘cryptography for data confidentiality’ having a ‘described security algorithm’; or*

**a.1.a.1.c.** Equipment or systems, excluded from 5A002.a by entries b. to f. of this Note; and

**a.1.a.2.** It cannot be reprogrammed for any other use; or

**a.1.b.** Having all of the following:

**a.1.b.1.** It is specially designed and limited to allow protection of ‘personal data’ stored within;

**a.1.b.2.** Has been, or can only be, personalized for public or commercial transactions or individual identification; and

**a.1.b.3.** Where the cryptographic capability is not user-accessible;

**Technical Note to paragraph a.1.b of Note 2:** ‘Personal data’ includes any data specific to a particular person or entity, such as the amount of money stored and data necessary for “authentication.”

**a.2.** ‘Readers/writers’ specially designed or modified, and limited, for items specified by paragraph a.1 of this Note;

**Technical Note to paragraph a.2 of Note 2:** ‘Readers/writers’ include equipment that communicates with smart cards or electronically readable documents through a network.

**b.** Cryptographic equipment specially designed and limited for banking use or ‘money transactions’;

**Technical Note to paragraph b. of Note 2:** ‘Money transactions’ in 5A002 Note 2 paragraph b. includes the collection and settlement of fares or credit functions.

**c.** Portable or mobile radiotelephones for civil use (e.g., for use with commercial civil cellular radio communication systems) that are not

capable of transmitting encrypted data directly to another radiotelephone or equipment (other than Radio Access Network (RAN) equipment), nor of passing encrypted data through RAN equipment (e.g., Radio Network Controller (RNC) or Base Station Controller (BSC));

**d.** Cordless telephone equipment not capable of end-to-end encryption where the maximum effective range of unboosted cordless operation (i.e., a single, unrelayed hop between terminal and home base station) is less than 400 meters according to the manufacturer’s specifications;

**e.** Portable or mobile radiotelephones and similar client wireless devices for civil use, that implement only published or commercial cryptographic standards (except for anti-piracy functions, which may be non-published) and also meet the provisions of paragraphs a.2 to a.4 of the Cryptography Note (Note 3 in Category 5 – Part 2), that have been customized for a specific civil industry application with features that do not affect the cryptographic functionality of these original non-customized devices;

**f.** Items, where the “information security” functionality is limited to wireless “personal area network” functionality, meeting all of the following:

**f.1.** Implement only published or commercial cryptographic standards; and

**f.2.** The cryptographic capability is limited to a nominal operating range not exceeding 30 meters according to the manufacturer’s specifications, or not exceeding 100 meters according to the manufacturer’s specifications for equipment that cannot interconnect with more than seven devices;

**g.** Mobile telecommunications Radio Access Network (RAN) equipment designed for civil use, which also meet the provisions of paragraphs a.2 to a.4 of the Cryptography Note (Note 3 in Category 5 -- Part 2), having an RF output power

limited to 0.1W (20 dBm) or less, and supporting 16 or fewer concurrent users;

**h.** Routers, switches or relays, where the “information security” functionality is limited to the tasks of “Operations, Administration or Maintenance” (“OAM”) implementing only published or commercial cryptographic standards;

**i.** General purpose computing equipment or servers, where the “information security” functionality meets all of the following:

**i.1.** Uses only published or commercial cryptographic standards; and

**i.2.** Is any of the following:

**i.2.a.** Integral to a CPU that meets the provisions of Note 3 in Category 5–Part 2;

**i.2.b.** Integral to an operating system that is not specified by 5D002; or

**i.2.c.** Limited to “OAM” of the equipment; or

**j.** Items specially designed for a ‘connected civil industry application’, meeting all of the following:

**j.1.** Being any of the following:

**j.1.a.** A network-capable endpoint device meeting any of the following:

**j.1.a.1.** The “information security” functionality is limited to securing ‘non-arbitrary data’ or the tasks of “Operations, Administration or Maintenance” (“OAM”); or

**j.1.a.2.** The device is limited to a specific ‘connected civil industry application’; or

**j.1.b.** Networking equipment meeting all of the following:

**j.1.b.1.** Being specially designed to communicate with the devices specified by paragraph j.1.a above; and

**j.1.b.2.** The “information security” functionality is limited to supporting the ‘connected civil industry application’ of devices specified by paragraph j.1.a above, or the tasks of “OAM” of this networking equipment or of other items specified by paragraph j. of this Note; and

**j.2.** Where the “information security” functionality implements only published or commercial cryptographic standards, and the cryptographic functionality cannot easily be changed by the user.

**Technical Notes:**

**1.** ‘Connected civil industry application’ means a network-connected consumer or civil industry application other than “information security”, digital communication, general purpose networking or computing.

**2.** ‘Non-arbitrary data’ means sensor or metering data directly related to the stability, performance or physical measurement of a system (e.g., temperature, pressure, flow rate, mass, volume, voltage, physical location, etc.), that cannot be changed by the user of the device.

**b.** Being a ‘cryptographic activation token’;

**Technical Note:** A ‘cryptographic activation token’ is an item designed or modified for any of the following:

**1.** Converting, by means of “cryptographic activation”, an item not specified by Category 5-Part 2 into an item specified by 5A002.a or 5D002.c.1, and not released by the Cryptography Note (Note 3 in Category 5-Part 2); or

**2.** Enabling, by means of “cryptographic

activation”, additional functionality specified by 5A002.a of an item already specified by Category 5-Part 2;

c. Designed or modified to use or perform “quantum cryptography;”

**Technical Note:** “Quantum cryptography” is also known as Quantum Key Distribution (QKD).

d. Designed or modified to use cryptographic techniques to generate channelizing codes, scrambling codes or network identification codes, for systems using ultra-wideband modulation techniques and having any of the following:

d.1. A bandwidth exceeding 500 MHz; or

d.2. A “fractional bandwidth” of 20% or more;

e. Designed or modified to use cryptographic techniques to generate the spreading code for “spread spectrum” systems, not specified by 5A002.d, including the hopping code for “frequency hopping” systems.

**\*\*5A992** Equipment not controlled by 5A002 (see List of Items Controlled).

**License Requirements**

*Reason for Control:* AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
AT applies to entire entry	AT Column 1

**License Requirements Note:** See § 744.17 of the EAR for additional license requirements for microprocessors having a processing speed of 5 GFLOPS or more and an arithmetic logic unit with an access width of 32 bit or more, including those incorporating “information security” functionality, and associated “software” and “technology” for the “production” or

“development” of such microprocessors.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A

GBS: N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

a. [Reserved]

b. [Reserved]

c. Commodities classified as mass market encryption commodities in accordance with § 740.17(b) of the EAR.

**II. NON-CRYPTOGRAPHIC “INFORMATION SECURITY”**

**\*\*5A003** “Systems,” “equipment” and “components,” for non-cryptographic “information security,” as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: Yes: \$500 for “components.”  
N/A for systems and equipment.

GBS: N/A

**List of Items Controlled**

Related Controls: N/A

Related Definitions: N/A

Items:

a. Communications cable systems designed or modified using mechanical, electrical or electronic means to detect surreptitious intrusion;

*Note: 5A003.a applies only to physical layer security. For the purpose of 5A003.a, the physical layer includes Layer 1 of the Reference Model of Open Systems Interconnection (OSI) (ISO/IEC 7498-1).*

b. “Specially designed” or modified to reduce the compromising emanations of information-bearing signals beyond what is necessary for health, safety or electromagnetic interference standards.

**III. DEFEATING, WEAKENING OR BYPASSING “INFORMATION SECURITY”**

**\*\*5A004** “Systems,” “equipment” and “components” for defeating, weakening or bypassing “information security,” as follows (see List of Items Controlled).

**License Requirements**

Reason for Control: NS, AT, EI

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 1
AT applies to entire entry	AT Column 1
EI applies to entire entry	Refer to §742.15 of the EAR.

*License Requirements Note: See §744.17 of the EAR for additional license requirements for microprocessors having a processing speed of 5 GFLOPS or more and an arithmetic logic unit with an access width of 32 bit or more, including those incorporating “information security” functionality, and associated “software” and “technology” for the “production” or “development” of such microprocessors.*

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: Yes: \$500 for “components.”  
N/A for systems and equipment.

GBS: N/A

ENC: Yes for certain EI controlled commodities. See §740.17 of the EAR for eligibility.

**List of Items Controlled**

Related Controls: ECCN 5A004.a controls “components” providing the means or functions necessary for “information security.” All such “components” are presumptively “specially designed” and controlled by 5A004.a.

Related Definitions: N/A

Items:

a. Designed or modified to perform ‘cryptanalytic functions.’

*Note: 5A004.a includes systems or equipment, designed or modified to perform ‘cryptanalytic functions’ by means of reverse engineering.*

*Technical Note: ‘Cryptanalytic functions’ are functions designed to defeat cryptographic mechanisms in order to derive confidential variables or sensitive data, including clear text, passwords or cryptographic keys.*

b. Items, not specified by 5A004.a, designed to

perform all of the following:

b.1. ‘Extract raw data’ from a computing or communications device; *and*

b.2. Circumvent “authentication” or authorisation controls of the device, in order to perform the function described in 5A004.b.1.

**Technical Note:** ‘Extract raw data’ from a computing or communications device means to retrieve binary data from a storage medium, e.g., RAM, flash or hard disk, of the device without interpretation by the device’s operating system or filesystem.

**Note 1:** 5A004.b does not apply to systems or equipment specially designed for the “development” or “production” of a computing or communications device.

**Note 2:** 5A004.b does not include:

- a. Debuggers, hypervisors;
- b. Items limited to logical data extraction;
- c. Data extraction items using chip-off or JTAG; or
- d. Items specially designed and limited to jail-breaking or rooting.

**B. TEST, INSPECTION AND “PRODUCTION EQUIPMENT”**

**\*\*5B002** “Information Security” test, inspection and “production” equipment, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1</i>
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	<i>to part 738)</i>
NS applies to entire entry	NS Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A  
*ENC:* Yes for certain EI controlled equipment, see §740.17 of the EAR for eligibility.

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

- a. Equipment “specially designed” for the “development” or “production” of equipment controlled by 5A002, 5A003, 5A004 or 5B002.b;
- b. Measuring equipment “specially designed” to evaluate and validate the “information security” functions of equipment controlled by 5A002, 5A003 or 5A004, or of “software” controlled by 5D002.a or 5D002.c.

**C. “MATERIALS” - [RESERVED]**

**D. “SOFTWARE”**

**\*\*5D002** “Software” as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, AT, EI

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
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NS applies to entire entry	NS Column 1
AT applies to entire entry	AT Column 1
EI applies to “software” in 5D002.a.1, a.3, .b, c.1 and c.3, for commodities or “software” controlled for EI reasons in ECCN 5A002, 5A004 or 5D002.	Refer to §742.15 of the EAR. <i>Note: Encryption software is controlled because of its functional capacity, and not because of any informational value of such software; such software is not accorded the same treatment under the EAR as other “software”; and for export licensing purposes, encryption software is treated under the EAR in the same manner as a commodity included in ECCN 5A002.</i>

classification in accordance with § 740.17(b) of the EAR, mass market encryption software that meets eligibility requirements is released from “EI” and “NS” controls. This software is designated as [5D992.c](#).

*Related Definitions:* 5D002.a controls “software” designed or modified to use “cryptography” employing digital or analog techniques to ensure “information security.”

*Items:*

a. “Software” “specially designed” or modified for the “development,” “production” or “use” of any of the following:

a.1. Equipment specified by 5A002 or “software” specified by 5D002.c.1;

a.2. Equipment specified by 5A003 or “software” specified by 5D002.c.2; or

a.3. Equipment or “software”, as follows:

a.3.a. Equipment specified by 5A004.a or “software” specified by 5D002.c.3.a;

a.3.b. Equipment specified by 5A004.b or “software” specified by 5D002.c.3.b;

b. “Software” having the characteristics of a ‘cryptographic activation token’ specified by 5A002.b;

c. “Software” having the characteristics of, or performing or simulating the functions of, any of the following:

c.1. Equipment specified by 5A002.a, .c, .d or .e;

*Note: 5D002.c.1 does not apply to “software” limited to the tasks of “OAM” implementing only published or commercial cryptographic standards.*

c.2. Equipment specified by 5A003; or

**License Requirements Note:** See § 744.17 of the EAR for additional license requirements for microprocessors having a processing speed of 5 GFLOPS or more and an arithmetic logic unit with an access width of 32 bit or more, including those incorporating “information security” functionality, and associated “software” and “technology” for the “production” or “development” of such microprocessors.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

ENC: Yes for certain EI controlled software. See §740.17 of the EAR for eligibility.

**List of Items Controlled**

*Related Controls:* After classification or self-

- c.3. Equipment, as follows:
  - c.3.a. Equipment specified by 5A004.a;
  - c.3.b. Equipment specified by 5A004.b.

*Note:* 5D002.c.3.b does not apply to “intrusion software”.

d. [Reserved]

*N.B.:* See 5D002.b for items formerly specified in 5D002.d.

**\*\*5D992** “Information Security” “software” not controlled by 5D002 as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
AT applies to entire entry	AT Column 1

**License Requirements Note:** See § 744.17 of the EAR for additional license requirements for microprocessors having a processing speed of 5 GFLOPS or more and an arithmetic logic unit with an access width of 32 bit or more, including those incorporating “information security” functionality, and associated “software” and “technology” for the “production” or “development” of such microprocessors.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* This entry does not control “software” designed or modified to protect against malicious computer damage, e.g., viruses, where the use of “cryptography” is

limited to authentication, digital signature and/or the decryption of data or files.

*Related Definitions:* N/A

*Items:*

a. [Reserved]

b. [Reserved]

c. “Software” classified as mass market encryption software in accordance with § 740.17(b) of the EAR.

**E. “TECHNOLOGY”**

**\*\*5E002** “Technology” as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, AT, EI

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 1
AT applies to entire entry	AT Column 1
EI applies to “technology” in 5E002.a for commodities or “software” controlled for EI reasons in ECCNs 5A002, 5A004 or 5D002, and to “technology” in 5E002.b.	Refer to § 742.15 of the EAR.

**License Requirements Note:**

(1) See § 744.17 of the EAR for additional license requirements for microprocessors having a processing speed of 5 GFLOPS or more and an arithmetic logic unit with an access width of 32

bit or more, including those incorporating “information security” functionality, and associated “software” and “technology” for the “production” or “development” of such microprocessors.

(2) When a person performs or provides technical assistance that incorporates, or otherwise draws upon, “technology” that was either obtained in the United States or is of U.S.-origin, then a release of the “technology” takes place. Such technical assistance, when rendered with the intent to aid in the “development” or “production” of encryption commodities or software that would be controlled for “EI” reasons under ECCN 5A002, 5A004 or 5D002, may require authorization under the EAR even if the underlying encryption algorithm to be implemented is from the public domain or is not of U.S.-origin.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A  
 ENC: Yes for certain EI controlled technology. See §740.17 of the EAR for eligibility.

**List of Items Controlled**

*Related Controls:* See also [5E992](#). This entry does not control “technology” “required” for the “use” of equipment excluded from control under the Related Controls paragraph or the Technical Notes in ECCN [5A002](#) or “technology” related to equipment excluded from control under ECCN [5A002](#).

*Related Definitions:* N/A  
*Items:*

a. “Technology” according to the General Technology Note for the “development,” “production” or “use” of equipment controlled by 5A002, 5A003, 5A004 or 5B002, or of “software” controlled by 5D002.a or 5D002.c.

**Note:** 5E002.a does not apply to “technology” for items specified by 5A004.b, 5D002.a.3.b or 5D002.c.3.b.

b. “Technology” having the characteristics of a ‘cryptographic activation token’ specified by 5A002.b.

**Note:** 5E002 includes “information security” technical data resulting from procedures carried out to evaluate or determine the implementation of functions, features or techniques specified in Category 5—Part 2.

**\*\*5E992 “Information Security” “technology” according to the General Technology Note, not controlled by 5E002, as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**License Requirements Note:** See § 744.17 of the EAR for additional license requirements for microprocessors having a processing speed of 5 GFLOPS or more and an arithmetic logic unit with an access width of 32 bit or more, including those incorporating “information security” functionality, and associated “software” and “technology” for the “production” or “development” of such microprocessors.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A

*Items:*

- a. [Reserved]
- b. “Technology”, n.e.s., for the “use” of mass market commodities controlled by [5A992.c](#) or mass market “software” controlled by [5D992.c](#).

**EAR99** Items subject to the EAR that are *not* elsewhere specified in this CCL Category *or* in any other category in the CCL are designated by the number **EAR99**.

**CATEGORY 6 - SENSORS AND LASERS**

**A. "END ITEMS," "EQUIPMENT,"  
"ACCESSORIES," "ATTACHMENTS,"  
"PARTS," "COMPONENTS," AND  
"SYSTEMS"**

**\*\*6A001** Acoustic systems, equipment and "components," as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$3000; N/A for 6A001.a.1.b.1 object detection and location systems having a transmitting frequency below 5 kHz or a sound pressure level exceeding 210 dB (reference 1 µPa at 1 m) for equipment with an operating frequency in the band from 2 kHz to 30 kHz inclusive; 6A001.a.1.e, 6A001.a.2.a.1, a.2.a.2, 6A001.a.2.a.3, a.2.a.5, a.2.a.6, 6A001.a.2.b; processing equipment controlled by 6A001.a.2.c, and "specially designed" for real-time application with towed acoustic

hydrophone arrays; a.2.e.1, a.2.e.2; and bottom or bay cable systems controlled by 6A001.a.2.f and having processing equipment "specially designed" for real-time application with bottom or bay cable systems.

*GBS:* Yes for 6A001.a.1.b.4.

**Special Conditions for STA**

*STA:* License Exception STA may not be used to ship commodities in 6A001.a.1.b, 6A001.a.1.e or 6A001.a.2 (except .a.2.a.4) to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

**List of Items Controlled**

*Related Controls:* See also [6A991](#)

*Related Definitions:* N/A

*Items:*

a. Marine acoustic systems, equipment and "specially designed" "components" therefor, as follows:

a.1. Active (transmitting or transmitting-and-receiving) systems, equipment and "specially designed" "components" therefor, as follows:

*Note:* 6A001.a.1 does not control equipment as follows:

a. Depth sounders operating vertically below the apparatus, not including a scanning function exceeding ± 20°, and limited to measuring the depth of water, the distance of submerged or buried objects or fish finding;

b. Acoustic beacons, as follows:

1. Acoustic emergency beacons;

2. Pingers "specially designed" for

*relocating or returning to an underwater position.*

a.1.a. Acoustic seabed survey equipment as follows:

a.1.a.1. Surface vessel survey equipment designed for sea bed topographic mapping and having all of the following:

a.1.a.1.a. Designed to take measurements at an angle exceeding 20° from the vertical;

a.1.a.1.b. Designed to measure seabed topography at seabed depths exceeding 600 m;

a.1.a.1.c. ‘Sounding resolution’ less than 2; and

a.1.a.1.d. ‘Enhancement’ of the depth “accuracy” through compensation for all the following:

a.1.a.1.d.1. Motion of the acoustic sensor;

a.1.a.1.d.2. In-water propagation from sensor to the seabed and back; and

a.1.a.1.d.3. Sound speed at the sensor;

**Technical Notes:**

1. ‘Sounding resolution’ is the swath width (degrees) divided by the maximum number of soundings per swath.

2. ‘Enhancement’ includes the ability to compensate by external means.

a.1.a.2. Underwater survey equipment designed for seabed topographic mapping and having any of the following:

**Technical Note:** *The acoustic sensor pressure rating determines the depth rating of the equipment specified by 6A001.a.1.a.2.*

a.1.a.2.a. Having all of the following:

a.1.a.2.a.1. Designed or modified to operate at depths exceeding 300 m; and

a.1.a.2.a.2. ‘Sounding rate’ greater than 3,800 m/s; or

**Technical Note:** *‘Sounding rate’ is the product of the maximum speed (m/s) at which the sensor can operate and the maximum number of soundings per swath assuming 100% coverage. For systems that produce soundings in two directions (3D sonars), the maximum of the ‘sounding rate’ in either direction should be used.*

a.1.a.2.b. Survey equipment, not specified by 6A001.a.1.a.2.a, having all of the following:

a.1.a.2.b.1. Designed or modified to operate at depths exceeding 100 m;

a.1.a.2.b.2. Designed to take measurements at an angle exceeding 20° from the vertical;

a.1.a.2.b.3. Having any of the following:

a.1.a.2.b.3.a. Operating frequency below 350 kHz; or

a.1.a.2.b.3.b. Designed to measure seabed topography at a range exceeding 200 m from the acoustic sensor; and

a.1.a.2.b.4. ‘Enhancement’ of the depth “accuracy” through compensation of all of the following:

a.1.a.2.b.4.a. Motion of the acoustic sensor;

a.1.a.2.b.4.b. In-water propagation from sensor to the seabed and back; *and*

a.1.a.2.b.4.c. Sound speed at the sensor.

a.1.a.3. Side Scan Sonar (SSS) or Synthetic Aperture Sonar (SAS), designed for seabed imaging and having all of the following, and specially designed transmitting and receiving acoustic arrays therefor:

a.1.a.3.a. Designed or modified to operate at depths exceeding 500 m; and

a.1.a.3.b. An 'area coverage rate' of greater than 570 m<sup>2</sup>/s while operating at the maximum range that it can operate with an 'along track resolution' of less than 15 cm; *and*

a.1.a.3.c. An 'across track resolution' of less than 15 cm;

**Technical Notes:**

1. 'Area coverage rate' (m<sup>2</sup>/s) is twice the product of the sonar range (m) and the maximum speed (m/s) at which the sensor can operate at that range.

2. 'Along track resolution' (cm), for SSS only, is the product of azimuth (horizontal) beamwidth (degrees) and sonar range (m) and 0.873.

3. 'Across track resolution' (cm) is 75 divided by the signal bandwidth (kHz).

a.1.b Systems or transmitting and receiving arrays, designed for object detection or location, having any of the following:

a.1.b.1. A transmitting frequency

below 10 kHz;

a.1.b.2. Sound pressure level exceeding 224dB (reference 1 µPa at 1 m) for equipment with an operating frequency in the band from 10 kHz to 24 kHz inclusive;

a.1.b.3. Sound pressure level exceeding 235 dB (reference 1 µPa at 1 m) for equipment with an operating frequency in the band between 24 kHz and 30 kHz;

a.1.b.4. Forming beams of less than 1° on any axis and having an operating frequency of less than 100 kHz;

a.1.b.5. Designed to operate with an unambiguous display range exceeding 5,120 m; *or*

a.1.b.6. Designed to withstand pressure during normal operation at depths exceeding 1,000 m and having transducers with any of the following:

a.1.b.6.a. Dynamic compensation for pressure; *or*

a.1.b.6.b. Incorporating other than lead zirconate titanate as the transduction element;

a.1.c. Acoustic projectors, including transducers, incorporating piezoelectric, magnetostrictive, electrostrictive, electrodynamic or hydraulic elements operating individually or in a designed combination and having any of the following:

**Notes:**

1. The control status of acoustic projectors, including transducers, "specially designed" for other equipment is determined by the control status of the other equipment.

2. 6A001.a.1.c does not control electronic

*sources that direct the sound vertically only, or mechanical (e.g., air gun or vapor-shock gun) or chemical (e.g., explosive) sources.*

3. *Piezoelectric elements specified in 6A001.a.1.c include those made from lead-magnesium-niobate/lead-titanate ( $Pb(Mg_{1/3}Nb_{2/3})O_3$ - $PbTiO_3$ , or PMN-PT) single crystals grown from solid solution or lead-indium-niobate/lead-magnesium niobate/lead-titanate ( $Pb(In_{1/2}Nb_{1/2})O_3$ - $Pb(Mg_{1/3}Nb_{2/3})O_3$ - $PbTiO_3$ , or PIN-PMN-PT) single crystals grown from solid solution.*

a.1.c.1. Operating at frequencies below 10 kHz and having any of the following:

a.1.c.1.a. Not designed for continuous operation at 100% duty cycle and having a radiated 'free-field Source Level (SLRMS)' exceeding  $(10\log(f) + 169.77)$ dB (reference 1  $\mu$ Pa at 1 m) where f is the frequency in Hertz of maximum Transmitting Voltage Response (TVR) below 10 kHz; *or*

a.1.c.1.b. Designed for continuous operation at 100% duty cycle and having a continuously radiated 'free-field Source Level (SLRMS)' at 100% duty cycle exceeding  $(10\log(f) + 159.77)$ dB (reference 1  $\mu$ Pa at 1 m) where f is the frequency in Hertz of maximum Transmitting Voltage Response (TVR) below 10 kHz; *or*

**Technical Note:** *The 'free-field Source Level ( $SL_{RMS}$ )' is defined along the maximum response axis and in the far field of the acoustic projector. It can be obtained from the Transmitting Voltage Response using the following equation:  $SL_{RMS} = (TVR + 20\log V_{RMS})$  dB (ref 1 $\mu$ Pa at 1 m), where  $SL_{RMS}$  is the source level, TVR is the Transmitting Voltage Response and  $V_{RMS}$  is the Driving Voltage of the Projector.*

a.1.c.2. [Reserved]

**N.B.** See 6A001.a.1.c.1 for items

*previously specified in 6A001.a.1.c.2.*

a.1.c.3. Side-lobe suppression exceeding 22 dB;

a.1.d. Acoustic systems and equipment, designed to determine the position of surface vessels or underwater vehicles and having all of the following, and "specially designed" "components" therefor:

a.1.d.1. Detection range exceeding 1,000 m; *and*

a.1.d.2. Determined position error of less than 10 m rms (root mean square) when measured at a range of 1,000 m;

**Note:** *6A001.a.1.d includes:*

a. *Equipment using coherent "signal processing" between two or more beacons and the hydrophone unit carried by the surface vessel or underwater vehicle;*

b. *Equipment capable of automatically correcting speed-of-sound propagation errors for calculation of a point.*

a.1.e. Active individual sonars, "specially designed" or modified to detect, locate and automatically classify swimmers or divers, having all of the following, and "specially designed" transmitting and receiving acoustic arrays therefor:

a.1.e.1. Detection range exceeding 530 m;

a.1.e.2. Determined position error of less than 15 m rms (root mean square) when measured at a range of 530 m; *and*

a.1.e.3. Transmitted pulse signal bandwidth exceeding 3 kHz;

**N.B.:** *For diver detection systems*

“specially designed” or modified for military use, see the U.S. Munitions List in the International Traffic in Arms Regulations (ITAR) (22 CFR part 121).

**Note:** For 6A001.a.1.e, where multiple detection ranges are specified for various environments, the greatest detection range is used.

a.2. Passive systems, equipment and “specially designed” “components” therefor, as follows:

**Note:** 6A001.a.2 also applies to receiving equipment, whether or not related in normal application to separate active equipment, and “specially designed” components therefor.

a.2.a. Hydrophones having any of the following:

**Note:** The control status of hydrophones “specially designed” for other equipment is determined by the control status of the other equipment.

**Technical Notes:**

1. Hydrophones consist of one or more sensing elements producing a single acoustic output channel. Those that contain multiple elements can be referred to as a hydrophone group.

2. For the purposes of 6A001.a.2.a, underwater acoustic transducers designed to operate as passive receivers are hydrophones.

a.2.a.1. Incorporating continuous flexible sensing elements;

a.2.a.2. Incorporating flexible assemblies of discrete sensing elements with either a diameter or length less than 20 mm and with a separation between elements of less than 20 mm;

a.2.a.3. Having any of the following sensing elements:

a.2.a.3.a. Optical fibers;

a.2.a.3.b. ‘Piezoelectric polymer films’ other than polyvinylidene-fluoride (PVDF) and its co-polymers {P(VDF-TrFE) and P(VDF-TFE)};

a.2.a.3.c. ‘Flexible piezoelectric composites’;

a.2.a.3.d. Lead-magnesium-niobate/lead-titanate (*i.e.*,  $\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3\text{-PbTiO}_3$ , or PMN-PT) piezoelectric single crystals grown from solid solution; *or*

a.2.a.3.e. Lead-indium-niobate/lead-magnesium niobate/lead-titanate (*i.e.*,  $\text{Pb}(\text{In}_{1/2}\text{Nb}_{1/2})\text{O}_3\text{-Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3\text{-PbTiO}_3$ , or PIN-PMN-PT) piezoelectric single crystals grown from solid solution;

a.2.a.4. A ‘hydrophone sensitivity’ better than -180dB at any depth with no acceleration compensation;

a.2.a.5. Designed to operate at depths exceeding 35 m with acceleration compensation; *or*

a.2.a.6. Designed for operation at depths exceeding 1,000 m and having a ‘hydrophone sensitivity’ better than -230 dB below 4 kHz;

**Technical Notes:**

1. ‘Piezoelectric polymer film’ sensing elements consist of polarized polymer film that is stretched over and attached to a supporting frame or spool (mandrel).

2. ‘Flexible piezoelectric composite’ sensing elements consist of piezoelectric ceramic particles or fibers combined with an electrically insulating, acoustically transparent rubber,

polymer or epoxy compound, where the compound is an integral part of the sensing elements.

3. 'Hydrophone sensitivity' is defined as twenty times the logarithm to the base 10 of the ratio of rms output voltage to a 1 V rms reference, when the hydrophone sensor, without a pre-amplifier, is placed in a plane wave acoustic field with an rms pressure of 1  $\mu\text{Pa}$ . For example, a hydrophone of -160 dB (reference 1 V per  $\mu\text{Pa}$ ) would yield an output voltage of  $10^{-8}$  V in such a field, while one of -180 dB sensitivity would yield only  $10^{-9}$  V output. Thus, -160 dB is better than -180 dB.

a.2.b. Towed acoustic hydrophone arrays having any of the following:

**Technical Note:** Hydrophones arrays consist of a number of hydrophones providing multiple acoustic output channels.

a.2.b.1. Hydrophone group spacing of less than 12.5 m or 'able to be modified' to have hydrophone group spacing of less than 12.5 m;

a.2.b.2. Designed or 'able to be modified' to operate at depths exceeding 35m;

**Technical Note:** 'Able to be modified' in 6A001.a.2.b means having provisions to allow a change of the wiring or interconnections to alter hydrophone group spacing or operating depth limits. These provisions are: spare wiring exceeding 10% of the number of wires, hydrophone group spacing adjustment blocks or internal depth limiting devices that are adjustable or that control more than one hydrophone group.

a.2.b.3. Heading sensors controlled by 6A001.a.2.d;

a.2.b.4. Longitudinally reinforced array hoses;

a.2.b.5. An assembled array of less than 40 mm in diameter;

a.2.b.6. [Reserved];

a.2.b.7. Hydrophone characteristics controlled by 6A001.a.2.a; or

a.2.b.8. Accelerometer-based hydro-acoustic sensors specified by 6A001.a.2.g;

a.2.c. Processing equipment, "specially designed" for towed acoustic hydrophone arrays, having "user-accessible programmability" and time or frequency domain processing and correlation, including spectral analysis, digital filtering and beamforming using Fast Fourier or other transforms or processes;

a.2.d. Heading sensors having all of the following:

a.2.d.1. An "accuracy" of better than  $\pm 0.5^\circ$ ; and

a.2.d.2. Designed to operate at depths exceeding 35 m or having an adjustable or removable depth sensing device in order to operate at depths exceeding 35 m;

**N.B.:** For inertial heading systems, see 7A003.c.

a.2.e. Bottom or bay-cable hydrophone arrays having any of the following:

a.2.e.1. Incorporating hydrophones controlled by 6A001.a.2.a;

a.2.e.2. Incorporating multiplexed hydrophone group signal modules having all of the following characteristics:

a.2.e.2.a. Designed to operate at depths exceeding 35 m or having an adjustable or removal depth sensing device in order to operate at depths exceeding 35 m; and

a.2.e.2.b. Capable of being operationally interchanged with towed acoustic hydrophone array modules; *or*

a.2.e.3. Incorporating accelerometer-based hydro-acoustic sensors specified by 6A001.a.2.g;

a.2.f. Processing equipment, “specially designed” for bottom or bay cable systems, having “user-accessible programmability” and time or frequency domain processing and correlation, including spectral analysis, digital filtering and beamforming using Fast Fourier or other transforms or processes;

a.2.g. Accelerometer-based hydro-acoustic sensors having all of the following:

a.2.g.1. Composed of three accelerometers arranged along three distinct axes;

a.2.g.2. Having an overall ‘acceleration sensitivity’ better than 48 dB (reference 1,000 mV rms per 1g);

a.2.g.3. Designed to operate at depths greater than 35 meters; *and*

a.2.g.4. Operating frequency below 20 kHz;

*Note:* 6A001.a.2.g does not apply to particle velocity sensors or geophones.

**Technical Notes:**

1. Accelerometer-based hydro-acoustic sensors are also known as vector sensors.

2. ‘Acceleration sensitivity’ is defined as twenty times the logarithm to the base 10 of the ratio of rms output voltage to a 1 V rms reference,

*when the hydro-acoustic sensor, without a preamplifier, is placed in a plane wave acoustic field with an rms acceleration of 1 g (i.e., 9.81 m/s<sup>2</sup>).*

b. Correlation-velocity and Doppler-velocity sonar log equipment designed to measure the horizontal speed of the equipment carrier relative to the sea bed, as follows:

b.1. Correlation-velocity sonar log equipment having any of the following characteristics:

b.1.a. Designed to operate at distances between the carrier and the sea bed exceeding 500 m; *or*

b.1.b. Having speed “accuracy” better than 1% of speed;

b.2. Doppler-velocity sonar log equipment having speed “accuracy” better than 1% of speed;

*Note 1:* 6A001.b does not apply to depth sounders limited to any of the following:

a. Measuring the depth of water;

b. Measuring the distance of submerged or buried objects; *or*

c. Fish finding.

*Note 2:* 6A001.b does not apply to equipment “specially designed” for installation on surface vessels.

c. [Reserved]

*N.B.:* For diver deterrent acoustic systems, see 8A002.r.

**\*\*6A002** Optical sensors and equipment, and “components” therefor, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, MT, CC, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
MT applies to optical detectors in 6A002.a.1, or a.3 that are “specially designed” or modified to protect “missiles” against nuclear effects (e.g., Electromagnetic Pulse (EMP), X-rays, combined blast and thermal effects), and usable for “missiles”	MT Column 1
RS applies to 6A002.a.1, a.2, a.3 (except a.3.d.2.a and a.3.e for lead selenide based focal plane arrays (FPAs)), .c, and .f.	RS Column 1
CC applies to police-model infrared viewers in 6A002.c	CC Column 1
AT applies to entire entry	AT Column 1
UN applies to 6A002.a.1, a.2, a.3 and .c	See § 746.1(b) for UN controls

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$500 for 6A002.f.  
\$3000; except N/A for MT and for 6A002.a.1, a.2, a.3, .c, and .f.

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) See USML Category XII(e) for infrared focal plane arrays, image intensifier tubes, and related parts and components, subject to the ITAR. (2) See USML Category XV(e) for space-qualified focal plane arrays subject to the ITAR. (3) See also ECCNs [6A102](#), [6A202](#), and [6A992](#). (4) See ECCN 0A919 for foreign-made military commodities that incorporate commodities described in 6A002. (5) Section 744.9 imposes a license requirement on commodities described in ECCN 6A002 if being exported, reexported, or transferred (in-country) for use by a military end-user or for incorporation into an item controlled by ECCN 0A919. (6) See USML Categories XII(e) and XV(e)(3) for read-out integrated circuits “subject to the ITAR.” (7) See [6B002](#) for masks and reticles, “specially designed” for optical sensors specified by 6A002.a.1.b or 6A002.a.1.d.

*Related Definitions:* N/A

*Items:*

a. Optical detectors as follows:

a.1. “Space-qualified” solid-state detectors as follows:

*Note:* For the purpose of 6A002.a.1, solid-state detectors include “focal plane arrays”.

a.1.a. “Space-qualified” solid-state detectors having all of the following:

a.1.a.1. A peak response in the wavelength range exceeding 10 nm but not exceeding 300 nm; *and*

a.1.a.2. A response of less than 0.1% relative to the peak response at a wavelength exceeding 400 nm;

a.1.b. “Space-qualified” solid-state

detectors having all of the following:

a.1.b.1. A peak response in the wavelength range exceeding 900 nm but not exceeding 1,200 nm; *and*

a.1.b.2. A response “time constant” of 95 ns or less;

a.1.c. “Space-qualified” solid-state detectors having a peak response in the wavelength range exceeding 1,200 nm but not exceeding 30,000 nm;

a.1.d. “Space-qualified” “focal plane arrays” having more than 2,048 elements per array and having a peak response in the wavelength range exceeding 300 nm but not exceeding 900 nm;

a.2. Image intensifier tubes and “specially designed” “components” therefor, as follows:

*Note: 6A002.a.2 does not control non-imaging photomultiplier tubes having an electron sensing device in the vacuum space limited solely to any of the following:*

*a. A single metal anode; or*

*b. Metal anodes with a center to center spacing greater than 500  $\mu\text{m}$ .*

**Technical Note:** ‘Charge multiplication’ is a form of electronic image amplification and is defined as the generation of charge carriers as a result of an impact ionization gain process. ‘Charge multiplication’ sensors may take the form of an image intensifier tube, solid state detector or “focal plane array”.

a.2.a. Image intensifier tubes having all of the following:

a.2.a.1. A peak response in the wavelength range exceeding 400 nm but not exceeding 1,050 nm;

a.2.a.2. Electron image amplification using any of the following:

a.2.a.2.a. A microchannel plate with a hole pitch (center-to-center spacing) of 12  $\mu\text{m}$  or less; *or*

a.2.a.2.b. An electron sensing device with a non-binned pixel pitch of 500  $\mu\text{m}$  or less, “specially designed” or modified to achieve ‘charge multiplication’ other than by a microchannel plate; *and*

a.2.a.3. Any of the following photocathodes:

a.2.a.3.a. Multialkali photocathodes (*e.g.*, S-20 and S-25) having a luminous sensitivity exceeding 350  $\mu\text{A}/\text{lm}$ ;

a.2.a.3.b. GaAs or GaInAs photocathodes; *or*

a.2.a.3.c. Other “III-V compound” semiconductor photocathodes having a maximum “radiant sensitivity” exceeding 10 mA/W;

a.2.b. Image intensifier tubes having all of the following:

a.2.b.1. A peak response in the wavelength range exceeding 1,050 nm but not exceeding 1,800 nm;

a.2.b.2. Electron image amplification using any of the following:

a.2.b.2.a. A microchannel plate with a hole pitch (center-to-center spacing) of 12  $\mu\text{m}$  or less; *or*

a.2.b.2.b. An electron sensing device with a non-binned pixel pitch of 500  $\mu\text{m}$  or less, “specially designed” or modified to achieve ‘charge multiplication’ other than by a microchannel plate; *and*

a.2.b.3. “III/V compound” semiconductor (e.g., GaAs or GaInAs) photocathodes and transferred electron photocathodes, having a maximum “radiant sensitivity” exceeding 15 mA/W;

a.2.c. “Specially designed” “components” as follows:

a.2.c.1. Microchannel plates having a hole pitch (center-to-center spacing) of 12  $\mu\text{m}$  or less;

a.2.c.2. An electron sensing device with a non-binned pixel pitch of 500  $\mu\text{m}$  or less, “specially designed” or modified to achieve ‘charge multiplication’ other than by a microchannel plate;

a.2.c.3. “III-V compound” semiconductor (e.g., GaAs or GaInAs) photocathodes and transferred electron photocathodes;

**Note:** 6A002.a.2.c.3 does not control compound semiconductor photocathodes designed to achieve a maximum “radiant sensitivity” of any of the following:

a. 10 mA/W or less at the peak response in the wavelength range exceeding 400 nm but not exceeding 1,050 nm; or

b. 15 mA/W or less at the peak response in the wavelength range exceeding 1,050 nm but not exceeding 1,800 nm.

a.3. Non-“space-qualified” “focal plane arrays” as follows:

**N.B.:** ‘Microbolometer’ non-“space-qualified” “focal plane arrays” are only specified by 6A002.a.3.f.

**Technical Note:** Linear or two-dimensional multi-element detector arrays are referred to as

“focal plane arrays”;

**Note 1:** 6A002.a.3 includes photoconductive arrays and photovoltaic arrays.

**Note 2:** 6A002.a.3 does not control:

a. Multi-element (not to exceed 16 elements) encapsulated photoconductive cells using either lead sulphide or lead selenide;

b. Pyroelectric detectors using any of the following:

b.1. Triglycine sulphate and variants;

b.2. Lead-lanthanum-zirconium titanate and variants;

b.3. Lithium tantalate;

b.4. Polyvinylidene fluoride and variants; or

b.5. Strontium barium niobate and variants.

c. “Focal plane arrays” “specially designed” or modified to achieve ‘charge multiplication’ and limited by design to have a maximum “radiant sensitivity” of 10 mA/W or less for wavelengths exceeding 760 nm, having all of the following:

c.1. Incorporating a response limiting mechanism designed not to be removed or modified; and

c.2. Any of the following:

c.2.a. The response limiting mechanism is integral to or combined with the detector element; or

c.2.b. The “focal plane array” is only operable with the response limiting mechanism in place.

*d. Thermopile arrays having less than 5,130 elements;*

**Technical Note:** A response limiting mechanism integral to the detector element is designed not to be removed or modified without rendering the detector inoperable.

a.3.a. Non-“space-qualified” “focal plane arrays” having all of the following:

a.3.a.1. Individual elements with a peak response within the wavelength range exceeding 900 nm but not exceeding 1,050 nm; *and*

a.3.a.2. Any of the following:

a.3.a.2.a. A response “time constant” of less than 0.5 ns; *or*

a.3.a.2.b. “Specially designed” or modified to achieve ‘charge multiplication’ and having a maximum “radiant sensitivity” exceeding 10 mA/W;

a.3.b. Non-“space-qualified” “focal plane arrays” having all of the following:

a.3.b.1. Individual elements with a peak response in the wavelength range exceeding 1,050 nm but not exceeding 1,200 nm; *and*

a.3.b.2. Any of the following:

a.3.b.2.a. A response “time constant” of 95 ns or less; *or*

a.3.b.2.b. “Specially designed” or modified to achieve ‘charge multiplication’ and having a maximum “radiant sensitivity” exceeding 10 mA/W;

a.3.c. Non-“space-qualified” non-linear (2-dimensional) “focal plane arrays” having individual elements with a peak response in the wavelength range exceeding 1,200 nm but not exceeding 30,000 nm;

**N.B.:** Silicon and other material based ‘microbolometer’ non-“space-qualified” “focal plane arrays” are only specified by 6A002.a.3.f.

a.3.d. Non-“space-qualified” linear (1-dimensional) “focal plane arrays” having all of the following:

a.3.d.1. Individual elements with a peak response in the wavelength range exceeding 1,200 nm but not exceeding 3,000 nm; *and*

a.3.d.2. Any of the following:

a.3.d.2.a. A ratio of ‘scan direction’ dimension of the detector element to the ‘cross-scan direction’ dimension of the detector element of less than 3.8; *or*

a.3.d.2.b. Signal processing in the detector elements;

**Note:** 6A002.a.3.d does not control “focal plane arrays” (not to exceed 32 elements) having detector elements limited solely to germanium material.

**Technical Note:** For the purposes of 6A002.a.3.d, ‘cross-scan direction’ is defined as the axis parallel to the linear array of detector elements and the ‘scan direction’ is defined as the axis perpendicular to the linear array of detector elements.

a.3.e. Non-“space-qualified” linear (1-dimensional) “focal plane arrays” having individual elements with a peak response in the wavelength range exceeding 3,000 nm but not exceeding 30,000 nm;

a.3.f. Non-“space-qualified” non-linear (2-dimensional) infrared “focal plane arrays” based on ‘microbolometer’ material having individual elements with an unfiltered response in the wavelength range equal to or exceeding 8,000 nm but not exceeding 14,000 nm;

**Technical Note:** For the purposes of 6A002.a.3.f, ‘microbolometer’ is defined as a thermal imaging detector that, as a result of a temperature change in the detector caused by the absorption of infrared radiation, is used to generate any usable signal.

a.3.g. Non-“space-qualified” “focal plane arrays” having all of the following:

a.3.g.1. Individual detector elements with a peak response in the wavelength range exceeding 400 nm but not exceeding 900 nm;

a.3.g.2. “Specially designed” or modified to achieve ‘charge multiplication’ and having a maximum “radiant sensitivity” exceeding 10 mA/W for wavelengths exceeding 760 nm; *and*

a.3.g.3. Greater than 32 elements;

b. “Monospectral imaging sensors” and “multispectral imaging sensors”, designed for remote sensing applications and having any of the following:

b.1. An Instantaneous-Field-Of-View (IFOV) of less than 200  $\mu$ rad (microradians); *or*

b.2. Specified for operation in the wavelength range exceeding 400 nm but not exceeding 30,000 nm and having all the following:

b.2.a. Providing output imaging data in digital format; *and*

b.2.b. Having any of the following characteristics:

b.2.b.1. “Space-qualified”; *or*

b.2.b.2. Designed for airborne operation, using other than silicon detectors, and having an IFOV of less than 2.5 mrad (milliradians);

**Note:** 6A002.b.1 does not control “monospectral imaging sensors” with a peak response in the wavelength range exceeding 300 nm but not exceeding 900 nm and only incorporating any of the following non -“space-qualified” detectors or non -“space-qualified” “focal plane arrays”:

a. Charge Coupled Devices (CCD) not designed or modified to achieve ‘charge multiplication’; or

b. Complementary Metal Oxide Semiconductor (CMOS) devices not designed or modified to achieve ‘charge multiplication’.

c. ‘Direct view’ imaging equipment incorporating any of the following:

c.1. Image intensifier tubes having the characteristics listed in 6A002.a.2.a or 6A002.a.2.b;

c.2. “Focal plane arrays” having the characteristics listed in 6A002.a.3; *or*

c.3. Solid state detectors specified by 6A002.a.1;

**Technical Note:** ‘Direct view’ refers to imaging equipment that presents a visual image to a human observer without converting the image into an electronic signal for television display, and that cannot record or store the image photographically, electronically or by any other means.

**Note:** 6A002.c does not control equipment as follows, when incorporating other than GaAs or GaInAs photocathodes:

a. Industrial or civilian intrusion alarm, traffic or industrial movement control or counting systems;

b. Medical equipment;

c. Industrial equipment used for inspection, sorting or analysis of the properties of materials;

d. Flame detectors for industrial furnaces;

e. Equipment “specially designed” for laboratory use.

d. Special support “components” for optical sensors, as follows:

d.1. “Space-qualified” cryocoolers;

d.2. Non-“space-qualified” cryocoolers having a cooling source temperature below 218 K (-55 °C), as follows:

d.2.a. Closed cycle type with a specified Mean-Time-To-Failure (MTTF) or Mean-Time-Between-Failures (MTBF), exceeding 2,500 hours;

d.2.b. Joule-Thomson (JT) self-regulating minicoolers having bore (outside) diameters of less than 8 mm;

d.3. Optical sensing fibers specially fabricated either compositionally or structurally, or modified by coating, to be acoustically, thermally, inertially, electromagnetically or nuclear radiation sensitive.

*Note: 6A002.d.3 does not apply to encapsulated optical sensing fibers “specially designed” for bore hole sensing applications.*

e. [Reserved]

f. ‘Read-Out Integrated Circuits’ (‘ROIC’) “specially designed” for “focal plane arrays” specified by 6A002.a.3.

*Note: 6A002.f does not apply to read-out integrated circuits “specially designed” for civil automotive applications.*

**Technical Note:** A ‘Read-Out Integrated Circuit’ (‘ROIC’) is an integrated circuit designed to underlie or be bonded to a “focal plane array” (‘FPA’) and used to read-out (i.e., extract and register) signals produced by the detector elements. At a minimum the ‘ROIC’ reads the charge from the detector elements by extracting the charge and applying a multiplexing function in a manner that retains the relative spatial position and orientation information of the detector elements for processing inside or outside the ‘ROIC’.

**\*\*6A003** Cameras, systems or equipment, and “components” therefor, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, NP, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
NP applies to cameras controlled by 6A003.a.3 or a.4 and to plug-ins in 6A003.a.6 for cameras controlled by 6A003.a.3 or a.4	NP Column 1
RS applies to 6A003.b.3, 6A003.b.4.a, 6A003.b.4.c and to items controlled in 6A003.b.4.b that have a frame rate greater than 60 Hz or that incorporate a focal plane array with more than 111,000 elements, or to items in 6A003.b.4.b when being exported or reexported to be embedded in a civil product. (But see § 742.6(a)(2)(iii) and (v) for certain exemptions)	RS Column 1
RS applies to items	RS Column 2

controlled in 6A003.b.4.b that have a frame rate of 60 Hz or less and that incorporate a focal plane array with not more than 111,000 elements if not being exported or reexported to be embedded in a civil product	
AT applies to entire entry	AT Column 1
UN applies to 6A003.b.3 and b.4	See § 746.1(b) for UN controls

*Related Controls:* (1) See ECCNs [6E001](#) (“development”), [6E002](#) (“production”), and [6E201](#) (“use”) for technology for items controlled under this entry. (2) Also see ECCN [6A203](#). (3) See ECCN 0A919 for foreign made military commodities that incorporate cameras described in 6A003. (4) Section 744.9 imposes a license requirement on cameras described in 6A003 if being exported, reexported, or transferred (in-country) for use by a military end-user or for incorporation into a commodity controlled by ECCN 0A919. (5) See USML Category XII(c) and (e) for cameras subject to the ITAR.

*Related Definitions:* N/A

*Items:*

- a. Instrumentation cameras and “specially designed” “components” therefor, as follows:

*Note: Instrumentation cameras, controlled by 6A003.a.3 to 6A003.a.5, with modular structures should be evaluated by their maximum capability, using plug-ins available according to the camera manufacturer's specifications.*

a.1. [Reserved]

a.2. [Reserved]

a.3. Electronic streak cameras having temporal resolution better than 50 ns;

a.4. Electronic framing cameras having a speed exceeding 1,000,000 frames/s;

a.5. Electronic cameras having all of the following:

a.5.a. An electronic shutter speed (gating capability) of less than 1µs per full frame; *and*

a.5.b. A read out time allowing a framing rate of more than 125 full frames per second;

**License Requirement Note:** Commodities that are not subject to the ITAR but are of the type described in USML Category XII(c) are controlled as cameras in ECCN 6A003 when they incorporate a camera controlled in this ECCN.

**Reporting Requirements**

See §743.3 of the EAR for thermal camera reporting for exports that are not authorized by an individually validated license of thermal imaging cameras controlled by ECCN 6A003.b.4.b to destinations in Country Group A:1 (see Supplement No. 1 to part 740 of the EAR), must be reported to BIS.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$1500, except N/A for 6A003.a.3 through a.6, b.1, b.3 and b.4

*GBS:* N/A

**Special Conditions for STA**

*STA:* License Exception STA may not be used to ship any commodity in 6A003.b.3 or b.4 to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

**List of Items Controlled**

a.6. Plug-ins having all of the following characteristics:

a.6.a. “Specially designed” for instrumentation cameras which have modular structures and that are controlled by 6A003.a; *and*

a.6.b. Enabling these cameras to meet the characteristics specified by 6A003.a.3, 6A003.a.4 or 6A003.a.5, according to the manufacturer's specifications;

b. Imaging cameras as follows:

*Note: 6A003.b does not control television or video cameras “specially designed” for television broadcasting.*

b.1. Video cameras incorporating solid state sensors, having a peak response in the wavelength range exceeding 10 nm, but not exceeding 30,000 nm and having all of the following:

b.1.a. Having any of the following:

b.1.a.1. More than  $4 \times 10^6$  “active pixels” per solid state array for monochrome (black and white) cameras;

b.1.a.2. More than  $4 \times 10^6$  “active pixels” per solid state array for color cameras incorporating three solid state arrays; *or*

b.1.a.3. More than  $12 \times 10^6$  “active pixels” for solid state array color cameras incorporating one solid state array; *and*

b.1.b. Having any of the following:

b.1.b.1. Optical mirrors controlled by 6A004.a.;

b.1.b.2. Optical control equipment controlled by 6A004.d.; *or*

b.1.b.3. The capability for annotating

internally generated ‘camera tracking data’;

**Technical Notes:**

1. *For the purposes of this entry, digital video cameras should be evaluated by the maximum number of “active pixels” used for capturing moving images.*

2. *For the purpose of this entry, ‘camera tracking data’ is the information necessary to define camera line of sight orientation with respect to the earth. This includes: 1) the horizontal angle the camera line of sight makes with respect to the earth's magnetic field direction and; 2) the vertical angle between the camera line of sight and the earth's horizon.*

b.2. Scanning cameras and scanning camera systems, having all of the following:

b.2.a. A peak response in the wavelength range exceeding 10 nm, but not exceeding 30,000 nm;

b.2.b. Linear detector arrays with more than 8,192 elements per array; *and*

b.2.c. Mechanical scanning in one direction;

*Note: 6A003.b.2 does not apply to scanning cameras and scanning camera systems, “specially designed” for any of the following:*

*a. Industrial or civilian photocopiers;*

*b. Image scanners “specially designed” for civil, stationary, close proximity scanning applications (e.g., reproduction of images or print contained in documents, artwork or photographs); or*

*c. Medical equipment.*

b.3. Imaging cameras incorporating image intensifier tubes having the characteristics listed

in 6A002.a.2.a or 6A002.a.2.b;

b.4. Imaging cameras incorporating “focal plane arrays” having any of the following:

b.4.a. Incorporating “focal plane arrays” controlled by 6A002.a.3.a to 6A002.a.3.e;

b.4.b. Incorporating “focal plane arrays” controlled by 6A002.a.3.f; *or*

b.4.c. Incorporating “focal plane arrays” controlled by 6A002.a.3.g;

**Note 1:** *Imaging cameras described in 6A003.b.4 include “focal plane arrays” combined with sufficient “signal processing” electronics, beyond the read out integrated circuit, to enable as a minimum the output of an analog or digital signal once power is supplied.*

**Note 2:** *6A003.b.4.a does not control imaging cameras incorporating linear “focal plane arrays” with 12 elements or fewer, not employing time-delay-and-integration within the element and designed for any of the following:*

a. *Industrial or civilian intrusion alarm, traffic or industrial movement control or counting systems;*

b. *Industrial equipment used for inspection or monitoring of heat flows in buildings, equipment or industrial processes;*

c. *Industrial equipment used for inspection, sorting or analysis of the properties of materials;*

d. *Equipment “specially designed” for laboratory use; or*

e. *Medical equipment.*

**Note 3:** *6A003.b.4.b does not control imaging cameras having any of the following:*

a. *A maximum frame rate equal to or less than 9 Hz;*

b. *Having all of the following:*

1. *Having a minimum horizontal or vertical ‘Instantaneous-Field -of-View (IFOV)’ of at least 2 mrad (milliradians);*

2. *Incorporating a fixed focal-length lens that is not designed to be removed;*

3. *Not incorporating a ‘direct view’ display; and*

**Technical Note:** *‘Direct view’ refers to an imaging camera operating in the infrared spectrum that presents a visual image to a human observer using a near-to-eye micro display incorporating any light-security mechanism.*

4. *Having any of the following:*

a. *No facility to obtain a viewable image of the detected field-of-view; or*

b. *The camera is designed for a single kind of application and designed not to be user modified; or*

**Technical Note:**

*‘Instantaneous Field of View (IFOV)’ specified in Note 3.b is the lesser figure of the ‘Horizontal FOV’ or the ‘Vertical FOV’.*

*‘Horizontal IFOV’ = horizontal Field of View (FOV)/number of horizontal detector elements*

*‘Vertical IFOV’ = vertical Field of View (FOV)/number of vertical detector elements.*

c. *The camera is “specially designed” for installation into a civilian passenger land vehicle and having all of the following:*

1. *The placement and configuration*

of the camera within the vehicle are solely to assist the driver in the safe operation of the vehicle;

2. Is operable only when installed in any of the following:

a. The civilian passenger land vehicle for which it was intended and the vehicle weighs less than 4,500 kg (gross vehicle weight); or

b. A “specially designed”, authorized maintenance test facility; and

3. Incorporates an active mechanism that forces the camera not to function when it is removed from the vehicle for which it was intended.

**Note:** When necessary, details of the items will be provided, upon request, to the Bureau of Industry and Security in order to ascertain compliance with the conditions described in Note 3.b.4 and Note 3.c in this Note to 6A003.b.4.b.

**Note 4:** 6A003.b.4.c does not apply to 'imaging cameras' having any of the following characteristics:

a. Having all of the following:

1. Where the camera is “specially designed” for installation as an integrated component into indoor and wall-plug-operated systems or equipment, limited by design for a single kind of application, as follows:

a. Industrial process monitoring, quality control, or analysis of the properties of materials;

b. Laboratory equipment “specially designed” for scientific research;

c. Medical equipment;

d. Financial fraud detection equipment; and

2. Is only operable when installed in any of the following:

a. The system(s) or equipment for which it was intended; or

b. A “specially designed”, authorized maintenance facility; and

3. Incorporates an active mechanism that forces the camera not to function when it is removed from the system(s) or equipment for which it was intended;

b. Where the camera is “specially designed” for installation into a civilian passenger land vehicle or passenger and vehicle ferries and having all of the following:

1. The placement and configuration of the camera within the vehicle or ferry are solely to assist the driver or operator in the safe operation of the vehicle or ferry;

2. Is only operable when installed in any of the following:

a. The civilian passenger land vehicle for which it was intended and the vehicle weighs less than 4,500 kg (gross vehicle weight);

b. The passenger and vehicle ferry for which it was intended and having a length overall (LOA) 65 m or greater; or

c. A “specially designed”, authorized maintenance test facility; and

3. Incorporates an active mechanism that forces the camera not to function when it is removed from the vehicle for which it was intended;

c. Limited by design to have a maximum

“radiant sensitivity” of 10 mA/W or less for wavelengths exceeding 760 nm, having all of the following:

1. Incorporating a response limiting mechanism designed not to be removed or modified; and

2. Incorporates an active mechanism that forces the camera not to function when the response limiting mechanism is removed; and

3. Not “specially designed” or modified for underwater use; or

d. Having all of the following:

1. Not incorporating a ‘direct view’ or electronic image display;

2. Has no facility to output a viewable image of the detected field of view;

3. The “focal plane array” is only operable when installed in the camera for which it was intended; and

4. The “focal plane array” incorporates an active mechanism that forces it to be permanently inoperable when removed from the camera for which it was intended.

**Note:** When necessary, details of the item will be provided, upon request, to the Bureau of Industry and Security in order to ascertain compliance with the conditions described in Note 4 above.

b.5. Imaging cameras incorporating solid-state detectors specified by 6A002.a.1.

**\*\*6A004 Optical equipment and “components,” as follows (see List of Items Controlled).**

**License Requirements**

Reason for Control: NS, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: \$3000

GBS: Yes for 6A004.a.1, a.2, a.4, .b, d.2, and .f.

**Special Conditions for STA**

STA: Paragraph (c)(2) of License Exception STA may not be used to ship any commodity in 6A004.c or .d to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

**List of Items Controlled**

**Related Controls:** (1) For optical mirrors or ‘aspheric optical elements’ “specially designed” for lithography “equipment,” see ECCN 3B001. (2) See USML Category XII(e) for gimbals “subject to the ITAR.” (3) See also 6A994.

**Related Definitions:** An ‘aspheric optical element’ is any element used in an optical system whose imaging surface or surfaces are designed to depart from the shape of an ideal sphere.

**Items:**

a. Optical mirrors (reflectors) as follows:

**Technical Note:** For the purpose of 6A004.a, Laser Induced Damage Threshold (LIDT) is measured according to ISO 21254-1:2011.

a.1. ‘Deformable mirrors’ having an active optical aperture greater than 10 mm and having any of the following, and specially designed components therefor:

a.1.a. Having all the following:

a.1.a.1. A mechanical resonant frequency of 750 Hz or more; *and*

a.1.a.2. More than 200 actuators; *or*

a.1.b. A Laser Induced Damage Threshold (LIDT) being any of the following:

a.1.b.1. Greater than 1 kW/cm<sup>2</sup> using a “CW laser”; *or*

a.1.b.2. Greater than 2 J/cm<sup>2</sup> using 20 ns “laser” pulses at 20 Hz repetition rate;

**Technical Notes:**

1. ‘Deformable mirrors’ are mirrors having any of the following:

a. A single continuous optical reflecting surface which is dynamically deformed by the application of individual torques or forces to compensate for distortions in the optical waveform incident upon the mirror; *or*

b. Multiple optical reflecting elements that can be individually and dynamically repositioned by the application of torques or forces to compensate for distortions in the optical waveform incident upon the mirror.

2. ‘Deformable mirrors’ are also known as adaptive optic mirrors.

a.2. Lightweight monolithic mirrors having an average “equivalent density” of less than 30 kg/m<sup>2</sup> and a total mass exceeding 10 kg;

a.3. Lightweight “composite” or foam mirror structures having an average “equivalent density” of less than 30 kg/m<sup>2</sup> and a total mass exceeding 2 kg;

**Note:** 6A004.a.2 and 6A004.a.3 do not apply to mirrors “specially designed” to direct solar radiation for terrestrial heliostat installations.

a.4. Mirrors specially designed for beam steering mirror stages specified in 6A004.d.2.a with a flatness of  $\lambda/10$  or better ( $\lambda$  is equal to 633 nm) and having any of the following:

a.4.a. Diameter or major axis length greater than or equal to 100 mm; *or*

a.4.b. Having all of the following:

a.4.b.1. Diameter or major axis length greater than 50 mm but less than 100 mm; *and*

a.4.b.2. A Laser Induced Damage Threshold (LIDT) being any of the following:

a.4.b.2.a. Greater than 10 kW/cm<sup>2</sup> using a “CW laser”; *or*

a.4.b.2.b. Greater than 20 J/cm<sup>2</sup> using 20 ns “laser” pulses at 20 Hz repetition rate;

**N.B.** For optical mirrors specially designed for lithography equipment, see 3B001.

b. Optical “components” made from zinc selenide (ZnSe) or zinc sulfide (ZnS) with transmission in the wavelength range exceeding 3,000 nm but not exceeding 25,000 nm and having any of the following:

- b.1. Exceeding  $100 \text{ cm}^3$  in volume; *or*
- b.2. Exceeding 80 mm in diameter or length of major axis and 20 mm in thickness (depth);
- c. “Space-qualified” “components” for optical systems, as follows:
- c.1. “Components” lightweighted to less than 20% “equivalent density” compared with a solid blank of the same aperture and thickness;
- c.2. Raw substrates, processed substrates having surface coatings (single-layer or multi-layer, metallic or dielectric, conducting, semiconducting or insulating) or having protective films;
- c.3. Segments or assemblies of mirrors designed to be assembled in space into an optical system with a collecting aperture equivalent to or larger than a single optic 1 m in diameter;
- c.4. “Components” manufactured from “composite” materials having a coefficient of linear thermal expansion equal to or less than  $5 \times 10^{-6}$  in any coordinate direction;
- d. Optical control equipment as follows:
- d.1. Equipment “specially designed” to maintain the surface figure or orientation of the “space-qualified” “components” controlled by 6A004.c.1 or 6A004.c.3;
- d.2. Steering, tracking, stabilisation and resonator alignment equipment as follows:
- d.2.a. Beam steering mirror stages designed to carry mirrors having diameter or major axis length greater than 50 mm and having all of the following, and specially designed electronic control equipment therefor:
- d.2.a.1. A maximum angular travel of  $\pm 26 \text{ mrad}$  or more;
- d.2.a.2. A mechanical resonant frequency of 500 Hz or more; *and*
- d.2.a.3. An angular “accuracy” of  $10 \text{ } \mu\text{rad}$  (microradians) or less (better);
- d.2.b. Resonator alignment equipment having bandwidths equal to or more than 100 Hz and an “accuracy” of  $10 \text{ } \mu\text{rad}$  or less (better);
- d.3. Gimbals having all of the following:
- d.3.a. A maximum slew exceeding  $5^\circ$ ;
- d.3.b. A bandwidth of 100 Hz or more;
- d.3.c. Angular pointing errors of  $200 \text{ } \mu\text{rad}$  (microradians) or less; *and*
- d.3.d. Having any of the following:
- d.3.d.1. Exceeding 0.15 m but not exceeding 1 m in diameter or major axis length and capable of angular accelerations exceeding  $2 \text{ rad (radians)}/\text{s}^2$ ; *or*
- d.3.d.2. Exceeding 1 m in diameter or major axis length and capable of angular accelerations exceeding  $0.5 \text{ rad (radians)}/\text{s}^2$ ;
- d.4. [Reserved]
- e. ‘Aspheric optical elements’ having all of the following:
- e.1. Largest dimension of the optical-aperture greater than 400 mm;
- e.2. Surface roughness less than 1 nm (rms) for sampling lengths equal to or greater than 1 mm; *and*
- e.3. Coefficient of linear thermal expansion's absolute magnitude less than  $3 \times 10^{-6}/\text{K}$  at  $25^\circ \text{ C}$ ;

**Technical Note:**

1. [See Related Definitions section of this ECCN]

2. Manufacturers are not required to measure the surface roughness listed in 6A004.e.2 unless the optical element was designed or manufactured with the intent to meet, or exceed, the control parameter.

**Note:** 6A004.e does not control ‘aspheric optical elements’ having any of the following:

a. Largest optical-aperture dimension less than 1 m and focal length to aperture ratio equal to or greater than 4.5:1;

b. Largest optical-aperture dimension equal to or greater than 1 m and focal length to aperture ratio equal to or greater than 7:1;

c. Designed as Fresnel, flyeye, stripe, prism or diffractive optical elements;

d. Fabricated from borosilicate glass having a coefficient of linear thermal expansion greater than  $2.5 \times 10^{-6}/K$  at 25 °C; or

e. An x-ray optical element having inner mirror capabilities (e.g., tube-type mirrors).

f. Dynamic wavefront measuring equipment having all of the following:

f.1. ‘Frame rates’ equal to or more than 1 kHz; and

f.2. A wavefront accuracy equal to or less (better) than  $\lambda/20$  at the designed wavelength.

**Technical Note:** For the purposes of 6A004.f, ‘frame rate’ is a frequency at which all “active pixels” in the “focal plane array” are integrated for recording images projected by the wavefront sensor optics.

**\*\*6A005** “Lasers”, “components” and optical equipment, as follows (see List of Items Controlled), excluding items that are subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

**License Requirements**

Reason for Control: NS, NP, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 2
NP applies to lasers controlled by 6A005.a.2, a.3, a.4, b.2.b, b.3, b.4, b.6.c, c.1.b, c.2.b, d.2, d.3.c, or d.4.c that meet or exceed the technical parameters described in 6A205	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

**LVS:** N/A for NP items  
\$3000 for all other items

**GBS:** Neodymium-doped (other than glass) “lasers” controlled by 6A005.b.6.d.2 (except 6A005.b.6.d.2.b) that have an output wavelength exceeding 1,000 nm, but not exceeding 1,100 nm, and an average or CW output power not exceeding 2 kW, and operate in a pulse-excited, non- “Q-switched” multiple-transverse mode, or in a continuously excited, multiple-transverse mode; Dye and Liquid Lasers controlled by 6A005.c.1, c.2 and c.3, except for a pulsed single longitudinal mode oscillator having an average output

power exceeding 1 W and a repetition rate exceeding 1 kHz if the “pulse duration” is less than 100 ns; CO “lasers” controlled by 6A005.d.2 having a CW maximum rated single or multimode output power not exceeding 10 kW; CO<sub>2</sub> or CO/CO<sub>2</sub> “lasers” controlled by 6A005.d.3 having an output wavelength in the range from 9,000 to 11,000 nm and having a pulsed output not exceeding 2 J per pulse and a maximum rated average single or multimode output power not exceeding 5 kW; and CO<sub>2</sub> “lasers” controlled by 6A005.d.3 that operate in CW multiple-transverse mode, and having a CW output power not exceeding 15 kW.

### List of Items Controlled

*Related Controls* (1) See ECCN [6D001](#) for “software” for items controlled under this entry. (2) See ECCNs [6E001](#) (“development”), [6E002](#) (“production”), and [6E201](#) (“use”) for technology for items controlled under this entry. (3) Also see ECCNs [6A205](#) and [6A995](#). (4) See ECCN 3B001 for excimer “lasers” “specially designed” for lithography equipment. (5) “Lasers” “specially designed” or prepared for use in isotope separation are subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110). (6) See USML Category XII(b) and (e) for laser systems or lasers subject to the ITAR. (7) See USML Category XVIII for certain laser-based directed energy weapon systems, equipment, and components subject to the ITAR.

*Related Definitions:* (1) ‘Wall-plug efficiency’ is defined as the ratio of “laser” output power (or “average output power”) to total electrical input power required to operate the “laser”, including the power supply/conditioning and thermal conditioning/heat exchanger, see

6A005.a.6.b.1 and 6A005.b.6; (2) ‘Non-repetitive pulsed’ refers to “lasers” that produce either a single output pulse or that have a time interval between pulses exceeding one minute, see Note 2 of 6A005 and 6A005.d.6.

*Items:*

*Notes:*

1. Pulsed “lasers” include those that run in a continuous wave (CW) mode with pulses superimposed.

2. Excimer, semiconductor, chemical, CO, CO<sub>2</sub>, and ‘non-repetitive pulsed’ Nd:glass “lasers” are only specified by 6A005.d.

**Technical Note:** ‘Non-repetitive pulsed’ refers to “lasers” that produce either a single output pulse or that have a time interval between pulses exceeding one minute.

3. 6A005 includes fiber “lasers”.

4. The control status of “lasers” incorporating frequency conversion (i.e., wavelength change) by means other than one “laser” pumping another “laser” is determined by applying the control parameters for both the output of the source “laser” and the frequency-converted optical output.

5. 6A005 does not control “lasers” as follows:

- a. Ruby with output energy below 20 J;
- b. Nitrogen;
- c. Krypton.

6. For the purposes of 6A005.a and 6A005.b, ‘single transverse mode’ refers to “lasers” with a beam profile having an  $M^2$ -factor of less than 1.3, while ‘multiple transverse mode’ refers to “lasers” with a beam profile having an  $M^2$ -factor of 1.3 or higher.

a. Non-“tunable” continuous wave “(CW) lasers” having any of the following:

a.1. Output wavelength less than 150 nm and output power exceeding 1W;

a.2. Output wavelength of 150 nm or more but not exceeding 510 nm and output power exceeding 30 W;

*Note:* 6A005.a.2 does not control Argon “lasers” having an output power equal to or less than 50 W.

a.3. Output wavelength exceeding 510 nm but not exceeding 540 nm and any of the following:

a.3.a. ‘Single transverse mode’ output and output power exceeding 50 W; or

a.3.b. ‘Multiple transverse mode’ output and output power exceeding 150 W;

a.4. Output wavelength exceeding 540 nm but not exceeding 800 nm and output power exceeding 30 W;

a.5. Output wavelength exceeding 800 nm but not exceeding 975 nm and any of the following:

a.5.a. ‘Single transverse mode’ output and output power exceeding 50 W; or

a.5.b. ‘Multiple transverse mode’ output and output power exceeding 80 W;

a.6. Output wavelength exceeding 975 nm but not exceeding 1,150 nm and any of the following;

a.6.a. ‘Single transverse mode’ output and any of the following:

a.6.a.1. Average output power exceeding 1,000 W; or

a.6.a.2. Having all of the following:  
a.6.a.2.a. Average output power exceeding 500 W; and

a.6.a.2.b. Spectral bandwidth less than 40 GHz; or

a.6.b. ‘Multiple transverse mode’ output and any of the following:

a.6.b.1. ‘Wall-plug efficiency’ exceeding 18% and output power exceeding 1,000 W; or

a.6.b.2. Output power exceeding 2 kW;

*Note 1:* 6A005.a.6.b does not control ‘multiple transverse mode’, industrial “lasers” with output power exceeding 2 kW and not exceeding 6 kW with a total mass greater than 1,200 kg. For the purpose of this note, total mass includes all “components” required to operate the “laser,” e.g., “laser,” power supply, heat exchanger, but excludes external optics for beam conditioning or delivery.

*Note 2:* 6A005.a.6.b does not apply to ‘multiple transverse mode’, industrial “lasers” having any of the following:

a. [Reserved];

b. Output power exceeding 1 kW but not exceeding 1.6 kW and having a BPP exceeding 1.25 mm•mrad;

c. Output power exceeding 1.6 kW but not exceeding 2.5 kW and having a BPP exceeding 1.7 mm•mrad;

d. Output power exceeding 2.5 kW but not exceeding 3.3 kW and having a BPP exceeding 2.5 mm•mrad;

e. Output power exceeding 3.3 kW but not exceeding 6 kW and having a BPP exceeding 3.5 mm•mrad;

- f. [Reserved]*
- g. [Reserved]*
- h. Output power exceeding 6 kW but not exceeding 8 kW and having a BPP exceeding 12 mm•mrad; or*
- i. Output power exceeding 8 kW but not exceeding 10 kW and having a BPP exceeding 24 mm•mrad;*
- a.7. Output wavelength exceeding 1,150 nm but not exceeding 1,555 nm and any of the following:
- a.7.a. ‘Single transverse mode’ and output power exceeding 50 W; *or*
- a.7.b. ‘Multiple transverse mode’ and output power exceeding 80 W;
- a.8. Output wavelength exceeding 1,555 nm but not exceeding 1,850 nm and output power exceeding 1 W;
- a.9. Output wavelength exceeding 1,850 nm but not exceeding 2,100 nm, and any of the following:
- a.9.a. ‘Single transverse mode’ and output power exceeding 1 W; *or*
- a.9.b. ‘Multiple transverse mode’ output and output power exceeding 120 W; *or*
- a.10. Output wavelength exceeding 2,100 nm and output power exceeding 1 W;
- b. Non-“tunable” “pulsed lasers” having any of the following:
- b.1. Output wavelength less than 150 nm and any of the following:
- b.1.a. Output energy exceeding 50 mJ per pulse and “peak power” exceeding 1 W; *or*

b.1.b. “Average output power” exceeding 1 W;

b.2. Output wavelength of 150 nm or more but not exceeding 510 nm and any of the following:

b.2.a. Output energy exceeding 1.5 J per pulse and “peak power” exceeding 30 W; *or*

b.2.b. “Average output power” exceeding 30 W;

*Note: 6A005.b.2.b does not control Argon “lasers” having an “average output power” equal to or less than 50 W.*

b.3. Output wavelength exceeding 510 nm, but not exceeding 540 nm and any of the following:

b.3.a. ‘Single transverse mode’ output and any of the following:

b.3.a.1. Output energy exceeding 1.5 J per pulse and “peak power” exceeding 50 W; *or*

b.3.a.2. “Average output power” exceeding 50 W; *or*

b.3.b. ‘Multiple transverse mode’ output and any of the following:

b.3.b.1. Output energy exceeding 1.5 J per pulse and “peak power” exceeding 150 W; *or*

b.3.b.2. “Average output power” exceeding 150 W;

b.4. Output wavelength exceeding 540 nm but not exceeding 800 nm and any of the following:

b.4.a. “Pulse duration” less than 1 ps and any of the following:

b.4.a.1. Output energy exceeding 0.005 J per pulse and “peak power” exceeding 5 GW; *or*

b.4.a.2. “Average output power” exceeding 20 W; *or*

b.4.b. “Pulse duration” equal to or exceeding 1 ps and any of the following:

b.4.b.1. Output energy exceeding 1.5 J per pulse and “peak power” exceeding 30 W; *or*

b.4.b.2. “Average output power” exceeding 30 W;

b.5. Output wavelength exceeding 800 nm but not exceeding 975 nm and any of the following:

b.5.a. “Pulse duration” less than 1ps and any of the following:

b.5.a.1. Output energy exceeding 0.005 J per pulse and “peak power” exceeding 5 GW; *or*

b.5.a.2. ‘Single transverse mode’ output and “average output power” exceeding 20 W;

b.5.b. “Pulse duration” equal to or exceeding 1 ps and not exceeding 1  $\mu$ s and any of the following:

b.5.b.1. Output energy exceeding 0.5 J per pulse and “peak power” exceeding 50 W;

b.5.b.2. ‘Single transverse mode’ output and “average output power” exceeding 20 W; *or*

b.5.b.3. ‘Multiple transverse mode’ output and “average output power” exceeding 50 W; *or*

b.5.c. “Pulse duration” exceeding 1  $\mu$ s and any of the following:

b.5.c.1. Output energy exceeding 2 J per pulse and “peak power” exceeding 50 W;

b.5.c.2. ‘Single transverse mode’ output and “average output power” exceeding 50 W; *or*

b.5.c.3. ‘Multiple transverse mode’ output and “average output power” exceeding 80 W.

b.6. Output wavelength exceeding 975 nm but not exceeding 1,150 nm and any of the following:

b.6.a. “Pulse duration” of less than 1 ps, and any of the following:

b.6.a.1. Output “peak power” exceeding 2 GW per pulse;

b.6.a.2. “Average output power” exceeding 30 W; *or*

b.6.a.3. Output energy exceeding 0.002 J per pulse;

b.6.b. “Pulse duration” equal to or exceeding 1 ps and less than 1 ns, and any of the following:

b.6.b.1. Output “peak power” exceeding 5 GW per pulse;

b.6.b.2. “Average output power” exceeding 50 W; *or*

b.6.b.3. Output energy exceeding 0.1 J per pulse;

b.6.c. “Pulse duration” equal to or exceeding 1 ns but not exceeding 1  $\mu$ s and any of the following:

b.6.c.1. ‘Single transverse mode’ output and any of the following:

b.6.c.1.a. ‘Peak power’ exceeding 100 MW;

b.6.c.1.b. ‘Average output power’ exceeding 20 W limited by design to a maximum pulse repetition frequency less than or equal to 1 kHz;

b.6.c.1.c. ‘Wall-plug efficiency’ exceeding 12%, ‘average output power’ exceeding 100 W and capable of operating at a pulse repetition frequency greater than 1 kHz;

b.6.c.1.d. ‘Average output power’ exceeding 150 W and capable of operating at a pulse repetition frequency greater than 1 kHz; *or*

b.6.c.1.e. Output energy exceeding 2 J per pulse; *or*

b.6.c.2. ‘Multiple transverse mode’ output and any of the following:

b.6.c.2.a. ‘Peak power’ exceeding 400 MW;

b.6.c.2.b. ‘Wall-plug efficiency’ exceeding 18% and ‘average output power’ exceeding 500 W;

b.6.c.2.c. ‘Average output power’ exceeding 2 kW; *or*

b.6.c.2.d. Output energy exceeding 4 J per pulse; *or*

b.6.d. ‘Pulse duration’ exceeding 1  $\mu$ s and any of the following:

b.6.d.1. ‘Single transverse mode’ output and any of the following:

b.6.d.1.a. ‘Peak power’ exceeding 500 kW;

b.6.d.1.b. ‘Wall-plug efficiency’ exceeding 12% and ‘average output power’ exceeding 100 W; *or*

b.6.d.1.c. ‘Average output power’ exceeding 150 W; *or*

b.6.d.2. ‘Multiple transverse mode’ output and any of the following:

b.6.d.2.a. ‘Peak power’ exceeding 1 MW;

b.6.d.2.b. ‘Wall-plug efficiency’ exceeding 18% and ‘average output power’ exceeding 500 W; *or*

b.6.d.2.c. ‘Average output power’ exceeding 2 kW;

b.7. Output wavelength exceeding 1,150 nm but not exceeding 1,555 nm and any of the following:

b.7.a. ‘Pulse duration’ not exceeding 1  $\mu$ s and any of the following:

b.7.a.1. Output energy exceeding 0.5 J per pulse and ‘peak power’ exceeding 50 W;

b.7.a.2. ‘Single transverse mode’ output and ‘average output power’ exceeding 20 W; *or*

b.7.a.3. ‘Multiple transverse mode’ output and ‘average output power’ exceeding 50 W; *or*

b.7.b. ‘Pulse duration’ exceeding 1  $\mu$ s and any of the following:

b.7.b.1. Output energy exceeding 2 J per pulse and ‘peak power’ exceeding 50 W;

b.7.b.2. ‘Single transverse mode’ output and “average output power” exceeding 50 W; *or*

b.7.b.3. ‘Multiple transverse mode’ output and “average output power” exceeding 80 W;

b.8. Output wavelength exceeding 1,555 nm but not exceeding 1,850 nm, and any of the following:

b.8.a. Output energy exceeding 100 mJ per pulse and “peak power” exceeding 1 W; *or*

b.8.b. “Average output power” exceeding 1 W;

b.9. Output wavelength exceeding 1,850 nm but not exceeding 2,100 nm, and any of the following:

b.9.a. ‘Single transverse mode’ and any of the following:

b.9.a.1. Output energy exceeding 100 mJ per pulse and “peak power” exceeding 1 W; *or*

b.9.a.2. “Average output power” exceeding 1 W;

b.9.b. ‘Multiple transverse mode’ and any of the following:

b.9.b.1. Output energy exceeding 100 mJ per pulse and “peak power” exceeding 10 kW; *or*

b.9.b.2. “Average output power” exceeding 120 W; *or*

b.10. Output wavelength exceeding 2,100 nm and any of the following:

b.10.a. Output energy exceeding 100 mJ per pulse and “peak power” exceeding 1 W; *or*

b.10.b. “Average output power”

exceeding 1 W;

c. “Tunable” lasers having any of the following:

c.1. Output wavelength less than 600 nm and any of the following:

c.1.a. Output energy exceeding 50 mJ per pulse and “peak power” exceeding 1 W; *or*

c.1.b. Average or CW output power exceeding 1 W;

*Note:* 6A005.c.1 does not apply to dye “lasers” or other liquid “lasers,” having a multimode output and a wavelength of 150 nm or more but not exceeding 600 nm and all of the following:

1. Output energy less than 1.5 J per pulse or a “peak power” less than 20 W; and

2. Average or CW output power less than 20 W.

c.2. Output wavelength of 600 nm or more but not exceeding 1,400 nm, and any of the following:

c.2.a. Output energy exceeding 1 J per pulse and “peak power” exceeding 20 W; *or*

c.2.b. Average or CW output power exceeding 20 W; *or*

c.3. Output wavelength exceeding 1,400 nm and any of the following:

c.3.a. Output energy exceeding 50 mJ per pulse and “peak power” exceeding 1 W; *or*

c.3.b. Average or CW output power exceeding 1 W;

d. Other “lasers”, not controlled by 6A005.a, 6A005.b, or 6A005.c as follows:

d.1. Semiconductor “lasers” as follows:

**Notes:**

1. 6A005.d.1 includes semiconductor “lasers” having optical output connectors (e.g., fiber optic pigtails).

2. The control status of semiconductor “lasers” “specially designed” for other equipment is determined by the control status of the other equipment.

d.1.a. Individual single transverse mode semiconductor “lasers” having any of the following:

d.1.a.1. Wavelength equal to or less than 1,510 nm and average or CW output power, exceeding 1.5 W; or

d.1.a.2. Wavelength greater than 1,510 nm and average or CW output power, exceeding 500 mW;

d.1.b. Individual ‘multiple-transverse mode’ semiconductor “lasers” having any of the following:

d.1.b.1. Wavelength of less than 1,400 nm and average or CW output power, exceeding 15 W;

d.1.b.2. Wavelength equal to or greater than 1,400 nm and less than 1,900 nm and average or CW output power, exceeding 2.5 W; or

d.1.b.3. Wavelength equal to or greater than 1,900 nm and average or CW output power, exceeding 1 W;

d.1.c. Individual semiconductor “laser” ‘bars’ having any of the following:

d.1.c.1. Wavelength of less than

1,400 nm and average or CW output power, exceeding 100 W;

d.1.c.2. Wavelength equal to or greater than 1,400 nm and less than 1,900 nm and average or CW output power, exceeding 25 W; or

d.1.c.3. Wavelength equal to or greater than 1,900 nm and average or CW output power, exceeding 10 W;

d.1.d. Semiconductor “laser” ‘stacked arrays’ (two dimensional arrays) having any of the following:

d.1.d.1. Wavelength less than 1,400 nm and having any of the following:

d.1.d.1.a. Average or CW total output power less than 3 kW and having average or CW output ‘power density’ greater than 500 W/cm<sup>2</sup>;

d.1.d.1.b. Average or CW total output power equal to or exceeding 3 kW but less than or equal to 5 kW, and having average or CW output ‘power density’ greater than 350W/cm<sup>2</sup>;

d.1.d.1.c. Average or CW total output power exceeding 5 kW;

d.1.d.1.d. Peak pulsed ‘power density’ exceeding 2,500 W/cm<sup>2</sup>; or

*Note: 6A005.d.1.d.1.d does not apply to epitaxially-fabricated monolithic devices.*

d.1.d.1.e. Spatially coherent average or CW total output power, greater than 150 W;

d.1.d.2. Wavelength greater than or equal to 1,400 nm but less than 1,900 nm, and having any of the following:

d.1.d.2.a. Average or CW

total output power less than 250 W and average or CW output ‘power density’ greater than 150 W/cm<sup>2</sup>;

d.1.d.2.b. Average or CW total output power equal to or exceeding 250 W but less than or equal to 500 W, and having average or CW output ‘power density’ greater than 50W/cm<sup>2</sup>;

d.1.d.2.c. Average or CW total output power exceeding 500 W;

d.1.d.2.d. Peak pulsed ‘power density’ exceeding 500 W/cm<sup>2</sup>; or

*Note: 6A005.d.1.d.2.d does not apply to epitaxially-fabricated monolithic devices.*

d.1.d.2.e. Spatially coherent average or CW total output power, exceeding 15 W;

d.1.d.3. Wavelength greater than or equal to 1,900 nm and having any of the following:

d.1.d.3.a. Average or CW output ‘power density’ greater than 50 W/cm<sup>2</sup>;

d.1.d.3.b. Average or CW output power greater than 10 W; or

d.1.d.3.c. Spatially coherent average or CW total output power, exceeding 1.5 W; or

d.1.d.4. At least one “laser” ‘bar’ specified by 6A005.d.1.c;

**Technical Note:** For the purposes of 6A005.d.1.d, ‘power density’ means the total “laser” output power divided by the emitter surface area of the ‘stacked array’.

d.1.e. Semiconductor “laser” ‘stacked

arrays’, other than those specified by 6A005.d.1.d, having all of the following:

d.1.e.1. “Specially designed” or modified to be combined with other ‘stacked arrays’ to form a larger ‘stacked array’; and

d.1.e.2. Integrated connections, common for both electronics and cooling;

**Note 1:** ‘Stacked arrays’, formed by combining semiconductor “laser” ‘stacked arrays’ specified by 6A005.d.1.e, that are not designed to be further combined or modified are specified by 6A005.d.1.d.

**Note 2:** ‘Stacked arrays’, formed by combining semiconductor “laser” ‘stacked arrays’ specified by 6A005.d.1.e, that are designed to be further combined or modified are specified by 6A005.d.1.e.

**Note 3:** 6A005.d.1.e does not apply to modular assemblies of single ‘bars’ designed to be fabricated into end to end stacked linear arrays.

**Technical Notes:**

1. Semiconductor “lasers” are commonly called “laser” diodes.

2. A ‘bar’ (also called a semiconductor “laser” ‘bar’, a “laser” diode ‘bar’ or diode ‘bar’) consists of multiple semiconductor “lasers” in a one dimensional array.

3. A ‘stacked array’ consists of multiple ‘bars’ forming a two dimensional array of semiconductor “lasers”.

d.2. Carbon monoxide (CO) “lasers” having any of the following:

d.2.a. Output energy exceeding 2 J per pulse and “peak power” exceeding 5 kW; or

d.2.b. Average or CW output power, exceeding 5 kW;

d.3. Carbon dioxide (CO<sub>2</sub>) “lasers” having any of the following:

d.3.a. CW output power exceeding 15 kW;

d.3.b. Pulsed output with “pulse duration” exceeding 10 μs and any of the following:

d.3.b.1. “Average output power” exceeding 10 kW; *or*

d.3.b.2. “Peak power” exceeding 100 kW; *or*

d.3.c. Pulsed output with a “pulse duration” equal to or less than 10 μs and any of the following:

d.3.c.1. Pulse energy exceeding 5 J per pulse; *or*

d.3.c.2. “Average output power” exceeding 2.5 kW;

d.4. Excimer “lasers” having any of the following:

d.4.a. Output wavelength not exceeding 150 nm and any of the following:

d.4.a.1. Output energy exceeding 50 mJ per pulse; *or*

d.4.a.2. “Average output power” exceeding 1 W;

d.4.b. Output wavelength exceeding 150 nm but not exceeding 190 nm and any of the following:

d.4.b.1. Output energy exceeding 1.5 J per pulse; *or*

d.4.b.2. “Average output power” exceeding 120 W;

d.4.c. Output wavelength exceeding 190 nm but not exceeding 360 nm and any of the following:

d.4.c.1. Output energy exceeding 10 J per pulse; *or*

d.4.c.2. “Average output power” exceeding 500 W; *or*

d.4.d. Output wavelength exceeding 360 nm and any of the following:

d.4.d.1. Output energy exceeding 1.5 J per pulse; *or*

d.4.d.2. “Average output power” exceeding 30 W;

*Note: For excimer “lasers” “specially designed” for lithography equipment, see 3B001.*

d.5. “Chemical lasers” as follows:

d.5.a. Hydrogen Fluoride (HF) “lasers”;

d.5.b. Deuterium Fluoride (DF) “lasers”;

d.5.c. “Transfer lasers” as follows:

d.5.c.1. Oxygen Iodine (O<sub>2</sub>-I) “lasers”;

d.5.c.2. Deuterium Fluoride-Carbon dioxide (DF-CO<sub>2</sub>) “lasers”;

*Technical Note: ‘Transfer lasers’ are “lasers” in which the lasing species are excited through the transfer of energy by collision of a non-lasing atom or molecule with a lasing atom or molecule species.*

d.6. “Non-repetitive pulsed” Neodymium (Nd) glass “lasers” having any of the following:

d.6.a. A “pulse duration” not exceeding 1  $\mu$ s and output energy exceeding 50 J per pulse; *or*

d.6.b. A “pulse duration” exceeding 1  $\mu$ s and output energy exceeding 100 J per pulse;

e. “Components” as follows:

e.1. Mirrors cooled either by ‘active cooling’ or by heat pipe cooling;

**Technical Note:** ‘Active cooling’ is a cooling technique for optical “components” using flowing fluids within the subsurface (nominally less than 1 mm below the optical surface) of the optical component to remove heat from the optic.

e.2. Optical mirrors or transmissive or partially transmissive optical or electro-optical “components,” other than fused tapered fiber combiners and Multi-Layer Dielectric gratings (MLDs), “specially designed” for use with controlled “lasers”;

**Note to 6A005.e.2:** Fiber combiners and MLDs are specified by 6A005.e.3.

e.3. Fiber “laser” “components” as follows:

e.3.a. Multimode to multimode fused tapered fiber combiners having all of the following:

e.3.a.1. An insertion loss better (less) than or equal to 0.3 dB maintained at a rated total average or CW output power (excluding output power transmitted through the single mode core if present) exceeding 1,000 W; *and*

e.3.a.2. Number of input fibers equal to or greater than 3;

e.3.b. Single mode to multimode fused tapered fiber combiners having all of the following:

e.3.b.1. An insertion loss better (less) than 0.5 dB maintained at a rated total average or CW output power exceeding 4,600 W;

e.3.b.2. Number of input fibers equal to or greater than 3; *and*

e.3.b.3. Having any of the following:

e.3.b.3.a. A Beam Parameter Product (BPP) measured at the output not exceeding 1.5 mm mrad for a number of input fibers less than or equal to 5; *or*

e.3.b.3.b. A BPP measured at the output not exceeding 2.5 mm mrad for a number of input fibers greater than 5;

e.3.c. MLDs having all of the following:

e.3.c.1. Designed for spectral or coherent beam combination of 5 or more fiber “lasers;” *and*

e.3.c.2. CW “Laser” Induced Damage Threshold (LIDT) greater than or equal to 10 kW/cm<sup>2</sup>;

f. Optical equipment as follows:

**N.B.:** For shared aperture optical elements, capable of operating in “Super-High Power Laser” (“SHPL”) applications, see the U.S. Munitions List (22 CFR part 121).

f.1. [Reserved]

**N.B.:** For items previously specified by 6A005.f.1, see 6A004.f.

f.2. “Laser” diagnostic equipment “specially designed” for dynamic measurement of “SHPL” system angular beam steering errors and having an angular “accuracy” of 10  $\mu$ rad (microradians) or less (better);

f.3. Optical equipment and “components”, “specially designed” for coherent beam combination in a phased-array “SHPL” system and having any of the following:

f.3.a. An “accuracy” of 0.1 μm or less, for wavelengths greater than 1 μm; *or*

f.3.b. An “accuracy” of λ/10 or less (better) at the designed wavelength, for wavelengths equal to or less than 1 μm;

f.4. Projection telescopes “specially designed” for use with “SHPL” systems;

g. ‘Laser acoustic detection equipment’ having all of the following:

g.1. CW “laser” output power greater than or equal to 20 mW;

g.2. “Laser” frequency stability equal to or better (less) than 10 MHz;

g.3. “Laser” wavelengths equal to or exceeding 1,000 nm but not exceeding 2,000 nm;

g.4. Optical system resolution better (less) than 1 nm; *and*

g.5. Optical Signal to Noise ratio equal or exceeding to 10<sup>3</sup>.

*Technical Note: ‘Laser acoustic detection equipment’ is sometimes referred to as a “Laser” Microphone or Particle Flow Detection Microphone.*

**\*\*6A006** “Magnetometers”, “magnetic gradiometers”, “intrinsic magnetic gradiometers”, underwater electric field sensors, “compensation systems”, and “specially designed” “components” therefor, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$1500, N/A for 6A006.a.1; “Magnetometers” and subsystems defined in 6A006.a.2 using optically pumped or nuclear precession (proton/Overhauser) having a ‘sensitivity’ lower (better) than 2 pT (rms) per square root Hz; and 6A006.d, and 6A006.e.

*GBS:* N/A

**Special Conditions for STA**

*STA:* License Exception STA may not be used to ship any commodity in: 6A006.a.1; or 6A006.a.2; or 6A006.c.1 “Magnetic gradiometers” using multiple “magnetometers” specified by 6A006.a.1 or 6A006.a.2; or 6A006.d or .e (only for underwater receivers incorporating magnetometers specified in 6A006.a.1 or 6A006.a.2) to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

**List of Items Controlled**

*Related Controls:* See also [6A996](#). This entry does not control instruments “specially designed” for fishery applications or biomagnetic measurements for medical diagnostics.

*Related Definitions:* N/A

*Items:*

a. “Magnetometers” and subsystems, as follows:

a.1. “Magnetometers” using “superconductive” (SQUID) “technology” and having any of the following:

a.1.a. SQUID systems designed for stationary operation, without “specially designed” subsystems designed to reduce in-motion noise, and having a ‘sensitivity’ equal to or lower (better) than 50 fT (rms) per square root Hz at a frequency of 1 Hz; *or*

a.1.b. SQUID systems having an in-motion-magnetometer ‘sensitivity’ lower (better) than 20 pT (rms) per square root Hz at a frequency of 1 Hz and “specially designed” to reduce in-motion noise;

a.2. “Magnetometers” using optically pumped or nuclear precession (proton/Overhauser) “technology” having a ‘sensitivity’ lower (better) than 20 pT (rms) per square root Hz at a frequency of 1 Hz;

a.3. “Magnetometers” using fluxgate “technology” having a ‘sensitivity’ equal to or lower (better) than 10 pT (rms) per square root Hz at a frequency of 1 Hz;

a.4. Induction coil “magnetometers” having a ‘sensitivity’ lower (better) than any of the following:

a.4.a. 0.05 nT (rms)/square root Hz at frequencies of less than 1 Hz;

a.4.b.  $1 \times 10^{-3}$  nT (rms)/square root Hz at frequencies of 1 Hz or more but not exceeding 10 Hz; *or*

a.4.c.  $1 \times 10^{-4}$  nT (rms)/square root Hz at frequencies exceeding 10 Hz;

a.5. Fiber optic “magnetometers” having a ‘sensitivity’ lower (better) than 1 nT (rms) per square root Hz;

b. Underwater electric field sensors having a ‘sensitivity’ lower (better) than 8 nanovolt per meter per square root Hz when measured at 1 Hz;

c. “Magnetic gradiometers” as follows:

c.1. “Magnetic gradiometers” using multiple “magnetometers” controlled by 6A006.a;

c.2. Fiber optic “intrinsic magnetic gradiometers” having a magnetic gradient field ‘sensitivity’ lower (better) than 0.3 nT/m (rms) per square root Hz;

c.3. “Intrinsic magnetic gradiometers”, using “technology” other than fiber-optic “technology”, having a magnetic gradient field ‘sensitivity’ lower (better) than 0.015 nT/m (rms) per square root Hz;

d. “Compensation systems” for magnetic and underwater electric field sensors resulting in a performance equal to or better than the control parameters of 6A006.a, 6A006.b, and 6A006.c; and

e. Underwater electromagnetic receivers incorporating magnetic field sensors specified by 6A006.a or underwater electric field sensors specified by 6A006.b.

**Technical Note:** For the purposes of 6A006, ‘sensitivity’ (noise level) is the root mean square of the device-limited noise floor which is the lowest signal that can be measured.

**\*\*6A007 Gravity meters (gravimeters) and gravity gradiometers, as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NS, MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
MT applies to 6A007.b and .c when the accuracies in 6A007.b.1 and b.2 are met or exceeded.	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$3000; N/A for MT  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* Related Controls: (1) See USML Category XII(d) for certain gravity meters (gravimeters) and gravity gradiometers subject to the ITAR. (2) See also ECCNs [6A107](#), [6A997](#), and 7A611.

*Related Definitions:* N/A

*Items:*

a. Gravity meters designed or modified for ground use and having a static “accuracy” of less (better) than 10 µGal;

*Note:* 6A007.a does not control ground gravity meters of the quartz element (Worden) type.

b. Gravity meters designed for mobile platforms and having all of the following:

b.1. A static “accuracy” of less (better) than 0.7 mGal; *and*

b.2. An in-service (operational) “accuracy” of less (better) than 0.7 mGal having a ‘time-to-steady-state registration’ of less than 2 minutes under any combination of attendant corrective compensations and motional influences;

c. Gravity gradiometers.

**\*\*6A008 Radar systems, equipment and assemblies, having any of the following (see List of Items Controlled), and “specially designed” “components” therefor.**

**License Requirements**

*Reason for Control:* NS, MT, RS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
MT applies to items that are designed for airborne applications and that are usable in systems controlled for MT reasons	MT Column 1
RS applies to 6A008.j.1	RS Column 1
AT applies to entire entry	AT Column 1

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS*: \$5000; N/A for MT and for 6A008.j.1.

*GBS*: Yes, for 6A008.b, .c, and l.1 only

### Special Conditions for STA

*STA*: License Exception STA may not be used to ship any commodity in 6A008.d, 6A008.h or 6A008.k to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

### List of Items Controlled

*Related Controls*: (1) See also ECCNs [6A108](#) and [6A998](#). ECCN [6A998](#) controls, inter alia, the Light Detection and Ranging (LIDAR) equipment excluded by the note to paragraph j of this ECCN ([6A008](#)). (2) See USML Category XII(b) for certain LIDAR, Laser Detection and Ranging (LADAR), or range-gated systems subject to the ITAR.

*Related Definitions*: N/A

*Items*:

*Note*: 6A008 does not control:

- Secondary surveillance radar (SSR);
- Civil Automotive Radar;
- Displays or monitors used for air traffic control (ATC);
- Meteorological (weather) radar;
- Precision Approach Radar (PAR) equipment conforming to ICAO standards and employing electronically steerable linear (1-dimensional) arrays or mechanically positioned passive antennas.

a. Operating at frequencies from 40 GHz to 230

GHz and having any of the following:

a.1. An average output power exceeding 100 mW; *or*

a.2. Locating “accuracy” of 1 m or less (better) in range and 0.2 degree or less (better) in azimuth;

b. A tunable bandwidth exceeding  $\pm 6.25\%$  of the ‘center operating frequency’;

**Technical Note:** *The ‘center operating frequency’ equals one half of the sum of the highest plus the lowest specified operating frequencies.*

c. Capable of operating simultaneously on more than two carrier frequencies;

d. Capable of operating in synthetic aperture (SAR), inverse synthetic aperture (ISAR) radar mode, or sidelooking airborne (SLAR) radar mode;

e. Incorporating electronically scanned array antennae;

**Technical Note:** *Electronically scanned array antennae are also known as electronically steerable array antennae.*

f. Capable of heightfinding non-cooperative targets;

g. “Specially designed” for airborne (balloon or airframe mounted) operation and having Doppler “signal processing” for the detection of moving targets;

h. Employing processing of radar signals and using any of the following:

h.1. “Radar spread spectrum” techniques; *or*

h.2. “Radar frequency agility” techniques;

i. Providing ground-based operation with a maximum “instrumented range” exceeding 185 km;

*Note:* 6A008.i does not control:

a. Fishing ground surveillance radar;

b. Ground radar equipment “specially designed” for en route air traffic control, and having all of the following:

1. A maximum “instrumented range” of 500 km or less;

2. Configured so that radar target data can be transmitted only one way from the radar site to one or more civil ATC centers;

3. Contains no provisions for remote control of the radar scan rate from the en route ATC center; and

4. Permanently installed;

c. Weather balloon tracking radars.

j. Being “laser” radar or Light Detection and Ranging (LIDAR) equipment and having any of the following:

j.1. “Space-qualified”;

j.2. Employing coherent heterodyne or homodyne detection techniques and having an angular resolution of less (better) than 20  $\mu$ rad (microradians); or

j.3. Designed for carrying out airborne bathymetric littoral surveys to International Hydrographic Organization (IHO) Order 1a Standard (5<sup>th</sup> Edition February 2008) for Hydrographic Surveys or better, and using one or more “lasers” with a wavelength exceeding 400 nm but not exceeding 600 nm;

*Note 1:* LIDAR equipment “specially designed” for surveying is only specified by 6A008.j.3.

*Note 2:* 6A008.j does not apply to LIDAR equipment “specially designed” for meteorological observation.

*Note 3:* Parameters in the IHO Order 1a Standard 5th Edition February 2008 are summarized as follows:

Horizontal Accuracy (95% Confidence Level) = 5 m + 5% of depth.

Depth Accuracy for Reduced Depths (95 % confidence level) =  $\pm\sqrt{a^2+(b*d)^2}$  where:

$a = 0.5$  m = constant depth error, i.e. the sum of all constant depth errors

$b = 0.013$  = factor of depth dependent error

$b*d$  = depth dependent error, i.e. the sum of all depth dependent errors

$d$  = depth

Feature Detection = Cubic features > 2 m in depths up to 40 m; 10% of depth beyond 40 m.

k. Having “signal processing” sub-systems using “pulse compression” and having any of the following:

k.1. A “pulse compression” ratio exceeding 150; or

k.2. A compressed pulse width of less than 200 ns; or

*Note:* 6A008.k.2 does not apply to two dimensional ‘marine radar’ or ‘vessel traffic service’ radar, having all of the following:

- a. “Pulse compression” ratio not exceeding 150;
- b. Compressed pulse width of greater than 30 ns;
- c. Single and rotating mechanically scanned antenna;
- d. Peak output power not exceeding 250 W; and
- e. Not capable of “frequency hopping”.

1. Having data processing sub-systems and having any of the following:

1.1. ‘Automatic target tracking’ providing, at any antenna rotation, the predicted target position beyond the time of the next antenna beam passage; or

*Note:* 6A008.1.1 does not control conflict alert capability in ATC systems, or ‘marine radar’.

**Technical Note:** ‘Automatic target tracking’ is a processing technique that automatically determines and provides as output an extrapolated value of the most probable position of the target in real time.

1.2. [Reserved]

1.3. [Reserved]

1.4. Configured to provide superposition and correlation, or fusion, of target data within six seconds from two or more ‘geographically dispersed’ radar sensors to improve the aggregate performance beyond that of any single sensor specified by 6A008.f, or 6A008.i.

**Technical Note:** Sensors are considered ‘geographically dispersed’ when each location is distant from any other more than 1,500 m in any direction. Mobile sensors are always considered ‘geographically dispersed’.

**N.B.:** See also the U.S. Munitions List (22 CFR part 121).

*Note:* 6A008.1 does not apply to systems, equipment and assemblies designed for ‘vessel traffic services’.

**Technical Notes:**

1. For the purposes of 6A008, ‘marine radar’ is a radar that is used to navigate safely at sea, inland waterways or near-shore environments.

2. For the purposes of 6A008, ‘vessel traffic service’ is a vessel traffic monitoring and control service similar to air traffic control for “aircraft.”

**\*\*6A102** Radiation hardened detectors, other than those controlled by 6A002, “specially designed” or modified for protecting against nuclear effects (e.g., Electromagnetic Pulse (EMP), X-rays, combined blast and thermal effects) and usable for “missiles”, designed or rated to withstand radiation levels which meet or exceed a total irradiation dose of 5 x 10<sup>5</sup> rads (silicon).

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
GBS: N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* In this entry, a detector is defined as a mechanical, electrical, optical or chemical device that automatically identifies and records, or registers a stimulus such as an environmental change in pressure or temperature, an electrical or electromagnetic signal or radiation from a radioactive material.

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*6A103** Radomes designed to withstand a combined thermal shock greater than 100 cal/sq cm accompanied by a peak over pressure of greater than 50 kPa, usable in protecting “missiles” against nuclear effects (e.g., Electromagnetic Pulse (EMP), X-rays, combined blast and thermal effects), and usable for “missiles”. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)

**\*\*6A107** Gravity meters (gravimeters) or gravity gradiometers, other than those controlled by 6A007, designed or modified for airborne or marine use, as follows, (see List of Items Controlled) and “specially designed” “parts” and “components” therefor.

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* See USML Category XII(d) for certain gravity meters (gravimeters) or gravity gradiometers subject to the ITAR. See also ECCN 7A611.

*Related Definitions:* ‘Time to steady-state registration’ (also referred to as the gravity meter’s response time) is the time over which the disturbing effects of platform-induced acceleration (high frequency noise) are reduced.

*Items:*

a. Gravity meters having all the following:

a.1. A static or operational accuracy equal to or less (better) than 0.7 milligal (mgal); *and*

a.2. A ‘time to steady-state registration’ of two minutes or less.

b. Gravity gradiometers.

**\*\*6A108** Radar systems and tracking systems, other than those controlled by 6A008, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

GBS: N/A

**List of Items Controlled**

*Related Controls:* (1) This entry does not control airborne civil weather radar conforming to international standards for civil weather radars provided that they do not incorporate any of the following: (a) Phased array antennas; (b) Frequency agility; (c) Spread spectrum; or (d) Signal processing “specially designed” for the tracking of vehicles. (2) Items in [6A108.a](#) that are “specially designed” or modified for “missiles” or for items on the U.S. Munitions List are “subject to the ITAR” (see 22 CFR parts 120 through 130).

*Related Definitions:* Laser radar systems are defined as those that embody specialized transmission, scanning, receiving and signal processing techniques for utilization of lasers for echo ranging, direction finding and discrimination of targets by location, radial speed and body reflection characteristics.

*Items:*

- a. Radar and laser radar systems designed or modified for use in “missiles”;

*Note:* 6A108.a includes the following:

- a. Terrain contour mapping equipment;
- b. Imaging sensor equipment;
- c. Scene mapping and correlation (both digital and analog) equipment;
- d. Doppler navigation radar equipment.

- b. Precision tracking systems, usable for rockets, missiles, or unmanned aerial vehicles capable of achieving a “range” equal to or greater than 300 km, as follows:

- b.1. Tracking systems which use a code translator installed on the rocket or unmanned aerial vehicle in conjunction with either surface or airborne references or navigation satellite systems to provide real-time measurements of in-flight position and velocity;

- b.2. Range instrumentation radars including associated optical/infrared trackers with all of the following capabilities:

- b.2.a. Angular resolution better than 1.5 milliradians;

- b.2.b. Range of 30 km or greater with a range resolution better than 10 m rms;

- b.2.c. Velocity resolution better than 3 m/s.

**\*\*6A202** Photomultiplier tubes having both of the following characteristics (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
GBS: N/A

**List of Items Controlled**

*Related Controls:* See ECCNs [6E001](#) (“development”), [6E002](#) (“production”), and [6E201](#) (“use”) for technology for items

controlled under this entry.

*Related Definitions:* N/A

*Items:*

- a. Photocathode area of greater than 20 cm<sup>2</sup>; and
- b. Anode pulse rise time of less than 1 ns.

**\*\*6A203 High-speed cameras, imaging devices and “components” therefor, other than those controlled by 6A003 (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCNs [6E001](#) (“development”), [6E002](#) (“production”), and [6E201](#) (“use”) for technology for items controlled under this entry. (2) Also see ECCN [6A003.a.3](#) and [a.4](#).

*Related Definitions:* N/A

*Items:*

- a. Streak cameras and “specially designed” components therefor, as follows:
  - a.1. Streak cameras with writing speeds greater than 0.5 mm/μs;

- a.2. Electronic streak cameras capable of 50 ns or less time resolution;

- a.3. Streak tubes for cameras described in 6A203.a.2;

- a.4. Plug-ins, “specially designed” for use with streak cameras having modular structures, that enable the performance characteristics described in 6A203.a.1 or .a.2;

- a.5. Synchronizing electronics units, and rotor assemblies consisting of turbines, mirrors and bearings, that are “specially designed” for cameras described in 6A203.a.1.

- b. Framing cameras and “specially designed” components therefor, as follows:

- b.1. Framing cameras with recording rates greater than 225,000 frames per second;

- b.2. Framing cameras capable of 50 ns or less frame exposure time;

- b.3. Framing tubes, and solid-state imaging devices, that have a fast image gating (shutter) time of 50 ns or less and are “specially designed” for cameras described in 6A203.b.1 or .b.2;

- b.4. Plug-ins, “specially designed” for use with framing cameras having modular structures, that enable the performance characteristics described in 6A203.b.1 or .b.2;

- b.5. Synchronizing electronic units, and rotor assemblies consisting of turbines, mirrors and bearings, that are “specially designed” for cameras described in 6A203.b.1 or .b.2.

- c. Solid-state or electron tube cameras and “specially designed” components therefor, as follows:

- c.1. Solid-state cameras, or electron tube cameras, with a fast image gating (shutter) time

of 50 ns or less;

c.2. Solid-state imaging devices, and image intensifiers tubes, that have a fast image gating (shutter) time of 50 ns or less and are “specially designed” for cameras described in 6A203.c.1;

c.3. Electro-optical shuttering devices (Kerr or Pockels cells) with a fast image gating (shutter) time of 50 ns or less;

c.4. Plug-ins, “specially designed” for use with cameras having modular structures, that enable the performance characteristics described in 6A203.c.1.

*Technical Note: High speed single frame cameras can be used alone to produce a single image of a dynamic event, or several such cameras can be combined in a sequentially-triggered system to produce multiple images of an event.*

d. Radiation-hardened TV cameras, or lenses therefor, “specially designed” or rated as radiation hardened to withstand a total radiation dose greater than  $5 \times 10^4$  Gy (silicon) without operational degradation.

*Technical Note: The term Gy (silicon) refers to the energy in Joules per kilogram absorbed by an unshielded silicon sample when exposed to ionizing radiation.*

**\*\*6A205** “Lasers,” “laser” amplifiers and oscillators, other than those controlled by 6A005 (see List of Items Controlled), excluding items that are subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

**License Requirements**

Reason for Control: NP, AT

Control(s)	Country Chart
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	<i>(See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
 GBS: N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCNs [6E001](#) (“development”), [6E002](#) (“production”), and [6E201](#) (“use”) for technology for items controlled under this entry. (2) Also see ECCNs [6A005](#) and [6A995](#). (3) See ECCN [6A005.a.2](#) for additional controls on argon ion lasers; See ECCN [6A005.b.6.c](#) for additional controls on neodymium-doped lasers. (4) “Lasers” “specially designed” or prepared for use in isotope separation are subject to the export licensing authority of the Nuclear Regulatory Commission (see 10 CFR part 110).

*Related Definitions:* N/A

*Items:*

a. Copper vapor lasers having both of the following characteristics:

a.1. Operating at wavelengths between 500 nm and 600 nm; *and*

a.2. An average output power equal to or greater than 30 W;

b. Argon ion “lasers” having both of the following characteristics:

b.1. Operating at wavelengths between 400 nm and 515 nm; *and*

b.2. An average output power greater than 40 W;

c. Neodymium-doped (other than glass) lasers with an output wavelength between 1000 nm and 1100 nm having either of the following:

c.1. Pulse-excited and Q-switched with a pulse duration equal to or greater than 1 ns, and having either of the following:

c.1.a. A single-transverse mode output with an average output power greater than 40 W;  
*or*

c.1.b. A multiple-transverse mode output with an average output power greater than 50 W;  
*or*

c.2. Incorporating frequency doubling to give an output wavelength between 500 nm and 550 nm with an average output power of greater than 40 W.

d. Tunable pulsed single-mode dye laser oscillators having all of the following characteristics:

d.1. Operating at wavelengths between 300 nm and 800 nm;

d.2. An average output greater than 1 W;

d.3. A repetition rate greater than 1 kHz; *and*

d.4. Pulse width less than 100 ns;

e. Tunable pulsed dye laser amplifiers and oscillators having all of the following characteristics:

e.1. Operating at wavelengths between 300 nm and 800 nm;

e.2. An average output greater than 30 W;

e.3. A repetition rate greater than 1 kHz; *and*

e.4. Pulse width less than 100 ns;

*Note to 6A205.e:* 6A205.e does not control single mode oscillators.

f. Alexandrite lasers having all of the following characteristics:

f.1. Operating at wavelengths between 720 nm and 800 nm;

f.2. A bandwidth of 0.005 nm or less;

f.3. A repetition rate greater than 125 Hz; *and*

f.4. An average output power greater than 30 W;

g. Pulsed carbon dioxide “lasers” having all of the following characteristics:

g.1. Operating at wavelengths between 9,000 nm and 11,000 nm;

g.2. A repetition rate greater than 250 Hz;

g.3. An average output power greater than 500 W; *and*

g.4. Pulse width of less than 200 ns;

*Note to 6A205.g:* 6A205.g does not control the higher power (typically 1 kW to 5 kW) industrial CO<sub>2</sub> lasers used in applications such as cutting and welding, as these latter lasers are either continuous wave or are pulsed with a pulse width greater than 200 ns.

h. Pulsed excimer lasers (XeF, XeCl, KrF) having all of the following characteristics:

h.1. Operating at wavelengths between 240 nm and 360 nm;

h.2. A repetition rate greater than 250 Hz; *and*

h.3. An average output power greater than 500 W;

i. Para-hydrogen Raman shifters designed to

operate at 16 micrometer output wavelength and at a repetition rate greater than 250 Hz.;

j. Pulsed carbon monoxide lasers having all of the following characteristics:

j.1. Operating at wavelengths between 5,000 and 6,000 nm;

j.2. A repetition rate greater than 250 Hz;

j.3. An average output power greater than 200 W; and

j.4. Pulse width of less than 200 ns.

*Note to ECCN 6A205.j:* 6A205.j does not control the higher power (typically 1 kW to 5 kW) industrial CO lasers used in applications such as cutting and welding, because such lasers are either continuous wave or are pulsed with a pulse width greater than 200 ns.

**\*\*6A225** Velocity interferometers for measuring velocities exceeding 1 km/s during time intervals of less than 10 microseconds.

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* See ECCNs [6E001](#)

(“development”), [6E002](#) (“production”), and [6E201](#) (“use”) for technology for items controlled under this entry.

*Related Definitions:* N/A

*ECCN Controls:* 6A225 includes velocity interferometers, such as VISARs (Velocity Interferometer Systems for Any Reflector), DLIs (Doppler Laser Interferometers) and PDV (Photonic Doppler Velocimeters) also known as Het-V (Heterodyne Velocimeters).

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*6A226** Pressure sensors, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* See ECCNs [6E001](#) (“development”), [6E002](#) (“production”), and [6E201](#) (“use”) for technology for items controlled under this entry.

*Related Definitions:* N/A

*Items:*

a. Shock pressure gauges capable of measuring pressures greater than 10 GPa (100 kilobars),

including gauges made with manganin, ytterbium, and polyvinylidene bifluoride (PVBF, PVF<sub>2</sub>);

b. Quartz pressure transducers for pressures greater than 10 GPa (100 kilobars).

**\*\*6A611** Acoustic systems and equipment, radar, and “parts,” “components,” “accessories,” and “attachments” “specially designed” therefor, “specially designed” for a military application that are not enumerated in any USML category or other ECCN are controlled by ECCN 3A611. Military fire control, laser, imaging, and guidance equipment that are not enumerated in any USML category or ECCN are controlled by ECCN 7A611.

**\*\*6A991** Marine or terrestrial acoustic equipment, n.e.s., capable of detecting or locating underwater objects or features or positioning surface vessels or underwater vehicles; and “specially designed” “parts” and “components,” n.e.s.

**License Requirements**

*Reason for Control:* AT, Foreign policy

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 2
Russian industry sector sanctions apply to entire entry.	See § 746.5 for specific license requirements and license review policy.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*6A992** Optical Sensors, not controlled by 6A002, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* AT, RS

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1
RS applies to entire entry.	A license is required for items controlled by this entry for export or reexport to Iraq or transfer within Iraq for regional stability reasons. The Commerce Country Chart is not designed to determine RS license requirements for this entry. See §§742.6 and 746.3 of the EAR for additional information.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

a. Image intensifier tubes and “specially designed” “components” therefor, as follows:

a.1. Image intensifier tubes having all the following:

a.1.a. A peak response in wavelength range exceeding 400 nm, but not exceeding 1,050 nm;

a.1.b. A microchannel plate for electron image amplification with a hole pitch (center-to-center spacing) of less than 25 micrometers; *and*

a.1.c. Having any of the following:

a.1.c.1. An S-20, S-25 or multialkali photocathode; *or*

a.1.c.2. A GaAs or GaInAs photocathode;

a.2. “Specially designed” microchannel plates having both of the following characteristics:

a.2.a. 15,000 or more hollow tubes per plate; *and*

a.2.b. Hole pitch (center-to-center spacing) of less than 25 micrometers.

b. Direct view imaging equipment operating in the visible or infrared spectrum, incorporating image intensifier tubes having the characteristics listed in 6A992.a.1.

**\*\*6A993** Cameras, not controlled by 6A003 or 6A203, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart</i> (See <i>Supp. No. 1 to part 738</i> )
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCN 0A919 for foreign made military commodities that incorporate cameras described in 6A993.a that meet the criteria specified in Note 3.a to 6A003.b.4.b (i.e., having a maximum frame rate equal to or less than 9 Hz). (2) Section 744.9 imposes license requirements on cameras described in 6A993.a as a result of meeting the criteria specified in Note 3.a to 6A003.b.4.b (i.e., having a maximum frame rate equal to or less than 9 Hz) if being exported, reexported, or transferred (in-country) for use by a military end-user or for incorporation into a commodity controlled by ECCN 0A919.

*Related Definitions:* N/A  
*Items:*

a. Cameras that meet the criteria of Note 3 to 6A003.b.4.

b. [Reserved]

**\*\*6A994** Optics, not controlled by 6A004, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart</i> (See <i>Supp. No. 1</i> )
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	<i>to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

a. Optical filters:

a.1. For wavelengths longer than 250 nm, comprised of multi-layer optical coatings and having either of the following:

a.1.a. Bandwidths equal to or less than 1 nm Full Width Half Intensity (FWHI) and peak transmission of 90% or more; *or*

a.1.b. Bandwidths equal to or less than 0.1 nm FWHI and peak transmission of 50% or more;

*Note: 6A994 does not control optical filters with fixed air gaps or Lyot-type filters.*

a.2. For wavelengths longer than 250 nm, and having all of the following:

a.2.a. Tunable over a spectral range of 500 nm or more;

a.2.b. Instantaneous optical bandpass of 1.25 nm or less;

a.2.c. Wavelength resettable within 0.1 ms to an accuracy of 1 nm or better within the tunable spectral range; *and*

a.2.d. A single peak transmission of 91% or more;

a.3. Optical opacity switches (filters) with a field of view of 30° or wider and a response time equal to or less than 1 ns;

b. “Fluoride fiber” cable, or optical fibers therefor, having an attenuation of less than 4 dB/km in the wavelength range exceeding 1,000 nm but not exceeding 3,000 nm.

**6A995 “Lasers” as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

a. Carbon dioxide (CO<sub>2</sub>) “lasers” having any of the following:

a.1. A CW output power exceeding 10 kW;

a.2. A pulsed output with a “pulse duration” exceeding 10 microseconds; *and*

a.2.a. An average output power exceeding 10 kW; *or*

a.2.b. A pulsed “peak power” exceeding 100 kW; *or*

a.3. A pulsed output with a “pulse duration” equal to or less than 10 microseconds; *and*

a.3.a. A pulse energy exceeding 5 J per pulse and “peak power” exceeding 2.5 kW; *or*

a.3.b. An average output power exceeding 2.5 kW;

b. Semiconductor lasers, as follows:

b.1. Individual, single-transverse mode semiconductor “lasers” having:

b.1.a. An average output power exceeding 100 mW; *or*

b.1.b. A wavelength exceeding 1,050 nm;

b.2. Individual, multiple-transverse mode semiconductor “lasers”, or arrays of individual semiconductor “lasers”, having a wavelength exceeding 1,050 nm;

c. Ruby “lasers” having an output energy exceeding 20 J per pulse;

d. Non-“tunable” “pulsed lasers” having an output wavelength exceeding 975 nm but not exceeding 1,150 nm and having any of the following:

d.1. A “pulse duration” equal to or exceeding 1 ns but not exceeding 1  $\mu$ s, and having any of the following:

d.1.a. A single transverse mode output and having any of the following:

d.1.a.1. A ‘wall-plug efficiency’ exceeding 12% and an “average output power” exceeding 10 W and capable of operating at a

pulse repetition frequency greater than 1kHz; *or*

d.1.a.2. An “average output power” exceeding 20 W; *or*

d.1.b. A multiple transverse mode output and having any of the following:

d.1.b.1. A ‘wall-plug efficiency’ exceeding 18% and an “average output power” exceeding 30W;

d.1.b.2. A “peak power” exceeding 200 MW; *or*

d.1.b.3. An “average output power” exceeding 50 W; *or*

d.2. A “pulse duration” exceeding 1  $\mu$ s and having any of the following:

d.2.a. A single transverse mode output and having any of the following:

d.2.a.1. A ‘wall-plug efficiency’ exceeding 12% and an “average output power” exceeding 10 W and capable of operating at a pulse repetition frequency greater than 1 kHz; *or*

d.2.a.2. An “average output power” exceeding 20 W; *or*

d.2.b. A multiple transverse mode output and having any of the following:

d.2.b.1. A ‘wall-plug efficiency’ exceeding 18% and an “average output power” exceeding 30 W; *or*

d.2.b.2. An “average output power” exceeding 500 W;

e. Non-“tunable” continuous wave “(CW) lasers”, having an output wavelength exceeding 975 nm but not exceeding 1,150nm and having any of the following:

e.1. A single transverse mode output and having any of the following:

e.1.a. A ‘wall-plug efficiency’ exceeding 12% and an “average output power” exceeding 10 W and capable of operating at a pulse repetition frequency greater than 1 kHz; *or*

e.1.b. An “average output power” exceeding 50 W; *or*

e.2. A multiple transverse mode output and having any of the following:

e.2.a. A ‘wall-plug efficiency’ exceeding 18% and an “average output power” exceeding 30 W; *or*

e.2.b. An “average output power” exceeding 500 W;

**Note:** 6A995.e.2.b does not control multiple transverse mode, industrial “lasers” with output power less than or equal to 2kW with a total mass greater than 1,200kg. For the purpose of this note, total mass includes all “components” required to operate the “laser,” e.g., “laser,” power supply, heat exchanger, but excludes external optics for beam conditioning and/or delivery.

f. Non-“tunable” “lasers”, having a wavelength exceeding 1,400 nm, but not exceeding 1555 nm and having any of the following:

f.1. An output energy exceeding 100 mJ per pulse and a pulsed “peak power” exceeding 1 W; *or*

f.2. An average or CW output power exceeding 1 W;

g. Free electron “lasers.”

**\*\*6A996 “Magnetometers” not controlled by ECCN 6A006, “Superconductive”**

**electromagnetic sensors, and “specially designed” “components” therefor, as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

a. “Magnetometers”, n.e.s., having a ‘sensitivity’ lower (better) than 1.0 nT (rms) per square root Hz.

**Technical Note:** For the purposes of 6A996, ‘sensitivity’ (noise level) is the root mean square of the device-limited noise floor which is the lowest signal that can be measured.

b. “Superconductive” electromagnetic sensors, “components” manufactured from “superconductive” materials:

b.1. Designed for operation at temperatures below the “critical temperature” of at least one of their “superconductive” constituents (including Josephson effect devices or “superconductive” quantum interference devices (SQUIDS));

b.2. Designed for sensing electromagnetic field variations at frequencies of 1 KHz or less; *and*

b.3. Having any of the following characteristics:

b.3.a. Incorporating thin-film SQUIDS with a minimum feature size of less than 2 μm and with associated input and output coupling circuits;

b.3.b. Designed to operate with a magnetic field slew rate exceeding 1 x 10<sup>6</sup> magnetic flux quanta per second;

b.3.c. Designed to function without magnetic shielding in the earth’s ambient magnetic field; or

b.3.d. Having a temperature coefficient less (smaller) than 0.1 magnetic flux quantum/K.

**\*\*6A997 Gravity meters (gravimeters) for ground use, n.e.s., as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

a. Having a static accuracy of less (better) than

100 microgal; or

b. Being of the quartz element (Worden) type.

**\*\*6A998 Radar systems, equipment and major “components,” n.e.s., and “specially designed” “components” therefor, as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* RS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
RS applies to 6A998.b	RS Column 1
RS applies to 6A998.c	RS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

a. Airborne radar equipment, n.e.s., and “specially designed” “components” therefor.

b. “Space-qualified” “laser” radar or Light Detection and Ranging (LIDAR) equipment “specially designed” for surveying or for meteorological observation.

c. Millimeter wave enhanced vision radar imaging systems “specially designed” for rotary wing aircraft and having all of the following:

c.1. Operates at a frequency of 94 GHz;

- c.2. An average output power of less than 20 mW;
- c.3. Radar beam width of 1 degree; and
- c.4. Operating range equal to or greater than 1500 m.

**\*\*6A999** Specific processing equipment, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* RS AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
RS applies to 6A999.c	RS Column 2
AT applies to entire entry	A license is required for items controlled by this entry to North Korea for anti-terrorism reasons. The Commerce Country Chart is not designed to determine AT licensing requirements for this entry. See §742.19 of the EAR for additional information.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* See also [6A203](#)  
*Related Definitions:* N/A  
*Items:*

- a. Seismic detection equipment not controlled in paragraph c.
- b. Radiation hardened TV cameras, n.e.s.
- c. Seismic intrusion detection systems that detect,

classify and determine the bearing on the source of a detected signal.

**B. TEST, INSPECTION AND “PRODUCTION EQUIPMENT”**

**\*\*6B002** Masks and reticles, “specially designed” for optical sensors specified by 6A002.a.1.b or 6A002.a.1.d.

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$5000  
*GBS:* Yes

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*6B004** Optical equipment as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: \$5000  
GBS: Yes for 6B004.b

**List of Items Controlled**

*Related Controls:* This entry does not control microscopes.  
*Related Definitions:* N/A  
*Items:*

- a. Equipment for measuring absolute reflectance to an “accuracy” of equal to or better than 0.1% of the reflectance value;
- b. Equipment other than optical surface scattering measurement equipment, having an unobscured aperture of more than 10 cm, “specially designed” for the non-contact optical measurement of a non-planar optical surface figure (profile) to an “accuracy” of 2 nm or less (better) against the required profile.

**\*\*6B007** Equipment to produce, align and calibrate land-based gravity meters with a static “accuracy” of better than 0.1 mGal.

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: \$5000  
GBS: N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*6B008** Pulse radar cross-section measurement systems having transmit pulse widths of 100 ns or less, and “specially designed” “components” therefor.

**License Requirements**

*Reason for Control:* NS, MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
GBS: N/A

**Special Conditions for STA**

*STA:* License Exception STA may not be used to ship any commodity in this entry to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

ECCN heading.

**List of Items Controlled**

*Related Controls:* See also [6B108](#)

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*6B108** Systems, other than those controlled by 6B008, “specially designed” for radar cross section measurement usable for rockets, missiles, or unmanned aerial vehicles capable of achieving a “range” equal to or greater than 300 km and their subsystems.

**\*\*6B619** Test, inspection, and production “equipment” and related commodities “specially designed” for the “development,” “production,” repair, overhaul, or refurbishing of commodities enumerated or otherwise described in USML Category XVIII (see List of Items Controlled)

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
RS applies to entire entry	RS Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry	See § 746.1(b) for UN controls

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**License Exceptions**

*LVS:* \$1500

*GBS:* N/A

**Special Conditions for STA**

*STA:* Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in 6B619.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the

**List of Items Controlled**

*Related Controls:* “Parts,” “components,” “accessories,” “attachments,” and associated systems or “equipment” “specially designed” for defense articles enumerated or otherwise described in paragraphs (a) or (b) of USML Category XVIII are subject to the ITAR (see 22 CFR § 121.1, Category XVIII(e)).

*Related Definitions:* N/A

*Items:*

a. Tooling, templates, jigs, mandrels, molds, dies, fixtures, alignment mechanisms, and test “equipment” not enumerated or otherwise described in USML Category XVIII and not elsewhere specified on the USML that are “specially designed” for the “development,” “production,” repair, overhaul, or refurbishing of commodities controlled by USML Category XVIII.

b. through w. [Reserved]

x. “Parts,” “components,” “accessories,” and “attachments” “specially designed” for a commodity subject to control under paragraph .a of this ECCN and not enumerated or otherwise described in USML Category XVIII and not elsewhere specified on the USML.

**\*\*6B995** Equipment, including tools, dies, fixtures or gauges, and other “specially designed” “parts,” “components” and “accessories” therefor, “specially designed” or modified for any of the following (see List of Items Controlled).

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

- a. For the manufacture or inspection of:
  - a.1. Free electron “laser” magnet wigglers;
  - a.2. Free electron “laser” photo injectors;
- b. For the adjustment, to required tolerances, of the longitudinal magnetic field of free electron “lasers”.

**C. “MATERIALS”**

**\*\*6C002** Optical sensor materials as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$3000

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* See also [6C992](#)

*Related Definitions:* N/A

*Items:*

- a. Elemental tellurium (Te) of purity levels of 99.9995% or more;
- b. Single crystals (including epitaxial wafers) of

any of the following:

b.1. Cadmium zinc telluride (CdZnTe), with zinc content less than 6% by ‘mole fraction’;

b.2. Cadmium telluride (CdTe) of any purity level; *or*

b.3. Mercury cadmium telluride (HgCdTe) of any purity level.

**Technical Note:** ‘Mole fraction’ is defined as the ratio of moles of ZnTe to the sum of the moles of CdTe and ZnTe present in the crystal.

**\*\*6C004 Optical materials as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$1500

*GBS:* Yes for 6C004.a and .e

**List of Items Controlled**

*Related Controls:* See also [6C994](#)

*Related Definitions:* N/A

*Items:*

a. Zinc selenide (ZnSe) and zinc sulfide (ZnS) “substrate blanks”, produced by the chemical vapor deposition process and having any of the following:

a.1. A volume greater than 100 cm<sup>3</sup>; *or*

a.2. A diameter greater than 80 mm and a thickness of 20 mm or more;

b. Electro-optic materials and non-linear materials, as follows:

b.1. Potassium titanyl arsenate (KTA) (CAS 59400-80-5);

b.2. Silver gallium selenide (AgGaSe<sub>2</sub>, also known as AGSE) (CAS 12002-67-4);

b.3. Thallium arsenic selenide (Tl<sub>3</sub>AsSe<sub>3</sub>, also known as TAS) (CAS 16142-89-5);

b.4. Zinc germanium phosphide (ZnGeP<sub>2</sub>, also known as ZGP, zinc germanium biphosphide or zinc germanium diphosphide); *or*

b.5. Gallium selenide (GaSe) (CAS 12024-11-2);

c. Non-linear optical materials, other than those specified by 6C004.b, having any of the following:

c.1. Having all of the following:

c.1.a. Dynamic (also known as nonstationary) third order nonlinear susceptibility ( $\chi^{(3)}$ , chi 3) of 10<sup>-6</sup> m<sup>2</sup>/V<sup>2</sup> or more; *and*

c.1.b. Response time of less than 1 ms; *or*

c.2. Second order nonlinear susceptibility ( $\chi^{(2)}$ , chi 2) of 3.3×10<sup>-11</sup> m/V or more;

d. “Substrate blanks” of silicon carbide or beryllium beryllium (Be/Be) deposited materials, exceeding 300 mm in diameter or major axis length;

e. Glass, including fused silica, phosphate glass, fluorophosphate glass, zirconium fluoride (ZrF<sub>4</sub>) (CAS 7783-64-4) and hafnium fluoride (HfF<sub>4</sub>)

(CAS 13709-52-9) and having all of the following:

- e.1. A hydroxyl ion (OH-) concentration of less than 5 ppm;
- e.2. Integrated metallic purity levels of less than 1 ppm; *and*
- e.3. High homogeneity (index of refraction variance) less than  $5 \times 10^{-6}$ ;
- f. Synthetically produced diamond material with an absorption of less than  $10^{-5} \text{ cm}^{-1}$  for wavelengths exceeding 200 nm but not exceeding 14,000 nm.

**\*\*6C005** “Laser” materials as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$1500  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

- a. Synthetic crystalline “laser” host material in unfinished form as follows:
  - a.1. Titanium doped sapphire;

a.2. [Reserved]

b. Rare-earth-metal doped double-clad fibers having any of the following:

b.1. Nominal “laser” wavelength of 975 nm to 1,150 nm and having all of the following:

b.1.a. Average core diameter equal to or greater than 25  $\mu\text{m}$ ; *and*

b.1.b. Core ‘Numerical Aperture’ (‘NA’) less than 0.065; *or*

*Note to 6C005.b.1: 6C005.b.1 does not apply to double-clad fibers having an inner glass cladding diameter exceeding 150  $\mu\text{m}$  and not exceeding 300  $\mu\text{m}$ .*

b.2. Nominal “laser” wavelength exceeding 1,530 nm and having all of the following:

b.2.a. Average core diameter equal to or greater than 20  $\mu\text{m}$ ; *and*

b.2.b. Core ‘NA’ less than 0.1.

**Technical Notes:**

1. For the purposes of 6C005, the core ‘Numerical Aperture’ (‘NA’) is measured at the emission wavelengths of the fiber.

2. 6C005.b includes fibers assembled with end caps.

**\*\*6C992** Optical sensing fibers not controlled by 6A002.d.3 that are modified structurally to have a ‘beat length’ of less than 500 mm (high birefringence) or optical sensor materials not described in 6C002.b and having a zinc content of equal to or more than 6% by ‘mole fraction.’

**License Requirements**

Reason for Control: AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A

GBS: N/A

**List of Items Controlled**

Related Controls: N/A

Related Definitions: ‘Mole fraction’ is defined as the ratio of moles of ZnTe to the sum of the moles of CdTe and ZnTe present in the crystal. 2) ‘Beat length’ is the distance over which two orthogonally polarized signals, initially in phase, must pass in order to achieve a 2 Pi radian(s) phase difference.

Items:

The list of items controlled is contained in the ECCN heading.

**\*\*6C994** Optical materials, as follows (see List of Items Controlled).

**License Requirements**

Reason for Control: AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A

GBS: N/A

**List of Items Controlled**

Related Controls: N/A

Related Definitions: 1) ‘Fluoride fibers’ are fibers manufactured from bulk fluoride compounds. 2) ‘Optical fiber preforms’ are bars, ingots, or rods of glass, plastic or other materials that have been specially processed for use in fabricating optical fibers. The characteristics of the preform determine the basic parameters of the resultant drawn optical fibers.

Items:

a. Low optical absorption materials, as follows:

a.1. Bulk fluoride compounds containing ingredients with a purity of 99.999% or better; or

*Note: 6C994.a.1 controls fluorides of zirconium or aluminum and variants.*

a.2. Bulk fluoride glass made from compounds controlled by 6C004.e.1;

b. ‘Optical fiber preforms’ made from bulk fluoride compounds containing ingredients with a purity of 99.999% or better, “specially designed” for the manufacture of ‘fluoride fibers’ controlled by 6A994.b.

**D. “SOFTWARE”**

**\*\*6D001** “Software” “specially designed” for the “development” or “production” of equipment controlled by 6A004, 6A005, 6A008 or 6B008.

**License Requirements**

Reason for Control: NS, MT, RS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to “software” for equipment controlled by 6A004, 6A005, 6A008 or 6B008.	NS Column 1
MT applies to “software” for equipment controlled by 6A008 or 6B008 for MT reasons.	MT Column 1
RS applies to “software” for equipment controlled by 6A008.j.1	RS Column 1
AT applies to entire entry	AT Column 1

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* Yes, except for the following:  
 (1) Items controlled for MT reasons;  
 (2) “Software” “specially designed” for the “development” or “production” of “space qualified” “laser” radar or Light Detection and Ranging (LIDAR) equipment defined in 6A008.j.1; or  
 (3) Exports or reexports to destinations outside of those countries listed in Country Group A:5 (See Supplement No. 1 to part 740 of the EAR) of “software” “specially designed” for the “development” or “production” of equipment controlled by 6A004.c or d, 6A008.d, h, k or 6B008.

**Special Conditions for STA**

*STA:* License Exception STA may not be

used to ship or transmit “software” “specially designed” for the “development” or “production” of equipment specified by ECCNs 6A004.c, 6A004.d, 6A008.d, 6A008.h, 6A008.k, or 6B008 to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

**List of Items Controlled**

*Related Controls:* See also 6D991, and ECCN 6E001 (“development”) for “technology” for items controlled under this entry.

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*6D002** “Software” “specially designed” for the “use” of equipment controlled by 6A002.b, 6A008 or 6B008.

**License Requirements**

*Reason for Control:* NS, MT, RS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
MT applies to “software” for equipment controlled by 6A008 or 6B008 for MT reasons.	MT Column 1
RS applies to “software” for equipment controlled by 6A008.j.1	RS Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* Yes, except N/A for the following:

- (1) Items controlled for MT reasons;
- (2) “Software” “specially designed” for the “use” of “space qualified” “laser” radar or Light Detection and Ranging (LIDAR) equipment defined in 6A008.j.1; or (3) “Software” “specially designed” for the “use” of commodities controlled by 6A002.b.

**List of Items Controlled**

*Related Controls:* (1) “Software” “specially designed” for the “use” of “space-qualified” LIDAR “equipment” “specially designed” for surveying or for meteorological observation, released from control under the note in 6A008.j, is controlled in [6D991](#). (2) See also [6D102](#), [6D991](#), and [6D992](#).

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*6D003** Other “software” as follows (see **List of Items Controlled**).

**License Requirements**

*Reason for Control:* NS, RS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
RS applies to paragraph c	RS Column 1
AT applies to entire entry	AT Column 1

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* Yes, except for 6D003.c and exports or reexports to destinations outside of those countries listed in Country Group A:5 (See Supplement No. 1 to part 740 of the EAR) of “software” for items controlled by 6D003.a.

**Special Conditions for STA**

*STA:* License Exception STA may not be used to ship or transmit software in 6D003.a to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

**List of Items Controlled**

*Related Controls:* See also ECCNs [6D103](#), [6D991](#), and [6D993](#).

*Related Definitions:* N/A

*Items:*

ACOUSTICS

a. “Software” as follows:

a.1. “Software” “specially designed” for acoustic beam forming for the “real-time processing” of acoustic data for passive reception using towed hydrophone arrays;

a.2. “Source code” for the “real-time processing” of acoustic data for passive reception using towed hydrophone arrays;

a.3. “Software” “specially designed” for acoustic beam forming for the “real-time processing” of acoustic data for passive reception using bottom or bay cable systems;

a.4. “Source code” for the “real-time processing” of acoustic data for passive reception using bottom or bay cable systems;

a.5. “Software” or “source code”, “specially designed” for all of the following:

a.5.a. “Real-time processing” of acoustic data from sonar systems controlled by 6A001.a.1.e; *and*

a.5.b. Automatically detecting, classifying and determining the location of divers or swimmers;

*N.B.: For diver detection “software” or “source code”, “specially designed” or modified for military use, see the U.S. Munitions List of the International Traffic in Arms Regulations (ITAR) (22 CFR part 121).*

b. Optical sensors. None.

#### CAMERAS

c. “Software” designed or modified for cameras incorporating “focal plane arrays” specified by 6A002.a.3.f and designed or modified to remove a frame rate restriction and allow the camera to exceed the frame rate specified in 6A003.b.4 Note 3.a;

#### OPTICS

d. “Software” specially designed to maintain the alignment and phasing of segmented mirror systems consisting of mirror segments having a diameter or major axis length equal to or larger than 1 m;

e. Lasers. None.

#### MAGNETIC AND ELECTRIC FIELD SENSORS

f. “Software” as follows:

f.1. “Software” “specially designed” for magnetic and electric field “compensation systems” for magnetic sensors designed to

operate on mobile platforms;

f.2. “Software” “specially designed” for magnetic and electric field anomaly detection on mobile platforms;

f.3. “Software” “specially designed” for “real-time processing” of electromagnetic data using underwater electromagnetic receivers specified by 6A006.e;

f.4. “Source code” for “real-time processing” of electromagnetic data using underwater electromagnetic receivers specified by 6A006.e;

#### GRAVIMETERS

g. “Software” “specially designed” to correct motional influences of gravity meters or gravity gradiometers;

#### RADAR

h. “Software” as follows:

h.1. Air Traffic Control (ATC) “software” application “programs” designed to be hosted on general purpose computers located at Air Traffic Control centers and capable of accepting radar target data from more than four primary radars;

h.2. “Software” for the design or “production” of radomes having all of the following:

h.2.a. “Specially designed” to protect the “electronically scanned array antennae” specified by 6A008.e; *and*

h.2.b. Resulting in an antenna pattern having an ‘average side lobe level’ more than 40 dB below the peak of the main beam level.

*Technical Note: ‘Average side lobe level’ in 6D003.h.2.b is measured over the entire array excluding the angular extent of the main beam and the first two side lobes on either side of the*

main beam.

**\*\*6D102** “Software” “specially designed” or modified for the “use” of equipment controlled by 6A108.

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*6D103** “Software” that processes post-flight, recorded data, enabling determination of vehicle position throughout its flight path, “specially designed” or modified for “missiles”.

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

The list of items controlled is contained in the ECCN heading.

**\*\*6D201** “Software” “specially designed” to enhance or release the performance characteristics of high-speed cameras and imaging devices, and components thereof, to meet or exceed the level of the performance characteristics described in ECCN 6A203.

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* See ECCNs [6E001](#) (“development”) and [6E202](#) (“production” and “use”) for “technology” for items controlled under this entry.

*Related Definitions:* N/A

*Items:*

- a. “Software” or encryption keys/codes “specially designed” to enhance or release the performance characteristics of equipment not controlled by ECCN 6A203, or not controlled for NP reasons

by ECCN 6A003, so that such equipment meets or exceeds the performance characteristics of equipment described in ECCN 6A203.

b. “Software” or encryption keys/codes “specially designed” to enhance or release the performance characteristics of equipment controlled by ECCN 6A203 or equipment controlled by ECCN 6A003 that meets or exceeds the performance characteristics described in ECCN 6A203.

**\*\*6D619** “Software” “specially designed” for the “development,” “production,” operation or maintenance of commodities controlled by 6B619.

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
RS applies to entire entry	RS Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry	See § 746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**Special Conditions for STA**

*STA:* Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in 6D619.

**List of Items Controlled**

*Related Controls:* “Software” directly related to articles enumerated or otherwise described in USML Category XVIII is subject to the

ITAR (See 22 CFR § 121.1, Category XVIII(f)).

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*6D991** “Software,” n.e.s., “specially designed” for the “development,” “production,” or “use” of commodities controlled by 6A002, 6A003, 6A991, 6A996, 6A997, or 6A998.

**License Requirements**

*Reason for Control:* RS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
RS applies to “software” for commodities controlled by 6A002, 6A003, or 6A998.b	RS Column 1
RS applies to “software” for commodities controlled by 6A998.c	RS Column 2
AT applies to entire entry, except “software” for commodities controlled by 6A991	AT Column 1
AT applies to “software” for commodities controlled by 6A991	AT Column 2

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCN [6D002](#) for “software” “specially designed” for the “use” of commodities controlled under ECCN [6A002.b](#). (2) See ECCN [6D003.c](#) for “software” “specially designed” for cameras

incorporating “focal plane arrays” specified by 6A002.a.3.f and “specially designed” to remove a frame rate restriction and allow the camera to exceed the frame rate specified in 6A003.b.4 Note 3.a.

Related Definitions: N/A

Items:

The list of items controlled is contained in the ECCN heading.

**\*\*6D992** “Software” “specially designed” for the “development” or “production” of equipment controlled by 6A992, 6A994, or 6A995.

**License Requirements**

Reason for Control: AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

Related Controls: N/A

Related Definitions: N/A

Items:

The list of items controlled is contained in the ECCN heading.

**\*\*6D993** Other “software,” not controlled by 6D003, as follows (see List of Items Controlled).

**License Requirements**

Reason for Control: RS, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
RS applies to 6D993.c	RS Column 1
RS applies to 6D993.b	RS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

Related Controls: N/A

Related Definitions: N/A

Items:

a. Air Traffic Control (ATC) “software” application “programs” hosted on general purpose computers located at Air Traffic Control centers, and capable of automatically handing over primary radar target data (if not correlated with secondary surveillance radar (SSR) data) from the host ATC center to another ATC center.

b. “Software” “specially designed” for seismic intrusion detection systems in 6A999.c.

c. “Source Code” “specially designed” for seismic intrusion detection systems in 6A999.c.

**E. “TECHNOLOGY”**

**\*\*6E001** “Technology” according to the General Technology Note for the “development” of equipment, materials or “software” controlled by 6A (except 6A991, 6A992, 6A994, 6A995, 6A996, 6A997, 6A998, or 6A999.c), 6B (except 6B995), 6C (except 6C992 or 6C994), or 6D (except 6D991, 6D992, or 6D993).

**License Requirements**

*Reason for Control:* NS, MT, NP, RS, CC, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738).</i>
NS applies to “technology” for items controlled by 6A001 to 6A008, 6B002 to 6B008, 6C002 to 6C005, or 6D001 to 6D003	NS Column 1
MT applies to “technology” for items controlled by 6A002, 6A007, 6A008, 6A102, 6A107, 6A108, 6B008, 6B108, 6D001, 6D002, 6D102 or 6D103 for MT reasons	MT Column 1
NP applies to “technology” for items controlled by 6A003, 6A005, 6A202, 6A203, 6A205, 6A225, 6A226, 6D001, or 6D201 for NP reasons	NP Column 1
RS applies to “technology” for items controlled by 6A002.a.1, .a.2, .a.3, .c, or .f, 6A003.b.3 or .b.4, or 6A008.j.1	RS Column 1
CC applies to “technology” for equipment controlled by 6A002 for CC reasons	CC Column 1
AT applies to entire entry	AT Column 1
UN applies to “technology” for equipment controlled by 6A002 or 6A003 for UN reasons	See § 746.1(b) for UN controls.

*TSR:* Yes, except for the following: (1) Items controlled for MT reasons; (2) “Technology” for commodities controlled by 6A002, 6A004.e or 6A008.j.1; (3) “Technology” for 6A003 cameras, unless for “technology” for the integration of 6A003 cameras into camera systems “specially designed” for civil automotive applications; (4) “Technology” for “software” “specially designed” for “space qualified” “laser” radar or Light Detection and Ranging (LIDAR) equipment defined in 6A008.j.1 and controlled by 6D001 or 6D002; or (5) Exports or reexports to destinations outside of those countries listed in Country Group A:5 (See Supplement No. 1 to part 740 of the EAR) of “technology” for the “development” of the following: (a) Items controlled by 6A001.a.1.b, 6A001.a.1.e, 6A001.a.2.a.1, 6A001.a.2.a.2, 6A001.a.2.a.3, 6A001.a.2.a.5, 6A001.a.2.a.6, 6A001.a.2.b, 6A001.a.2.d, 6A001.a.2.e., 6A004.c, 6A004.d, 6A006.a.2, 6A006.c.1, 6A006.d, 6A006.e, 6A008.d, 6A008.h, 6A008.k, 6B008, or 6D003.a; (b) Equipment controlled by 6A001.a.2.c or 6A001.a.2.f when “specially designed” for real time applications; or (c) “Software” controlled by 6D001 and “specially designed” for the “development” or “production” of equipment controlled by 6B008, or 6D003.a.

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

**Special Conditions for STA**

*STA:* License Exception STA may not be used to ship or transmit any technology in this entry to any of the destinations listed in Country Group

A:6 (See Supplement No.1 to part 740 of the EAR).

**List of Items Controlled**

*Related Controls:* (1) Technical data directly related to satellites and all other items described in USML Category XV are subject to the ITAR under USML Category XV(f). (2) Technical data directly related to laser systems, infrared imaging systems, and all other items described in USML Category XII are subject to the ITAR under USML Category XII(f). (3) Technical data directly related to read-out integrated circuits described in USML Categories XII(e) or XV(e)(3) is subject to the ITAR under USML Categories XII(f) or XV(f), respectively. (4) See also [6E101](#), [6E201](#), and [6E991](#).

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*6E002** “Technology” according to the General Technology Note for the “production” of equipment or materials controlled by 6A (except 6A991, 6A992, 6A994, 6A995, 6A996, 6A997, 6A998 or 6A999.c), 6B (except 6B995) or 6C (except 6C992 or 6C994).

**License Requirements**

*Reason for Control:* NS, MT, NP, RS, CC, AT, UN

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to “technology” for equipment controlled by 6A001 to 6A008, 6B002 to 6B008, or 6C002 to 6C005	NS Column 1
MT applies to “technology” for	MT Column 1

equipment controlled by 6A002, 6A007, 6A008, 6A102, 6A107, 6A108, 6B008, or 6B108 for MT reasons	
NP applies to “technology” for items controlled by 6A003, 6A005, 6A202, 6A203, 6A205, 6A225 or 6A226 for NP reasons	NP Column 1
RS applies to “technology” for items controlled by 6A002.a.1, .a.2, .a.3, .c, or .f, 6A003.b.3 or .b.4, or 6A008.j.1	RS Column 1
CC applies to “technology” for equipment controlled by 6A002 for CC reasons	CC Column 1
AT applies to entire entry	AT Column 1
UN applies to “technology” for equipment controlled by 6A002 or 6A003 for UN reasons.	See §746.1(b) for UN controls

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* Yes, except for the following:  
 (1) Items controlled for MT reasons;  
 (2) “Technology” for commodities controlled by 6A002, 6A004.e, or 6A008.j.1;  
 (3) “Technology” for 6A003 cameras, unless for “technology” for the integration of 6A003 cameras into camera systems “specially designed” for civil automotive applications ; or  
 (4) Exports or reexports to destinations outside of those countries listed in Country Group A:5 (See Supplement No. 1 to part 740 of the EAR) of “technology” for

the “production” of the following: (a) Items controlled by 6A001.a.1.b, 6A001.a.1.e, 6A001.a.2.a.1, 6A001.a.2.a.2, 6A001.a.2.a.3, 6A001.a.2.a.5, 6A001.a.2.a.6, 6A001.a.2.b, 6A004.c, 6A004.d, 6A006.a.2, 6A006.c.1, 6A006.d, 6A006.e, 6A008.d, 6A008.h, 6A008.k, or 6B008; and (b) Items controlled by 6A001.a.2.c or 6A001.a.2.f when “specially designed” for real time applications.

**Special Conditions for STA**

*STA:* License Exception STA may not be used to ship or transmit “technology” according to the General Technology Note for the “production” of equipment specified in the STA exclusion paragraphs found in the License Exception sections of by ECCNs 6A001, 6A002, 6A003, 6A004, 6A006, 6A008, or 6B008 to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

**List of Items Controlled**

*Related Controls:* (1) Technical data directly related to satellites and all other items described in USML Category XV are subject to the ITAR under USML Category XV(f). (2) Technical data directly related to laser systems, infrared imaging systems, and all other items described in USML Category XII are subject to the ITAR under USML Category XII(f). (3) Technical data directly related to read-out integrated circuits described in USML Categories XII(e) or XV(e)(3) is subject to the ITAR under USML Categories XII(f) or XV(f), respectively. (4) See also [6E992](#).

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*6E003** Other “technology” as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* Yes

**List of Items Controlled**

*Related Controls:* See also [6E993](#)

*Related Definitions:* N/A

*Items:*

ACOUSTICS

a. [Reserved]

OPTICAL SENSORS

b. [Reserved]

CAMERAS

c. [Reserved]

OPTICS

d. “Technology” as follows:

d.1. “Technology” “required” for the coating and treatment of optical surfaces to achieve an

‘optical thickness’ uniformity of 99.5% or better for optical coatings 500 mm or more in diameter or major axis length and with a total loss (absorption and scatter) of less than  $5 \times 10^{-3}$ ;

*N.B.:* See also 2E003.f.

**Technical Note:** ‘Optical thickness’ is the mathematical product of the index of refraction and the physical thickness of the coating.

d.2. “Technology” for the fabrication of optics using single point diamond turning techniques to produce surface finish “accuracies” of better than 10 nm rms on non-planar surfaces exceeding 0.5 m<sup>2</sup>;

LASERS

e. “Technology” “required” for the “development,” “production” or “use” of “specially designed” diagnostic instruments or targets in test facilities for “SHPL” testing or testing or evaluation of materials irradiated by “SHPL” beams;

MAGNETIC AND ELECTRIC FIELD SENSORS

f. [Reserved]

GRAVIMETERS

g. [Reserved]

RADAR

h. [Reserved]

**\*\*6E101** “Technology” according to the General Technology Note for the “use” of equipment or “software” controlled by 6A002, 6A007.b and .c, 6A008, 6A102, 6A107, 6A108, 6B108, 6D102 or 6D103.

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* 1.) This entry only controls “technology” for equipment controlled by 6A008 when it is designed for airborne applications and is usable in “missiles”. 2.) This entry only controls “technology” for items in 6A002.a.1 and a.3 that are “specially designed” or modified to protect “missiles” against nuclear effects (e.g., Electromagnetic Pulse (EMP), X-rays, combined blast and thermal effects), and usable for “missiles.” 3.) This entry only controls “technology” for items in 6A007.b and .c when the accuracies in 6A007.b.1 and b.2 are met or exceeded.

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*6E201** “Technology” according to the General Technology Note for the “use” of equipment controlled by 6A003.a.3, 6A003.a.4; 6A005.a.2, 6A005.b.2.b, 6A005.b.3, 6A005.b.4.b.2, 6A005.b.6.c, 6A005.c.1.b, 6A005.c.2.b, 6A005.d.2, 6A005.d.3.c, or 6A005.d.4.c (that meet or exceed the parameters of 6A205); 6A202, 6A203, 6A205,

**6A225 or 6A226.**

TSR: N/A

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*ECCN Controls:* This entry only controls “technology” for “lasers” in 6A005 that are controlled for NP reasons.

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*6E202** “Technology” according to the General Technology Note for the “production” or “use” of “software” controlled by 6D201.

**License Requirements**

*Reason for Control:* NP, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NP applies to entire entry	NP Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*6E619** “Technology” “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul or refurbishing of commodities controlled by 6B619 or “software” controlled by 6D619.

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
RS applies to entire entry	RS Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry	See § 746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**Special Conditions for STA**

STA: Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in 6E619.

**List of Items Controlled**

*Related Controls:* Technical data directly related to articles enumerated or otherwise described in USML Category XVIII are subject to the ITAR (See 22 CFR § 121.1, Category XVIII(f)).

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*6E991** “Technology” for the “development”, “production” or “use” of equipment controlled by 6A991, 6A996, 6A997, 6A998 or 6A99.c.

**License Requirements**

*Reason for Control:* RS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
RS applies to “technology” for equipment controlled by 6A998.b, 6A998.c and 6A999.c.	RS Column 1
AT applies to entire entry except “technology” for equipment controlled by 6A991	AT Column 1
AT applies to “technology” for equipment controlled by 6A991	AT Column 2

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*6E992** “Technology” for the “development” or “production” of equipment, materials or “software” controlled by 6A992, 6A994, or 6A995, 6B995, 6C992, 6C994, or 6D993.

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*6E993** Other “technology”, not controlled by 6E003, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* RS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
RS applies to 6E993.e	RS Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

a. Optical fabrication technologies for serially producing optical “parts” and “components” at a rate exceeding 10 m<sup>2</sup> of surface area per year on any single spindle and having all of the following:

a.1. Area exceeding 1 m<sup>2</sup>; *and*

a.2. Surface figure exceeding  $\lambda/10$  (rms) at the designed wavelength;

b. “Technology” for optical filters with a bandwidth equal to or less than 10 nm, a field of view (FOV) exceeding 40° and a resolution exceeding 0.75 line pairs per milliradian;

c. “Technology” for the “development” or “production” of cameras controlled by 6A993;

d. “Technology” “required” for the “development” or “production” of non-triaxial fluxgate “magnetometers” or non-triaxial fluxgate “magnetometer” systems, having any of

the following:

d.1. ‘Sensitivity’ lower (better) than 0.05 nT (rms) per square root Hz at frequencies of less than 1 Hz; *or*

d.2. ‘Sensitivity’ lower (better) than  $1 \times 10^{-3}$  nT (rms) per square root Hz at frequencies of 1 Hz or more.

e. “Technology” “required” for the “development” or “production” of infrared up-conversion devices having all of the following:

e.1. A response in the wavelength range exceeding 700 nm but not exceeding 1500 nm; and

e.2. A combination of an infrared photodetector, light emitting diode (OLED), and nanocrystal to convert infrared light into visible light.

*Technical Note:* For the purposes of 6E993, ‘sensitivity’ (or noise level) is the root mean square of the device-limited noise floor which is the lowest signal that can be measured.

**EAR99** Items subject to the EAR that are *not* elsewhere specified in this CCL Category *or* in any other category in the CCL are designated by the number **EAR99**.

**CATEGORY 7 - NAVIGATION AND AVIONICS**

**A. "END ITEMS," "EQUIPMENT," "ACCESSORIES," "ATTACHMENTS," "PARTS," "COMPONENTS," AND "SYSTEMS"**

**N.B.1:** For automatic pilots for underwater vehicles, see Category 8. For radar, see Category 6.

**\*\*7A001** Accelerometers as follows (see List of Items Controlled) and "specially designed" "components" therefor.

**License Requirements**

Reason for Control: NS, MT, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 1
MT applies to commodities that meet or exceed the parameters of 7A101.	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A

GBS: N/A

**List of Items Controlled**

Related Controls: (1) See USML Category XII(e) for accelerometers subject to the ITAR. (2) See also ECCNs [7A101](#), [7A611](#), and [7A994](#). (3) For angular or rotational accelerometers, see ECCN [7A001.b](#). (4) MT controls do not apply to

accelerometers that are "specially designed" and developed as Measurement While Drilling (MWD) sensors for use in downhole well service applications.

Related Definitions: N/A

Items:

a. Linear accelerometers having any of the following:

a.1. Specified to function at linear acceleration levels less than or equal to 15 g and having any of the following:

a.1.a. A "bias" "stability" of less (better) than 130 micro g with respect to a fixed calibration value over a period of one year; or

a.1.b. A "scale factor" "stability" of less (better) than 130 ppm with respect to a fixed calibration value over a period of one year;

a.2. Specified to function at linear acceleration levels exceeding 15 g but less than or equal to 100 g and having all of the following:

a.2.a. A "bias" "repeatability" of less (better) than 1,250 micro g over a period of one year; and

a.2.b. A "scale factor" "repeatability" of less (better) than 1,250 ppm over a period of one year; or

a.3. Designed for use in inertial navigation or guidance systems and specified to function at linear acceleration levels exceeding 100 g;

**Note:** 7A001.a.1 and 7A001.a.2 do not apply to accelerometers limited to measurement of only vibration or shock.

b. Angular or rotational accelerometers, specified to function at linear acceleration levels exceeding 100 g.

**\*\*7A002 Gyros or angular rate sensors, having any of the following, and “specially designed” “components” therefor.**

**License Requirements**

*Reason for Control:* NS, MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
MT applies to commodities that meet or exceed the parameters of 7A102.	MT Column 1
AT applies to entire entry	AT Column 1

**License Requirement Note:** For the purpose of MT controls only, the term ‘stability’ is defined as a measure of the ability of a specific mechanism or performance coefficient to remain invariant when continuously exposed to a fixed operating condition. (This definition does not refer to dynamic or servo stability.) (IEEE STD 528-2001 paragraph 2.247)

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
GBS: N/A

**List of Items Controlled**

*Related Controls:* (1) See USML Category XII(e) for gyros or angular rate sensors subject to the ITAR. (2) See also ECCNs [7A102](#), [7A611](#), and [7A994](#). (3) For angular or rotational accelerometers, see ECCN [7A001.b](#).

*Related Definitions:* N/A  
*Items:*

a. Specified to function at linear acceleration levels less than or equal to 100 g and having any

of the following:

a.1. An angular rate range of less than 500 degrees per second and having any of the following:

a.1.a. A “bias” “stability” of less (better) than 0.5 degree per hour, when measured in a 1 g environment over a period of one month, and with respect to a fixed calibration value; *or*

a.1.b. An “angle random walk” of less (better) than or equal to 0.0035 degree per square root hour; *or*

**Note:** 7A002.a.1.b does not control “spinning mass gyros”.

a.2. An angular rate range greater than or equal to 500 degrees per second and having any of the following:

a.2.a. A “bias” “stability” of less (better) than 4 degrees per hour, when measured in a 1 g environment over a period of three minutes, and with respect to a fixed calibration value; *or*

a.2.b. An “angle random walk” of less (better) than or equal to 0.1 degree per square root hour; *or*

**Note:** 7A002.a.2.b does not apply to “spinning mass gyros”.

b. Specified to function at linear acceleration levels exceeding 100 g.

**\*\*7A003 ‘Inertial measurement equipment or systems’, having any of the following.**

**License Requirements**

*Reason for Control:* NS, MT, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 1
MT applies to commodities in 7A003.d that meet or exceed the parameters of 7A103	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
 GBS: N/A

**List of Items Controlled**

*Related Controls:* (1) See also ECCNs [7A103](#), [7A611](#), and [7A994](#). (2) See USML Category XII(d) for guidance or navigation systems subject to the ITAR.

*Related Definitions:* N/A

*Items:*

**Note 1:** ‘Inertial measurement equipment or systems’ incorporate accelerometers or gyroscopes to measure changes in velocity and orientation in order to determine or maintain heading or position without requiring an external reference once aligned. ‘Inertial measurement equipment or systems’ include:

- Attitude and Heading Reference Systems (AHRSSs);
- Gyrocompasses;
- Inertial Measurement Units (IMUs);
- Inertial Navigation Systems (INSs);
- Inertial Reference Systems (IRSs);
- Inertial Reference Units (IRUs).

**Note 2:** 7A003 does not apply to ‘inertial measurement equipment or systems’ which are certified for use on “civil aircraft” by civil aviation authorities of one or more Wassenaar

*Arrangement Participating States, see Supplement No. 1 to part 743 of the EAR..*

**Technical Note:** ‘Positional aiding references’ independently provide position, and include:

a. “Satellite navigation system”;

b. “Data-Based Referenced Navigation” (“DBRN”).

a. Designed for “aircraft”, land vehicles or vessels, providing position without the use of ‘positional aiding references’, and having any of the following “accuracies” subsequent to normal alignment:

a.1. 0.8 nautical miles per hour (nm/hr) “Circular Error Probable” (“CEP”) rate or less (better);

a.2. 0.5% distanced travelled “CEP” or less (better); *or*

a.3. Total drift of 1 nautical mile “CEP” or less (better) in a 24 hr period;

**Technical Note:** The performance parameters in 7A003.a.1, 7A003.a.2 and 7A003.a.3 typically apply to ‘inertia measurement equipment or systems’ designed for “aircraft”, vehicles and vessels, respectively. These parameters result from the utilization of specialized non-positional aiding references (e.g., altimeter, odometer, velocity log). As a consequence, the specified performance values cannot be readily converted between these parameters. Equipment designed for multiple platforms are evaluated against each applicable entry 7A003.a.1, 7A003.a.2, or 7A003.a.3.

b. Designed for “aircraft”, land vehicles or vessels, with an embedded ‘positional aiding reference’ and providing position after loss of all ‘positional aiding references’ for a period of up

to 4 minutes, having an “accuracy” of less (better) than 10 meters “CEP”;

*Technical Note: 7A003.b refers to systems in which ‘inertial measurement equipment or systems’ and other independent ‘positional aiding references’ are built into a single unit (i.e., embedded) in order to achieve improved performance.*

c. Designed for “aircraft”, land vehicles or vessels, providing heading or True North determination and having any of the following:

c.1. A maximum operating angular rate less (lower) than 500 deg/s and a heading “accuracy” without the use of ‘positional aiding references’ equal to or less (better) than 0.07 deg sec (Lat) (equivalent to 6 arc minutes rms at 45 degrees latitude); *or*

c.2. A maximum operating angular rate equal to or greater (higher) than 500 deg/s and a heading “accuracy” without the use of ‘positional aiding references’ equal to or less (better) than 0.2 deg sec (Lat) (equivalent to 17 arc minutes rms at 45 degrees latitude);

d. Providing acceleration measurements or angular rate measurements, in more than one dimension, and having any of the following:

d.1. Performance specified by 7A001 or 7A002 along any axis, without the use of any aiding references; *or*

d.2. Being “space-qualified” and providing angular rate measurements having an “angle random walk” along any axis of less (better) than or equal to 0.1 degree per square root hour.

*Note: 7A003.d.2 does not apply to ‘inertial measurement equipment or systems’ that contain “spinning mass gyros” as the only type of gyro.*

**\*\*7A004 ‘Star trackers’ and “components”**

therefor, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, MT, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 1
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) See USML Category XV for certain ‘star trackers’ that are “subject to the ITAR” (see 22 CFR parts 120 through 130). (2) See also 7A104 and 7A994.

*Related Definitions:* N/A

*Items:*

a. ‘Star trackers’ with a specified azimuth “accuracy” of equal to or less (better) than 20 seconds of arc throughout the specified lifetime of the equipment;

b. “Components” “specially designed” for equipment specified in 7A004.a as follows:

b.1. Optical heads or baffles;

b.2. Data processing units.

*Technical Note: ‘Star trackers’ are also referred to as stellar attitude sensors or gyro-astro compasses.*

**\*\*7A005** “Satellite navigation system” receiving equipment having any of the following and “specially designed” “components” therefor.

ITAR and USML Category XI(c)(10) for antennae that are subject to the ITAR. (3) Items that otherwise would be covered by ECCN 7A005.a are “subject to the ITAR” (see 22 CFR parts 120 through 130).

**License Requirements**

*Related Definitions:* N/A

*Items:*

*Reason for Control:* NS, MT and AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to 7A005.b	NS Column 1
MT applies to commodities in 7A005.b that meet or exceed the parameters of 7A105.	MT Column 1
AT applies to 7A005.b	AT Column 1

a. Employing a decryption algorithm “specially designed” or modified for government use to access the ranging code for position and time; *or*

b. Employing ‘adaptive antenna systems’.

*Note: 7A005.b does not apply to “satellite navigation system” receiving equipment that only uses “components” designed to filter, switch, or combine signals from multiple omnidirectional antennas that do not implement adaptive antenna techniques.*

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*Technical Note: For the purposes of 7A005.b ‘adaptive antenna systems’ dynamically generate one or more spatial nulls in an antenna array pattern by signal processing in the time domain or frequency domain.*

LVS: N/A

GBS: N/A

**\*\*7A006** Airborne altimeters operating at frequencies other than 4.2 to 4.4 GHz inclusive and having any of the following (see List of Items Controlled).

**List of Items Controlled**

**License Requirements**

*Related Controls:* (1) See also ECCNs [7A105](#), [7A611](#) and [7A994](#). Commercially available “satellite navigation system” receivers do not typically employ decryption or adaptive antennae and are classified as [7A994](#). (2) See USML Category XII(d) for “satellite navigation system” receiving equipment subject to the

*Reason for Control:* NS, MT, AT

<i>Control(s)</i>	<i>Country Chart (See</i>
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	<i>Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
MT applies to commodities in this entry that meet or exceed the parameters of 7A106	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
 GBS: N/A

**List of Items Controlled**

*Related Controls:* See also [7A106](#), [7A994](#) and Category 6 for controls on radar.

*Related Definitions:* N/A

*Items:*

- a. ‘Power management’; or

**Technical Note:** ‘Power management’ is changing the transmitted power of the altimeter signal so that received power at the “aircraft” altitude is always at the minimum necessary to determine the altitude.

- b. Using phase shift key modulation.

**\*\*7A008** Underwater sonar navigation systems using Doppler velocity or correlation velocity logs integrated with a heading source and having a positioning “accuracy” of equal to or less (better) than 3% of distance traveled “Circular Error Probable” (“CEP”) and “specially designed” “components” therefor.

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
 GBS: N/A

**List of Items Controlled**

*Related Controls:* [7A008](#) does not control systems “specially designed” for installation on surface vessels or systems requiring acoustic beacons or buoys to provide positioning data. See 6A001.a for acoustic systems, and 6A001.b for correlation-velocity and Doppler-velocity sonar log equipment. See 8A002 for other marine systems.

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*7A101** Accelerometers, other than those controlled by 7A001 (see List of Items Controlled), and “specially designed” “parts” and “components” therefor.

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
 GBS: N/A

by 7A002 (see List of Items Controlled), and “specially designed” “parts” and “components” therefor.

**List of Items Controlled**

*Related Controls:* (1) See USML Category XII(e) for accelerometers subject to the ITAR. (2) See also ECCNs [7A101](#) and [7A611](#). (3) This entry does not control accelerometers that are “specially designed” and developed as MWD (Measurement While Drilling) sensors for use in downhole well service operations.

*Related Definitions:* N/A

*Items:*

a. Linear accelerometers designed for use in inertial navigation systems or in guidance systems of all types, usable in “missiles” having all of the following characteristics, and “specially designed” “parts” and “components” therefor:

a.1. ‘Scale factor’ “repeatability” less (better) than 1250 ppm; and

a.2. ‘Bias’ “repeatability” less (better) than 1250 micro g.

*Note:* The measurement of ‘bias’ and ‘scale factor’ refers to one sigma standard deviation with respect to a fixed calibration over a period of one year.

b. Accelerometers of any type, designed for use in inertial navigation systems or in guidance systems of all types, specified to function at acceleration levels greater than 100 g.

*Note to paragraph (b):* This paragraph (b) does not include accelerometers that are designed to measure vibration or shock.

**\*\*7A102 Gyros, other than those controlled**

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
 GBS: N/A

**List of Items Controlled**

*Related Controls:* (1) See USML Category XII(e) for gyros or angular rate sensors subject to the ITAR. (2) See also ECCNs [7A002](#), [7A611](#), and [7A994](#).

*Related Definitions:* 1.) Drift rate is defined as the time rate of output deviation from the desired output. It consists of random and systematic components and is expressed as an equivalent angular displacement per unit time with respect to inertial space. 2.) Stability is defined as standard deviation (1 sigma) of the variation of a particular parameter from its calibrated value measured under stable temperature conditions. This can be expressed as a function of time.

*Items:*

a. All types of gyros, usable in rockets, missiles, or unmanned aerial vehicles capable of achieving a “range” equal to or greater than 300 km, with a rated “drift rate” ‘stability’ of less than 0.5 degrees (1 sigma or rms) per hour in a 1 g environment.

b. Gyros of any type, designed for use in inertial navigation systems or in guidance systems of all types, specified to function at acceleration levels greater than 100 g.

**Technical Note:** *In this entry, the term ‘stability’ is defined as a measure of the ability of a specific mechanism or performance coefficient to remain invariant when continuously exposed to a fixed operating condition. (This definition does not refer to dynamic or servo stability.) (IEEE STD 528-2001 paragraph 2.247)*

**\*\*7A103 Instrumentation, navigation equipment and systems, other than those controlled by 7A003, and "specially designed" "parts" and "components" therefor, as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
GBS: N/A

**List of Items Controlled**

*Related Controls:* (1) See ECCN 7A003 and 7A994. (2) Inertial navigation systems and inertial equipment, and “specially designed” “parts” and “components” therefor specifically designed, modified or configured for military use are “subject to the ITAR”

(see 22 CFR parts 120 through 130).

*Related Definitions:* ‘Inertial measurement equipment or systems’ specified in 7A103.a. incorporate accelerometers or gyros to measure changes in velocity and orientation in order to determine or maintain heading or position without requiring an external reference once aligned.

*Items:*

a. ‘Inertial measurement equipment or systems’ using accelerometers or gyros controlled by 7A001, 7A002, 7A101 or 7A102, and “specially designed” “parts” and “components” therefor;

**Note 1:** *7A103.a does not control equipment containing accelerometers “specially designed” and developed as MWD (Measurement While Drilling) sensors for use in down-hole well services operations.*

**Note 2:** *7A103.a does not control inertial or other equipment using accelerometers or gyros controlled by 7A001 or 7A002 that are only NS controlled.*

**Note 3:** *7A103.a. includes Attitude and Heading Reference Systems (AHRs), gyrocompasses, Inertial Measurement Units (IMUs), Inertial Navigations Systems (INSs), Inertial Reference Systems (IRs), and Inertial Reference Units (IRUs).*

b. Integrated flight instrument systems, which include gyrostabilizers or automatic pilots, designed or modified for use in rockets, missiles, or unmanned aerial vehicles capable of achieving a “range” equal to or greater than 300 km, and “specially designed” “parts” and “components” therefor.

c. Integrated Navigation Systems, designed or modified for use in rockets, missiles, or unmanned aerial vehicles capable of achieving a “range” equal to or greater than 300 km and capable of providing a navigational accuracy of

200m Circular Error Probable (CEP) or less.

**Technical Note:** An ‘integrated navigation system’ typically incorporates the following ‘parts’ and ‘components’:

1. An inertial measurement device (e.g., an attitude and heading reference system, inertial reference unit, or inertial navigation system);
2. One or more external sensors used to update the position and/or velocity, either periodically or continuously throughout the flight (e.g., satellite navigation receiver, radar altimeter, and/or Doppler radar); and
3. Integration hardware and software.

**\*\*7A104** Gyro-astro compasses and other devices, other than those controlled by 7A004, which derive position or orientation by means of automatically tracking celestial bodies or satellites and “specially designed” “parts” and “components” therefor.

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) See USML Categories IV and XV for certain ‘star trackers’ that

are “subject to the ITAR” (see 22 CFR parts 120 through 130). (2) This entry controls “specially designed” “parts” and “components” for gyro-astro compasses and other devices controlled by 7A004.

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*7A105** Receiving equipment for ‘navigation satellite systems’, having any of the following characteristics (see List of Items Controlled), and “specially designed” “parts” and “components” therefor.

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) See also 7A005, 7A611 and 7A994. (2) See USML Category XII(d) for GNSS receiving equipment subject to the ITAR and USML Category XI(c)(10) for antennae that are subject to the ITAR. (3) Items that otherwise would be covered by ECCN 7A105.b.2 are “subject to the ITAR” (see 22 CFR parts 120 through 130). (4) See USML Category XII(d) for GPS receiving

equipment in 7A105.a, b.1 and b.3 that are subject to the ITAR.

*Related Definitions:* ‘Navigation satellite systems’ include Global Navigation Satellite Systems (GNSS; e.g. GPS, GLONASS, Galileo or BeiDou) and Regional Navigation Satellite Systems (RNSS; e.g. NavIC, QZSS).

*Items:*

- a. Designed or modified for use in “missiles”; *or*
- b. Designed or modified for airborne applications and having any of the following:
  - b.1. Capable of providing navigation information at speeds in excess of 600 m/s;
  - b.2. Employing decryption, designed or modified for military or governmental services, to gain access to a ‘navigation satellite system’ secure signal/data; *or*
  - b.3. Being “specially designed” to employ anti-jam features (*e.g.*, null steering antenna or electronically steerable antenna) to function in an environment of active or passive countermeasures.

*Note:* 7A105.b.2 and 7A105.b.3 do not control equipment designed for commercial, civil or Safety of Life (*e.g.*, data integrity, flight safety) ‘navigation satellite system’ services.

**\*\*7A106** Altimeters, other than those controlled by 7A006, of radar or laser radar type, designed or modified for use in “missiles”. (These items are “subject to the ITAR”. See 22 CFR parts 120 through 130.)

**\*\*7A107** Three axis magnetic heading sensors having all of the following characteristics (see List of Items Controlled), and “specially designed” “parts” and “components” therefor.

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

- a. Internal tilt compensation in pitch (+/-90 degrees) and roll (+/-180 degrees) axes;
- b. Azimuthal accuracy better (less) than 0.5 degrees rms at latitudes of +/-80 degrees, referenced to local magnetic field; *and*
- c. Designed or modified to be integrated with flight control and navigation systems.

*Note:* Flight control and navigation systems in 7A107 include gyrostabilizers, automatic pilots and inertial navigation systems.

**\*\*7A115** Passive sensors for determining bearing to specific electromagnetic sources (direction finding equipment) or terrain characteristics, designed or modified for use in “missiles”. (These items are “subject to the ITAR”. See 22 CFR parts 120 through 130.)

**\*\*7A116** Flight control systems and “parts” and “components”, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) See 9A610.r and 9A610.s for items designed or modified for military UAVs. (2) See USML Category IV for items “specially designed” for use in rockets or missiles that are “subject to the ITAR.”

*Related Definitions:* N/A

*Items:*

a. Pneumatic, hydraulic, mechanical, electro-optical, or electromechanical flight control systems (including fly-by-wire and fly-by-light systems) designed or modified for UAVs capable of delivering at least 500 kilograms of payload to a range of at least 300 km, other than those controlled by either USML paragraph VIII(a) or ECCN 9A610.a;

b. Attitude control equipment designed or modified for UAVs capable of delivering at least 500 kilograms of payload to a range of at least 300 km, other than those controlled by either USML paragraph VIII(a) or ECCN 9A610.a;

c. Flight control servo valves designed of modified for the systems in 7A116.a or 7A116.b, and designed or modified to operate in a vibration environment greater than 10 g rms over the entire range between 20Hz and 2 kHz.

*Note:* This entry includes the systems, equipment and valves designed or modified to enable operation of manned aircraft as unmanned aerial vehicles.

**\*\*7A117** “Guidance sets” capable of achieving system accuracy of 3.33% or less of the range (e.g., a “CEP” of 10 km or less at a range of 300 km). (These items are “subject to the ITAR”. See 22 CFR parts 120 through 130.)

**\*\*7A611** Military fire control, laser, imaging, and guidance equipment, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, MT, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry except 7A611.y	NS Column 1
MT applies to commodities in 7A611.a that meet or exceed the parameters in 7A103.b or .c	MT Column 1
RS applies to entire entry except 7A611.y	RS Column 1
RS applies to 7A611.y	China, Russia, or Venezuela (see § 724.6(a)(7))
AT applies to entire entry	AT Column 1
UN applies to entire entry except 7A611.y	See § 746.1(b) for UN controls

**List Based License Exceptions** (See Part 740)

for a description of all license exceptions)

LVS: \$1500  
 GBS: N/A

**Special Conditions for STA**

STA: Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in 7A611.

**List of Items Controlled**

*Related Controls:* (1) Military fire control, laser, imaging, and guidance equipment that are enumerated in USML Category XII, and technical data (including software) directly related thereto, are subject to the ITAR. (2) See Related Controls in ECCNs 0A504, [2A984](#), [6A002](#), [6A003](#), [6A004](#), [6A005](#), [6A007](#), [6A008](#), [6A107](#), [7A001](#), [7A002](#), [7A003](#), [7A005](#), [7A101](#), [7A102](#), and [7A103](#). (3) See ECCN 3A611 and USML Category XI for controls on countermeasure equipment. (4) See ECCN [0A919](#) for foreign-made “military commodities” that incorporate more than a *de minimis* amount of U.S. origin “600 series” controlled content.

*Related Definitions:* N/A

*Items:*

a. Guidance or navigation systems, not elsewhere specified on the USML, that are “specially designed” for a defense article on the USML or for a 600 series item.

b. to w. [Reserved]

x. “Parts,” “components,” “accessories,” and “attachments,” including accelerometers, gyros, angular rate sensors, gravity meters (gravimeters), and inertial measurement units (IMUs), that are “specially designed” for defense articles controlled by USML Category XII or items controlled by 7A611, and that are NOT:

1. Enumerated or controlled in the USML or elsewhere within ECCN 7A611;

2. Described in ECCNs 6A007, 6A107, 7A001, 7A002, 7A003, 7A101, 7A102 or 7A103; or

3. Elsewhere specified in ECCN 7A611.y or 3A611.y.

y. Specific “parts,” “components,” “accessories,” and “attachments” “specially designed” for a commodity subject to control in this ECCN or a defense article in Category XII and not elsewhere specified on the USML or in the CCL, as follows, and “parts,” “components,” “accessories,” and “attachments” “specially designed” therefor:

y.1 [Reserved]

**\*\*7A994 Other navigation direction finding equipment, airborne communication equipment, all aircraft inertial navigation systems not controlled under 7A003 or 7A103, and other avionic equipment, including “parts” and “components,” n.e.s.**

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**License Requirement Notes:** Typically commercially available GPS do not employ decryption or adaptive antenna and are classified as 7A994.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A

GBS: N/A

**List of Items Controlled**

*Related Controls:* See [7A005](#) and [7A105](#).

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**B. TEST, INSPECTION AND “PRODUCTION EQUIPMENT”**

**\*\*7B001** Test, calibration or alignment equipment, “specially designed” for equipment controlled by 7A (except 7A994).

**License Requirements**

*Reason for Control:* NS, MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A

GBS: N/A

**List of Items Controlled**

*Related Controls:* (1) See also [7B101](#), [7B102](#) and [7B994](#). (2) This entry does not control test, calibration or alignment equipment for ‘Maintenance level I’ or ‘Maintenance Level II’.

*Related Definition:* (1) ‘Maintenance Level I’: The failure of an inertial navigation unit is detected on the “aircraft” by indications

from the Control and Display Unit (CDU) or by the status message from the corresponding sub-system. By following the manufacturer’s manual, the cause of the failure may be localized at the level of the malfunctioning Line Replaceable Unit (LRU). The operator then removes the LRU and replaces it with a spare. (2) ‘Maintenance Level II’: The defective LRU is sent to the maintenance workshop (the manufacturer’s or that of the operator responsible for level II maintenance). At the maintenance workshop, the malfunctioning LRU is tested by various appropriate means to verify and localize the defective Shop Replaceable Assembly (SRA) module responsible for the failure. This SRA is removed and replaced by an operative spare. The defective SRA (or possibly the complete LRU) is then shipped to the manufacturer. ‘Maintenance Level II’ does not include the disassembly or repair of controlled accelerometers or gyro sensors.

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*7B002** Equipment “specially designed” to characterize mirrors for ring “laser” gyros, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
 GBS: N/A

**List of Items Controlled**

*Related Controls:* See also [7B102](#) and [7B994](#)

*Related Definitions:* N/A

*Items:*

- a. Scatterometers having a measurement “accuracy” of 10 ppm or less (better);
- b. Profilometers having a measurement “accuracy” of 0.5 nm (5 angstrom) or less (better).

**\*\*7B003** Equipment “specially designed” for the “production” of equipment controlled by 7A (except 7A994).

**License Requirements**

*Reason for Control:* NS, MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
 GBS: N/A

**List of Items Controlled**

*Related Controls:* (1) See also [7B103](#), (this entry is “subject to the ITAR” (see 22 CFR parts 120 through 130)) and [7B994](#). (2) This entry includes: Inertial Measurement Unit (IMU module) tester;

IMU platform tester; IMU stable element handling fixture; IMU platform balance fixture; gyro tuning test station; gyro dynamic balance station; gyro run-in/motor test station; gyro evacuation and fill station; centrifuge fixtures for gyro bearings; accelerometer axis align stations; accelerometer test station; and fiber optic gyro coil winding machines.

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*7B101** “Production equipment”, and other test, calibration, and alignment equipment, other than that described in 2B119 to 2B122, 7B003, and 7B102, designed or modified to be used with equipment controlled by 7A001 to 7A004 or 7A101 to 7A104.

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
 GBS: N/A

**List of Items Controlled**

*Related Controls:*1.) See also 2B119 to 2B122, [7B003](#), [7B102](#), and [7B994](#). 2.) This entry includes: inertial measurement unit (IMU module) tester; IMU platform tester; IMU stable element handling

fixture; IMU platform balance fixture; gyro tuning test station; gyro dynamic balance stations; gyro run-in/motor test stations; gyro evacuation and filling stations; centrifuge fixtures for gyro bearings; accelerometer axis align stations; and accelerometer test stations.

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*7B102** Equipment, other than those controlled by 7B002, designed or modified to characterize mirrors, for laser gyro equipment, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

- a. Scatterometers having a threshold accuracy of 10 ppm or less (better).
- b. Reflectometers having a threshold accuracy

of 50 ppm or less (better).

- c. Prolifometers having a threshold accuracy of 0.5nm (5 angstrom) or less (better).

**\*\*7B103** “Specially designed” “production facilities” for equipment controlled by 7A117. (These items are “subject to the ITAR”. See 22 CFR parts 120 through 130.)

**\*\*7B611** Test, inspection, and production commodities “specially designed” for military fire control, laser, imaging, and guidance equipment, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, MT, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
MT applies to 7B611.a commodities “specially designed” for 7A611.a commodities controlled for MT reasons	MT Column 1
RS applies to entire entry	RS Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry	See § 746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$1500

*GBS:* N/A

**Special Conditions for STA**

*STA:* Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any

item in 7B611.

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

a. Test, inspection, and production end items and equipment “specially designed” for the “development,” “production,” repair, overhaul, or refurbishing of commodities controlled in ECCN 7A611 (except 7A611.y) or commodities in USML Category XII that are not enumerated in USML Category XII or controlled by another “600 series” ECCN.

b. Environmental test facilities “specially designed” for the certification, qualification, or testing of commodities controlled in ECCN 7A611 (except 7A611.y) or guidance equipment in USML Category XII that are not enumerated in USML Category XII or controlled by another “600 series” ECCN.

c. Field test equipment “specially designed” to evaluate or calibrate the operation of systems described in USML Category XII(a), (b), or (c).

d. to w. [Reserved]

x. “Parts,” “components,” “accessories,” and “attachments” that are “specially designed” for a commodity listed in this entry and that are not enumerated on the USML or controlled by another “600 series” ECCN.

**\*\*7B994** Other equipment for the test, inspection, or “production” of navigation and avionics equipment.

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**C. “MATERIALS”  
[Reserved]**

**D. “SOFTWARE”**

**\*\*7D001** “Software” “specially designed” or modified for the “development” or “production” of equipment controlled by 7A (except 7A994) or 7B (except 7B994).

**License Requirements**

*Reason for Control:* NS, MT, RS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to software” for equipment controlled by 7A001 to 7A004, 7A006, 7A008, 7B001, 7B002 or 7B003	NS Column 1
MT applies to “software” for	MT Column 1

equipment controlled for MT reasons. MT does not apply to “software” for equipment controlled by 7A008.	
RS applies to “software” for inertial navigation systems and inertial equipment, and “components” therefor, for “9A991.b aircraft”.	RS Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* 1.) See also [7D101](#) and [7D994](#). (2) The “software” related to [7A003.b](#), [7A005](#), [7A103.b](#), [7A105](#), [7A106](#), [7A115](#), [7A116](#), [7A117](#), or [7B103](#) is “subject to the ITAR” (see 22 CFR parts 120 through 130). (3) “Software” for inertial navigation systems and inertial equipment and “parts” or “components” “specially designed” therefor that are directly related to defense articles and not “specially designed” for use on civil aircraft is “subject to the ITAR” (see 22 CFR parts 120 through 130).

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*7D002** “Source code” for the operation or maintenance of any inertial navigation equipment, including inertial equipment not controlled by 7A003 or 7A004, or Attitude and Heading Reference Systems (‘AHRS’).

**License Requirements**

*Reason for Control:* NS, MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* 1.) See also [7D102](#) and [7D994](#). 2.) This entry does not control “source code” for the operation or maintenance of gimballed ‘AHRS’.

*Related Definition:* ‘AHRS’ generally differ from Inertial Navigation Systems (INS) in that an ‘AHRS’ provides attitude and heading information and normally does not provide the acceleration, velocity and position information associated with an INS.

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*7D003** Other “software” as follows (see **List of Items Controlled**).

**License Requirements**

*Reason for Control:* NS, MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
MT applies to “software” for equipment controlled for MT reasons. MT does not apply to “software” for equipment controlled by 7A008.	MT Column 1
AT applies to entire entry	AT Column 1

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**Special Conditions for STA**

STA: License Exception STA may not be used to ship or transmit software in 7D003.a or .b to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

**List of Items Controlled**

*Related Controls:* See also [7D103](#) and [7D994](#).

*Related Definitions:* ‘Data-Based Referenced Navigation’ (‘DBRN’) systems are systems which use various sources of previously measured geo-mapping data integrated to provide accurate navigation information under dynamic conditions. Data sources include bathymetric maps, stellar maps, gravity

maps, magnetic maps or 3-D digital terrain maps.

*Items:*

a. “Software” “specially designed” or modified to improve the operational performance or reduce the navigational error of systems to the levels controlled by 7A003, 7A004 or 7A008;

b. “Source code” for hybrid integrated systems which improves the operational performance or reduces the navigational error of systems to the level controlled by 7A003 or 7A008 by continuously combining heading data with any of the following:

b.1. Doppler radar or sonar velocity data;

b.2. “Satellite navigation system” reference data; *or*

b.3. Data from ‘Data-Based Referenced Navigation’ (‘DBRN’) systems;

c. [Reserved]

d. [Reserved]

*N.B.* For flight control “source code,” see 7D004.

e. Computer-Aided-Design (CAD) “software” “specially designed” for the “development” of “active flight control systems”, helicopter multi-axis fly-by-wire or fly-by-light controllers or helicopter “circulation controlled anti-torque or circulation-controlled direction control systems”, whose “technology” is controlled by 7E004.b.1, 7E004.b.3 to b.5, 7E004.b.7 to b.8, 7E004.c.1 or 7E004.c.2.

**\*\*7D004** “Source code” incorporating “development” “technology” specified by 7E004.a.2, a.3, a.5, a.6 or 7E004.b, for any of the following: (see List of Items Controlled).  
**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**Special Conditions for STA**

*STA:* License Exception STA may not be used to ship or transmit “software” in 7D004.a to .d and .g to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

**List of Items Controlled**

*Related Controls:* See [7D103](#) and [7D994](#)

*Related Definitions:* N/A

*Items:*

- a. Digital flight management systems for “total control of flight”;
- b. Integrated propulsion and flight control systems;
- c. “Fly-by-wire systems” or “fly-by-light systems”;
- d. Fault-tolerant or self-reconfiguring “active flight control systems”;
- e. [Reserved];
- f. Air data systems based on surface static data;  
*or*

g. Three dimensional displays.

*Note:* 7D004 does not apply to “source code” associated with common computer elements and utilities (e.g., input signal acquisition, output signal transmission, computer program and data loading, built-in test, task scheduling mechanisms) not providing a specific flight control system function.

**\*\*7D005** “Software” “specially designed” to decrypt “Satellite navigation system” ranging signals designed for government use.

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*7D101** “Software” “specially designed” or modified for the “use” of equipment controlled for missile technology (MT) reasons by 7A001 to 7A006, 7A101 to 7A107, 7A115, 7A116, 7A117, 7B001, 7B002, 7B003, 7B101, 7B102, or 7B103.

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* (1) The “software” related to [7A003.b](#), [7A005](#), [7A103.b](#), [7A105](#), [7A106](#), [7A115](#), [7A116](#), [7A117](#), or [7B103](#) is “subject to the ITAR” (see 22 CFR parts 120 through 130). (2) “Software” for inertial navigation systems and inertial equipment and “parts” and “components” “specially designed” therefor that are directly related to a defense article is “subject to the ITAR” (see 22 CFR parts 120 through 130).

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*7D102** Integration “software,” as follows (See List of Items Controlled).

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* The “software” related to [7A003.b](#) or [7A103.b](#) is “subject to the ITAR” (see 22 CFR parts 120 through 130).

*Related Definitions:* N/A

*Items:*

a. Integration “software” for the equipment controlled by 7A103.b.

b. Integration “software” “specially designed” for the equipment controlled by 7A003 or 7A103.a.

**\*\*7D103** “Software” “specially designed” for modelling or simulation of the “guidance sets” controlled by 7A117 or for their design integration with “missiles”. (This entry is “subject to the ITAR”. See 22 CFR parts 120 through 130.)

**\*\*7D611** “Software” “specially designed” for commodities controlled by 7A611 or equipment controlled by 7B611, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, MT, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry except 7D611.y	NS Column 1
MT applies to 7D611.a “software” “specially designed” for 7A611.a	MT Column 1

commodities controlled for MT reasons	
RS applies to entire entry except 7D611.y	RS Column 1
RS applies to 7D611.y	China, Russia, or Venezuela (see § 724.6(a)(7))
AT applies to entire entry	AT Column 1
UN applies to entire entry except 7D611.y	See § 746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**Special Conditions for STA**

STA: Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any software in 7D611.

**List of Items Controlled**

*Related Controls:* “Software” directly related to articles enumerated in USML Category XII is subject of USML paragraph XII(f).

*Related Definitions:* N/A

*Items:*

a. “Software” “specially designed” for the “development,” “production,” operation, or maintenance of commodities controlled by ECCNs 7A611 (except 7A611.y) or 7B611.

b. to x. [Reserved]

y. Specific “software” “specially designed” for the “development,” “production,” operation, or maintenance of commodities described in 7A611.y.

**\*\*7D994** “Software”, n.e.s., for the “development”, “production”, or “use” of

**navigation, airborne communication and other avionics.**

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**E. “TECHNOLOGY”**

**\*\*7E001** “Technology” according to the General Technology Note for the “development” of equipment or “software,” specified by 7A. (except 7A994), 7B. (except 7B994), 7D001, 7D002, 7D003 or 7D005.

**License Requirements**

*Reason for Control:* NS, MT, RS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to technology” for items controlled by 7A001 to 7A004, 7A006,	NS Column 1

7A008, 7B001 to 7B003, 7D001 to 7D005.	
MT applies to “technology” for equipment controlled for MT reasons. MT <i>does not</i> apply to “technology” for equipment controlled by 7A008. MT <i>does</i> apply to “technology” for equipment specified in 7A001, 7A002 or 7A003.d that meets or exceeds parameters of 7A101, 7A102 or 7A103.	MT Column 1
RS applies to “technology” for inertial navigation systems or inertial equipment, and “components” therefor, for 9A991.b aircraft.	RS Column 1
AT applies to entire entry	AT Column 1

7A106, 7A115, 7A116, 7A117, 7B103, software in 7D101 specified in the Related Controls paragraph of ECCN 7D101, 7D102.a, or 7D103 is “subject to the ITAR” (see 22 CFR parts 120 through 130).

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

*Note:* 7E001 includes key management “technology” exclusively for equipment specified in 7A005.a.

**\*\*7E002** “Technology” according to the General Technology Note for the “production” of equipment controlled by 7A (except 7A994) or 7B (except 7B994).

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**Special Conditions for STA**

*STA:* License Exception STA may not be used to ship or transmit any technology in this entry to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

**List of Items Controlled**

*Related Controls:* 1) See also 7E101 and 7E994. 2) The “technology” related to 7A003.b, 7A005, 7A103.b, 7A105,

**License Requirements**

*Reason for Control:* NS, MT, RS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to “technology” for equipment controlled by 7A001 to 7A004, 7A006, 7A008 or 7B001 to 7B003	NS Column 1
MT applies to “technology” for equipment controlled for MT reasons. MT <i>does not</i> apply to “technology” for equipment controlled by 7A008. MT <i>does</i> apply to “technology” for equipment specified in 7A001, 7A002 or 7A003.d that meets or exceeds parameters of 7A101,	MT Column 1

7A102 or 7A103.	
RS applies to “technology” for inertial navigation systems or inertial equipment, and “components” therefor, for 9A991.b aircraft.	RS Column 1
AT applies to entire entry	AT Column 1

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**Special Conditions for STA**

STA: License Exception STA may not be used to ship or transmit any technology in this entry to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

**List of Items Controlled**

*Related Controls:* (1) See also [7E102](#) and [7E994](#). (2) The “technology” related to [7A003.b](#), [7A005](#), [7A103.b](#), [7A105](#), [7A106](#), [7A115](#), [7A116](#), [7A117](#), or [7B103](#) is “subject to the ITAR” (see 22 CFR parts 120 through 130).

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*7E003** “Technology” according to the General Technology Note for the repair,

**refurbishing or overhaul of equipment controlled by 7A001 to 7A004.**

**License Requirements**

*Reason for Control:* NS, MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* See also 7E994. This entry does not control “technology” for maintenance directly associated with calibration, removal or replacement of damaged or unserviceable LRUs and SRAs of a “civil aircraft” as described in ‘Maintenance Level I’ or ‘Maintenance Level II’.

*Related Definition:* Refer to the Related Definitions for 7B001 for ‘Maintenance Level I’ or ‘Maintenance Level II’.

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*7E004** Other “technology” as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, MT, AT

<i>Control(s)</i>	<i>Country Chart (See</i>
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	<i>Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
MT applies to “technology” for equipment or systems controlled for MT reasons.	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**Special Conditions for STA**

STA: (1) Paragraph (c)(1) of License Exception STA (§ 740.20(c)(1) of the EAR) may not be used for 7E004, except for 7E004.a.7. (2) Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for 7E004, except for 7E004.a.7.

**List of Items Controlled**

*Related Controls:* (1) See also 7E001, 7E002, 7E101, and 7E994. (2) In addition to the Related Controls in 7E001, 7E002, and 7E101 that include MT controls, also see the MT controls in 7E104 for design “technology” for the integration of the flight control, guidance, and propulsion data into a flight management system, designed or modified for rockets or missiles capable of achieving a “range” equal to or greater than 300 km, for optimization of rocket system trajectory; and also see 9E101 for design “technology” for integration of air vehicle fuselage, propulsion system and lifting control surfaces, designed or modified for unmanned aerial vehicles capable of achieving a “range” equal to or greater than 300 km, to optimize aerodynamic performance throughout the flight regime

of an unmanned aerial vehicle.

*Related Definitions:* “Primary flight control” means an “aircraft” stability or maneuvering control using force/moment generators, i.e., aerodynamic control surfaces or propulsive thrust vectoring.

*Items:*

a. “Technology” for the “development” or “production” of any of the following:

a.1. [Reserved]

a.2. Air data systems based on surface static data only, i.e., which dispense with conventional air data probes;

a.3. Three dimensional displays for “aircraft”;

a.4. [Reserved]

a.5. Electric actuators (i.e., electromechanical, electrohydrostatic and integrated actuator package) “specially designed” for ‘primary flight control’;

**Technical Note:** ‘Primary flight control’ is “aircraft” stability or maneuvering control using force/moment generators, i.e., aerodynamic control surfaces or propulsive thrust vectoring.

a.6. ‘Flight control optical sensor array’ “specially designed” for implementing “active flight control systems”; or

**Technical Note:** A ‘flight control optical sensor array’ is a network of distributed optical sensors, using “laser” beams, to provide real-time flight control data for on-board processing.

a.7. “DBRN” systems designed to navigate underwater, using sonar or gravity databases, that provide a positioning “accuracy” equal to or less (better) than 0.4 nautical miles;

b. “Development” “technology”, as follows, for “active flight control systems” (including “fly-by-wire systems” or “fly-by-light systems”):

b.1. Photonic-based “technology” for sensing “aircraft” or flight control component state, transferring flight control data, or commanding actuator movement, “required” for “fly-by-light systems” “active flight control systems”;

b.2. [Reserved]

b.3. Real-time algorithms to analyze component sensor information to predict and preemptively mitigate impending degradation and failures of components within an “active flight control system”;

*Note:* 7E004.b.3 does not include algorithms for purpose of off-line maintenance.

b.4. Real-time algorithms to identify component failures and reconfigure force and moment controls to mitigate “active flight control system” degradations and failures;

*Note:* 7E004.b.4 does not include algorithms for the elimination of fault effects through comparison of redundant data sources, or off-line pre-planned responses to anticipated failures.

b.5. Integration of digital flight control, navigation and propulsion control data, into a digital flight management system for “total control of flight”;

*Note:* 7E004.b.5 does not apply to:

1. “Technology” for integration of digital flight control, navigation and propulsion control data, into a digital flight management system for ‘flight path optimization’;

2. “Technology” for “aircraft” flight instrument systems integrated solely for VOR, DME, ILS or MLS navigation or approaches.

*Technical Note:* ‘Flight path optimization’ is a procedure that minimizes deviations from a four-dimensional (space and time) desired trajectory based on maximizing performance or effectiveness for mission tasks.

b.6. [Reserved]

b.7. “Technology” “required” for deriving the functional requirements for “fly-by-wire systems” having all of the following:

b.7.a. ‘Inner-loop’ airframe stability controls requiring loop closure rates of 40 Hz or greater; and

*Technical Note:* ‘Inner-loop’ refers to functions of “active flight control systems” that automate airframe stability controls.

b.7.b. Having any of the following:

b.7.b.1. Corrects an aerodynamically unstable airframe, measured at any point in the design flight envelope, that would lose recoverable control if not corrected within 0.5 seconds;

b.7.b.2. Couples controls in two or more axes while compensating for ‘abnormal changes in aircraft state’;

*Technical Note:* ‘Abnormal changes in aircraft state’ include in-flight structural damage, loss of engine thrust, disabled control surface, or destabilizing shifts in cargo load.

b.7.b.3. Performs the functions specified in 7E004.b.5; or

*Note:* 7E004.b.7.b.3 does not apply to autopilots.

b.7.b.4. Enables "aircraft" to have stable controlled flight, other than during take-off or landing, at greater than 18 degrees angle of attack, 15 degrees side slip, 15 degrees/second pitch or yaw rate, or 90 degrees/second roll rate;

b.8. "Technology" "required" for deriving the functional requirements of "fly-by-wire systems" to achieve all of the following:

b.8.a. No loss of control of the "aircraft" in the event of a consecutive sequence of any two individual faults within the "fly-by-wire system"; and

b.8.b. Probability of loss of control of the "aircraft" being less (better) than  $1 \times 10^{-9}$  failures per flight hour;

*Note: 7E004.b does not apply to "technology" associated with common computer elements and utilities (e.g., input signal acquisition, output signal transmission, computer program and data loading, built-in test, task scheduling mechanisms) not providing a specific flight control system function.*

c. "Technology" for the "development" of helicopter systems, as follows:

c.1. Multi-axis fly-by-wire or fly-by-light controllers, which combine the functions of at least two of the following into one controlling element:

- c.1.a. Collective controls;
- c.1.b. Cyclic controls;
- c.1.c. Yaw controls;

c.2. "Circulation-controlled anti-torque or circulation-controlled direction control systems";

c.3. Rotor blades incorporating 'variable

geometry airfoils', for use in systems using individual blade control.

*Technical Note: 'Variable geometry airfoils' use trailing edge flaps or tabs, or leading edge slats or pivoted nose droop, the position of which can be controlled in flight.*

**\*\*7E101** "Technology", according to the General Technology Note for the "use" of equipment controlled by 7A001 to 7A006, 7A101 to 7A107, 7A115 to 7A117, 7B001, 7B002, 7B003, 7B101, 7B102, 7B103, or 7D101 to 7D103 for MT reasons.

**License Requirements**

*Reason for Control:* MT, RS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
RS applies to "technology" required for the use of inertial navigation systems, or inertial equipment, or "specially designed" "parts" and "components" therefor, "specially designed" for 9A991.b aircraft.	RS Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* The "technology" related to [7A003.b](#), [7A005](#), [7A103.b](#), [7A105](#), [7A106](#), [7A115](#), [7A116](#), [7A117](#), [7B103](#), software specified in the Related Controls

paragraph of ECCN [7D101](#), [7D102.a](#), or [7D103](#) is “subject to the ITAR” (see 22 CFR parts 120 through 130).

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*7E102** “Technology” for protection of avionics and electrical subsystems against electromagnetic pulse (EMP) and electromagnetic interference (EMI) hazards, from external sources, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

- a. Design “technology” for shielding systems;
- b. Design “technology” for the configuration of hardened electrical circuits and subsystems;
- c. Design “technology” for the determination of hardening criteria of .a and .b of this entry.

**\*\*7E104** Design “Technology” for the integration of the flight control, guidance, and propulsion data into a flight management system, designed or modified for rockets or missiles capable of achieving a “range” equal to or greater than 300 km, for optimization of rocket system trajectory. (This entry is “subject to the ITAR”. See 22 CFR parts 120 through 130.)

**\*\*7E611** “Technology” “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul or refurbishing of commodities controlled by 7A611, commodities controlled by 7B611, or software controlled by 7D611, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, MT, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry except 7E611.y	NS Column 1
MT applies to “technology” in 7E611.a if “required” for items controlled for MT reasons in 7A611.a, 7B611.a, or 7D611.a	MT Column 1
RS applies to 7E611.y	China, Russia, or Venezuela (see § 724.6(a)(7))
RS applies to entire entry except 7E611.y	RS Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry except 7E611.y	See § 746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**Special Conditions for STA**

*STA:* Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any technology in 7E611.

**List of Items Controlled**

*Related Controls:* Technical data directly related to articles enumerated in USML Category XII are subject to the control of USML Category XII(f).

*Related Definitions:* N/A

*Items:*

a. “Technology” “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing of commodities or “software” controlled by ECCN 7A611 (except 7A611.y), 7B611, or 7D611 (except 7D611.y).

b. through .x [Reserved]

y. Specific “technology” “required” for the “production,” “development,” operation, installation, maintenance, repair, or overhaul of commodities or software controlled by ECCNs 7A611.y or 7D611.y.

**\*\*7E994** “Technology,” n.e.s., for the “development,” “production” or “use” of navigation, airborne communication, and other avionics equipment.

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**EAR99** Items subject to the EAR that are *not* elsewhere specified in this CCL Category *or* in any other category in the CCL are designated by the number **EAR99**.

**CATEGORY 8 - MARINE**

**A. "END ITEMS," "EQUIPMENT," "ACCESSORIES," "ATTACHMENTS," "PARTS," "COMPONENTS," AND "SYSTEMS"**

**\*\*8A001** Submersible vehicles and surface vessels, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: \$5000; N/A for 8A001.b and .c.1  
GBS: N/A

**Special Conditions for STA**

*STA:* License Exception STA may not be used to ship any commodity in 8A001.b, 8A001.c or 8A001.d to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

**List of Items Controlled**

*Related Controls:* For the control status of equipment for submersible vehicles, see:

Category 6 for sensors; Categories 7 and 8 for navigation equipment; Category 8A for underwater equipment.

*Related Definitions:* N/A

*Items:*

a. Manned, tethered submersible vehicles designed to operate at depths exceeding 1,000 m;

b. Manned, untethered submersible vehicles having any of the following:

b.1. Designed to 'operate autonomously' and having a lifting capacity of all the following:

b.1.a. 10% or more of their weight in air; *and*

b.1.b. 15 kN or more;

b.2. Designed to operate at depths exceeding 1,000 m; *or*

b.3. Having all of the following:

b.3.a. Designed to continuously 'operate autonomously' for 10 hours or more; *and*

b.3.b. 'Range' of 25 nautical miles or more;

**Technical Notes:**

1. For the purposes of 8A001.b, 'operate autonomously' means fully submerged, without snorkel, all systems working and cruising at minimum speed at which the submersible can safely control its depth dynamically by using its depth planes only, with no need for a support vessel or support base on the surface, sea-bed or shore, and containing a propulsion system for submerged or surface use.

2. For the purposes of 8A001.b, 'range' means half the maximum distance a submersible vehicle can 'operate autonomously'.

c. Unmanned submersible vehicles as follows:

c.1. Unmanned submersible vehicles having any of the following:

c.1.a. Designed for deciding a course relative to any geographical reference without real-time human assistance;

c.1.b. Acoustic data or command link; or

c.1.c. Optical data or command link exceeding 1,000 m;

c.2. Unmanned, submersible vehicles, not specified in 8A001.c.1, having all of the following:

c.2.a. Designed to operate with a tether;

c.2.b. Designed to operate at depths exceeding 1,000 m; and

c.2.c. Having any of the following:

c.2.c.1. Designed for self-propelled maneuver using propulsion motors or thrusters specified by 8A002.a.2; or

c.2.c.2. Fiber optic data link;

d. [Reserved]

e. Ocean salvage systems with a lifting capacity exceeding 5 MN for salvaging objects from depths exceeding 250 m and having any of the following:

e.1. Dynamic positioning systems capable of position keeping within 20 m of a given point provided by the navigation system; *or*

e.2. Seafloor navigation and navigation integration systems, for depths exceeding 1,000 m and with positioning “accuracies” to within 10 m of a predetermined point.

**\*\*8A002 Marine systems, equipment, “parts” and “components,” as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$5000; N/A for 8A002.o.3.b

*GBS:* Yes for manipulators for civil end uses (*e.g.*, underwater oil, gas or mining operations) controlled by 8A002.i.2 and having 5 degrees of freedom of movement; and 8A002.r.

**Special Conditions for STA**

*STA:* License Exception STA may not be used to ship any commodity in 8A002.b, h, j, o.3, or p to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

**List of Items Controlled**

*Related Controls:* (1) See also [8A992](#) and for underwater communications systems, see Category 5, Part I - Telecommunications. (2) See also [8A992](#) for self-contained

underwater breathing apparatus that is not controlled by [8A002](#) or released for control by the [8A002.q](#) Note. (3) For electronic imaging systems “specially designed” or modified for underwater use incorporating image intensifier tubes specified by 6A002.a.2.a or 6A002.a.2.b, see 6A003.b.3. (4) For electronic imaging systems “specially designed” or modified for underwater use incorporating “focal plane arrays” specified by 6A002.a.3.g, see 6A003.b.4.c. (5) Section 744.9 imposes a license requirement on commodities described in 8A002.d if being exported, reexported, or transferred (in-country) for use by a military end-user or for incorporation into an item controlled by ECCN 0A919.

*Related Definitions:* N/A

*Items:*

a. Systems, equipment, “parts” and “components,” “specially designed” or modified for submersible vehicles and designed to operate at depths exceeding 1,000 m, as follows:

a.1. Pressure housings or pressure hulls with a maximum inside chamber diameter exceeding 1.5 m;

a.2. Direct current propulsion motors or thrusters;

a.3. Umbilical cables, and connectors therefor, using optical fiber and having synthetic strength members;

a.4. “Parts” and “components” manufactured from material specified by ECCN 8C001;

**Technical Note:** *The objective of 8A002.a.4 should not be defeated by the export of ‘syntactic foam’ controlled by 8C001 when an intermediate stage of manufacture has been performed and it is not yet in its final component form.*

b. Systems “specially designed” or modified for

the automated control of the motion of submersible vehicles controlled by 8A001, using navigation data, having closed loop servo-controls and having any of the following:

b.1. Enabling a vehicle to move within 10 m of a predetermined point in the water column;

b.2. Maintaining the position of the vehicle within 10 m of a predetermined point in the water column; *or*

b.3. Maintaining the position of the vehicle within 10 m while following a cable on or under the seabed;

c. Fiber optic pressure hull penetrators;

d. Underwater vision systems having all of the following:

d.1. “Specially designed” or modified for remote operation with an underwater vehicle; and

d.2. Employing any of the following techniques to minimize the effects of back scatter:

d.2.a. Range-gated illuminators; or

d.2.b. Range-gated “laser” systems;

e. [Reserved]

f. [Reserved]

g. Light systems “specially designed” or modified for underwater use, as follows:

g.1. Stroboscopic light systems capable of a light output energy of more than 300 J per flash and a flash rate of more than 5 flashes per second;

g.2. Argon arc light systems “specially designed” for use below 1,000 m;

h. “Robots” “specially designed” for underwater use, controlled by using a dedicated computer and

having any of the following:

h.1. Systems that control the “robot” using information from sensors which measure force or torque applied to an external object, distance to an external object, or tactile sense between the “robot” and an external object; *or*

h.2. The ability to exert a force of 250 N or more or a torque of 250 Nm or more and using titanium based alloys or “composite” “fibrous or filamentary materials” in their structural members;

i. Remotely controlled articulated manipulators “specially designed” or modified for use with submersible vehicles and having any of the following:

i.1. Systems which control the manipulator using information from sensors which measure any of the following:

i.1.a. Torque or force applied to an external object; *or*

i.1.b. Tactile sense between the manipulator and an external object; *or*

i.2. Controlled by proportional master-slave techniques and having 5 degrees of ‘freedom of movement’ or more;

**Technical Note:** *Only functions having proportionally related motion control using positional feedback are counted when determining the number of degrees of ‘freedom of movement’.*

j. Air independent power systems “specially designed” for underwater use, as follows:

j.1. Brayton or Rankine cycle engine air independent power systems having any of the following:

j.1.a. Chemical scrubber or absorber

systems, “specially designed” to remove carbon dioxide, carbon monoxide and particulates from recirculated engine exhaust;

j.1.b. Systems “specially designed” to use a monoatomic gas;

j.1.c. Devices or enclosures, “specially designed” for underwater noise reduction in frequencies below 10 kHz, or special mounting devices for shock mitigation; *or*

j.1.d. Systems having all of the following:

j.1.d.1. “Specially designed” to pressurize the products of reaction or for fuel reformation;

j.1.d.2. “Specially designed” to store the products of the reaction; *and*

j.1.d.3. “Specially designed” to discharge the products of the reaction against a pressure of 100 kPa or more;

j.2. Diesel cycle engine air independent systems having all of the following:

j.2.a. Chemical scrubber or absorber systems, “specially designed” to remove carbon dioxide, carbon monoxide and particulates from recirculated engine exhaust;

j.2.b. Systems “specially designed” to use a monoatomic gas;

j.2.c. Devices or enclosures, “specially designed” for underwater noise reduction in frequencies below 10 kHz, or special mounting devices for shock mitigation; *and*

j.2.d. “Specially designed” exhaust systems that do not exhaust continuously the products of combustion;

j.3. “Fuel cell” air independent power

systems with an output exceeding 2 kW and having any of the following:

j.3.a. Devices or enclosures, “specially designed” for underwater noise reduction in frequencies below 10 kHz, or special mounting devices for shock mitigation; *or*

j.3.b. Systems having all of the following:

j.3.b.1. “Specially designed” to pressurize the products of reaction or for fuel reformation;

j.3.b.2. “Specially designed” to store the products of the reaction; *and*

j.3.b.3. “Specially designed” to discharge the products of the reaction against a pressure of 100 kPa or more;

j.4. Stirling cycle engine air independent power systems having all of the following:

j.4.a. Devices or enclosures, “specially designed” for underwater noise reduction in frequencies below 10 kHz, or special mounting devices for shock mitigation; *and*

j.4.b. “Specially designed” exhaust systems which discharge the products of combustion against a pressure of 100 kPa or more;

k. [Reserved]

l. [Reserved]

m. [Reserved]

n. [Reserved]

o. Propellers, power transmission systems, power generation systems and noise reduction systems, as follows:

o.1. [Reserved]

o.2. Water-screw propeller, power generation systems or transmission systems, designed for use on vessels, as follows:

o.2.a. Controllable-pitch propellers and hub assemblies, rated at more than 30 MW;

o.2.b. Internally liquid-cooled electric propulsion engines with a power output exceeding 2.5 MW;

o.2.c. “Superconductive” propulsion engines or permanent magnet electric propulsion engines, with a power output exceeding 0.1 MW;

o.2.d. Power transmission shaft systems incorporating “composite” material “parts” or “components” and capable of transmitting more than 2 MW;

o.2.e. Ventilated or base-ventilated propeller systems, rated at more than 2.5 MW;

o.3. Noise reduction systems designed for use on vessels of 1,000 tonnes displacement or more, as follows:

o.3.a. Systems that attenuate underwater noise at frequencies below 500 Hz and consist of compound acoustic mounts for the acoustic isolation of diesel engines, diesel generator sets, gas turbines, gas turbine generator sets, propulsion motors or propulsion reduction gears, “specially designed” for sound or vibration isolation and having an intermediate mass exceeding 30% of the equipment to be mounted;

o.3.b. ‘Active noise reduction or cancellation systems’ or magnetic bearings, “specially designed” for power transmission systems;

**Technical Note:** *‘Active noise reduction or cancellation systems’ incorporate electronic control systems capable of actively reducing*

*equipment vibration by the generation of anti-noise or anti-vibration signals directly to the source.*

p. Pumpjet propulsion systems having all of the following:

p.1. Power output exceeding 2.5 MW; *and*

p.2. Using divergent nozzle and flow conditioning vane techniques to improve propulsive efficiency or reduce propulsion-generated underwater-radiated noise;

q. Underwater swimming and diving equipment as follows;

q.1. Closed circuit rebreathers;

q.2. Semi-closed circuit rebreathers;

*Note:* 8A002.q does not control individual rebreathers for personal use when accompanying their users.

*N.B.* For equipment and devices “specially designed” for military use see ECCN 8A620.f.

r. Diver deterrent acoustic systems “specially designed” or modified to disrupt divers and having a sound pressure level equal to or exceeding 190 dB (reference 1 µPa at 1 m) at frequencies of 200 Hz and below.

*Note 1:* 8A002.r does not apply to diver deterrent systems based on under-water-explosive devices, air guns or combustible sources.

*Note 2:* 8A002.r includes diver deterrent acoustic systems that use spark gap sources, also known as plasma sound sources.

**\*\*8A018 Items on the Wassenaar Arrangement Munitions List.**

No items currently are in this ECCN. See ECCN 8A609 for engines and propulsion systems and “specially designed” “components” therefor that, immediately prior to January 6, 2014, were classified under ECCN 8A018.b.3. See ECCN 8A620 for closed and semi-closed circuit (rebreathing) apparatus, engines and propulsion systems for submersible vessels (diesel engines of 1,500 hp and over with rotary speed of 700 rpm or over “specially designed” for submarines), submarine and torpedo nets, and “specially designed” “components” therefor that, immediately prior to January 6, 2014, were classified under ECCN 8A018.a, .b.1, or .b.4, respectively. See ECCNs 8A001, 8A002 and 8A992 for controls on non-military submersible vehicles, oceanographic and associated equipment. See USML Category XX (22 CFR part 121) for electric motors “specially designed” for submarines that, immediately prior to January 6, 2014, were classified under ECCN 8A018.b.2.

**\*\*8A609 Surface vessels of war and related commodities (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry, except 8A609.y.	NS Column 1
RS applies to entire entry, except 8A609.y.	RS Column 1
RS applies to 8A609.y.	China, Russia or Venezuela (see § 742.6(a)(7))
AT applies to entire entry.	AT Column 1
UN applies to entire entry, except 8A609.y.	See § 746.1(b) for UN controls

**List Based License Exceptions (See Part 740 for a description of all license exceptions)**

LVS: \$1500

GBS: N/A

### Special Conditions for STA

*STA:* (1) Paragraph (c)(1) of License Exception STA (§740.20(c)(1) of the EAR) may not be used for any item in 8A609.a, unless determined by BIS to be eligible for License Exception STA in accordance with §740.20(g) (License Exception STA eligibility requests for 9x515 and “600 series” items). (2) Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in 8A609.

### List of Items Controlled

*Related Controls:* (1) Surface vessels of war and special naval equipment, and technical data (including software), and services directly related thereto, described in 22 CFR part 121, Category VI, Surface Vessels of War and Special Naval Equipment, are subject to the jurisdiction of the International Traffic in Arms Regulations. (2) See ECCN 0A919 for foreign-made “military commodities” that incorporate more than a *de minimis* amount of U.S.- origin “600 series” controlled content. (3) For controls on diesel engines and electric motors that are “subject to the EAR” for surface vessels of war “subject to the EAR” or “subject to the ITAR,” see ECCN 8A992.g. For diesel engines and electric motors for surface vessels of war “subject to the ITAR,” see 22 CFR part 121, Category VI(c) for parts, components, accessories, and attachments, “specially designed” for developmental vessels funded by the Department of Defense via contract or other funding authorization. (4) For controls on military gas turbine engines

and related items for vessels of war, see ECCN 9A619. (4) For controls on military gas turbine engines and related items for vessels of war, see ECCN 9A619.

*Related Definitions:* N/A

*Items:*

a. Surface vessels of war “specially designed” for a military use and not enumerated or otherwise described in the USML.

**Note 1:** *8A609.a includes: (i) Underway replenishment ships; (ii) surface vessel and submarine tender and repair ships, except vessels that are “specially designed” to support naval nuclear propulsion plants; (iii) non-submersible submarine rescue ships; (iv) other auxiliaries (e.g., AGDS, AGF, AGM, AGOR, AGOS, AH, AP, ARL, AVB, AVM, and AVT); (v) amphibious warfare craft, except those that are armed; and (vi) unarmored and unarmed coastal, patrol, roadstead, and Coast Guard and other patrol craft with mounts or hard points for firearms of .50 caliber or less.*

**Note 2:** *For purposes of paragraph .a, surface vessels of war includes vessels “specially designed” for military use that are not identified in paragraph (a) of ITAR § 121.15, including any demilitarized vessels, regardless of origin or designation, manufactured prior to 1950 and that have not been modified since 1949. For purposes of this note, the term modified does not include incorporation of safety features required by law, cosmetic changes (e.g., different paint), or the addition of “parts” or “components” available prior to 1950.*

b. Non-magnetic diesel engines with a power output of 50 hp or more and either of the following:

b.1. Non-magnetic content exceeding 25% of total weight; *or*

b.2. Non-magnetic parts other than crankcase, block, head, pistons, covers, end plates, valve facings, gaskets, and fuel, lubrication and other supply lines.

c. through w. [Reserved]

x. “Parts,” “components,” “accessories” and “attachments” that are “specially designed” for a commodity enumerated or otherwise described in ECCN 8A609 (except for 8A609.y) or a defense article enumerated or otherwise described in USML Category VI and not specified elsewhere on the USML, in 8A609.y or 3A611.y.

*Note 1: Forgings, castings, and other unfinished products, such as extrusions and machined bodies, that have reached a stage in manufacturing where they are clearly identifiable by mechanical properties, material composition, geometry, or function as commodities controlled by ECCN 8A609.x are controlled by ECCN 8A609.x.*

*Note 2: “Parts,” “components,” “accessories” and “attachments” specified in USML subcategory VI(f) are subject to the controls of that paragraph. “Parts,” “components,” “accessories,” and “attachments” specified in ECCN 8A609.y are subject to the controls of that paragraph.*

y. Specific “parts,” “components,” “accessories” and “attachments” “specially designed” for a commodity subject to control in this ECCN or for a defense article in USML Category VI and not elsewhere specified in the USML, as follows, and “parts,” “components,” “accessories,” and “attachments” “specially designed” therefor:

y.1. Public address (PA) systems;

y.2. Filters and filter assemblies, hoses, lines, fittings, couplings, and brackets for pneumatic, hydraulic, oil and fuel systems;

y.3. Galleys;

y.4. Lavatories;

y.5. Magnetic compass, magnetic azimuth detector;

y.6. Medical facilities;

y.7. Potable water tanks, filters, valves, hoses, lines, fittings, couplings, and brackets;

y.8. Panel knobs, indicators, switches, buttons, and dials whether unfiltered or filtered for use with night vision imaging systems;

y.9. Emergency lighting;

y.10. Gauges and indicators;

y.11. Audio selector panels.

**\*\*8A620 Submersible vessels, oceanographic and associated commodities (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry, except 8A620. b and .y.	NS Column 1
RS applies to entire entry, except 8A620.y.	RS Column 1
RS applies to 8A620.y.	China, Russia or Venezuela (see § 742.6(a)(7))
AT applies to entire entry	AT Column 1
UN applies to entire entry, except 8A620.y.	See § 746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: \$1500

GBS: N/A

### Special Conditions for STA

*STA:* (1) Paragraph (c)(1) of License Exception STA (§ 740.20(c)(1) of the EAR) may not be used for any item in 8A620.a or .b, unless determined by BIS to be eligible for License Exception STA in accordance with § 740.20(g) (License Exception STA eligibility requests for “600 series” end items). (2) Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in 8A620.

### List of Items Controlled

*Related Controls:* (1) Submersible vessels, oceanographic and associated equipment, and technical data (including software), and services directly related thereto, described in 22 CFR part 121, Category XX, Submersible Vessels, Oceanographic and Associated Equipment, are subject to the jurisdiction of the International Traffic in Arms Regulations (ITAR). “Parts,” “components,” “accessories,” and “attachments” “specially designed” for defense articles in USML Category XX are controlled under USML sub-category XX(c). (2) See ECCN 0A919 for foreign made “military commodities” that incorporate more than a *de minimis* amount of U.S.-origin “600 series” controlled content. (3) For controls on nonmilitary submersible vehicles, oceanographic and associated equipment, see ECCNs 8A001, 8A002, and 8A992. (4) See ECCN 8A609 for controls on nonmagnetic diesel engines with a power output of 50 hp or more and either: (i) nonmagnetic content exceeding 25% of total weight; or (ii) non-magnetic

parts other than crankcase, block, head, pistons, covers, end plates, valve facings, gaskets, and fuel, lubrication and other supply lines.

*Related Definitions:* N/A

#### *Items:*

a. Submersible and semi-submersible vessels “specially designed” for a military use and not enumerated or otherwise described in the USML.

*Note:* 8A620.a includes submarine rescue vehicles and Deep Submergence Vehicles (DSV).

b. Submersible and semi-submersible vessels “specially designed” for cargo transport and “parts,” “components,” “accessories,” and “attachments” “specially designed” therefor.

c. Harbor entrance detection devices (magnetic, pressure, and acoustic) and controls therefor, not elsewhere specified on the USML or the CCL.

d. Diesel engines of 1,500 hp and over with rotary speed of 700 rpm or over “specially designed” for submarines.

*Note:* Propulsion systems not specified in ECCN 8A620.d that are “specially designed” for an article controlled by USML Category XX are controlled by USML XX(b) or (c).

e. Submarine nets and torpedo nets.

f. Diving and underwater swimming apparatus specially designed or modified for military use, as follows:

f.1. Self-contained diving rebreathers, closed or semi-closed circuit;

f.2. Underwater swimming apparatus specially designed for use with the diving apparatus specified in subparagraph f.1;

*N.B.:* See also 8A002.q.

g. through w. [Reserved]

x. “Parts,” “components,” “accessories” and “attachments” that are “specially designed” for a commodity enumerated or otherwise described in ECCN 8A620 (except for 8A620.b or 8A620.y) and not elsewhere specified on the USML, in 8A620.y or 3A611.y.

*Note 1: Forgings, castings, and other unfinished products, such as extrusions and machined bodies, that have reached a stage in manufacturing where they are clearly identifiable by mechanical properties, material composition, geometry, or function as commodities controlled by ECCN 8A620.x are controlled by ECCN 8A620.x.*

*Note 2: “Parts,” “components,” “accessories” and “attachments” specified in ECCN 8A620.y are subject to the controls of that paragraph.*

y. Specific “parts,” “components,” “accessories,” and “attachments” “specially designed” for a commodity subject to control in this ECCN, as follows, and “parts,” “components,” “accessories,” and “attachments” “specially designed” therefor:

y.1. Public address (PA) systems;

y.2. Filters and filter assemblies, hoses, lines, fittings, couplings, and brackets for pneumatic, hydraulic, oil and fuel systems;

y.3. Galleys;

y.4. Lavatories;

y.5. Magnetic compass, magnetic azimuth detector;

y.6. Medical facilities;

y.7. Potable water tanks, filters, valves, hoses, lines, fittings, couplings, and brackets;

y.8. Panel knobs, indicators, switches, buttons, and dials whether unfiltered or filtered for use with night vision imaging systems;

y.9. Emergency lighting;

y.10. Gauges and indicators;

y.11. Audio selector panels.

**\*\*8A992** Vessels, marine systems or equipment, not controlled by 8A001 or 8A002 and “specially designed” “parts” and “components” therefor, and marine boilers and “parts,” “components,” “accessories,” and “attachments” therefor (see List of Items Controlled).

**License Requirements**

*Reason for Control:* AT, Foreign policy

<i>Control(s)</i>	<i>Country chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1
Russian industry sector sanctions apply to entire entry.	See § 746.5 for specific license requirements and license review policy.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) See also [8A002](#). (2) Marine gas turbine engines are not controlled in paragraph .g of this entry. See ECCN 9A619 for possible controls on

marine gas turbine engines specially designed for a military use. See ECCN 9A002 for possible controls on marine gas turbine engines not specially designed for a military use. Marine gas turbine engines subject to the EAR that are not controlled in ECCNs 9A002 or 9A619 are designated EAR99.

*Related Definitions:* N/A

*Items:*

a. Underwater vision systems, as follows:

a.1. Television systems (comprising camera, lights, monitoring and signal transmission equipment) having a limiting resolution when measured in air of more than 500 lines and “specially designed” or modified for remote operation with a submersible vehicle; *or*

a.2. Underwater television cameras having a limiting resolution when measured in air of more than 700 lines;

*Technical Note: Limiting resolution in television is a measure of horizontal resolution usually expressed in terms of the maximum number of lines per picture height discriminated on a test chart, using IEEE Standard 208/1960 or any equivalent standard.*

b. Photographic still cameras “specially designed” or modified for underwater use, having a film format of 35 mm or larger, and having autofocus or remote focusing “specially designed” for underwater use;

c. Stroboscopic light systems, “specially designed” or modified for underwater use, capable of a light output energy of more than 300 J per flash;

d. Other underwater camera equipment, n.e.s.;

e. Other submersible systems, n.e.s.;

f. Vessels, n.e.s., including inflatable boats, and “specially designed” “parts” and “components” therefor, n.e.s.;

g. Marine engines (both inboard and outboard) and submarine engines, n.e.s.; and “specially designed” “parts” and “components” therefor, n.e.s.;

h. Other self-contained underwater breathing apparatus (scuba gear) and related equipment, n.e.s.;

i. Life jackets, inflation cartridges, compasses, wetsuits, masks, fins, weight belts, and dive computers;

j. Underwater lights and propulsion equipment;

k. Air compressors and filtration systems “specially designed” for filling air cylinders.

l. Marine boilers designed to have any of the following characteristics:

l.1. Heat release rate (at maximum rating) equal to or in excess of 190,000 BTU per hour per cubic foot of furnace volume; *or*

l.2. Ratio of steam generated in pounds per hour (at maximum rating) to the dry weight of the boiler in pounds equal to or in excess of 0.83.

m. Major “components,” “accessories,” and “attachments” for marine boilers described in 8A992.1.

## B. TEST, INSPECTION AND “PRODUCTION EQUIPMENT”

**\*\*8B001** Water tunnels designed to have a background noise of less than 100 dB (reference 1 µPa, 1 Hz) within the frequency range exceeding 0 Hz but not exceeding to 500 Hz and designed for measuring acoustic fields

generated by a hydro-flow around propulsion system models.

AT applies to entire entry	AT Column 1
UN applies to entire entry.	See § 746.1(b) for UN controls

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$1500  
*GBS:* N/A

**Special Conditions for STA**

*STA:* Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in 8B609.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$3000  
*GBS:* N/A

**List of Items Controlled**

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

*Related Controls:* See ECCN 0A919 for foreign-made “military commodities” that incorporate more than a *de minimis* amount of U.S.-origin “600 series” controlled content.

*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*8B609** Test, inspection, and production “equipment” and related commodities “specially designed” for the “development,” “production,” repair, overhaul, or refurbishing of commodities enumerated or otherwise described in ECCN 8A609 or USML Category VI (except for Cat VI(f)(7)), as follows (see List of Items Controlled).

a. Test, inspection, and production “equipment” “specially designed” for the “development,” “production,” repair, overhaul, or refurbishing of commodities enumerated or otherwise described in ECCN 8A609 (except for 8A609.y) or in USML Category VI (except for USML Cat VI(f)(7)), and “parts,” “components,” “accessories” and “attachments” “specially designed” therefor.

b. [Reserved]

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry.	NS Column 1
RS applies to entire entry.	RS Column 1

**\*\*8B620** Test, inspection, and production “equipment” and related commodities “specially designed” for the “development,” “production,” repair, overhaul, or refurbishing of commodities enumerated or otherwise described in ECCN 8A620 (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry, except 8B620.b.	NS Column 1
RS applies to entire entry.	RS Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry.	See § 746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$1500  
*GBS:* N/A

**Special Conditions for STA**

*STA:* Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in 8B620.

**List of Items Controlled**

*Related Controls:* See ECCN 0A919 for foreign-made “military commodities” that incorporate more than a *de minimis* amount of U.S.-origin “600 series” controlled content.

*Related Definitions:* N/A  
*Items:*

- a. Test, inspection, and production “equipment” “specially designed” for the “development,” “production,” repair, overhaul, or refurbishing of commodities enumerated or otherwise described in ECCN 8A620 (except for 8A620.b and .y) and “parts,” “components,” “accessories” and “attachments” “specially designed” therefor.
- b. Test, inspection, and production “equipment”

“specially designed” for the “development,” “production,” repair, overhaul, or refurbishing of commodities enumerated or otherwise described in ECCN 8A620.b and “parts,” “components,” “accessories,” and “attachments” “specially designed” therefor.

**C. “MATERIALS”**

**\*\*8C001** ‘Syntactic foam’ designed for underwater use and having all of the following (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* See also [8A002.a.4](#).  
*Related Definition:* ‘Syntactic foam’ consists of hollow spheres of plastic or glass embedded in a resin “matrix.”  
*Items:*

- a. Designed for marine depths exceeding 1,000 m; *and*
- b. A density less than 561 kg/m<sup>3</sup>.

**\*\*8C609** Materials “specially designed” for the “development” or “production” of

commodities controlled by 8A609 not elsewhere specified in the USML (see List of Items Controlled).

enumerated in ECCN 8A609 (except for 8A609.y).

b. [Reserved]

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
RS applies to entire entry.	RS Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry.	See § 746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: \$1500  
 GBS: N/A

**Special Conditions for STA**

STA: Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in 8C609.

**List of Items Controlled**

*Related Controls:* (1) See USML Categories VI and XIII(f) for controls on materials “specially designed” for vessels of war enumerated or otherwise described in USML Category VI. (2) See ECCN 0A919 for foreign made “military commodities” that incorporate more than a *de minimis* amount of U.S.-origin “600 series” controlled content.

*Related Definitions:* N/A

*Items:*

a. Materials, not enumerated on the USML, that are “specially designed” for commodities

**D. “SOFTWARE”**

**\*\*8D001** “Software” “specially designed” or modified for the “development,” “production” or “use” of equipment or materials, controlled by 8A (except 8A992), 8B or 8C.

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
AT applies to entire entry	AT Column 1

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: Yes, except for exports or reexports to destinations outside of those countries listed in Country Group A:5 (See Supplement No. 1 to part 740 of the EAR) of “software” “specially designed” for the “development” or “production” of equipment controlled by 8A001.b, 8A001.c.1, or 8A002.o.3.b.

**Special Conditions for STA**

STA: License Exception STA may not be used to ship or transmit “software”

“specially designed” for the “development” or “production” of equipment in 8A001.b, 8A001.c, 8A002.b, 8A002.h, 8A002.j, 8A002.o.3 or 8A002.p to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*8D002** Specific “software” “specially designed” or modified for the “development”, “production”, repair, overhaul or refurbishing (re-machining) of propellers “specially designed” for underwater noise reduction.

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
AT applies to entire entry	AT Column 1

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* Yes

**Special Conditions for STA**

*STA:* License Exception STA may not be used to ship or transmit any software in this entry to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

**List of Items Controlled**

*Related Controls:* See also [8D992](#)  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*8D609** “Software” “specially designed” for the “development,” “production,” operation or maintenance of commodities controlled by 8A609, 8B609, or 8C609 (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry, except 8D609.y.	NS Column 1
RS applies to entire entry, except 8D609.y.	RS Column 1
RS applies to 8D609.y.	China, Russia or Venezuela (see § 742.6(a)(7))
AT applies to entire entry	AT Column 1
UN applies to entire entry, except 8D609.y.	See § 746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**Special Conditions for STA**

STA: Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any “software” in 8D609.

**List of Items Controlled**

*Related Controls:* (1) “Software” directly related to articles enumerated in USML Category VI is controlled under USML Category VI(g). (2) See ECCN 0A919 for foreign made “military commodities” that incorporate more than a *de minimis* amount of U.S.-origin “600 series” controlled content.

*Related Definitions:* N/A

*Items:*

a. “Software” “specially designed” for the “development,” “production,” operation, or maintenance of commodities controlled by ECCN 8A609, ECCN 8B609, or ECCN 8C609 (except for commodities controlled by ECCN 8A609.y).

b. through .x [Reserved]

y. Specific “software” “specially designed” for the “development,” “production,” operation, or maintenance of commodities in ECCN 8A609.y.

**\*\*8D620 “Software” “specially designed” for the “development,” “production,” operation, or maintenance of commodities controlled by 8A620 or 8B620 (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry, except 8D620.b and .y.	NS Column 1
RS applies to entire entry, except 8D620.y.	RS Column 1
RS applies to 8D620.y.	China, Russia or Venezuela (see § 742.6(a)(7))
AT applies to entire entry	AT Column 1
UN applies to entire entry, except 8D620.y.	See § 746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**Special Conditions for STA**

STA: Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any “software” in 8D620.

**List of Items Controlled**

*Related Controls:* (1) “Software” directly related to articles enumerated or otherwise described in USML Category XX is controlled under USML Category XX(d). (2) See ECCN 0A919 for foreign made “military commodities” that incorporate more than a *de minimis* amount of U.S.-origin “600 series” controlled content.

*Related Definitions:* N/A

*Items:*

a. “Software” “specially designed” for the “development,” “production,” operation, or maintenance of commodities controlled by ECCN 8A620 or ECCN 8B620 (except for commodities controlled by ECCN 8A620.b or .y or ECCN 8B620.b).

b. “Software” “specially designed” for the “development,” “production,” operation, or maintenance of commodities controlled by ECCN 8A620.b or ECCN 8B620.b.

c. through .x [Reserved]

y. Specific “software” “specially designed” for the “development,” “production,” operation, or maintenance of commodities in ECCN 8A620.y.

**\*\*8D992** “Software” “specially designed” or modified for the “development”, “production” or “use” of equipment controlled by 8A992.

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*8D999** “Software” “specially designed” for the operation of unmanned submersible vehicles used in the oil and gas industry.

**License Requirements**

*Reason for Control:* Foreign policy

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
Russian industry sector sanctions apply to entire entry.	See § 746.5 for specific license requirements and license review policy.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**E. “TECHNOLOGY”**

**\*\*8E001** “Technology” according to the General Technology Note for the “development” or “production” of equipment or materials, controlled by 8A (except 8A992), 8B or 8C.

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
AT applies to entire entry	AT Column 1

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* Yes, except for exports or reexport to destinations outside of those countries listed in Country Group A:5 (Supplement No. 1 to part 740 of the EAR) of “technology” for items controlled by 8A001.b, 8A001.c.1 or 8A002.o.3.b.

**Special Conditions for STA**

*STA:* License Exception STA may not be used to ship or transmit “technology” according to the General Technology Note for the “development” or “production” of equipment specified by 8A001.b, 8A001.c, 8A002.b, 8A002.h, 8A002.j, 8A002.o.3 or 8A002.p to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*8E002 Other “technology” as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
AT applies to entire entry	AT Column 1

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**License Exceptions Note:** License Exception TSU is not applicable for the repair “technology” controlled by 8E002.a or .b, see Supplement No. 2 to part 774.

**Special Conditions for STA**

*STA:* License Exception STA may not be used to ship or transmit technology in 8E002.a to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

**List of Items Controlled**

*Related Controls:* See also [8E992](#)  
*Related Definitions:* N/A  
*Items:*

a. “Technology” for the “development”, “production”, repair, overhaul or refurbishing (re-machining) of propellers “specially designed” for underwater noise reduction;

b. “Technology” for the overhaul or refurbishing of equipment controlled by 8A001, 8A002.b, 8A002.j, 8A002.o or 8A002.p.

c. "Technology" according to the General Technology Note for the "development" or "production" of any of the following:

c.1. Surface-effect vehicles (fully skirted

variety) having all of the following:

c.1.a. Maximum design speed, fully loaded, exceeding 30 knots in a significant wave height of 1.25 m or more;

c.1.b. Cushion pressure exceeding 3,830 Pa; *and*

c.1.c. Light-ship-to-full-load displacement ratio of less than 0.70;

c.2. Surface-effect vehicles (rigid sidewalls) with a maximum design speed, fully loaded, exceeding 40 knots in a significant wave height of 3.25 m or more;

c.3. Hydrofoil vessels with active systems for automatically controlling foil systems, with a maximum design speed, fully loaded, of 40 knots or more in a significant wave height of 3.25 m or more; *or*

c.4. 'Small waterplane area vessels' having any of the following:

c.4.a. Full load displacement exceeding 500 tonnes with a maximum design speed, fully loaded, exceeding 35 knots in a significant wave height of 3.25 m or more; *or*

c.4.b. Full load displacement exceeding 1,500 tonnes with a maximum design speed, fully loaded, exceeding 25 knots in a significant wave height of 4 m or more.

**Technical Note:** A 'small waterplane area vessel' is defined by the following formula: *waterplane area at an operational design draft less than 2x (displaced volume at the operational design draft)<sup>2/3</sup>.*

**\*\*8E609** “Technology” “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing of commodities controlled by

**8A609, 8B609, or 8C609, or “software” controlled by 8D609 (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry, except 8E609.y.	NS Column 1
RS applies to entire entry, except 8E609.y.	RS Column 1
RS applies to 8E609.y.	China, Russia or Venezuela (see § 742.6(a)(7))
AT applies to entire entry	AT Column 1
UN applies to entire entry, except 8E609.y.	See § 746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**Special Conditions for STA**

*STA:* Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any “technology” in 8E609.

**List of Items Controlled**

*Related Controls:* Technical data directly related to articles enumerated or otherwise described in USML Category VI are controlled under USML Category VI(g).

*Related Definitions:* N/A

*Items:*

a. “Technology” “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing of commodities controlled by ECCN

8A609, 8B609, or 8C609 (except for commodities controlled by ECCN 8A609.y), or “software” controlled by ECCN 8D609.

the EAR) may not be used for any “technology” in 8E620.

b. through .x [Reserved]

y. Specific “technology” “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing of commodities or software in ECCN 8A609.y or 8D609.y.

**List of Items Controlled**

*Related Controls:* Technical data directly related to articles enumerated or otherwise described in USML Category XX are controlled under USML Category XX(d).

*Related Definitions:* N/A

*Items:*

**\*\*8E620** “Technology” “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing of commodities controlled by 8A620 or 8B620, or “software” controlled by 8D620 (see List of Items Controlled).

a. “Technology” “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing of commodities controlled by ECCN 8A620 or 8B620 or “software” controlled by ECCN 8D620 (except for commodities controlled by ECCN 8A620.b or .y or ECCN 8B620.b or “software” controlled by 8D620.b or .y).

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

b. “Technology” “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing of commodities controlled by ECCN 8A620.b or 8B620.b or “software” controlled by ECCN 8D620.b.

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry, except 8E620.b and .y.	NS Column 1
RS applies to entire entry, except 8E620.y.	RS Column 1
RS applies to 8E620.y.	China, Russia or Venezuela (see § 742.6(a)(7))
AT applies to entire entry	AT Column 1
RS applies to entire entry, except 8E620.y.	See § 746.1(b) for UN controls

c. through .x [Reserved]

y. Specific “technology” “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul or refurbishing of commodities or software in ECCN 8A620.y or 8D620.y.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

**\*\*8E992** “Technology” for the “development,” “production” or “use” of equipment controlled by 8A992.

*TSR:* N/A

**License Requirements**

**Special Conditions for STA**

*Reason for Control:* AT

*STA:* Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**EAR99** Items subject to the EAR that are *not* elsewhere specified in this CCL Category *or* in any other category in the CCL are designated by the number *EAR99*.

**CATEGORY 9 - AEROSPACE AND PROPULSION**

**A. “END ITEMS,” “EQUIPMENT,” “ACCESSORIES,” “ATTACHMENTS,” “PARTS,” “COMPONENTS,” AND “SYSTEMS”**

**N.B.:** For propulsion systems designed or rated against neutron or transient ionizing radiation, see the U.S. Munitions List, 22 CFR part 121.

**\*\*9A001** Aero gas turbine engines having any of the following (see List of Items Controlled).

**License Requirements**

Reason for Control: NS, MT, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 1
MT applies to only to those engines that meet the characteristics listed in 9A101	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
GBS: N/A

**List of Items Controlled**

Related Controls: See also [9A101](#) and [9A991](#)  
Related Definitions: N/A  
Items:

a. Incorporating any of the “technologies” controlled by 9E003.a, 9E003.h, or 9E003.i; or

*Note 1:* 9A001.a does not control aero gas

turbine engines which meet all of the following:

a. Certified by the civil aviation authority in a country listed in Supplement No. 1 to Part 743; and

b. Intended to power non-military manned “aircraft” for which any of the following has been issued by a Wassenaar Arrangement Participating State listed in Supplement No. 1 to Part 743 for the “aircraft” with this specific engine type:

b.1. A civil type certificate; or

b.2. An equivalent document recognized by the International Civil Aviation Organization (ICAO).

*Note 2:* 9A001.a does not apply to aero gas turbine engines for Auxiliary Power Units (APUs) approved by the civil aviation authority in a Wassenaar Arrangement Participating State (see Supplement No. 1 to part 743 of the EAR).

b. Designed to power an “aircraft” designed to cruise at Mach 1 or higher, for more than 30 minutes.

**\*\*9A002** ‘Marine gas turbine engines’ designed to use liquid fuel and having all of the following (see List of Items Controlled), and “specially designed” assemblies and “components” therefor.

**License Requirements**

Reason for Control: NS, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: \$5000

GBS: N/A

**List of Items Controlled:**

*Related Controls:* N/A

*Related Definition:* N/A

*Items:*

a. Maximum continuous power when operating in “steady state mode” at standard reference conditions specified by ISO 3977-2:1997 (or national equivalent) of 24,245 kW or more; *and*

b. ‘Corrected specific fuel consumption’ not exceeding 0.219 kg/kWh at 35% of the maximum continuous power when using liquid fuel.

*Note: The term ‘marine gas turbine engines’ includes those industrial, or aero-derivative, gas turbine engines adapted for a ship’s electric power generation or propulsion.*

*Technical Note: For the purposes of 9A002, ‘corrected specific fuel consumption’ is the specific fuel consumption of the engine corrected to a marine distillate liquid fuel having a net specific energy (i.e., net heating value) of 42 MJ/kg (ISO 3977-2:1997).*

**\*\*9A003** “Specially designed” assemblies or “components,” incorporating any of the “technologies” controlled by 9E003.a, 9E003.h or 9E003.i, for any of the following aero gas turbine engines (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, AT

Control(s)	Country Chart
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	<i>(See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: \$5000

GBS: N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definition:* N/A

*Items:*

a. Controlled by 9A001; *or*

b. Whose design or production origins are either not from a Wassenaar Participating State (see Supplement No. 1 to part 743 of the EAR) or unknown to the manufacturer.

**\*\*9A004** Space launch vehicles and “spacecraft,” “spacecraft buses”, “spacecraft payloads”, “spacecraft” on-board systems or equipment, terrestrial equipment, and air-launch platforms, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS and AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to 9A004.g, .u, .v, .w and .x	NS Column 1
AT applies to 9A004.g, .u, .v, .w, .x and .y	AT Column 1

*License Requirement Note: 9A004.b through .f, and .h are controlled under ECCN 9A515.*

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
GBS: N/A

**List of Items Controlled**

*Related Controls:* (1) See also [9A104](#), [9A515](#), and [9B515](#). (2) See ECCNs [9E001](#) (“development”) and [9E002](#) (“production”) for technology for items controlled by this entry. (3) See USML Categories IV for the space launch vehicles and XV for other spacecraft that are “subject to the ITAR” (see 22 CFR parts 120 through 130).

*Related Definition:* N/A

*Items:*

- a. Space launch vehicles;
- b. “Spacecraft”;
- c. “Spacecraft buses”;
- d. “Spacecraft payloads” incorporating items specified by 3A001.b.1.a.4, 3A002.g, 5A001.a.1, 5A001.b.3, 5A002.c, 5A002.e, 6A002.a.1, 6A002.a.2, 6A002.b, 6A002.d, 6A003.b, 6A004.c, 6A004.e, 6A008.d, 6A008.e, 6A008.k, 6A008.l or 9A010.c;
- e. On-board systems or equipment, specially designed for “spacecraft” and having any of the following functions:
  - e.1. ‘Command and telemetry data handling’;

*Note:* For the purpose of 9A004.e.1, ‘command and telemetry data handling’ includes bus data management, storage, and processing.

  - e.2. ‘Payload data handling’; or

*Note:* For the purpose of 9A004.e.2, ‘payload data handling’ includes payload data management, storage, and processing.

e.3. ‘Attitude and orbit control’;

*Note:* For the purpose of 9A004.e.3, ‘attitude and orbit control’ includes sensing and actuation to determine and control the position and orientation of a “spacecraft”.

*N.B.:* Equipment specially designed for military use is “subject to the ITAR”. See 22 CFR parts 120 through 130.

f. Terrestrial equipment specially designed for “spacecraft”, as follows:

f.1. Telemetry and telecommand equipment “specially designed” for any of the following data processing functions:

f.1.a. Telemetry data processing of frame synchronization and error corrections, for monitoring of operational status (also known as health and safe status) of the “spacecraft bus”; or

f.1.b. Command data processing for formatting command data being sent to the “spacecraft” to control the “spacecraft bus”;

f.2. Simulators “specially designed” for ‘verification of operational procedures’ of “spacecraft”.

*Technical Note:* For the purposes of 9A004.f.2, ‘verification of operational procedures’ is any of the following:

1. Command sequence confirmation;
2. Operational training;
3. Operational rehearsals; or
4. Operational analysis.

g. “Aircraft” “specially designed” or modified to be air-launch platforms for space launch vehicles;

h. “Sub-orbital craft”.

i. through t. [RESERVED]

u. The James Webb Space Telescope (JWST) being developed, launched, and operated under the supervision of the U.S. National Aeronautics and Space Administration (NASA).

v. “Parts,” “components,” “accessories” and “attachments” that are “specially designed” for the James Webb Space Telescope and that are *not*:

- v.1. Enumerated or controlled in the USML;
- v.2. Microelectronic circuits;
- v.3. Described in ECCN 7A004 or 7A104; *or*
- v.4. Described in an ECCN containing “space-qualified” as a control criterion (*See* ECCN 9A515.x.4).

w. The International Space Station being developed, launched, and operated under the supervision of the U.S. National Aeronautics and Space Administration.

x. “Parts,” “components,” “accessories” and “attachments” that are “specially designed” for the International Space Station.

y. Items that would otherwise be within the scope of ECCN 9A004.v or .x but that have been identified in an interagency-cleared commodity classification (CCATS) pursuant to § 748.3(e) as warranting control in 9A004.y.

**\*\*9A005** Liquid rocket propulsion systems containing any of the systems or “components,” controlled by 9A006. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)

**\*\*9A006** Systems, “components,” “specially

designed” for liquid rocket propulsion systems. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)

**\*\*9A007** Solid rocket propulsion systems. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)

**\*\*9A008** “Components” “specially designed” for solid rocket propulsion systems. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)

**\*\*9A009** Hybrid rocket propulsion systems. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)

**\*\*9A010** “Specially Designed” “Parts”, “Components”, Systems and Structures, for Launch Vehicles, Launch Vehicle Propulsion Systems or “Spacecraft”. (See Related Controls paragraph.)

#### List of Items Controlled

*Related Controls:* (1) See USML Category IV of the International Traffic in Arms Regulations (ITAR) (22 CFR parts 120 through 130) and ECCN [9A604](#) for paragraphs 9A010.a, .b and .d. (2) See USML Category XV of the ITAR and ECCN [9A515](#) for paragraph 9A010.c. (3) See Supplement No. 4 to part 774, Order of Review for guidance on the process for determining classification of items.

*Related Definitions:* N/A

*Items:*

a. “Parts”, “components” and structures, each exceeding 10 kg and “specially designed” for launch vehicles manufactured using any of the following:

a.1. “Composite” materials consisting of “fibrous or filamentary materials” specified by 1C010.e and resins specified by 1C008 or 1C009.b;

a.2. Metal “matrix” “composites” reinforced by any of the following:

a.2.a. Materials specified by 1C007;

a.2.b. “Fibrous or filamentary materials” specified by 1C010; *or*

a.2.c. Aluminides specified by 1C002.a; *or*

a.3. Ceramic “matrix” “composite” materials specified by 1C007;

*Note: The weight cut-off is not relevant for nose cones.*

b. “Parts”, “components” and structures, “specially designed” for launch vehicle propulsion systems specified by 9A005 to 9A009, manufactured using any of the following:

b.1. “Fibrous or filamentary materials” specified by 1C010.e and resins specified by 1C008 or 1C009.b;

b.2. Metal “Matrix” “composites” reinforced by any of the following:

b.2.a. Materials specified by 1C007;

b.2.b. “Fibrous or filamentary materials” specified by 1C010; *or*

b.2.c. Aluminides specified by 1C002.a; *or*

b.3. Ceramic “matrix” “composite” materials specified by 1C007;

c. Structural components and isolation systems, specially designed to control actively the dynamic response or distortion of “spacecraft”

structures;

d. Pulsed liquid rocket engines with thrust-to-weight ratios equal to or more than 1 kN/kg and a ‘response time’ of less than 30 ms.

*Technical Note: For the purposes of 9A010.d, ‘response time’ means the time required to achieve 90% of total rated thrust from start-up.*

**\*\*9A011 Ramjet, scramjet or combined cycle engines, and “specially designed” “parts” and “components” therefor. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)**

**\*\*9A012 Non-military “Unmanned Aerial Vehicles,” (“UAVs”), unmanned “airships”, related equipment and “components”, as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NS, MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
MT applies to non-military Unmanned Aerial Vehicles (UAVs) and Remotely Piloted Vehicles (RPVs) that are capable of a maximum range of at least 300 kilometers (km), regardless of payload, and UAVs that meet the requirements of 9A120	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

GBS: N/A

**List of Items Controlled**

*Related Controls:* 1) See the U.S. Munitions List Category VIII (22 CFR Part 121). 2) Also see ECCN [9A610](#) and § 744.3 of the EAR. 3) For “UAVs” that are “sub-orbital craft,” see ECCNs [9A004.h](#) and [9A515.a](#).

*Related Definitions:* N/A

*Items:*

a. “UAVs” or unmanned “airships”, designed to have controlled flight out of the direct ‘natural vision’ of the ‘operator’ and having any of the following:

a.1. Having all of the following:

a.1.a. A maximum ‘endurance’ greater than or equal to 30 minutes but less than 1 hour; and

a.1.b. Designed to take-off and have stable controlled flight in wind gusts equal to or exceeding 46.3 km/h (25 knots); *or*

a.2. A maximum ‘endurance’ of 1 hour or greater;

**Technical Notes:**

1. *For the purposes of 9A012.a, ‘operator’ is a person who initiates or commands the “UAV” or unmanned “airship” flight.*

2. *For the purposes of 9A012.a, ‘endurance’ is to be calculated for ISA conditions (ISO 2533:1975) at sea level in zero wind.*

3. *For the purposes of 9A012.a, ‘natural vision’ means unaided human sight, with or without corrective lenses.*

b. Related equipment and “components”, as follows:

b.1 [Reserved]

b.2. [Reserved]

b.3. Equipment or “components” “specially designed” to convert a manned “aircraft” or a manned “airship” to a “UAV” or unmanned “airship”, controlled by 9A012.a;

b.4. Air breathing reciprocating or rotary internal combustion type engines, “specially designed” or modified to propel “UAVs” or unmanned “airships”, at altitudes above 15,240 meters (50,000 feet).

**\*\*9A018 Equipment on the Wassenaar Arrangement Munitions List.**

(a) See ECCN 9A610 for the aircraft, refuelers, ground equipment, parachutes, harnesses, and instrument flight trainers, as well as “parts”, “accessories,” and “attachments” for the forgoing that, immediately prior to October 15, 2013, were classified under 9A018.a.1, .a.3, .c, .d, .e, or .f.

(b) See ECCN 9A619 for military trainer aircraft turbo prop engines and “parts” and “components” therefor that, immediately prior to October 15, 2013, were classified under ECCN 9A018.a.2 or .a.3.

(c) See ECCN 0A606.b for certain armored ground transport vehicles that prior to January 6, 2014 were classified under ECCN 9A018.b.

**\*\*9A101 Turbojet and turbofan engines, other than those controlled by 9A001, as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
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MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A

GBS: N/A

**List of Items Controlled**

*Related Controls:* [9A101.b](#) controls only engines for non-military unmanned aerial vehicles [UAVs] or remotely piloted vehicles [RPVs], and does not control other engines designed or modified for use in “missiles”, which are “subject to the ITAR” (see 22 CFR parts 120 through 130).

*Related Definitions:* ‘Maximum thrust value’ in 9A101.a.1 is the manufacturer’s demonstrated maximum thrust for the engine type un-installed. The civil type certified thrust value will be equal to or less than the manufacturer’s demonstrated maximum thrust for the engine type.

*Items:*

a. Engines having all of the following characteristics:

a.1. ‘Maximum thrust value’ greater than 400 N (achieved un-installed) excluding civil certified engines with a maximum thrust value greater than 8,890 N (achieved un-installed);

a.2. Specific fuel consumption of 0.15 kg N<sup>-1</sup> h<sup>-1</sup> or less (at maximum continuous power at sea level static conditions using the ICAO standard atmosphere);

a.3. ‘Dry weight’ less than 750 kg; *and*

a.4. ‘First –stage rotor diameter’ less than 1 m.

**Technical Notes:**

1. ‘Maximum thrust value’ in 9A101.a.1 is the manufacturer’s demonstrated maximum thrust for the engine type un-installed at sea level static conditions using the ICAO standard atmosphere. The civil type certified thrust value will be equal to or less than the manufacturer’s demonstrated maximum thrust for the engine type.

2. ‘Dry weight’ is the weight of the engine without fluids (fuel, hydraulic fluid, oil, etc.) and does not include the nacelle (housing).

3. ‘First-stage rotor diameter’ is the diameter of the first rotating stage of the engine, whether a fan or compressor, measured at the leading edge of the blade tips.

b. Engines designed or modified for use in “missiles” or UAVs with a range equal to or greater than 300 km, regardless of thrust, specific fuel consumption, ‘dry weight’ or ‘first-stage rotor diameter’.

**\*\*9A102** ‘Turboprop engine systems’ “specially designed” for items controlled in 9A012 for MT reasons, and “specially designed” “parts” and “components” therefor, having a maximum power greater than 10 kW (achieved uninstalled at sea level static conditions using the ICAO standard atmosphere), excluding civil certified engines.

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for

a description of all license exceptions)

LVS: N/A  
GBS: N/A

### List of Items Controlled

*Related Controls:* See also 9A001 and 9A101.

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**Technical Note to 9A102:** For the purposes of 9A102 a ‘turboprop engine system’ incorporates all of the following:

- a. Turboshaft engine; and
- b. Power transmission system to transfer the power to a propeller.

**\*\*9A103** Liquid propellant tanks “specially designed” for the propellants controlled in ECCNs 1C011, 1C111 or other liquid propellants used in “missiles.” (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)

**\*\*9A104** Sounding rockets, capable of a range of at least 300 km. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)

**\*\*9A105** Liquid propellant rocket engines. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)

**\*\*9A106** Systems, “parts” or “components,” other than those controlled by 9A006, usable in “missiles”, and “specially designed” for liquid rocket propulsion systems, as follows (see List of Items Controlled).

### License Requirements

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
GBS: N/A

### List of Items Controlled

*Related Controls:* Items described in [9A106.a](#), [.b](#), and [.c](#) are “subject to the ITAR” (see 22 CFR parts 120 through 130).

*Related Definitions:* N/A

*Items:*

- a. Ablative liners for thrust or combustion chambers;
- b. Rocket nozzles;
- c. Thrust vector control sub-systems;

**Technical Note:** Examples of methods of achieving thrust vector control controlled by 9A106.c includes:

1. Flexible nozzle;
2. Fluid or secondary gas injection;
3. Movable engine or nozzle;
4. Deflection of exhaust gas steam (jet vanes or probes); or
5. Thrust tabs.

d. Liquid, slurry and gel propellant (including oxidizers) control systems, and “specially designed” “parts” and “components” therefor, designed or modified to operate in vibration environments greater than 10 g rms between 20 Hz and 2000 Hz.

*Note: The only servo valves, pumps and gas turbines controlled by 9A106.d, are the following:*

a. Servo valves designed for flow rates equal to or greater than 24 liters per minute, at an absolute pressure equal to or greater than 7 MPa, that have an actuator response time of less than 100 ms;

b. Pumps, for liquid propellants, with shaft speeds equal to or greater than 8,000 rpm at the maximum operating mode or with discharge pressures equal to or greater than 7 Mpa; or

c. Gas turbines, for liquid propellant turbopumps, with shaft speeds equal to or greater than 8,000 rpm at the maximum operating mode.

e. Flight control servo valves designed or modified for use in “missiles” and designed or modified to operate in a vibration environment greater than 10g rms over the entire range between 20Hz and 2 kHz.

**\*\*9A107** Solid propellant rocket engines, usable in rockets with a range capability of 300 km or greater, other than those controlled by 9A007, having total impulse capacity equal to or greater than  $8.41 \times 10^5$  Ns, but less than  $1.1 \times 10^6$  Ns. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)

**\*\*9A108** Solid rocket propulsion “parts” and “components,” other than those controlled by 9A008, usable in rockets with a range capability of 300 km or greater. (These items are “subject to the ITAR.” See 22 CFR parts

120 through 130.)

**\*\*9A109** Hybrid rocket motors, usable in rockets with a range capability of 300 km or greater, other than those controlled by 9A009, and “specially designed” “parts” and “components” therefor. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)

**\*\*9A110** Composite structures, laminates and manufactures thereof “specially designed” for 9A012 items that are controlled for MT reasons.

**License Requirements**

*Reason for Control:* MT, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
GBS: N/A

**List of Items Controlled**

*Related Controls:* See also 1A002.  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*9A111** Pulse jet engines, usable in rockets, missiles, or unmanned aerial vehicles capable of achieving a “range” equal to or greater than 300km, and “specially designed” “parts” and “components” therefor. (These items are

“subject to the ITAR.” See 22 CFR parts 120 through 130.)

ITAR.” See 22 CFR parts 120 through 130.)

**\*\*9A115** Apparatus, devices and vehicles, designed or modified for the transport, handling, control, activation and launching of rockets, missiles, and unmanned aerial vehicles capable of achieving a “range” equal to or greater than 300 km.

**\*\*9A118** Devices to regulate combustion usable in engines which are usable in rockets, missiles, and unmanned aerial vehicles capable of achieving a “range” equal to or greater than 300 km, controlled by 9A011 or 9A111. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**\*\*9A119** Individual rocket stages, usable in rockets with a range capability greater than 300 km or greater, other than those controlled by 9A005, 9A007, 9A009, 9A105, 9A107 and 9A109. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

**\*\*9A120** Complete unmanned aerial vehicles, not specified in 9A012, having all of the following characteristics (see List of Items Controlled.)

*LVS:* N/A  
*GBS:* N/A

**License Requirements**

*Reason for Control:* MT, AT

**List of Items Controlled**

*Related Controls:* See the U.S. Munitions List (22 CFR part 121). Also see ECCN 9A610.u.  
*Related Definitions:* N/A  
*Items:*

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

The list of items controlled is contained in the ECCN heading.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**\*\*9A116** Reentry vehicles, usable in “missiles”, and equipment designed or modified therefor. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)

**List of Items Controlled**

**\*\*9A117** Staging mechanisms, separation mechanisms, and interstages therefor, usable in “missiles”. (These items are “subject to the

*Related Controls:* See ECCN [9A012](#) or the U.S. Munitions List Category VIII (22 CFR part 121). Also see ECCN 2B352.i for controls on certain spraying or fogging

systems, and “parts” and “components” therefor, “specially designed” or modified for fitting to aircraft, “lighter than air vehicles,” or “UAVs.”

*Related Definitions:* N/A  
*Items:*

- a. Having any of the following:
  - a.1. An autonomous flight control and navigation capability; *or*
  - a.2. Capability of controlled-flight out of the direct vision range involving a human operator; *and*
- b. Having any of the following:
  - b.1. Incorporating an aerosol dispensing system/mechanism with a capacity greater than 20 liters; *or*
  - b.2. Designed or modified to incorporate an aerosol dispensing system/mechanism with a capacity of greater than 20 liters.

**Note:** 9A120 does not control model aircraft, “specially designed” for recreational or competition purposes.

**Technical Notes:**

1. An aerosol consists of particulate or liquids other than fuel components, by-products or additives, as part of the “payload” to be dispersed in the atmosphere. Examples of aerosols include pesticides for crop dusting and dry chemicals for cloud seeding.
2. An aerosol dispensing system/mechanism contains all above devices (mechanical, electrical, hydraulic, etc.), which are necessary for storage and dispersion of an aerosol into the atmosphere. This includes the possibility of aerosol injection into the combustion exhaust vapor and into the propeller slip stream.

**\*\*9A515 “Spacecraft” and related commodities, as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NS, RS, MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry, except .e and .y.	NS Column 1
RS applies to entire entry, except .e and .y.	RS Column 1
RS applies to 9A515.e.	RS Column 2
RS applies to 9A515.y, except to Russia for use in, with, or for the International Space Station (ISS), including launch to the ISS.	China, Russia or Venezuela (see § 742.6(a)(7)).
MT applies to microcircuits in 9A515.d and 9A515.e.2 when “usable in” “missiles” for protecting “missiles” against nuclear effects (e.g., Electromagnetic Pulse (EMP), X-rays, combined blast and thermal effects). MT also applies to 9A515.h when the total impulse capacity is equal to or greater than 8.41x10 <sup>5</sup> newton seconds.	MT Column 1
AT applies to entire entry	AT Column 1

**License Requirement Note:** The Commerce Country Chart is not used for determining license requirements for commodities classified in ECCN 9A515.a.1, .a.2, .a.3, .a.4, and .g. See § 742.6(a)(9), which

*specifies that such commodities are subject to a worldwide license requirement.*

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$1500

*GBS:* N/A

### Special Conditions for STA

*STA:* (1) Paragraph (c)(1) of License Exception STA (§ 740.20(c)(1) of the EAR) may not be used for “spacecraft” in ECCNs 9A515.a.1, .a.2, .a.3, or .a.4, “sub-orbital craft,” or items in 9A515.g, unless determined by BIS to be eligible for License Exception STA in accordance with § 740.20(g) (License Exception STA eligibility requests for certain 9x515 and “600 series” items). (2) License Exception STA may not be used if the “spacecraft” controlled in ECCN 9A515.a.1, .a.2, .a.3, or .a.4 contains a separable or removable propulsion system enumerated in USML Category IV(d)(2) or USML Category XV(e)(12) and designated MT. (3) Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in 9A515.

### List of Items Controlled

*Related Controls:* Spacecraft, launch vehicles and related articles that are enumerated in the USML, and technical data (including “software”) directly related thereto, and all services (including training) directly related to the integration of any satellite or spacecraft to a launch vehicle, including both planning and onsite support, or furnishing any assistance (including training) in the launch failure analysis or

investigation for items in ECCN 9A515.a, are “subject to the ITAR.” All other “spacecraft,” as enumerated below and defined in § 772.1, are subject to the controls of this ECCN. See also ECCNs 3A001, 3A002, 3A991, 3A992, 6A002, 6A004, 6A008, and 6A998 for specific “space-qualified” items, 7A004 and 7A104 for star trackers, and [9A004](#) for the International Space Station (ISS), the James Webb Space Telescope (JWST), and “specially designed” “parts” and “components” therefor. See USML Category XI(c) for controls on “Monolithic Microwave Integrated Circuit” (“MMIC”) amplifiers that are “specially designed” for defense articles. See ECCN [9A610.g](#) for pressure suits used for high altitude aircraft.

*Related Definitions:* ‘Microcircuit’ means a device in which a number of passive or active elements are considered as indivisibly associated on or within a continuous structure to perform the function of a circuit.

#### *Items:*

“Spacecraft” and other items described in ECCN 9A515 remain subject to the EAR even if exported, reexported, or transferred (in-country) with defense articles “subject to the ITAR” integrated into and included therein as integral parts of the item. In all other cases, such defense articles are subject to the ITAR. For example, a 9A515.a “spacecraft” remains “subject to the EAR” even when it is exported, reexported, or transferred (in-country) with a “hosted payload” described in USML Category XV(e)(17) incorporated therein. In all other cases, a “hosted payload” performing a function described in USML Category XV(a) always remains a USML item. The removal of the defense article subject to the ITAR from the spacecraft is a retransfer under the ITAR and would require an ITAR authorization, regardless of the CCL authorization the spacecraft is exported under. Additionally, transfer of

technical data regarding the defense article subject to the ITAR integrated into the spacecraft would require an ITAR authorization.

a. “Spacecraft,” including satellites, and space vehicles and “sub-orbital craft,” whether designated developmental, experimental, research or scientific, not enumerated in USML Category XV or described in ECCN 9A004.u or .w, that:

a.1. Have electro-optical remote sensing capabilities and having a clear aperture greater than 0.35 meters, but less than or equal to 0.50 meters;

a.2. Have remote sensing capabilities beyond NIR (*i.e.*, SWIR, MWIR, or LWIR);

a.3. Have radar remote sensing capabilities (*e.g.*, AESA, SAR, or ISAR) having a center frequency equal to or greater than 1.0 GHz, but less than 10.0 GHz and having a bandwidth equal to or greater than 100 MHz, but less than 300 MHz;

a.4. Provide space-based logistics, assembly, or servicing of another “spacecraft”; *or*

a.5. Are not described in ECCN 9A515.a.1, .a.2, .a.3 or .a.4.

*Note: ECCN 9A515.a includes commercial communications satellites, remote sensing satellites, planetary rovers, planetary and interplanetary probes, in-space habitats, and “sub-orbital craft,” not identified in ECCN 9A004 or USML Category XV(a).*

b. Ground control systems and training simulators “specially designed” for telemetry, tracking, and control of the “spacecraft” controlled in paragraphs 9A004.u or 9A515.a.

c. [Reserved]

d. Microelectronic circuits (*e.g.*, integrated circuits, microcircuits, or MOSFETs) and discrete electronic components rated, certified, or otherwise specified or described as meeting or exceeding all the following characteristics and that are “specially designed” for defense articles, “600 series” items, or items controlled by ECCNs 9A004.v or 9A515:

d.1. A total dose of  $5 \times 10^5$  Rads (Si) ( $5 \times 10^3$  Gy (Si));

d.2. A dose rate upset threshold of  $5 \times 10^8$  Rads (Si)/sec ( $5 \times 10^6$  Gy (Si)/sec);

d.3. A neutron dose of  $1 \times 10^{14}$  n/cm<sup>2</sup> (1 MeV equivalent);

d.4. An uncorrected single event upset sensitivity of  $1 \times 10^{-10}$  errors/bit/day or less, for the CRÈME-MC geosynchronous orbit, Solar Minimum Environment for heavy ion flux; and

d.5. An uncorrected single event upset sensitivity of  $1 \times 10^{-3}$  errors/part or less for a fluence of  $1 \times 10^7$  protons/cm<sup>2</sup> for proton energy greater than 50 MeV.

e. Microelectronic circuits (*e.g.*, integrated circuits, microcircuits, or MOSFETs) and discrete electronic components that are rated, certified, or otherwise specified or described as meeting or exceeding the characteristics in either paragraph e.1 or e.2, AND “specially designed” for defense articles controlled by USML Category XV or items controlled by ECCNs 9A004.u or 9A515:

e.1. A total dose  $\geq 1 \times 10^5$  Rads (Si) ( $1 \times 10^3$  Gy(Si)) and  $< 5 \times 10^5$  Rads (Si) ( $5 \times 10^3$  Gy(Si)); and a single event effect (SEE) (*i.e.*, single event latchup (SEL), single event burnout (SEB), or single event gate rupture (SEGR)) immunity to a linear energy transfer (LET)  $\geq 80$  MeV-cm<sup>2</sup>/mg; *or*

e.2. A total dose  $\geq 5 \times 10^5$  Rads (Si) ( $5 \times 10^3$  Gy (Si)) and not described in 9A515.d.

*Note 1 to 9A515.d and .e:* Application specific integrated circuits (ASICs), integrated circuits developed and produced for a specific application or function, specifically designed or modified for defense articles and not in normal commercial use are controlled by Category XI(c) of the USML regardless of characteristics.

*Note 2 to 9A515.d and .e:* See 3A001.a for controls on radiation-hardened microelectronic circuits “subject to the EAR” that are not controlled by 9A515.d or 9A515.e.

f. Pressure suits (*i.e.*, space suits) capable of operating at altitudes 55,000 feet above sea level.

g. Remote sensing components “specially designed” for “spacecraft” described in ECCNs 9A515.a.1 through 9A515.a.4 as follows:

g.1. Space-qualified optics (*i.e.*, lens, mirror, membrane having active properties (*e.g.*, adaptive, deformable)) with the largest lateral clear aperture dimension equal to or less than 0.35 meters; or with the largest clear aperture dimension greater than 0.35 meters but less than or equal to 0.50 meters;

g.2. Optical bench assemblies “specially designed” for ECCN 9A515.a.1, 9A515.a.2, 9A515.a.3, or 9A515.a.4 “spacecraft;” *or*

g.3. Primary, secondary, or hosted payloads that perform a function of ECCN 9A515.a.1, 9A515.a.2, 9A515.a.3, or 9A515.a.4 “spacecraft.”

h. Spacecraft thrusters using bi-propellants or mono-propellants that provide thrust equal to or less than 150 lbf (*i.e.*, 667.23 N) vacuum thrust.

i. through w. [RESERVED]

x. “Parts,” “components,” “accessories” and “attachments” that are “specially designed” for defense articles controlled by USML Category XV or items controlled by 9A515, and that are NOT:

x.1. Enumerated or controlled in the USML or elsewhere within ECCNs 9A515 or 9A004;

x.2. Microelectronic circuits and discrete electronic components;

x.3. Described in ECCNs 7A004 or 7A104;

x.4. Described in an ECCN containing “space-qualified” as a control criterion (*i.e.*, 3A001.b.1, 3A001.e.4, 3A002.g.1, 3A991.o, 3A992.b.3, 6A002.a.1, 6A002.b.2, 6A002.d.1, 6A004.c and .d, 6A008.j.1, 6A998.b, or 7A003.d.2);

x.5. Microwave solid state amplifiers and microwave assemblies (refer to ECCN 3A001.b.4 for controls on these items);

x.6. Travelling wave tube amplifiers (refer to ECCN 3A001.b.8 for controls on these items); *or*

x.7. Elsewhere specified in ECCN 9A515.y.

*Note to 9A515.x:* “Parts,” “components,” “accessories,” and “attachments” specified in USML subcategory XV(e) or enumerated in other USML categories are subject to the controls of that paragraph or category.

y. Items that would otherwise be within the scope of ECCN 9A515.x but that have been identified in an interagency-cleared commodity classification (CCATS) pursuant to § 748.3(e) as warranting control in 9A515.y.

y.1. Discrete electronic components not specified in 9A515.e;

y.2. Space grade or for spacecraft applications thermistors;

y.3. Space grade or for spacecraft applications RF microwave bandpass ceramic filters (Dielectric Resonator Bandpass Filters);

y.4. Space grade or for spacecraft applications hall effect sensors;

y.5. Space grade or for spacecraft applications subminiature (SMA and SMP) plugs and connectors, TNC plugs and cable and connector assemblies with SMA plugs and connectors; *and*

y.6. Space grade or for spacecraft applications flight cable assemblies.

**\*\*9A604** Commodities related to launch vehicles, missiles, and rockets (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, RS, MT, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
RS applies to entire entry	RS Column 1
MT applies to 9A604.a, .c, .d, and .f.	MT Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry	See § 746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
GBS: N/A

**Special Conditions for STA**

STA: Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in this ECCN 9A604.

**List of Items Controlled**

*Related Controls:* (1) Launch vehicles, missiles, and rockets are subject to the ITAR (see 22 CFR § 121.1, USML Category IV). (2) See ECCN 0A919 for foreign-made “military commodities” that incorporate more than a *de minimis* amount of U.S.-origin “600 series” controlled content.

*Related Definitions:* N/A

*Items:*

a. Thermal batteries “specially designed” for systems controlled under USML Category IV capable of a range equal to or greater than 300 km.

b. Thermal batteries, except for thermal batteries controlled by 9A604.a, that are “specially designed” for systems controlled under USML Category IV.

c. “Components” “specially designed” for ramjet, scramjet, pulse jet, or combined cycle engines controlled under USML Category IV, including devices to regulate combustion in such commodities.

d. “Components” “specially designed” for hybrid rocket motors controlled under USML Category IV usable in rockets, missiles, or unmanned aerial vehicles capable of a range equal to or greater than 300 km.

e. “Components” “specially designed” for pressure gain combustion-based propulsion systems controlled under USML Category IV.

f. Composite structures, laminates and manufactures thereof “specially designed” for the following items controlled under USML

Category IV:

f.1. Systems capable of a range equal to or greater than 300 km;

f.2. Individual rocket stages usable in 9A604.f.1 systems;

f.3. Solid propellant rocket motors or hybrid rocket motors having a total impulse capacity equal to or greater than 8.41 x 10<sup>5</sup> Ns; or

f.4. Liquid propellant rocket engines integrated, or designed or modified to be integrated, into a liquid propellant propulsion system which has a total impulse capacity equal to or greater than 8.41 x 10<sup>5</sup> Ns.

f.5. Thrust vector control systems usable in rockets, space launch vehicles (SLVs), and missiles capable of delivering at least a 500 kg payload to a range of at least 300 km.

f.6. Re-entry vehicles or warhead heat shields usable in rockets, SLVs, and missiles capable of delivering at least a 500 kg payload to a range of at least 300 km.

f.7. Safing, arming, fuzing, and firing components usable in rockets, SLVs, and missiles capable of delivering at least a 500 kg payload to a range of at least 300 km.

g. through w. [Reserved]

x. "Parts," "components," "accessories," and "attachments" that are "specially designed" for a commodity subject to control in paragraphs .a through .d of this ECCN, or a defense article controlled under USML Category IV, and not specified elsewhere on the USML.

*Note to 9A604.x: "Parts," "components," "accessories," and "attachments" specified in USML Category IV(h) are subject to the controls of that paragraph.*

**\*\*9A610** Military aircraft and related commodities, other than those enumerated in 9A991.a (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, RS, MT, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry except: 9A610.b; parts and components controlled in 9A610.x if being exported or reexported for use in an aircraft controlled in 9A610.b; and 9A610.y.	NS Column 1
RS applies to entire entry except: 9A610.b; parts and components controlled in 9A610.x if being exported or reexported for use in an aircraft controlled in 9A610.b; and 9A610.y.	RS Column 1
RS applies to 9A610.y	China, Russia, or Venezuela (see §742.6(a)(7))
MT applies to 9A610.t, .u, .v, and .w	MT Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry except 9A610.y.	See § 746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: \$1500  
GBS: N/A

**Special Conditions for STA**

STA: (1) Paragraph (c)(1) of License

Exception STA (§ 740.20(c)(1) of the EAR) may not be used for any item in 9A610.a (i.e., “end item” military aircraft), unless determined by BIS to be eligible for License Exception STA in accordance with § 740.20(g) (License Exception STA eligibility requests for 9x515 and “600 series” items). (2) Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in 9A610.

### List of Items Controlled

*Related Controls:* (1) Military aircraft and related articles that are enumerated in USML Category VIII, and technical data (including software) directly related thereto, are subject to the ITAR. (2) See ECCN 0A919 for controls on foreign-made “military commodities” that incorporate more than a *de minimis* amount of U.S.-origin “600 series” controlled content. (3) See USML Category XIX and ECCN 9A619 for controls on military aircraft gas turbine engines and related items.

*Related Definitions:* In paragraph .y of this entry, the term ‘fluid’ includes liquids and gases.

*Items:*

a. ‘Military Aircraft’ “specially designed” for a military use that are not enumerated in USML paragraph VIII(a).

*Note 1:* For purposes of paragraph .a the term ‘military aircraft’ means the LM-100J aircraft and any aircraft “specially designed” for a military use that are not enumerated in USML paragraph VIII(a). The term includes: Trainer aircraft; cargo aircraft; utility fixed wing aircraft; military helicopters; observation aircraft; military non-expansive balloons and other lighter-than-air aircraft; and unarmed military aircraft, regardless of origin or designation. Aircraft with modifications made to

incorporate safety of flight features or other FAA or NTSB modifications such as transponders and air data recorders are “unmodified” for the purposes of this paragraph .a.

*Note 2:* 9A610.a does not control ‘military aircraft’ or “lighter-than-air vehicles” that:

a. Were first manufactured before 1946;

b. Do not incorporate defense articles enumerated or otherwise described on the U.S. Munitions List, unless the items are required to meet safety or airworthiness standards of civil aviation authorities of a Wassenaar Arrangement Participating State; and

c. Do not incorporate weapons enumerated or otherwise described on the U.S. Munitions List, unless inoperable and incapable of being returned to operation.

b. L-100 aircraft manufactured prior to 2013.

c. - d. [Reserved]

e. Mobile aircraft arresting and engagement runway systems for aircraft controlled by either USML Category VIII(a) or ECCN 9A610.a.

f. Pressure refueling equipment and equipment that facilitates operations in confined areas, “specially designed” for aircraft controlled by either USML paragraph VIII(a) or ECCN 9A610.a.

g. Aircrew life support equipment, aircrew safety equipment and other devices for emergency escape from aircraft controlled by either USML paragraph VIII(a) or ECCN 9A610.a.

h. Parachutes, paragliders, complete parachute canopies, harnesses, platforms, electronic release mechanisms, “specially designed” for use with aircraft controlled by either USML paragraph VIII(a) or ECCN 9A610.a, and “equipment” “specially designed” for military high altitude

parachutists, such as suits, special helmets, breathing systems, and navigation equipment.

i. Controlled opening equipment or automatic piloting systems, designed for parachuted loads.

j. Ground effect machines (GEMS), including surface effect machines and air cushion vehicles, “specially designed” for use by a military.

k. through s. [Reserved]

t. Composite structures, laminates, and manufactures thereof “specially designed” for unmanned aerial vehicles controlled under USML Category VIII(a) with a range equal to or greater than 300 km.

*Note to paragraph .t:* Composite structures, laminates, and manufactures thereof “specially designed” for unmanned aerial vehicles controlled under USML Category VIII(a) with a maximum range less than 300 km are controlled in paragraph .x of this entry.

u. Apparatus and devices “specially designed” for the handling, control, activation and non-ship-based launching of UAVs controlled by either USML paragraph VIII(a) or ECCN 9A610.a, and capable of a range equal to or greater than 300 km.

*Note to paragraph .u:* Apparatus and devices “specially designed” for the handling, control, activation and non-ship-based launching of UAVs controlled by either USML paragraph VIII(a) or ECCN 9A610.a with a maximum range less than 300 km are controlled in paragraph .x of this entry.

v. Radar altimeters designed or modified for use in UAVs controlled by either USML paragraph VIII(a) or ECCN 9A610.a, and capable of delivering at least 500 kilograms payload to a range of at least 300 km.

*Note to paragraph .v:* Radar altimeters designed or modified for use in UAVs controlled

by either USML paragraph VIII(a) or ECCN 9A610.a that are not capable of delivering at least 500 kilograms payload to a range of at least 300 km are controlled in paragraph .x of this entry.

w.1. Pneumatic hydraulic, mechanical, electro-optical, or electromechanical flight control systems (including fly-by-wire and fly-by-light systems) and attitude control equipment designed or modified for UAVs controlled by either USML paragraph VIII(a) or ECCN 9A610.a, and capable of delivering at least 500 kilograms payload to a range of at least 300 km.

*Note to paragraph .w.1:* Pneumatic, hydraulic, mechanical, electro-optical, or electromechanical flight control systems (including fly-by-wire and fly-by-light systems) and attitude control equipment designed or modified for UAVs controlled by either USML paragraph VIII(a) or ECCN 9A610.a, not capable of delivering at least 500 kilograms payload to a range of at least 300 km are controlled in paragraph .x of this entry.

w.2. Flight control servo valves designed or modified for the systems in 9A610.w.1 and designed or modified to operate in a vibration environment greater than 10g rms over the entire range between 20Hz and 2 kHz.

*Note to paragraph .w:* Paragraphs 9A610.w.1. and 9A610.w.2. include the systems, equipment and valves designed or modified to enable operation of manned aircraft as unmanned aerial vehicles.

**x.** “Parts,” “components,” “accessories,” and “attachments” that are “specially designed” for a commodity enumerated or otherwise described in ECCN 9A610 (except for 9A610.y) or a defense article enumerated or otherwise described in USML Category VIII and not elsewhere specified on the USML or in 9A610.y, 9A619.y, or 3A611.y.

y. Specific “parts,” “components,” “accessories,” and “attachments” “specially designed” for a commodity subject to control in this entry, ECCN 9A619, or for a defense article in USML Categories VIII or XIX and not elsewhere specified in the USML or the CCL, and other aircraft commodities “specially designed” for a military use, as follows, and “parts,” “components,” “accessories,” and “attachments” “specially designed” therefor:

- y.1. Aircraft tires;
- y.2. Analog gauges and indicators;
- y.3. Audio selector panels;
- y.4. Check valves for hydraulic and pneumatic systems;
- y.5. Crew rest equipment;
- y.6. Ejection seat mounted survival aids;
- y.7. Energy dissipating pads for cargo (for pads made from paper or cardboard);
- y.8. Fluid filters and filter assemblies;
- y.9. Galleys;
- y.10. Fluid hoses, straight and unbent lines (for a commodity subject to control in this entry or defense article in USML Category VIII), and fittings, couplings, clamps (for a commodity subject to control in this entry or defense article in USML Category VIII) and brackets therefor;
- y.11. Lavatories;
- y.12. Life rafts;
- y.13. Magnetic compass, magnetic azimuth detector;
- y.14. Medical litter provisions;
- y.15. Cockpit or cabin mirrors;

- y.16. Passenger seats including palletized seats;
- y.17. Potable water storage systems;
- y.18. Public address (PA) systems;
- y.19. Steel brake wear pads (does not include sintered mix or carbon/carbon materials);
- y.20. Underwater locator beacons;
- y.21. Urine collection bags/pads/cups/pumps;
- y.22. Windshield washer and wiper systems;
- y.23. Filtered and unfiltered panel knobs, indicators, switches, buttons, and dials;
- y.24. Lead-acid and Nickel-Cadmium batteries;
- y.25. Propellers, propeller systems, and propeller blades used with reciprocating engines;
- y.26. Fire extinguishers;
- y.27. Flame and smoke/CO<sub>2</sub> detectors;
- y.28. Map cases;
- y.29. ‘Military Aircraft’ that were first manufactured from 1946 to 1955 that do not incorporate defense articles enumerated or otherwise described on the U.S. Munitions List, unless the items are required to meet safety or airworthiness standards of a Wassenaar Arrangement Participating State; and do not incorporate weapons enumerated or otherwise described on the U.S. Munitions List, unless inoperable and incapable of being returned to operation;
- y.30. “Parts,” “components,” “accessories,” and “attachments,” other than electronic items or navigation equipment, for use in or with a commodity controlled by ECCN 9A610.h;
- y.31. Identification plates and nameplates; *and*

y.32. Fluid manifolds.

**\*\*9A619 Military gas turbine engines and related commodities (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry except 9A619.y	NS Column 1
RS applies to entire entry except 9A619.y	RS Column 1
RS applies to 9A619.y.	China, Russia or Venezuela (see § 742.6(a)(7)).
AT applies to entire entry	AT Column 1
UN applies to entire entry except 9A619.y	See § 746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: \$1,500

GBS: N/A

**Special Conditions for STA**

**STA:** Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in ECCN 9A619.

**List of Items Controlled**

*Related Controls:* (1) Military gas turbine engines and related articles that are enumerated or otherwise described in USML Category XIX, and technical data (including software) directly related thereto, are subject to the jurisdiction of the

International Traffic in Arms Regulations (ITAR). (2) Gas turbine engines designated 501-D22 are controlled in ECCN 9A991.d regardless of the aircraft type into which they will be installed. (3) See ECCN 0A919 for foreign-made “military commodities” that incorporate more than a de minimis amount of U.S.-origin “600 series” controlled content. (4) “Parts,” “components,” “accessories,” and “attachments” specified in USML Category XIX(f) are subject to the controls of that paragraph. (5) “Parts,” “components,” “accessories,” and “attachments” specified in ECCN 9A619.y are subject to the controls of that paragraph.

*Related Definitions:* In paragraph .y of this entry, the term ‘fluid’ includes liquids and gases.

*Items:*

a. “Military Gas Turbine Engines” “specially designed” for a military use that are not controlled in USML Category XIX(a), (b), (c), or (d).

*Note:* For purposes of ECCN 9A619.a, the term “military gas turbine engines” means gas turbine engines “specially designed” for “end items” enumerated in USML Categories VI, VII or VIII or on the CCL under ECCNs 0A606, 8A609 or 9A610.

b. Digital engine controls (e.g., Full Authority Digital Engine Controls (FADEC) and Digital Electronic Engine Controls (DEEC)) “specially designed” for gas turbine engines controlled in this ECCN 9A619.

c. If “specially designed” for gas turbine engines controlled in 9A619.a, hot section components (i.e., combustion chambers and liners; high pressure turbine blades, vanes, disks and related cooled structure; cooled low pressure turbine blades, vanes, disks and related cooled structure; cooled augmenters; and cooled nozzles);

d. If “specially designed” for gas turbine engines controlled in 9A619.a, uncooled turbine blades, vanes, disks, and tip shrouds;

e. If “specially designed” for gas turbine engines controlled in 9A619.a, combustor cowls, diffusers, domes, and shells;

f. Engine monitoring systems (i.e., those that conduct prognostics, diagnostics, and monitor health) “specially designed” for gas turbine engines and components controlled in this ECCN 9A619.

g. through w. [RESERVED]

**x.** Parts,” “components,” “accessories,” and “attachments” that are “specially designed” for a commodity controlled by this ECCN 9A619 (other than ECCN 9A619.c) or for a defense article enumerated in USML Category XIX and not specified elsewhere on the USML or in ECCN 3A611.y, 9A610.y or 9A619.y.

*Note to paragraph .x:* “Parts,” “components,” “accessories,” and “attachments” specified in USML subcategory XIX(f) are subject to the controls of that paragraph. “Parts,” “components,” “accessories,” and “attachments” specified in ECCN 3A611.y, 9A610.y or 9A619.y are subject to the controls of that paragraph.

**y.** Specific “parts,” “components,” “accessories,” and “attachments” “specially designed” for a commodity subject to control in this entry, ECCN 9A610, or for a defense article in USML Category VIII or Category XIX and not elsewhere specified on the USML or in the CCL, and other commodities, as follows, and “parts,” “components,” “accessories,” and “attachments” “specially designed” therefor:

y.1. Oil tank and reservoirs;

y.2. Oil lines and tubes;

y.3. Fluid hoses, and lines (for a commodity subject to control in this entry or a defense article in USML Category XIX), fittings, couplings, and brackets therefor;

y.4. Fluid filters and filter assemblies;

y.5. Clamps (for a commodity subject to control in this entry or a defense article in USML Category XIX);

y.6. Shims;

y.7. Identification plates and nameplates;

y.8. Fluid manifolds; and

y.9. Check valves for fluid systems.

**\*\*9A620** Cryogenic and “superconductive” equipment, as follows (see list of items controlled).

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 1
RS applies to entire entry	RS Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry	See §746.1(b) for UN controls

**List Based License Exceptions** (see Part 740 for a description of all license exceptions)

LVS: \$1500.

GBS: N/A

**Special Conditions for STA**

STA: Paragraph (c)(2) of License Exception STA (§740.20(c)(2) of the

EAR) may not be used for any item in 9A620.

**List of Items Controlled**

*Related Controls:* Electronic items that are enumerated in USML Category XI or other USML categories, and technical data (including software) directly related thereto, are subject to the ITAR.

*Related Definitions:* N/A

*Items:*

a. Equipment “specially designed” to be installed in a vehicle for military ground, marine, airborne, or space applications, and capable of operating while in motion and of producing or maintaining temperatures below 103 K (–170 °C).

*Note to 9A620.a:* ECCN 9A620.a includes mobile systems incorporating or employing “accessories” or “components” manufactured from non-metallic or non-electrical conductive materials such as plastics or epoxy-impregnated materials.

b. “Superconductive” electrical equipment (rotating machinery and transformers) “specially designed” to be installed in a vehicle for military ground, marine, airborne, or space applications, and capable of operating while in motion.

c. through w. [Reserved].

x. “Parts,” “components,” “accessories” and “attachments” that are “specially designed” for a commodity controlled by ECCN 9A620.

*Note to 9A620.b:* Forgings, castings, and other unfinished products, such as extrusions and machined bodies, that have reached a stage in manufacture where they are clearly identifiable by mechanical properties, material composition, geometry, or function as commodities controlled by ECCN 9A620.x are controlled by ECCN 9A620.x.

**\*\*9A980 Nonmilitary mobile crime science laboratories; and parts and “accessories,” n.e.s.**

*Heading Note:* In order for a vehicle to be classified as a nonmilitary mobile crime scene laboratory under ECCN 9A980, the vehicle must contain one or more analytical or laboratory items controlled for Crime Control (CC) reasons on the CCL, such as ECCNs 3A980 and 3A981.

**License Requirements**

*Reason for Control:* CC

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738).</i>
CC applies to entire entry	CC Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*9A990 Diesel engines, n.e.s., and tractors and “specially designed” “parts” and “components” therefor, n.e.s. (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country</i>
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	<i>Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry except 9A990.a.	AT Column 1
AT applies to 9A990.a only.	AT Column 2

	<i>to part 738)</i>
AT applies to entire entry	AT Column 1
UN applies to 9A991.a.	See § 746.1(b) for UN controls.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
GBS: N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

- a. Diesel engines, n.e.s., for trucks, tractors, and automotive applications of continuous brake horsepower of 400 BHP (298 kW) or greater (performance based on SAE J1349 standard conditions of 100 Kpa and 25°)
- b. Off highway wheel tractors of carriage capacity 9 mt (20,000 lbs) or more; and major “components” and “accessories,” n.e.s.
- c. On-Highway tractors, with single or tandem rear axles rated for 9 mt per axel (20,000 lbs.) or greater and “specially designed” major “components”.

**\*\*9A991** “Aircraft”, n.e.s., and gas turbine engines not controlled by 9A001 or 9A101 and “parts” and “components,” n.e.s. (see List of Items Controlled).

**License Requirements**

*Reason for Control:* AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1</i>
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**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
GBS: N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

a. Military aircraft, demilitarized (not specifically equipped or modified for military operation), as follows:

a.1 Cargo aircraft bearing “C” designations and numbered C-45 through C-118 inclusive, C-121 through C-125 inclusive, and C-131, using reciprocating engines only.

a.2 Trainer aircraft bearing “T” designations and using reciprocating engines or turboprop engines with less than 600 horsepower (s.h.p.).

a.3 Utility aircraft bearing “U” designations and using reciprocating engines only.

a.4 All liaison aircraft bearing an “L” designation.

a.5 All observation aircraft bearing “O” designations and using reciprocating engines.

b. Aircraft n.e.s.;

c. Aero gas turbine engines, and “parts” and “components” “specially designed” therefor.

*Note:* 9A991.c does not control aero gas turbine engines that are destined for use in civil “aircraft” and that have been in use in bona fide

civil “aircraft” for more than eight years. If they have been in use in bona fide civil “aircraft” for more than eight years, such engines are controlled under 9A991.d.

d. “Parts” and “components,” “specially designed” for “aircraft,” n.e.s.

e. Pressurized aircraft breathing equipment, n.e.s.; and “parts” and “components” “specially designed” therefor, n.e.s.

**\*\*9A992** Complete canopies, harnesses, and platforms and electronic release mechanisms therefor, except such types as are in normal sporting use.

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No.1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A

*GBS:* N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**B. TEST, INSPECTION AND “PRODUCTION EQUIPMENT”**

**\*\*9B001** Manufacturing equipment, tooling or fixtures, as follows (See List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No.1 to part 738)</i>
NS applies to entire entry	NS Column 1
MT applies to equipment for engines controlled under 9A001 for MT reasons and for engines controlled under 9A101	MT Column 1
AT applies to entire entry	AT Column 1

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$5000, except N/A for MT

*GBS:* Yes, except N/A for MT

**Special Conditions for STA**

*STA:* License Exception STA may not be used to ship commodities in 9B001 to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

**List of Items Controlled**

*Related Controls:* For “specially designed” production equipment of systems, sub-systems, “parts” and “components” controlled by [9A005](#) to [9A009](#), [9A011](#), [9A101](#), [9A105](#) to [9A109](#), [9A111](#), and [9A116](#) to [9A119](#) usable in “missiles” see [9B115](#). See also [9B991](#).

*Related Definitions:* N/A

*Items:*

- a. Directional solidification or single crystal casting equipment designed for “superalloys”;
- b. Casting tooling, “specially designed” for manufacturing gas turbine engine blades, vanes or “tip shrouds”, manufactured from refractory metals or ceramics, as follows:
  - b.1. Cores;
  - b.2. Shells (moulds);
  - b.3. Combined core and shell (mould) units;
- c. Directional-solidification or single-crystal additive-manufacturing equipment, “specially designed” for manufacturing gas turbine engine blades, vanes or “tip shrouds”.

**\*\*9B002** On-line (real time) control systems, instrumentation (including sensors) or automated data acquisition and processing equipment, having all of the following (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
MT applies to equipment	MT Column 1

for engines controlled under 9A001 for MT reasons and for engines controlled under 9A101	
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$3000, except N/A for MT

*GBS:* Yes, except N/A for MT

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

- a. “Specially designed” for the “development” of gas turbine engines, assemblies, “parts” or “components”; *and*
- b. Incorporating any of the “technologies” controlled by 9E003.h or 9E003.i.

**\*\*9B003** Equipment “specially designed” for the “production” or test of gas turbine brush seals designed to operate at tip speeds exceeding 335 m/s, and temperatures in excess of 773 K (500°C), and “specially designed” “components” or “accessories” therefor.

**License Requirements**

*Reason for Control:* NS, MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
MT applies to equipment for engines controlled under 9A001 for MT reasons and for engines controlled under 9A101	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: \$5000, except N/A for MT  
 GBS: Yes, except N/A for MT

**List of Items Controlled**

Related Controls: See also [9B115](#)  
 Related Definitions: N/A  
 Items:

The list of items controlled is contained in the ECCN heading.

**\*\*9B004** Tools, dies or fixtures, for the solid state joining of “superalloy”, titanium or intermetallic airfoil-to-disk combinations described in 9E003.a.3 or 9E003.a.6 for gas turbines.

**License Requirements**

Reason for Control: NS, MT, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 1
MT applies to equipment for engines controlled under 9A001 for MT reasons and for engines controlled under 9A101	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: \$3000, except N/A for MT  
 GBS: Yes, except N/A for MT

**List of Items Controlled**

Related Controls: N/A  
 Related Definitions: N/A  
 Items:

The list of items controlled is contained in the ECCN heading.

**\*\*9B005** On-line (real time) control systems, instrumentation (including sensors) or automated data acquisition and processing equipment, “specially designed” for use with any of the following (see List of Items Controlled).

**License Requirements**

Reason for Control: NS, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
 GBS: N/A

**List of Items Controlled**

Related Controls: See also [9B105](#)  
 Related Definitions: N/A  
 Items:

a. Wind tunnels designed for speeds of Mach 1.2 or more;

*Note: 9B005.a does not control wind tunnels “specially designed” for educational purposes and having a ‘test section size’ (measured laterally) of less than 250 mm.*

*Technical Note: ‘Test section size’ in 9B005.a means the diameter of the circle, or the*

side of the square, or the longest side of the rectangle, at the largest test section location.

b. Devices for simulating flow-environments at speeds exceeding Mach 5, including hot-shot tunnels, plasma arc tunnels, shock tubes, shock tunnels, gas tunnels and light gas guns; *or*

c. Wind tunnels or devices, other than two-dimensional sections, capable of simulating Reynolds number flows exceeding  $25 \times 10^6$ .

**\*\*9B006** Acoustic vibration test equipment capable of producing sound pressure levels of 160 Db or more (referenced to 20 μPa) with a rated output of 4 kW or more at a test cell temperature exceeding 1,273 K (1,000°C), and “specially designed” quartz heaters therefor.

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$3000  
*GBS:* Yes

**List of Items Controlled**

*Related Controls:* See also [9B106](#). Note that some items in [9B006](#) may also be controlled under [9B106](#).

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*9B007** Equipment “specially designed” for inspecting the integrity of rocket motors and using Non-Destructive Test (NDT) techniques other than planar x-ray or basic physical or chemical analysis.

**License Requirements**

*Reason for Control:* NS, MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*9B008** Direct measurement wall skin friction transducers “specially designed” to operate at a test flow total (stagnation) temperature exceeding 833 K (560°C).

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1</i>
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	<i>to part 738)</i>
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: \$5000  
 GBS: N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*9B009** Tooling “specially designed” for producing gas turbine engine powder metallurgy rotor “parts” or “components” having all of the following (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 2
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: \$5000  
 GBS: N/A

**List of Items Controlled**

*Related Controls:* See 9B002.  
*Related Definitions:* N/A  
*Items:*

- a. Designed to operate at stress levels of 60% of Ultimate Tensile Strength (UTS) or more measured at a temperature of 873 K (600°C); *and*
- b. Designed to operate at a temperature of 873 K (600°C) or more.

*Note:* 9B009 does not specify tooling for the production of powder.

**\*\*9B010** Equipment “specially designed” for the production of items specified by 9A012.

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
 GBS: N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*9B104** ‘Aerothermodynamic test facilities’, usable for rockets, missiles, or unmanned aerial vehicles capable of achieving a “range” equal to or greater than 300 km and their subsystems, and having an electrical power supply equal to or greater than 5 MW or a gas

**supply total pressure equal to or greater than 3 MPa.**

MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**License requirements**

*Reasons for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* See ECCNs 9D101, 9E001 and 9E002.

*Related Definitions:* ‘Aerothermodynamic test facilities’ include plasma arc jet facilities and plasma wind tunnels for the study of thermal and mechanical effects of airflow on objects.

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*9B105** ‘Aerodynamic test facilities’ for speeds of Mach 0.9 or more, usable for rockets, missiles, or unmanned aerial vehicles capable of achieving a “range” equal to or greater than 300 km and their subsystems.

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
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**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* See also [9B005](#)

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

*Note:* 9B105 does not control wind tunnels for speeds of Mach 3 or less with the dimension of the ‘test cross section size’ equal to or less than 250 mm.

**Technical Notes:**

1. ‘Aerodynamic test facilities’ includes wind tunnels and shock tunnels for the study of airflow over objects.

2. ‘Test cross section size’ means the diameter of the circle, or the side of the square, or the longest side of the rectangle, or the major axis of the ellipse at the largest ‘test cross section’ location. ‘Test cross section’ is the section perpendicular to the flow direction.

**\*\*9B106** Environmental chambers usable for rockets, missiles, or unmanned aerial vehicles capable of achieving a “range” equal to or greater than 300 km and their subsystems, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A  
GBS: N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

a. Environmental chambers having all of the following characteristics:

a.1. Capable of simulating any of the following flight conditions:

a.1.a. Altitude equal to or greater than 15,000 m; or

a.1.b. Temperature range from below -50° C to above 125° C; and

a.2. Incorporating, or designed or modified to incorporate, a shaker unit or other vibration test equipment to produce vibration environments equal to or greater than 10 g rms, measured ‘bare table,’ between 20 Hz and 2 kHz while imparting forces equal to or greater than 5 kN;

**Technical Notes:**

1. *Item 9B106.a.2 describes systems that are capable of generating a vibration environment with a single wave (e.g., a sine wave) and systems capable of generating a broad band random vibration (i.e., power spectrum).*

2. *The term ‘bare table’ means a flat table, or surface, with no fixture or fittings.*

3. *In Item 9B106.a.2, designed or modified means the environmental chamber provides appropriate interfaces (e.g., sealing devices) to incorporate a shaker unit or other vibration test equipment as specified in this Item.*

b. Environmental chambers capable of simulating all of the following flight conditions:

b.1. Acoustic environments at an overall sound pressure level of 140 dB or greater (referenced to 2 x 10<sup>-5</sup> N/m<sup>2</sup>) or with a total rated acoustic power output of 4kW or greater; and

b.2. Any of the following:

b.2.a. Altitude equal to or greater than 15,000 m; or

b.2.b. Temperature range of at least -50° C to +125° C.

**\*\*9B115** “Specially designed” “production equipment” for systems, sub-systems, and “components” controlled by ECCN 9A101 or by USML Category IV(d)(2), (d)(3), (d)(4), or (h)(17).

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A

GBS: N/A

a description of all license exceptions)

**List of Items Controlled**

*Related Controls:* (1) Although items described in USML Category IV(d)(2), (d)(3), (d)(4) or h(17) are “subject to the ITAR” (see 22 CFR parts 120 through 130), the production “equipment” controlled in this entry that is related to these items is subject to the export licensing authority of BIS. (2) “Specially designed” production “equipment” for systems, sub-systems, and “components” described in USML Category IV(d)(1), (d)(7), (h)(1), (h)(4), (h)(6), (h)(7), (h)(8), (h)(9), (h)(11), (h)(20), (h)(21), (h)(26), or (h)(28) are controlled by ECCN 9B604. (3) See ECCN 0A919 for foreign-made “military commodities” that incorporate more than a *de minimis* amount of US-origin “600 series” controlled content.

*Related Definitions:* NA.

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*9B116** “Specially designed” “production facilities” for the systems, sub-systems, “parts” and “components” controlled ECCN 9A012 (applies to MT-controlled items only) or 9A101 or by USML Category IV(d)(2), (d)(3), (d)(4), or (h)(17).

**License Requirements**

*Reason for Control:* MT, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for

LVS: N/A

GBS: N/A

**List of Items Controlled**

*Related Controls:* (1) Although items described in USML Category IV(d)(2), (d)(3), (d)(4), or (h)(17) are “subject to the ITAR” (see 22 CFR parts 120 through 130), the “production facilities” controlled in this entry that are related to these items are subject to the export licensing authority of BIS. (2) “Specially designed” “production facilities” for systems, sub-systems, and “components” described in USML Category IV(d)(1), (d)(7), (h)(1), (h)(4), (h)(6), (h)(7), (h)(8), (h)(9), (h)(11), (h)(20), (h)(21), (h)(26), or (h)(28) are controlled by ECCN 9B604. (3) See ECCN 0A919 for foreign-made “military commodities” that incorporate more than a *de minimis* amount of US-origin “600 series” controlled content.

*Related Definitions:* NA

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*9B117** Test benches and test stands for solid or liquid propellant rockets, motors or rocket engines, having either of the following characteristics (see List of Items Controlled).

**License Requirements**

*Reason for Control:* MT, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: N/A

GBS: N/A

**List of Items Controlled**

*Related Controls:* See also [9B990](#)

*Related Definitions:* N/A

*Items:*

- a. The capacity to handle solid or liquid propellant rocket motors or rocket engines having a thrust greater than 68 kN; *or*
- b. Capable of simultaneously measuring the three axial thrust components.

**\*\*9B515** Test, inspection, and production “equipment” “specially designed” for “spacecraft” and related commodities, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, RS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
MT applies to equipment in 9B515.a for the “development” or “production” of commodities in USML Category XV(e)(12) and XV(e)(19) that are MT controlled.	MT Column 1
RS applies to entire entry	RS Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: \$1500; \$5000 for 9B515.b

GBS: N/A

**Special Conditions for STA**

*STA:* Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in 9B515.

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

- a. Test, inspection, and production “equipment” “specially designed” for the “production” or “development” of commodities enumerated in ECCNs 9A004.u, 9A515.a, or USML Category XV(a) or XV(e).

*Note:* ECCN 9B515.a includes equipment, cells, and stands “specially designed” for the analysis or isolation of faults in commodities enumerated in ECCNs 9A004.u or 9A515.a, or USML Category XV(a) or XV(e).

- b. Environmental test chambers capable of pressures below (10<sup>-4</sup>) Torr, and “specially designed” for commodities enumerated in 9A515.a or USML Category XV(a).

**\*\*9B604** Test, inspection, and production “equipment” and related commodities “specially designed” for the “development,” “production,” repair, overhaul, or refurbishing of commodities in ECCN 9A604 or related defense articles in USML Category IV (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, RS, MT, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
RS applies to entire entry	RS Column 1
MT applies to 9B604.a and .b and to 9B604.d “specially designed” “production facilities” or production “equipment” for defense articles identified as MTCR Annex items in USML Category IV(d)(1), (h)(1), (h)(4), (h)(6), (h)(7), (h)(8), (h)(9), (h)(11), (h)(20), (h)(21), or (h)(26).	MT Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry	See § 746.1(b) for UN controls

described in ECCN 9A101 or in USML Category IV(d)(2), (d)(3), (d)(4), or (h)(17) are controlled by ECCN 9B115. (3) See ECCN 0A919 for foreign-made “military commodities” that incorporate more than a *de minimis* amount of US-origin “600 series” controlled content.

*Related Definitions:* N/A

*Items:*

a. “Production facilities” “specially designed” for items that are controlled by USML Category IV(a)(1) or (a)(2).

b. Test, calibration, and alignment equipment “specially designed” for items that are controlled by USML Category IV(h)(28).

c. Test, inspection, and other production “equipment” that is “specially designed” for the “development,” “production,” repair, overhaul, or refurbishing of commodities described in ECCN 9A604, or defense articles controlled under USML Category IV, and not specified in ECCN 0B604.a or in ECCN 9B604.a, .b, or .d.

d. “Specially designed” “production facilities” or production “equipment” for systems, sub-systems, and “components” controlled by USML Category IV(d)(1), (d)(7), (h)(1), (h)(4), (h)(6), (h)(7), (h)(8), (h)(9), (h)(11), (h)(20), (h)(21), (h)(26), or (h)(28).

e. through w. [Reserved]

x. “Parts,” “components,” “accessories,” and “attachments” that are “specially designed” for a commodity subject to control in paragraph .a or .b of this ECCN.

**\*\*9B610** Test, inspection, and production “equipment” and related commodities “specially designed” for the “development” or “production” of commodities enumerated or otherwise described in ECCN 9A610 or USML Category VIII (see List of Items Controlled).

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$1,500

*GBS:* N/A

**Special Conditions for STA**

*STA:* Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in this ECCN 9B604.

**List of Items Controlled**

*Related Controls:* (1) “Production facilities” for the “production” or “development” of commodities enumerated or otherwise described in ECCN 9A012 or 9A101 or in USML Category IV(d)(2), (d)(3), (d)(4), or (h)(17) are controlled by ECCN 9B116. (2) Test, inspection, and other production “equipment” “specially designed” for the “production” or “development” of commodities enumerated or otherwise

**License Requirements**

*Reason for Control:* NS, RS, MT, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry except 9B610.c.	NS Column 1
RS applies to entire entry	RS Column 1
MT applies to 9B610.c.	MT Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry	See §746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

LVS: \$1500  
 GBS: N/A

**Special Conditions for STA**

*STA:* Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in 9B610.

**List of Items Controlled**

*Related Controls:* USML Category VIII(h)(1) controls “parts,” “components,” “accessories,” and “attachments” “specially designed” for the aircraft enumerated or otherwise described in Category VIII(h)(1), but does not control the commodities enumerated or otherwise described in ECCN 9B610. USML Category VIII(h)(2)-(28) controls other aircraft “parts,” “components,” “accessories,” “attachments,” and “systems.”

*Related Definitions:* N/A  
*Items:*

a. Test, inspection, and production “equipment” “specially designed” for the “production,” “development,” operation, installation, maintenance, repair, overhaul, or refurbishing of commodities enumerated or otherwise described in ECCN 9A610 (except 9A610.y) or USML Category VIII, and “parts,” “components,” “accessories,” and “attachments” “specially designed” therefor.”

b. Environmental test facilities “specially designed” for the certification, qualification, or testing of commodities enumerated or otherwise described in ECCN 9A610 (except for 9A610.y) or USML Category VIII and “parts,” “components,” “accessories,” and “attachments” “specially designed” therefor.

c. “Production facilities” designed or modified for UAVs or drones that are (i) controlled by either USML paragraph VIII(a) or ECCN 9A610.a and (ii) capable of a range equal to or greater than 300 km.

**\*\*9B619 Test, inspection, and production “equipment” and related commodities “specially designed” for the “development” or “production” of commodities enumerated or otherwise described in ECCN 9A619 or USML Category XIX (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry except 9B619.y.	NS Column 1
RS applies to entire entry except 9B619.y.	RS Column 1
RS applies to 9B619.y.	China, Russia or Venezuela (see § 742.6(a)(7)).
AT applies to entire entry	AT Column 1

UN applies to entire entry except 9B619.y.	See § 746.1(b) for UN controls
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**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$1,500  
*GBS:* N/A

**Special Conditions for STA**

*STA:* Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in ECCN 9B619.

**List of Items Controlled**

*Related Controls:* USML Category XIX(f)(1) controls “parts,” “components,” “accessories,” and “attachments” “specially designed” for the engines described in Category XIX(f)(1), but does not control the commodities enumerated or otherwise described in ECCN 9B619. USML Category XIX(f)(2)-(11) controls other engine “parts,” “components,” “accessories,” “attachments,” and “systems.”

*Related Definitions:* N/A  
*Items:*

a. Test, inspection, and production “equipment” “specially designed” for the “production,” “development,” operation, installation, maintenance, repair, overhaul, or refurbishing of commodities enumerated or otherwise described in ECCN 9A619 (except for 9A619.y) or in USML Category XIX, and “parts,” “components,” “accessories,” and “attachments” “specially designed” therefor.

b. Equipment, cells, or stands “specially designed” for testing, analysis and fault isolation of engines, “systems,” “components,” “parts,” “accessories,” and “attachments” enumerated or otherwise described in ECCN 9A619 (except for

9A619.y) on the CCL or in Category XIX on the USML.

c. through x. [Reserved]

y. Bearing pullers “specially designed” for the - “production” or “development” of commodities enumerated or otherwise described in ECCN 9A619 (except for 9A619.y) or USML Category XIX and “parts,” “components,” “accessories,” and “attachments” “specially designed” therefor.

**\*\*9B620** Test, inspection, and production commodities for cryogenic and “superconductive” equipment (see List of Items controlled).

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
RS applies to entire entry	RS Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry	See §746.1(b) for UN controls

**List Based License Exceptions** (see Part 740 for a description of all license exceptions)

*LVS:* \$1500.  
*GBS:* N/A

**Special Conditions for STA**

*STA:* Paragraph (c)(2) of License Exception STA (§740.20(c)(2) of the EAR) may not be used for any item in 9B620.

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

a. Test, inspection, and production end items and equipment “specially designed” for the “development,” “production,” repair, overhaul or refurbishing of items controlled in ECCN 9A620.

b. [Reserved]

**\*\*9B990** Vibration test equipment and “specially designed” “parts” and “components,” n.e.s.

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No.1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*9B991** “Specially designed” “equipment,” tooling or fixtures, not controlled by 9B001, for manufacturing or measuring gas turbine blades, vanes or tip shroud castings, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

- a. Automated equipment using non-mechanical methods for measuring airfoil wall thickness;
- b. Tooling, fixtures or measuring equipment for the “laser”, water jet or ECM/EDM hole drilling processes controlled by 9E003.c;
- c. Ceramic core leaching equipment;
- d. Ceramic core manufacturing equipment or tools;
- e. Ceramic shell wax pattern preparation equipment;
- f. Ceramic shell burn out or firing equipment.

**C. “MATERIALS”**

**\*\*9C110** Resin impregnated fiber prepregs and metal coated fiber preforms therefor, for composite structures, laminates and manufactures specified in 9A110, made either with organic matrix or metal matrix utilizing fibrous or filamentary reinforcements having a “specific tensile strength” greater than 7.62

x 10<sup>4</sup> m and a “specific modulus” greater than 3.18 x 10<sup>6</sup> m.

**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* N/A  
*GBS:* N/A

**List of Items Controlled**

*Related Controls:* (1) See also 1C010 and 1C210.c. (2) The only resin impregnated fiber preregs controlled by entry [9C110](#) are those using resins with a glass transition temperature (T<sub>g</sub>), after cure, exceeding 418 K (145 °C) as determined by ASTM D4065 or national equivalents.

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*9C610** Materials “specially designed” for commodities controlled by USML Category VIII or ECCN 9A610 and not elsewhere specified in the CCL or the USML (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1</i>
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	<i>to part 738)</i>
NS applies to entire entry	NS Column 1
RS applies to entire entry	RS Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry	See § 746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$1500  
*GBS:* N/A

**Special Conditions for STA**

*STA:* Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in 9C610.

**List of Items Controlled**

*Related Controls:* USML subcategory XIII(f) controls structural materials specifically designed, developed, configured, modified, or adapted for defense articles, such as USML subcategory VIII(a) aircraft. See ECCN 0A919 for foreign made “military commodities” that incorporate more than a *de minimis* amount of U.S.-origin “600 series” controlled content.

*Related Definitions:* N/A

*Items:*

a. Materials not elsewhere specified in the USML or the CCL and “specially designed” for commodities enumerated or otherwise described in USML Category VIII or ECCN 9A610 (except 9A610.y).

*Note 1:* Materials enumerated elsewhere in the CCL, such as in a CCL Category 1 ECCN, are controlled pursuant to controls of the applicable ECCN.

*Note 2:* Materials “specially designed” for both aircraft enumerated in USML Category VIII

and aircraft enumerated in ECCN 9A610 are subject to the controls of this ECCN.

b. [Reserved]

**\*\*9C619** Materials “specially designed” for commodities controlled by USML Category XIX or ECCN 9A619 and not elsewhere specified in the CCL or on the USML (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
RS applies to entire entry	RS Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry	See § 746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*LVS:* \$1,500

*GBS:* N/A

**Special Conditions for STA**

*STA:* Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in ECCN 9C619.

**List of Items Controlled**

*Related Controls:* (1) See USML subcategory XIII(f) for controls on structural materials specifically designed, developed, configured, modified, or adapted for defense articles, such as USML Category XIX engines. (2) See ECCN 0A919 for foreign made “military

commodities” that incorporate more than a *de minimis* amount of U.S.-origin “600 series” controlled content.

*Related Definitions:* N/A

*Items:*

a. Materials not controlled by paragraph .b of this entry and not elsewhere specified in the CCL or on the USML, and “specially designed” for commodities enumerated or otherwise described in USML Category XIX or ECCN 9A619 (except 9A619.y).

b. Materials “specially designed” for use in certain gas turbine engines, as follows:

b.1. Powders “specially designed” for thermal or environmental barrier coating of defense articles enumerated or described in USML Category XIX paragraphs (f)(1) – (f)(4) for engines listed in (f)(1);

b.2. Superalloys (i.e., nickel, cobalt or iron based), used in directionally solidified or single crystal casting, “specially designed” for defense articles enumerated or described in USML Category XIX paragraphs (f)(1) – (f)(4) for engines listed in paragraph (f)(1); *or*

b.3. Imide matrix, metal matrix, or ceramic matrix composite material (i.e., reinforcing fiber combined with a matrix) “specially designed” for defense articles enumerated or described in USML Category XIX paragraphs (f)(1) – (f)(4) for engines listed in paragraph (f)(1).

*Note 1:* Materials enumerated elsewhere in the CCL, such as in a CCL Category 1 ECCN, are controlled pursuant to the controls of the applicable ECCN.

*Note 2:* Materials described in paragraph .a of this entry that are “specially designed” for both an engine enumerated in USML Category XIX and an engine enumerated in ECCN 9A619 are subject to the controls of this ECCN 9C619.

*Note 3: Materials described in this entry that are or have been used in gas turbine engines in production (i.e., not in development) that are not enumerated or otherwise described on the USML or ECCN 9A619 are not controlled by this entry.*

**D. “SOFTWARE”**

**\*\*9D001** “Software”, not specified in 9D003 or 9D004, “specially designed” or modified for the “development” of equipment or “technology” controlled by ECCN 9A001 to 9A004, 9A012, 9A101 (except for items in 9A101.b that are “subject to the ITAR,” see 22 CFR part 121), 9A106.d. or .e, 9A110, or 9A120, 9B (except for ECCNs 9B604, 9B610, 9B619, 9B990, and 9B991), or ECCN 9E003.

**License Requirements**

*Reason for Control:* NS, MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to “software” for equipment controlled by 9A001 to 9A004, 9A012, 9B001 to 9B010, and technology controlled by 9E003.	NS Column 1
MT applies to “software” for equipment controlled by 9B116 for MT reasons.	MT Column 1
AT applies to entire entry	AT Column 1

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**Special Conditions for STA**

*STA:* License Exception STA may not be used to ship or transmit “software” “specially designed” or modified for the “development” of equipment or “technology”, specified by ECCNs 9B001.b. or 9E003.a.1, 9E003.a.2 to a.5, 9E003.a.8, or 9E003.h to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

**List of Items Controlled**

*Related Controls* “Software” that is “required” for the “development” of items specified in ECCNs 9A005 to 9A011, 9A101.b (except for items that are subject to the EAR), 9A103 to 9A105, 9A106.a, .b, and .c, 9A107 to 9A109, 9A110 (for items that are “specially designed” for use in missile systems and subsystems), and 9A111 to 9A119 is “subject to the ITAR.”

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*9D002** “Software”, not specified in 9D003 or 9D004, “specially designed” or modified for the “production” of equipment controlled by ECCN 9A001 to 9A004, 9A012, 9A101 (except for items in 9A101.b that are “subject to the ITAR,” see 22 CFR part 121), 9A106.d or .e, 9A110, or 9A120, 9B (except for ECCNs 9B604, 9B610, 9B619, 9B990, and 9B991).

**License Requirements**

*Reason for Control:* NS, MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to “software” for equipment controlled by 9A001 to 9A004, 9A012, 9B001 to 9B010.	NS Column 1
MT applies to “software” for equipment controlled by 9B116 for MT reasons.	MT Column 1
AT applies to entire entry	AT Column 1

that are “specially designed” for use in missile systems and subsystems), and 9A111 to 9A119 is “subject to the ITAR.”

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*9D003** “Software” incorporating “technology” specified by ECCN 9E003.h and used in “FADEC Systems” for systems controlled by ECCN 9A001 to 9A003, 9A101 (except for items in 9A101.b that are “subject to the ITAR”, see 22 CFR part 121), 9A106.d or .e, or 9B (except for ECCNs 9B604, 9B610, 9B619, 9B990, and 9B991).

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

**License Requirements**

*Reason for Control:* NS, MT, AT

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A.

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to “software” for “use” of “FADEC systems” for equipment controlled by 9A001 to 9A003	NS Column 1
MT applies to “software” required for the “use” of “FADEC systems” for gas turbine engines controlled by 9A101, or 9A106.	MT Column 1
AT applies to entire entry	AT Column 1

**Special Conditions for STA**

*STA:* License Exception STA may not be used to ship or transmit “software” “specially designed” or modified for the “production” of equipment specified by 9B001.b to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* Yes, except N/A for MT

**List of Items Controlled**

*Related Controls:* “Software” that is “required” for the “production” of items specified in ECCNs 9A005 to 9A011, 9A101.b (except for items that are subject to the EAR), 9A103 to 9A105, 9A106.a, .b, and .c, 9A107 to 9A109, 9A110 (for items

**List of Items Controlled**

*Related Controls:* (1) See also [9D103](#). (2) “Software” “required” for the “use” of equipment specified in ECCNs 9A004 (except for items that are subject to the EAR), 9A005 to 9A011, 9A101.b (except for items that are subject to the EAR), 9A103 to 9A105, 9A106.a, .b, and .c, 9A107 to 9A109, 9A110 (for items that are “specially designed” for use in missile systems and subsystems), and 9A111 to 9A119 is “subject to the ITAR” (see 22 CFR parts 120 through 130). (3) “Software” directly related to defense articles that are “subject to the ITAR” (see 22 CFR parts 120 through 130) is also “subject to the ITAR” (see 22CFR parts 120 through 130).

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*9D004 Other “software” as follows (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A.

**Special Conditions for STA**

*STA:* License Exception STA may not be used to ship or transmit software in 9D004.a and 9D004.c to any of the

destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR)

**List of Items Controlled**

*Related Controls:* See also 9D104.

*Related Definitions:* N/A

*Items:*

a. 2D or 3D viscous “software”, validated with wind tunnel or flight test data required for detailed engine flow modelling;

b. “Software” for testing aero gas turbine engines, assemblies, “parts” or “components”, having all of the following:

b.1. “Specially designed” for testing any of the following:

b.1.a. Aero gas turbine engines, assemblies or components, incorporating “technology” specified by 9E003.a, 9E003.h or 9E003.i; *or*

b.1.b. Multi-stage compressors providing either bypass or core flow, specially designed for aero gas turbine engines incorporating “technology” specified by 9E003.a or 9E003.h; *and*

b.2. “Specially designed” for all of the following:

b.2.a. Acquisition and processing of data, in real time; *and*

b.2.b. Feedback control of the test article or test conditions (*e.g.*, temperature, pressure, flow rate) while the test is in progress;

*Note* 9D004.b does not specify software for operation of the test facility or operator safety (*e.g.*, overspeed shutdown, fire detection and suppression), or production, repair or maintenance acceptance-testing limited to

determining if the item has been properly assembled or repaired.

c. “Software” “specially designed” to control directional solidification or single crystal material growth in equipment specified by 9B001.a or 9B001.c;

d. [RESERVED]

e. “Software” “specially designed” or modified for the operation of items specified by 9A012;

f. “Software” “specially designed” to design the internal cooling passages of aero gas turbine engine blades, vanes and “tip shrouds”;

g. “Software” having all of the following:

g.1. “Specially designed” to predict aero thermal, aeromechanical and combustion conditions in aero gas turbine engines; *and*

g.2. Theoretical modeling predictions of the aero thermal, aeromechanical and combustion conditions, which have been validated with actual turbine engine (experimental or production) performance data.

**\*\*9D005** “Software” specially designed or modified for the operation of items specified by 9A004.e or 9A004.f. (This “software” is controlled by ECCN 9D515)

**\*\*9D018** “Software” for the “use” of equipment controlled by 9A018.

(a) See ECCN 9D610 for “software” related to aircraft, refuelers, ground equipment, parachutes, harnesses, instrument flight trainers and “parts”, “accessories,” and “attachments” for the forgoing that, immediately prior to October 15, 2013, were classified under 9A018.a.1, .a.3, .c, .d, .e, or f.

(b) See ECCN 9D619 for “software” related to

military trainer aircraft turbo prop engines and “parts” and “components” therefor that, immediately prior to October 15, 2013, were classified under ECCN 9A018.a.2 or .a.3.

(c) Software related to certain armored ground transport vehicles that prior to January 6, 2014 were classified under ECCN 9A018.b is EAR99 (See 0D606).

**\*\*9D101** “Software” “specially designed” or modified for the “use” of commodities controlled by 9B104, 9B105, 9B106, 9B116, or 9B117.

**License Requirements**

Reason for Control: MT, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

Related Controls: N/A

Related Definitions: N/A

Items:

The list of items controlled is contained in the ECCN heading.

**\*\*9D103** “Software” “specially designed” for modelling, simulation or design integration of “missiles”, or the subsystems controlled by 9A005, 9A007, 9A009, 9A105, 9A106, 9A107, 9A108, 9A109, 9A116 or 9A119. (This entry is “subject to the ITAR.” See 22 CFR parts 120 through 130.)

**\*\*9D104** “Software” specially designed or modified for the “use” of equipment controlled by ECCN 9A001, 9A012 (for MT controlled items only), 9A101 (except for items in 9A101.b that are “subject to the ITAR,” see 22 CFR part 121), or 9A106.d.  
**License Requirements**

*Reason for Control:* MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* “Software” for commodities specified in ECCNs 9A005 to 9A011, 9A103 to 9A105, 9A101.b (except for items that are subject to the EAR), 9A106.a, .b, and .c, 9A107 to 9A109, 9A111, 9A115 to 9A118 is “subject to the ITAR” (see 22 CFR parts 120 through 130).

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

*Note:* For a manned aircraft converted to operate as an unmanned aerial vehicle specified in 9A012 and controlled for MT reasons, 9D104 includes “software”, as follows:

a. “Software” “specially designed” or modified to integrate the conversion equipment with the aircraft system functions;

b. “Software” “specially designed” or modified to operate the aircraft as an unmanned aerial vehicle.

**\*\*9D105** “Software” that coordinates the function of more than one subsystem, “specially designed” or modified for “use” in rockets, missiles, or unmanned aerial vehicles capable of achieving a “range” equal to or greater than 300km. (These items are “subject to the ITAR.” See 22 CFR parts 120 through 130.)

**\*\*9D515** “Software” “specially designed” for the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing of “spacecraft” and related commodities, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, RS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry except 9D515.y.	NS Column 1
RS applies to entire entry except 9D515.y.	RS Column 1
RS applies to 9D515.y, except to Russia for use in, with, or for the International Space Station (ISS), including launch to the ISS.	China, Russia or Venezuela (see § 742.6(a)(7)).
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**Special Conditions for STA**

*STA:* (1) Paragraph (c)(1) of License Exception STA (§ 740.20(c)(1) of the EAR) may not be used for 9D515.b, .d, or .e. (2) Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any “software” in 9D515.

**List of Items Controlled**

*Related Controls:* “Software” directly related to articles enumerated in USML Category XV is subject to the control of USML paragraph XV(f). See also ECCNs 3D001, 6D001, 6D002, and 6D991 for controls of specific software “specially designed” for certain “space-qualified” items.

*Related Definitions:* N/A

*Items:*

a. “Software” (other than “software” controlled in paragraphs .b, .d, or .e of this entry) “specially designed” for the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing of commodities controlled by ECCN 9A515 (except 9A515.d or .e) or 9B515.

b. “Source code” that:

b.1. Contains the algorithms or control principles (e.g., for clock management), precise orbit determination (e.g., for ephemeris or pseudo range analysis), signal construct (e.g., pseudo-random noise (PRN) anti-spoofing) “specially designed” for items controlled by ECCN 9A515;

b.2. Is “specially designed” for the integration, operation, or control of items controlled by ECCN 9A515;

b.3. Contains algorithms or modules “specially designed” for system, subsystem, component, part, or accessory calibration,

manipulation, or control of items controlled by ECCN 9A515;

b.4. Is “specially designed” for data assemblage, extrapolation, or manipulation of items controlled by ECCN 9A515;

b.5. Contains the algorithms or control laws “specially designed” for attitude, position, or flight control of items controlled in ECCN 9A515; or

b.6. Is “specially designed” for built-in test and diagnostics for items controlled by ECCN 9A515.

c. [Reserved]

d. “Software” “specially designed” for the “development,” “production,” operation, failure analysis or anomaly resolution of commodities controlled by ECCN 9A515.d.

e. “Software” “specially designed” for the “development,” “production,” operation, failure analysis or anomaly resolution of commodities controlled by ECCN 9A515.e.

f. through x. [Reserved]

y. Specific “software” “specially designed” for the “development,” “production,” operation, or maintenance of commodities enumerated in ECCN 9A515.y.

**\*\*9D604** “Software” “specially designed” for the “development,” “production,” operation, or maintenance of commodities controlled by ECCN 9A604 or 9B604 (see **List of Items Controlled**).

**License Requirements**

*Reason for Control:* NS, RS, MT, AT, UN

<i>Control(s)</i>	<i>Country Chart</i>
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	<i>(See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
RS applies to entire entry	RS Column 1
MT applies to “software,” as described in paragraph .a of this entry, for commodities controlled for MT reasons in ECCN 9A604.c or .d, or ECCN 9B604.	MT Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry	See § 746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**Special Conditions for STA**

STA: Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in this ECCN 9D604.

**List of Items Controlled**

*Related Controls:* (1) Software directly related to articles enumerated or otherwise described in USML Category IV is controlled under USML Category IV(i). (2) See also ECCNs 9D101 and 9D104 for controls on “software” for the “use” of missiles and related commodities. (3) See ECCN 0A919 for foreign-made “military commodities” that incorporate more than a *de minimis* amount of U.S.-origin “600 series” controlled content.

*Related Definitions:* N/A

*Items:*

a. “Software” “specially designed” for the “development,” “production,” operation or maintenance of commodities controlled by ECCN 9A604 or ECCN 9B604.

b. [RESERVED]

**\*\*9D610** Software “specially designed” for the “development,” “production,” operation, or maintenance of military aircraft and related commodities controlled by 9A610, equipment controlled by 9B610, or materials controlled by 9C610 (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, RS, MT, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry except 9D610.y.	NS Column 1
MT applies to software “specially designed” for the operation, installation, maintenance, repair, overhaul, or refurbishing of commodities controlled for MT reasons in 9A610 or 9B610.	MT Column 1
RS applies to entire entry except 9D610.y.	RS Column 1
RS applies to 9D610.y.	China, Russia or Venezuela (see § 742.6(a)(7)).
AT applies to entire entry	AT Column 1
UN applies to entire entry except 9D610.y.	See § 746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**Special Conditions for STA**

STA: (1) Paragraph (c)(1) of License Exception STA (§ 740.20(c)(1) of the EAR) may not be used for

9D610.b. (2) Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any software in 9D610.

### List of Items Controlled

*Related Controls:* Software directly related to articles enumerated or otherwise described in USML Category VIII is subject to the control of USML paragraph VIII(i).

*Related Definitions:* N/A

*Items:*

a. “Software” (other than software controlled in paragraphs .b or .y of this entry) “specially designed” for the “development,” “production,” operation, or maintenance of commodities controlled by ECCN 9A610, ECCN 9B610, or ECCN 9C610.

b. “Software” “specially designed” for the “development” or “production” of any of the following:

b.1. Static structural members;

b.2. Exterior skins, removable fairings, non-removable fairings, radomes, access doors and panels, and in-flight opening doors;

b.3. Control surfaces, leading edges, trailing edges, and leading edge flap seals;

b.4. Leading edge flap actuation system commodities (i.e., power drive units, rotary geared actuators, torque tubes, asymmetry brakes, position sensors, and angle gearboxes) “specially designed” for fighter, attack, or bomber aircraft controlled in USML Category VIII;

b.5. Engine inlets and ducting;

b.6. Fatigue life monitoring systems “specially designed” to relate actual usage to the

analytical or design spectrum and to compute amount of fatigue life “specially designed” for aircraft controlled by either USML subcategory VIII(a) or ECCN 9A610.a, except for Military Commercial Derivative Aircraft;

b.7. Landing gear, and “parts” and “components” “specially designed” therefor, “specially designed” for use in aircraft weighing more than 21,000 pounds controlled by either USML subcategory VIII(a) or ECCN 9A610.a, except for Military Commercial Derivative Aircraft;

b.8. Conformal fuel tanks and “parts” and “components” “specially designed” therefor;

b.9. Electrical “equipment,” “parts,” and “components” “specially designed” for electromagnetic interference (EMI) – i.e., conducted emissions, radiated emissions, conducted susceptibility and radiated susceptibility – protection of aircraft that conform to the requirements of MIL-STD-461;

b.10. HOTAS (Hand-on Throttle and Stick) controls, HOCAS (Hands on Collective and Stick), Active Inceptor Systems (i.e., a combination of Active Side Stick Control Assembly, Active Throttle Quadrant Assembly, and Inceptor Control Unit), rudder pedal assemblies for digital flight control systems, and parts and components “specially designed” therefor;

b.11. Integrated Vehicle Health Management Systems (IVHMS), Condition Based Maintenance (CBM) Systems, and Flight Data Monitoring (FDM) systems;

b.12. Equipment “specially designed” for system prognostic and health management of aircraft;

b.13. Active Vibration Control Systems; or

b.14. Self-sealing fuel bladders “specially designed” to pass a .50 caliber or larger gunfire test (MIL-DTL-5578, MIL-DTL-27422).

c. to x. [Reserved]

y. Specific “software” “specially designed” for the “development,” “production,” operation, or maintenance of commodities enumerated in ECCN 9A610.y.

**\*\*9D619** Software “specially designed” for the “development,” “production,” operation or maintenance of military gas turbine engines and related commodities controlled by 9A619, equipment controlled by 9B619, or materials controlled by 9C619 (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry except 9D619.y.	NS Column 1
MT applies to software “specially designed” for the operation, installation, maintenance, repair, overhaul, or refurbishing of commodities controlled for MT reasons in 9A610 or 9B610.	RS Column 1
RS applies to entire entry except 9D619.y.	RS Column 1
RS applies to 9D619.y.	China, Russia or Venezuela (see § 742.6(a)(7)).
AT applies to entire entry	AT Column 1
UN applies to entire entry except 9D619.y.	See § 746.1(b) for UN controls

**List Based License Exceptions (See Part 740**

for a description of all license exceptions)

*TSR:* N/A

**Special Conditions for STA**

*STA:* (1) Paragraph (c)(1) of License Exception STA (§ 740.20(c)(1) of the EAR) may not be used for 9D619.b. (2) Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any software in ECCN 9D619.

**List of Items Controlled**

*Related Controls:* Software directly related to articles enumerated or otherwise described in USML Category XIX is subject to the control of USML paragraph XIX(g).

*Related Definitions:* N/A

*Items:*

a. “Software” (other than software controlled in paragraph .b of this entry) “specially designed” for the “development,” “production,” operation, or maintenance of commodities controlled by ECCN 9A619 (except 9A619.y), ECCN 9B619 (except 9B619.y), or ECCN 9C619.

b. “Software” “specially designed” for the “development” or “production” of any of the following:

b.1. Front, turbine center, and exhaust frames;

b.2. Low pressure compressor (i.e., fan) “components” and “parts” as follows: nose cones, casings, blades, vanes, spools, shrouds, blisks, shafts and disks;

b.3. High pressure compressor “components” and “parts” as follows: casings, blades, vanes, spools, shrouds, blisks, shafts, disks, and impellers;

b.4. Combustor “components” and “parts” as follows: casings, fuel nozzles, swirlers, swirler cups, deswirlers, valve injectors, igniters, diffusers, liners, chambers, cowlings, domes and shells;

b.5. High pressure turbine “components” and “parts” as follows: casings, shafts, disks, blades, vanes, nozzles, and tip shrouds;

b.6. Low pressure turbine “components” and “parts” as follows: casings, shafts, disks, blades, vanes, nozzles, and tip shrouds;

b.7. Augmentor “components” and “parts” as follows: casings, flame holders, spray bars, pilot burners, augmentor fuel controls, flaps (external, convergent, and divergent), guide and synchronization rings, and flame detectors and sensors;

b.8. Mechanical “components” and “parts” as follows: fuel metering units and fuel pump metering units, valves (fuel throttle, main metering, oil flow management), heat exchangers (air/air, fuel/air, fuel/oil), debris monitoring (inlet and exhaust), seals (carbon, labyrinth, brush, balance piston, and knife-edge), permanent magnetic alternator and generator, eddy current sensors;

b.9. Torquemeter assembly (i.e., housing, shaft, reference shaft, and sleeve);

b.10. Digital engine control systems (e.g., Full Authority Digital Engine Controls (FADEC) and Digital Electronic Engine Controls (DEEC)) “specially designed” for gas turbine engines controlled in this ECCN; or

b.11. Engine monitoring systems (i.e., prognostics, diagnostics, and health) “specially designed” for gas turbine engines and components controlled in this ECCN.

c. to x. [RESERVED]

y. Specific “software” “specially designed” for the “development,” “production,” operation, or maintenance of commodities enumerated in ECCN 9A619.y or 9B619.y.

**\*\*9D620** “Software” “specially designed” for cryogenic and “superconductive” equipment, as follows (see List of Items Controlled).

**License Requirements**

*Reasons for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
RS applies to entire entry	RS Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry	See §746.1(b) for UN controls

**List Based License Exceptions** (see Part 740 for a description of all license exceptions)

*TSR:* N/A

**Special Conditions for STA**

*STA:* Paragraph (c)(2) of License Exception STA (§740.20(c)(2) of the EAR) may not be used for any “software” in 9D620.

**List of Items Controlled**

*Related Controls:* “Software” directly related to articles enumerated on USML are subject to the control of that USML category.

*Related Definitions:* N/A

*Items:*

Software “specially designed” for the “development,” “production,” operation, or maintenance of commodities controlled by ECCNs 9A620 or 9B620.

**\*\*9D990** “Software”, n.e.s., for the “development” or “production” of equipment controlled by 9A990 or 9B990.

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to “software” for equipment under 9A990 except 9A990.a.	AT Column 1
AT applies to “software” for equipment under 9A990.a only.	AT Column 2

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*9D991** “Software”, for the “development” or “production” of equipment controlled by 9A991 or 9B991.

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**E. “TECHNOLOGY”**

*Note 1: “Development” or “production” “technology” controlled by 9E001 to 9E003 for gas turbine engines remains controlled when used for repair or overhaul. Excluded from 9E001 to 9E003 control are: technical data, drawings or documentation for maintenance activities directly associated with calibration, removal or replacement of damaged or unserviceable line replaceable units, including replacement of whole engines or engine modules.*

*Note 2: USML Category XV(f) and ECCNs 9E001, 9E002 and 9E515 do not control the data transmitted to or from a satellite or “spacecraft,” whether real or simulated, when limited to information about the health, operational status, or measurements or function of, or raw sensor output from, the “spacecraft,” “spacecraft” payload(s), or its associated subsystems or components. Such information is not within the scope of information captured within the definition of “technology” in the EAR for purposes of Category 9 Product Group E. Examples of such information, which are commonly referred to as “housekeeping data,” include (i) system, hardware, component configuration, and operation status information pertaining to temperatures, pressures, power,*

currents, voltages, and battery charges; (ii) “spacecraft” or payload orientation or position information, such as state vector or ephemeris information; (iii) payload raw mission or science output, such as images, spectra, particle measurements, or field measurements; (iv) command responses; (v) accurate timing information; and (vi) link budget data. The act of processing such telemetry data – i.e., converting raw data into engineering units or readable products – or encrypting it does not, in and of itself, cause the telemetry data to become subject to the ITAR or to ECCN 9E515 for purposes of 9A515, or to ECCNs 9E001 or 9E002 for purposes of 9A004. All classified technical data directly related to items controlled in USML Category XV or ECCNs 9A515, and defense services using the classified technical data remains subject to the ITAR. This note does not affect controls in USML XV(f), ECCN 9D515, or ECCN 9E515 on software source code or commands that control a “spacecraft,” payload, or associated subsystems for purposes of 9A515. This note also does not affect controls in ECCNs 9D001, 9D002, 9E001, or 9E002 on software source code or commands that control a “spacecraft,” payload, or associated subsystems for purposes of 9A004.

**\*\*9E001** “Technology” according to the General Technology Note for the “development” of equipment or “software”, controlled by 9A001.b, 9A004, 9A012, 9B (except for ECCNs 9B604, 9B610, 9B619, 9B990 and 9B991), or ECCN 9D001 to 9D004, 9D101, or 9D104.

**License Requirements**

Reason for Control: NS, MT, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
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NS applies to “technology” for items controlled by 9A001.b, 9A004, 9A012, 9B001 to 9B010, 9D001 to 9D004 for NS reasons.	NS Column 1
MT applies to “technology” for items controlled by 9A012, 9B001, 9B002, 9B003, 9B004, 9B005, 9B007, 9B104, 9B105, 9B106, 9B115, 9B116, 9B117, 9D001, 9D002, 9D003, or 9D004 for MT reasons.	MT Column 1
AT applies to entire entry	AT Column 1

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**Special Conditions for STA**

STA: License Exception STA may not be used to ship or transmit any technology in this entry to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR)

**List of Items Controlled**

Related Controls: (1) See also [9E101](#) and 1E002.f (for controls on “technology” for the repair of controlled structures, laminates or materials). (2) “Technology” required for the “development” of equipment described in ECCNs 9A005 to 9A011 or “software” described in ECCNs 9D103 and 9D105 is “subject to the ITAR.”

*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*9E002** “Technology” according to the General Technology Note for the “production” of “equipment” controlled by ECCN 9A001.b, 9A004 or 9B (except for ECCNs 9B117, 9B604, 9B610, 9B619, 9B990, and 9B991).

**License Requirements**

*Reason for Control:* NS, MT, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
MT applies to “technology” for equipment controlled by 9B001, 9B002, 9B003, 9B004, 9B005, 9B007, 9B104, 9B105, 9B106, 9B115 or 9B116 for MT reasons.	MT Column 1
AT applies to entire entry	AT Column 1

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**Special Conditions for STA**

*STA:* License Exception STA may not be

used to ship or transmit any technology in this entry to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

**List of Items Controlled**

*Related Controls:* (1) See also 9E102. (2) See also 1E002.f for “technology” for the repair of controlled structures, laminates or materials. (3) “Technology” that is required for the “production” of equipment described in ECCNs 9A005 to 9A011 is “subject to the ITAR.”

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*9E003** Other “technology” as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, SI, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
SI applies to 9E003.a.1 through a.8, .h, .i, and .k.	See §742.14 of the EAR for additional information.
AT applies to entire entry	AT Column 1

**Reporting Requirements**

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**Special Conditions for STA**

STA: License Exception STA may not be used to ship or transmit any technology in 9E003.a.1, 9E003.a.2 to a.5, 9E003.a.8, or 9E003.h to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

**List of Items Controlled**

*Related Controls:* (1) Hot section “technology” specifically designed, modified, or equipped for military uses or purposes, or developed principally with U.S. Department of Defense funding, is “subject to the ITAR” (see 22 CFR parts 120 through 130). (2) “Technology” is subject to the EAR when actually applied to a commercial “aircraft” engine program. Exporters may seek to establish commercial application either on a case-by-case basis through submission of documentation demonstrating application to a commercial program in requesting an export license from the Department of Commerce in respect to a specific export, or in the case of use for broad categories of “aircraft,” engines, “parts” or “components,” a commodity jurisdiction determination from the Department of State.

*Related Definitions:* N/A

*Items:*

a. “Technology” “required” for the “development” or “production” of any of the following gas turbine engine “parts,” “components” or systems:

a.1. Gas turbine blades, vanes or “tip shrouds”, made from Directionally Solidified (DS) or Single Crystal (SC) alloys and having (in the 001 Miller Index Direction) a stress-rupture life exceeding 400 hours at 1,273 K (1,000°C) at a stress of 200 MPa, based on the average property values;

**Technical Note:** *For the purposes of 9E003.a.1, stress-rupture life testing is typically conducted on a test specimen.*

a.2. Combustors having any of the following:

a.2.a. ‘Thermally decoupled liners’ designed to operate at ‘combustor exit temperature’ exceeding 1,883 K (1,610°C);

a.2.b. Non-metallic liners;

a.2.c. Non-metallic shells; or

a.2.d. Liners designed to operate at ‘combustor exit temperature’ exceeding 1,883 K (1,610°C) and having holes that meet the parameters specified by 9E003.c;

**Note:** *The “required” “technology” for holes in 9E003.a.2 is limited to the derivation of the geometry and location of the holes.*

**Technical Notes:**

**1.** *‘Thermally decoupled liners’ are liners that feature at least a support structure designed to carry mechanical loads and a combustion facing structure designed to protect the support structure from the heat of combustion. The combustion facing structure and support structure have independent thermal displacement (mechanical displacement due to thermal load) with respect to one another, i.e. they are thermally decoupled.*

2. 'Combustor exit temperature' is the bulk average gas path total (stagnation) temperature between the combustor exit plane and the leading edge of the turbine inlet guide vane (i.e., measured at engine station T40 as defined in SAE ARP 755A) when the engine is running in a "steady state mode" of operation at the certificated maximum continuous operating temperature.

**N.B.:** See 9E003.c for "technology" "required" for manufacturing cooling holes.

a.3. "Parts" or "components," that are any of the following:

a.3.a. Manufactured from organic "composite" materials designed to operate above 588 K (315°C);

a.3.b. Manufactured from any of the following:

a.3.b.1. Metal "matrix" "composites" reinforced by any of the following:

a.3.b.1.a. Materials controlled by 1C007;

a.3.b.1.b. "Fibrous or filamentary materials" specified by 1C010; or

a.3.b.1.c. Aluminides specified by 1C002.a; or

a.3.b.2. Ceramic "matrix" "composites" specified by 1C007; or

a.3.c. Stators, vanes, blades, tip seals (shrouds), rotating blings, rotating blisks or 'splitter ducts', that are all of the following:

a.3.c.1. Not specified in 9E003.a.3.a;

a.3.c.2. Designed for compressors or fans; and

a.3.c.3. Manufactured from material controlled by 1C010.e with resins controlled by 1C008;

**Technical Note:** A 'splitter duct' performs the initial separation of the air-mass flow between the bypass and core sections of the engine.

a.4. Uncooled turbine blades, vanes or "tip shrouds" designed to operate at a 'gas path temperature' of 1,373 K (1,100°C) or more;

a.5. Cooled turbine blades, vanes or "tip-shrouds", other than those described in 9E003.a.1, designed to operate at a 'gas path temperature' of 1,693 K (1,420°C) or more;

**Technical Note:** 'Gas path temperature' is the bulk average gas path total (stagnation) temperature at the leading edge plane of the turbine component when the engine is running in a "steady state mode" of operation at the certificated or specified maximum continuous operating temperature.

a.6. Airfoil-to-disk blade combinations using solid state joining;

a.7. [Reserved]

a.8. 'Damage tolerant' gas turbine engine rotor "parts" or "components" using powder metallurgy materials controlled by 1C002.b; or

**Technical Note:** 'Damage tolerant' "parts" and "components" are designed using methodology and substantiation to predict and limit crack growth.

a.9. [Reserved]

**N.B.:** For "FADEC systems", see 9E003.h.

a.10. [Reserved]

*N.B.:* For adjustable flow path geometry, see 9E003.i.

- a.11. Hollow fan blades;
- b. “Technology” “required” for the “development” or “production” of any of the following:
  - b.1. Wind tunnel aero-models equipped with non-intrusive sensors capable of transmitting data from the sensors to the data acquisition system; or
  - b.2. “Composite” propeller blades or prop-fans, capable of absorbing more than 2,000 kW at flight speeds exceeding Mach 0.55;
- c. “Technology” “required” for manufacturing cooling holes, in gas turbine engine “parts” or “components” incorporating any of the “technologies” specified by 9E003.a.1, 9E003.a.2 or 9E003.a.5, and having any of the following:
  - c.1. Having all of the following:
    - c.1.a. Minimum ‘cross-sectional area’ less than 0.45 mm<sup>2</sup>;
    - c.1.b. ‘Hole shape ratio’ greater than 4.52; and
    - c.1.c. ‘Incidence angle’ equal to or less than 25°; or
  - c.2. Having all of the following:
    - c.2.a. Minimum ‘cross-sectional area’ less than 0.12 mm<sup>2</sup>;
    - c.2.b. ‘Hole shape ratio’ greater than 5.65; and
    - c.2.c. ‘Incidence angle’ more than 25°;

*Note:* 9E003.c does not apply to “technology” for manufacturing constant radius cylindrical holes that are straight through and enter and exit on the external surfaces of the component.

**Technical Notes:**

1. For the purposes of 9E003.c, the ‘cross-sectional area’ is the area of the hole in the plane perpendicular to the hole axis.

2. For the purposes of 9E003.c, ‘hole shape ratio’ is the nominal length of the axis of the hole divided by the square root of its minimum ‘cross-sectional area’.

3. For the purposes of 9E003.c, ‘incidence angle’ is the acute angle measured between the plane tangential to the airfoil surface and the hole axis at the point where the hole axis enters the airfoil surface.

4. Techniques for manufacturing holes in 9E003.c include “laser” beam machining, water jet machining, Electro-Chemical Machining (ECM) or Electrical Discharge Machining (EDM).

d. “Technology” “required” for the “development” or “production” of helicopter power transfer systems or tilt rotor or tilt wing “aircraft” power transfer systems;

e. “Technology” for the “development” or “production” of reciprocating diesel engine ground vehicle propulsion systems having all of the following:

- e.1. ‘Box volume’ of 1.2 m<sup>3</sup> or less;
- e.2. An overall power output of more than 750 kW based on 80/1269/EEC, ISO 2534 or national equivalents; and
- e.3. Power density of more than 700 kW/m<sup>3</sup> of ‘box volume’;

**Technical Note:** ‘Box volume’ is the product of three perpendicular dimensions measured in the following way:

*Length:* The length of the crankshaft from front flange to flywheel face;

*Width:* The widest of any of the following:

a. The outside dimension from valve cover to valve cover;

b. The dimensions of the outside edges of the cylinder heads; or

c. The diameter of the flywheel housing;

*Height:* The largest of any of the following:

a. The dimension of the crankshaft center-line to the top plane of the valve cover (or cylinder head) plus twice the stroke; or

b. The diameter of the flywheel housing.

f. “Technology” “required” for the “production” of “specially designed” “parts” or “components” for high output diesel engines, as follows:

f.1. “Technology” “required” for the “production” of engine systems having all of the following “parts” and “components” employing ceramics materials controlled by 1C007:

f.1.a Cylinder liners;

f.1.b. Pistons;

f.1.c. Cylinder heads; *and*

f.1.d. One or more other “part” or “component” (including exhaust ports, turbochargers, valve guides, valve assemblies or insulated fuel injectors);

f.2. “Technology” “required” for the “production” of turbocharger systems with single-stage compressors and having all of the following:

f.2.a. Operating at pressure ratios of 4:1 or higher;

f.2.b. Mass flow in the range from 30 to 130 kg per minute; *and*

f.2.c. Variable flow area capability within the compressor or turbine sections;

f.3. “Technology” “required” for the “production” of fuel injection systems with a “specially designed” multifuel (*e.g.*, diesel or jet fuel) capability covering a viscosity range from diesel fuel (2.5 cSt at 310.8 K (37.8°C)) down to gasoline fuel (0.5 cSt at 310.8 K (37.8°C)) and having all of the following:

f.3.a. Injection amount in excess of 230 mm<sup>3</sup> per injection per cylinder; *and*

f.3.b. Electronic control features “specially designed” for switching governor characteristics automatically depending on fuel property to provide the same torque characteristics by using the appropriate sensors;

g. “Technology” “required” for the development” or “production” of ‘high output diesel engines’ for solid, gas phase or liquid film (or combinations thereof) cylinder wall lubrication and permitting operation to temperatures exceeding 723 K (450°C), measured on the cylinder wall at the top limit of travel of the top ring of the piston;

**Technical Note:** ‘High output diesel engines’ are diesel engines with a specified brake mean effective pressure of 1.8 MPa or more at a speed of 2,300 r.p.m., provided the rated speed is 2,300 r.p.m. or more.

h. “Technology” for gas turbine engine “FADEC systems” as follows:

h.1. “Development” “technology” for deriving the functional requirements for the “parts” or “components” necessary for the “FADEC system” to regulate engine thrust or shaft power (e.g., feedback sensor time constants and accuracies, fuel valve slew rate);

h.2. “Development” or “production” “technology” for control and diagnostic “parts” or “components” unique to the “FADEC system” and used to regulate engine thrust or shaft power;

h.3. “Development” “technology” for the control law algorithms, including “source code”, unique to the “FADEC system” and used to regulate engine thrust or shaft power;

*Note: 9E003.h does not apply to technical data related to engine-“aircraft” integration required by civil aviation authorities of one or more Wassenaar Arrangement Participating States (See Supplement No. 1 to part 743 of the EAR) to be published for general airline use (e.g., installation manuals, operating instructions, instructions for continued airworthiness) or interface functions (e.g., input/output processing, airframe thrust or shaft power demand).*

i. “Technology” for adjustable flow path systems designed to maintain engine stability for gas generator turbines, fan or power turbines, or propelling nozzles, as follows:

i.1. “Development” “technology” for deriving the functional requirements for the “parts” or “components” that maintain engine stability;

i.2. “Development” or “production” “technology” for “parts” or “components” unique to the adjustable flow path system and that maintain engine stability;

i.3. “Development” “technology” for the control law algorithms, including “source code”, unique to the adjustable flow path system and that maintain engine stability;

*Note: 9E003.i does not apply to “technology” for any of the following:*

a. Inlet guide vanes;

b. Variable pitch fans or prop-fans;

c. Variable compressor vanes;

d. Compressor bleed valves; or

e. Adjustable flow path geometry for reverse thrust.

j. “Technology” “required” for the “development” of wing-folding systems designed for fixed-wing “aircraft” powered by gas turbine engines.

*N.B.: For “technology” “required” for the “development” of wing-folding systems designed for fixed-wing “aircraft” specified in USML Category VIII (a), see USML Category VIII (i).*

k. “Technology” not otherwise controlled in 9E003.a.1 through a.8, a.10, and .h and used in the “development”, “production”, or overhaul of hot section “parts” or “components” of civil derivatives of military engines controlled on the U.S. Munitions List.

**\*\*9E018** “Technology” for the “development”, “production”, or “use” of equipment controlled by 9A018.

(a) See ECCN 9E610 for “technology” related to aircraft, refuelers, ground equipment, parachutes, harnesses, instrument flight trainers and “parts”, “accessories” and “attachments” for the forgoing that, immediately prior to October 15, 2013, were classified under 9A018.a.1, .a.3, .c, .d, .e, or .f.

(b) See ECCN 9E619 for “technology” related to military trainer aircraft turbo prop engines and “parts” and “components” thereof that,

immediately prior to October 15, 2013, were classified under ECCN 9A018.a.2 or .a.3.

(c) Technology related to certain armored ground transport vehicles that prior to January 6, 2014 were classified under ECCN 9A018.b is EAR99 (See 0E606).

“subject to the ITAR” (see 22 CFR parts 120 through 130).

Related Definitions: N/A

Items:

The list of items controlled is contained in the ECCN heading.

**\*\*9E101** “Technology” according to the General Technology Note for the “development” or “production” of commodities or “software” controlled by ECCN 9A012 (applies only to “production” “technology” for MT-controlled items in 9A012), 9A101 (except for items in 9A101.b that are “subject to the ITAR,” see 22 CFR part 121), 9A106.d or .e, 9A110 (for items that are “specially designed” for non-military unmanned aerial vehicles controlled by 9A012), 9C110, 9D101, or 9D104.

**License Requirements**

Reason for Control: MT, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

Related Controls: “Technology” that is required for items specified in ECCNs 9A101.b (except for items that are “subject to the EAR”), 9A104, 9A105, 9A106.a, .b, and .c, 9A107 to 9A109, 9A110 (for items that are “specially designed” for use in missile systems and subsystems), 9A111, 9A115 to 9A119, 9D103, and 9D105 is

**\*\*9E102** “Technology” according to the General Technology Note for the “use” of commodities or “software” controlled by ECCN 9A004 (except for items in 9A004 that are “subject to the ITAR,” see 22 CFR part 121), 9A012, 9A101 (except for items in 9A101.b that are “subject to the ITAR,” see 22 CFR part 121), 9A106.d or .e, 9A110 (for items that are “specially designed” for non-military unmanned aerial vehicles controlled by 9A012), 9B105, 9B106, 9B115, 9B116, 9D101, or 9D104.

**License Requirements**

Reason for Control: MT, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
MT applies to entire entry	MT Column 1
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

Related Controls: (1) For the purpose of this entry, “use” “technology” is limited to items controlled for MT and their subsystems. (2) “Technology” for items specified in ECCNs 9A004 (except for items that are “subject to the EAR”), 9A005 to 9A011, 9A101.b (except for items that are “subject to the EAR”), 9A104, 9A105, 9A106.a, .b and .c,

9A107 to 9A109, 9A110 (for items that are “specially designed” for use in missile systems and subsystems), 9A111, 9A115 to 9A119, 9D103, and 9D105 is “subject to the ITAR” (see 22 CFR part 121).

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*9E515** “Technology” “required” for the “development,” “production,” operation, installation, repair, overhaul, or refurbishing of “spacecraft” and related commodities, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, MT, RS, AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry except 9E515.y.	NS Column 1
MT applies to technology for items in 9A515.d, 9A515.e.2 and 9B515.a controlled for MT reasons.	MT Column 1
RS applies to entire entry except 9E515.y.	RS Column 1
RS applies to 9E515.y, except to Russia for use in, with, or for the International Space Station (ISS), including launch to the ISS.	China, Russia or Venezuela (see § 742.6(a)(7)).
AT applies to entire entry	AT Column 1

**License Requirement Note:** *The Commerce Country Chart is not used for determining license requirements for “technology” classified ECCN 9E515.f. See § 742.6(a)(9), which specifies that such “technology” is subject to a worldwide license requirement.*

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**Special Conditions for STA**

*STA:* (1) Paragraph (c)(1) of License Exception STA (§ 740.20(c)(1) of the EAR) may not be used for ECCN 9E515.b, .d, .e, or .f unless determined by BIS to be eligible for License Exception STA in accordance with § 740.20(g) (License Exception STA eligibility requests for certain 9x515 and “600 series” items). (2) Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any “technology” in 9E515.

**List of Items Controlled**

*Related Controls:* Technical data directly related to articles enumerated in USML Category XV are subject to the control of USML paragraph XV(f). See also ECCNs 3E001, 3E003, 6E001, and 6E002 for specific “space-qualified” items. See ECCNs 9E001 and 9E002 for technology for the International Space Station, the James Webb Space Telescope (JWST) and “parts,” “components,” “accessories,” and “attachments” “specially designed” therefor. See USML category XV(f) for controls on technical data and defense services related to launch vehicle integration.

*Related Definitions:* N/A

*Items:*

a. “Technology” “required” for the “development,” “production,” installation, repair (including on-orbit anomaly resolution and analysis beyond established procedures), overhaul, or refurbishing of commodities

controlled by ECCN 9A515 (except 9A515.a.1, .a.2, .a.3, .a.4, .b, .d, .e, or .g), ECCN 9B515, or “software” controlled by ECCN 9D515.a.

b. “Technology” “required” for the “development,” “production,” failure analysis or anomaly resolution of software controlled by ECCN 9D515.b.

c. [Reserved]

d. “Technology” “required” for the “development,” “production,” operation, failure analysis or anomaly resolution of commodities controlled by ECCN 9A515.d.

e. “Technology” “required” for the “development,” “production,” failure analysis or anomaly resolution of commodities controlled by ECCN 9A515.e.

f. “Technology” “required” for the “development,” “production,” installation, repair (including on-orbit anomaly resolution and analysis beyond established procedures), overhaul, or refurbishing of commodities controlled by ECCN 9A515.a.1, .a.2, .a.3, .a.4, or .g.

g. through x. [Reserved]

y. Specific “technology” “required” for the “production,” “development,” operation, installation, maintenance, repair, overhaul, or refurbishing of commodities or software enumerated in ECCN 9A515.y or 9D515.y.

**Note 1:** [RESERVED]

**Note 2:** *Activities and technology/technical data directly related to or required for the spaceflight (e.g., sub-orbital, orbital, lunar, interplanetary, or otherwise beyond Earth orbit) passenger or participant experience, regardless of whether the passenger or participant experience is for space tourism, scientific or commercial research, commercial*

*manufacturing/production activities, educational, media, or commercial transportation purposes, are not subject to the ITAR or the EAR. Such activities and technology/technical data include those directly related to or required for:*

(i) *“spacecraft” access, ingress, and egress, including the operation of all “spacecraft” doors, hatches, and airlocks;*

(ii) *physiological training (e.g., human-rated centrifuge training or parabolic flights, pressure suit or spacesuit training/operation);*

(iii) *medical evaluation or assessment of the spaceflight passenger or participant;*

(iv) *training for and operation by the passenger or participant of health and safety related hardware (e.g., seating, environmental control and life support, hygiene facilities, food preparation, exercise equipment, fire suppression, communications equipment, safety-related clothing or headgear) or emergency procedures;*

(v) *viewing of the interior and exterior of the spacecraft or terrestrial mock-ups;*

(vi) *observing “spacecraft” operations (e.g., pre-flight checks, landing, in-flight status);*

(vii) *training in “spacecraft” or terrestrial mock-ups for connecting to or operating passenger or participant equipment used for purposes other than operating the “spacecraft”; or*

(viii) *donning, wearing or utilizing the passenger’s or participant’s flight suit, pressure suit or spacesuit, and personal equipment.*

**\*\*9E604** “Technology” “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing of commodities controlled by ECCN 9A604 or 9B604, or “software” controlled by ECCN 9D604 (see List of Items Controlled).

“development,” “production,” and “use” of missiles and related items controlled on the CCL.

*Related Definitions:* N/A

*Items:*

a. “Technology” “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing of commodities controlled by ECCN 9A604 or 9B604, or “software” controlled by ECCN 9D604.

b. [Reserved]

**License Requirements**

*Reason for Control:* NS, RS, MT, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
RS applies to entire entry	RS Column 1
MT applies to “technology,” as described in paragraph .a of this entry, for commodities and “software” controlled for MT reasons in ECCN 9A604, 9B604 or 9D604.	MT Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry	See § 746.1(b) for UN controls

**\*\*9E610** Technology “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing of military aircraft and related commodities controlled by 9A610, equipment controlled by 9B610, materials controlled by 9C610, or software controlled by 9D610 (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, RS, MT, AT, UN

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**Special Conditions for STA**

*STA:* Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any item in this ECCN 9E604.

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry except 9E610.y.	NS Column 1
RS applies to entire entry except 9E610.y.	RS Column 1
RS applies to 9E610.y.	China, Russia or Venezuela (see § 742.6(a)(7)).
MT applies to “technology” “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing of commodities or software controlled for MT reasons in	MT Column 1

**List of Items Controlled**

*Related Controls:* (1) Technical data directly related to articles enumerated or otherwise described in USML Category IV is controlled under USML Category IV(i). (2) See also ECCNs 9E002, 9E101, and 9E102 for controls on “technology” for the

9A610, 9B610, or 9D610 for MT reasons.	
AT applies to entire entry	AT Column 1
UN applies to entire entry except 9E610.y.	See §746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**Special Conditions for STA**

STA: (1) Paragraph (c)(1) of License Exception STA (§ 740.20(c)(1) of the EAR) may not be used for 9E610.b. (2) Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any technology in 9E610.

**List of Items Controlled**

*Related Controls:* Technical data directly related to articles enumerated or otherwise described in USML Category VIII are subject to the control of USML paragraph VIII(i).

*Related Definitions:* N/A

*Items:*

a. “Technology” (other than technology controlled by paragraphs .b or .y of this entry) “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing of commodities or software controlled by ECCN 9A610, 9B610, 9C610, or 9D610.

*Note:* “Build-to-print technology” “required” for the “production” of items described in paragraphs b.1 through b.15 of this entry is classified under 9E610.a.

b. “Technology” (other than “build-to-print technology”) “required” for the “development” or “production” of any of the following:

- b.1. Static structural members;
- b.2. Exterior skins, removable fairings, non-removable fairings, radomes, access doors and panels, and in-flight opening doors;
- b.3. Control surfaces, leading edges, trailing edges, and leading edge flap seals;
- b.4. Leading edge flap actuation system commodities (i.e., power drive units, rotary geared actuators, torque tubes, asymmetry brakes, position sensors, and angle gearboxes) “specially designed” for fighter, attack, or bomber aircraft controlled in USML Category VIII;
- b.5. Engine inlets and ducting;
- b.6. Fatigue life monitoring systems “specially designed” to relate actual usage to the analytical or design spectrum and to compute amount of fatigue life “specially designed” for aircraft controlled by either USML subcategory VIII(a) or ECCN 9A610.a, except for Military Commercial Derivative Aircraft;
- b.7. Landing gear, and “parts” and “components” “specially designed” therefor, “specially designed” for use in aircraft weighing more than 21,000 pounds controlled by either USML subcategory VIII(a) or ECCN 9A610.a, except for Military Commercial Derivative Aircraft;
- b.8. Conformal fuel tanks and “parts” and “components” “specially designed” therefor;
- b.9. Electrical “equipment,” “parts,” and “components” “specially designed” for electromagnetic interference (EMI) – i.e., conducted emissions, radiated emissions, conducted susceptibility and radiated susceptibility – protection of aircraft that conform to the requirements of MIL-STD-461;

b.10. HOTAS (Hand-on Throttle and Stick) controls, HOCAS (Hands on Collective and Stick), Active Inceptor Systems (i.e., a combination of Active Side Stick Control Assembly, Active Throttle Quadrant Assembly, and Inceptor Control Unit), rudder pedal assemblies for digital flight control systems, and parts and components “specially designed” therefor;

b.11. Integrated Vehicle Health Management Systems (IVHMS), Condition Based Maintenance (CBM) Systems, and Flight Data Monitoring (FDM) systems;

b.12. Equipment “specially designed” for system prognostic and health management of aircraft;

b.13. Active Vibration Control Systems;

b.14. Self-sealing fuel bladders “specially designed” to pass a .50 caliber or larger gunfire test (MIL-DTL-5578, MIL-DTL-27422); *or*

b.15. Technology “required” for the “development” or “production” of “parts” or “components” controlled in 9A610.x and “specially designed” for damage or failure-adaptive flight control systems controlled in Category VIII(h)(7) of the USML.

c. through x. [Reserved]

y. Specific “technology” “required” for the “production,” “development,” operation, installation, maintenance, repair, overhaul, or refurbishing of commodities or software enumerated in ECCN 9A610.y or 9D610.y.

**\*\*9E619** “Technology” “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing of military gas turbine engines and related commodities controlled by 9A619, equipment controlled by 9B619, materials

**controlled by 9C619, or software controlled by 9D619 (see List of Items Controlled).**

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
NS applies to entire entry except 9E619.y.	NS Column 1
RS applies to entire entry except 9E619.y.	RS Column 1
RS applies to 9E619.y.	China, Russia or Venezuela (see § 742.6(a)(7)).
AT applies to entire entry	AT Column 1
UN applies to entire entry except 9E619.y.	See §746.1(b) for UN controls

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**Special Conditions for STA**

*STA:* (1) Paragraph (c)(1) of License Exception STA (§ 740.20(c)(1) of the EAR) may not be used for 9E619.b. or .c. (2) Paragraph (c)(2) of License Exception STA (§ 740.20(c)(2) of the EAR) may not be used for any technology in ECCN 9E619.

**List of Items Controlled**

*Related Controls:* Technical data directly related to articles enumerated or otherwise described in USML Category XIX are subject to the control of USML Category XIX(g).

*Related Definitions:* N/A

*Items:*

a. “Technology” (other than “technology” controlled by paragraphs .b and .c of this entry) “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishment of items controlled by ECCN 9A619 (except 9A619.y), ECCN 9B619 (except 9B619.y), ECCN 9C619, or ECCN 9D619 (except 9D619.y).

*Note:* “Build-to-print technology” “required” for the “production” of items described in paragraphs b.1 through b.10 of this entry is classified under 9E619.a.

b. “Technology” (other than “build-to-print technology”) “required” for the “development” or “production” of any of the following:

b.1. Front, turbine center, and exhaust frames;

b.2. Low pressure compressor (i.e., fan) “components” and “parts” as follows: nose cones and casings;

b.3. High pressure compressor “components” and “parts” as follows: casings;

b.4. Combustor “components” and “parts” as follows: casings, fuel nozzles, swirlers, swirler cups, deswirlers, valve injectors, and igniters;

b.5. High pressure turbine “components” and “parts” as follows: casings;

b.6. Low pressure turbine “components” and “parts” as follows: casings;

b.7. Augmentor “components” and “parts” as follows: casings, flame holders, spray bars, pilot burners, augmentor fuel controls, flaps (external, convergent, and divergent), guide and synchronization rings, and flame detectors and sensors;

b.8. Mechanical “components” and “parts” as follows: fuel metering units and fuel pump metering units, valves (fuel throttle, main

metering, oil flow management), heat exchangers (air/air, fuel/air, fuel/oil), debris monitoring (inlet and exhaust), seals (carbon, labyrinth, brush, balance piston, and “knife-edge”), permanent magnetic alternator and generator, eddy current sensors;

b.9. Torquemeter assembly (i.e., housing, shaft, reference shaft, and sleeve); *or*

b.10. Materials controlled by ECCN 9C619.b.

c. “Technology” “required” for the “development” or “production” of any of the following:

c.1. Low pressure compressor (i.e., fan) “components” and “parts” as follows: blades, vanes, spools, shrouds, blisks, shafts and disks;

c.2. High pressure compressor “components” and “parts” as follows: blades, vanes, spools, shrouds, blisks, shafts, disks, and impellers;

c.3. Combustor “components” and “parts” as follows: diffusers, liners, chambers, cowlings, domes and shells;

c.4. High pressure turbine “components” and “parts” as follows: shafts and disks, blades, vanes, nozzles, tip shrouds;

c.5. Low pressure turbine “components” and “parts” as follows: shafts and disks, blades, vanes, nozzles, tip shrouds;

c.6. Digital engine control systems (e.g., Full Authority Digital Engine Controls (FADEC) and Digital Electronic Engine Controls (DEEC)) “specially designed” for gas turbine engines controlled in this ECCN; *or*

c.7. Engine monitoring systems (i.e., prognostics, diagnostics, and health) “specially designed” for gas turbine engines and components controlled in this ECCN.

d. through x. [Reserved]

y. Specific “technology” “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishment of commodities controlled by 9A619.y or 9B619.y, or “software” controlled by ECCN 9D619.y.

**\*\*9E620** Technology “required” for cryogenic and “superconductive” equipment, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* NS, RS, AT, UN

<i>Control(s)</i>	<i>Country chart (see Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1
RS applies to entire entry	RS Column 1
AT applies to entire entry	AT Column 1
UN applies to entire entry	See §746.1(b) for UN controls

**List Based License Exceptions** (see Part 740 for a description of all license exceptions)

*TSR:* N/A

**Special Conditions for STA**

*STA:* Paragraph (c)(2) of License Exception STA (§740.20(c)(2) of the EAR) may not be used for any technology in 9E620.

**List of Items Controlled**

*Related Controls:* Technical data directly related to articles enumerated on USML are subject to the control of that USML category.

*Related Definitions:* N/A

*Items:*

“Technology” “required” for the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing of commodities or software controlled by ECCN 9A620, 9B620 or 9D620.

**\*\*9E990** “Technology”, n.e.s., for the “development” or “production” or “use” of equipment controlled by 9A990 or 9B990.

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to “technology” for equipment under 9A990 and 9B990 except 9A990.a	AT Column 1
AT applies to “technology” only for equipment under 9A990.a	AT Column 2

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

*TSR:* N/A

**List of Items Controlled**

*Related Controls:* N/A

*Related Definitions:* N/A

*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*9E991** “Technology”, for the “development”, “production” or “use” of equipment controlled by 9A991 or 9B991.

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

The list of items controlled is contained in the ECCN heading.

**\*\*9E993** Other “technology”, not described by 9E003, as follows (see List of Items Controlled).

**License Requirements**

*Reason for Control:* AT

<i>Control(s)</i>	<i>Country Chart (See Supp. No. 1 to part 738)</i>
AT applies to entire entry	AT Column 1

**List Based License Exceptions** (See Part 740 for a description of all license exceptions)

TSR: N/A

**List of Items Controlled**

*Related Controls:* N/A  
*Related Definitions:* N/A  
*Items:*

- a. Rotor blade tip clearance control systems employing active compensating casing “technology” limited to a design and development data base; *or*
- b. Gas bearing for turbine engine rotor assemblies.

**EAR99** Items subject to the EAR that are *not* elsewhere specified in this CCL Category *or* in any other category in the CCL are designated by the number **EAR99**.

**SUPPLEMENT NO. 2 TO PART 774 – GENERAL TECHNOLOGY AND SOFTWARE NOTES**

Therefore, all ECCNs that contain the phrase "required" (with the quotation marks) by definition refer back to the General Technology Note, per Kevin Wolf on 11-25-2015. Consider this when classifying e.g. "an outline drawing"; do a close-read of the related Group E ECCNs.

**1. General Technology Note.**

The export of "technology" that is "required" for the "development", "production", or "use" of items on the Commerce Control List is controlled according to the provisions in each Category.

"Technology" "required" for the "development", "production", or "use" of a controlled product remains controlled even when applicable to a product controlled at a lower level.

License Exception TSU is available for "technology" that is the minimum necessary for the installation, operation, maintenance (checking), or repair of those products that are eligible for License Exceptions or that are exported under a license.

*N.B.:* This does not allow release under a License Exception of the repair "technology" controlled by 1E002.e, 1E002.f, 8E002.a, or 8E002.b.

*N.B.:* The 'minimum necessary' excludes "development" or "production" technology and permits "use" technology only to the extent "required" to ensure safe and efficient use of the product. Individual ECCNs may further restrict export of "minimum necessary" information.

**2. General Software Note.**

License Exception TSU (mass market software) (see § 740.13 of the EAR) is available to all destinations, except countries in Country Group E:1 of Supplement No. 1 to part 740 of the EAR, for release of "software" which is any of the following:

1. Generally available to the public by being:

a. Sold from stock at retail selling points, without restriction, by means of:

1. Over the counter transactions;
2. Mail order transactions;
3. Electronic transactions; *or*
4. Telephone call transactions; *and*

b. Designed for installation by the user without further substantial support by the supplier.

2. [RESERVED] See § 734.3(b)(3) for "publicly available technology and software."

3. The minimum necessary "object code" for the installation, operation, maintenance (checking) or repair of those items whose export has been authorized.

**Note:** Minimum necessary "object code" does not enhance or improve the performance of an item or provide new features or functionality.

**Note:** The General Software Note does not apply to "software" controlled by Category 5 - part 2 "Information Security"). For "software" controlled by Category 5, part 2, see Supplement No. 1 to part 774, Category 5, part 2, Note 3 – Cryptography Note.

**3. General "Information Security" Note.**

“Information security” items or functions should be considered against the provisions in Category 5–Part 2, even if they are components, “software” or functions of other items.

**SUPPLEMENT NO. 3 TO PART 774 – STATEMENTS OF UNDERSTANDING**

***(a) Statement of Understanding - medical equipment.***

Commodities that are ‘specially designed for medical end-use’ that ‘incorporate’ commodities or software on the Commerce Control List (Supplement No. 1 to part 774 of the EAR) that do not have a reason for control of Nuclear Nonproliferation (NP), Missile Technology (MT), or Chemical & Biological Weapons (CB) are designated by the number EAR99 (i.e., are not elsewhere specified on the Commerce Control List).

***Notes to paragraph a:***

*(1) ‘Specially designed for medical end-use’ means designed for medical treatment or the practice of medicine (does not include medical research).*

*(2) Commodities or software are considered ‘incorporated’ if the commodity or software is: Essential to the functioning of the medical equipment; customarily included in the sale of the medical equipment; and exported or reexported with the medical equipment.*

*(3) Except for such software that is made publicly available consistent with § 734.3(b)(3) of the EAR, commodities and software ‘specially designed for medical end-use’ remain subject to the EAR.*

*(4) See also § 770.2(b) interpretation 2, for other types of equipment that incorporate items on the Commerce Control List that are subject to the EAR.*

*(5) For computers used with medical equipment, see also ECCN 4A003 note 2 regarding the "principal element" rule.*

*(6) For commodities and software “specially designed” for medical end use that incorporate an encryption or other "information security" item subject to the EAR, see also section 3 (General "Information Security" Note (GISN)) to Supplement No. 2 to this part.*

***(b) Statement of Understanding - Source Code.***

For the purpose of national security controlled items, “source code” items are controlled either by “software” or by “software” and “technology” controls, except when such “source code” items are explicitly decontrolled.

***(c) Category 5 - Part 2 - Note 4 Statement of Understanding.***

All items previously described by Notes (b), (c) and (h) to 5A002 are now described by Note 4 to Category 5 - Part 2. Note (h) to 5A002 prior to June 25, 2010 stated that the following was not controlled by 5A002:

Equipment specially designed for the servicing of portable or mobile radiotelephones and similar client wireless devices that meet all the provisions of the Cryptography Note (Note 3 in Category 5, Part 2), where the servicing equipment meets all of the following:

(1) The cryptographic functionality of the servicing equipment cannot easily be changed by the user of the equipment;

(2) The servicing equipment is designed for installation without further substantial support by the supplier; and

(3) The servicing equipment cannot change the cryptographic functionality of the device being serviced.

*(d) Statement of Understanding—Used Goods.*

The specifications in the Commerce Control List apply equally to new or used goods. In the case of used goods, an evaluation by the Bureau of Industry and Security may be carried out in order to assess whether the goods are capable of meeting the relevant specifications.

**SUPPLEMENT NO. 4 TO PART 774 –  
COMMERCE CONTROL LIST  
ORDER OF REVIEW**

(a) As described in EAR § 734.3, the EAR govern only items “subject to the EAR,” e.g., items not subject to the exclusive jurisdiction of another agency. Thus, for example, if an item is described in the U.S. Munitions List (USML) (22 CFR Part 121) of the International Traffic in Arms Regulations (ITAR) (22 CFR Parts 120-130), including one of its catch-all paragraphs, then the item is a “defense article” subject to the ITAR and there is no need to review the CCL with respect to whether it describes the item. See 22 CFR § 120.6 (“Defense article means any item or technical data designated in § 121.1 of the ITAR. The policy described in § 120.3 is applicable to designations of additional items”). If an item is not described on the USML and is otherwise “subject to the EAR,” then work through each of the following steps to determine where the item is covered by the CCL or, if it is not covered by the CCL, and is therefore designated as EAR99.

**(1) Step 1.** To classify an item “subject to the EAR” against the CCL, review the general characteristics of the item. This will usually guide you to the appropriate category (0 through 9) on the CCL.

**(2) Step 2.** Once the potentially applicable CCL categories are identified, determine which product group within the CCL category or categories -- i.e., A, B, C, D, or E -- is applicable to the item.

**(3) Step 3.** The “600 series” describes military items that were once subject to the ITAR. The 9x515 ECCNs describe “spacecraft,” related items, and some radiation-hardened

microelectronic circuits that were once subject to the ITAR under USML Category XV. Just as the ITAR effectively trumps the EAR, items described in a 9x515 ECCN or “600 series” ECCN trump other ECCNs on the CCL. Thus, the next step in conducting a classification analysis of an item “subject to the EAR” is to determine whether it is described in a 9x515 ECCN or “600 series” ECCN paragraph other than a “catch-all” paragraph such as a “.x” paragraph that controls unspecified “parts” and “components” “specially designed” for items in that ECCN or the corresponding USML paragraph. If so, the item is classified under that 9x515 ECCN or “600 series” ECCN paragraph even if it would also be described in another ECCN.

**(4) Step 4.** If the item is not described in a 9x515 ECCN or “600 series” ECCN, then determine whether the item is classified under a 9x515 ECCN or “600 series” catch-all paragraph, i.e., one that controls non-specific “parts,” “components,” “accessories,” and “attachments” “specially designed” for items in that ECCN or the corresponding USML paragraph. Such items are generally in the “.x” paragraph of ECCN 9A515 or a “600 series” ECCN.

**(i) Step 4.a.** Determine whether the item would meet the criteria of either paragraphs (a)(1) or (a)(2) of the “specially designed” definition in § 772.1 of the EAR. (These are informally known as the “catch” paragraphs.) If not applicable, then the item is not within the scope of the ECCN paragraph that contains a “specially designed” control parameter. Skip to Step 5.

**(ii) Step 4.b.** If the item meets the criteria of either paragraph (a)(1) or (a)(2) of the “specially designed” definition, then determine whether any of the provisions of paragraph (b) of the “specially designed” definition would apply. (These are informally known as the “release” provisions.) If so, then the item is not within the scope of the ECCN paragraph that contains a “specially designed” control parameter.

require a license if destined for a prohibited or restricted end user, end use or destination. See paragraphs (g) through (n) of § 732.3 “Steps Regarding the Ten General Prohibitions,” or General Prohibitions Four through Ten of part 736 of the EAR for license requirements other than those imposed by the CCL.

**(b) [RESERVED].**

*Note to paragraph (a)(4): The emphasis on the word “control” in Steps 4.a and 4.b is deliberate. Some ECCNs use “specially designed” as a de-control parameter. If an item would not be classified under a particular ECCN because it falls within the scope of either subparagraph (a)(1) or (a)(2) of the “specially designed” definition, then there is no need to analyze whether any element of paragraph (b) of the definition would apply to the item. One needs only review the “release” provisions in paragraph (b) of the “specially designed” definition if paragraph (a) of the “specially designed” definition applies to the item in a “control” paragraph of an ECCN that uses the term “specially designed.”*

**(5) Step 5.** If an item is not classified by a “600 series” or in a 9x515 ECCN, then starting from the beginning of the product group analyze each ECCN to determine whether any other ECCN in that product group describes the item. If any ECCN uses the term “specially designed,” see Steps 4.a and 4.b above in paragraphs (a)(4)(i) and (a)(4)(ii) respectively. If the item is described in one of these ECCNs, then the item is classified under that ECCN.

**(6) Step 6.** If the item is not described under any ECCN of any category of the CCL, then the item is designated as EAR99. EAR99 items may

\*\*EAR99 license

**SUPPLEMENT NO. 5 TO PART 774 - ITEMS CLASSIFIED UNDER ECCNS 0A521, 0B521, 0C521, 0D521 AND 0E521**

The following table lists items subject to the EAR that are not listed elsewhere in the CCL, but which the Department of Commerce, with the concurrence of the Departments of Defense and State, has identified warrant control for export or reexport because the items provide at least a significant military or intelligence advantage to the United States or for foreign policy reasons.

<b>Item descriptor.</b>  <i>Note: The description must match by model number or a broader descriptor that does not necessarily need to be company specific.</i>	<b>Date of initial or subsequent BIS classification.</b>  (ID = initial date; SD = subsequent date)	<b>Date when the item will be designated EAR99, unless reclassified in another ECCN or the 0Y521 classification is reissued.</b>	<b>Item-specific license exception eligibility.</b>
<b>0A521. Systems, Equipment and Components.</b>			
[RESERVED]			
<b>0B521. Test, Inspection and Production Equipment.</b>			
[RESERVED]			
<b>0C521. Materials.</b>			
<i>No.1</i> XBS Epoxy system designed to obfuscate critical technology components against x-ray and terahertz microscopy imaging attempts.	November 16, 2015(ID)	November 16, 2016	License Exception GOV under § 740.11(b)(2)(ii) only.
<i>No.2</i> [RESERVED]	[RESERVED]	[RESERVED]	[RESERVED]
<b>0D521. Software.</b>			
<i>No.1</i> Geospatial imagery “software” “specially designed” for training a Deep Convolutional Neural Network to automate the analysis of geospatial	January 6, 2020 (ID)	January 6, 2022	License Exception GOV under

<p>imagery and point clouds, and having all of the following:</p> <ol style="list-style-type: none"> <li>1. Provides a graphical user interface that enables the user to identify objects (e.g., vehicles, houses, etc.) from within geospatial imagery and point clouds in order to extract positive and negative samples of an object of interest;</li> <li>2. Reduces pixel variation by performing scale, color, and rotational normalization on the positive samples;</li> <li>3. Trains a Deep Convolutional Neural Network to detect the object of interest from the positive and negative samples; and</li> <li>4. Identifies objects in geospatial imagery using the trained Deep Convolutional Neural Network by matching the rotational pattern from the positive samples with the rotational pattern of objects in the geospatial imagery.</li> </ol> <p><u>Technical Note</u>: A point cloud is a collection of data points defined by a given coordinate system. A point cloud is also known as a digital surface model.</p>			<p>§ 740.11(b)(2)(ii) only.</p>
<p><b>0E521. Technology.</b></p>			
<p><b>[RESERVED]</b></p>			

**SUPPLEMENT NO. 6 TO PART 774 – SENSITIVE LIST**

*Note to Supplement No. 6: While the items on this list are identified by ECCN rather than by Wassenaar Arrangement numbering, the item descriptions are drawn directly from the Wassenaar Arrangement's Sensitive List. If text accompanies an ECCN below, then the Sensitive List is limited to a subset of items classified under the specific ECCN or has differing parameters.*

**(1) Category 1**

- (i) 1A002.a.1.
- (ii) 1C001.
- (iii) 1C007.c.
- (iv) 1C010.c and .d.
- (v) 1C012.
- (vi) 1D002 – “Software” for the “development” of organic “matrix”, metal “matrix”, or carbon “matrix” laminates or composites controlled under 1A002, 1C007.c, 1C010.c or 1C010.d.
- (vii) 1E001 – “Technology” according to the General Technology Note for the “development” or “production” of equipment and materials controlled under 1A002, 1C001, 1C007.c, 1C010.c, 1C010.d, or 1C012.
- (viii) 1E002.e and .f.

**(2) Category 2**

- (i) 2D001—“Software”, other than that controlled by 2D002, “specially designed” for the “development” or “production” of equipment as follows:
  - (A) Specified by 2B001.a, 2B001.b.1, or 2B001.b.2, and having a “unidirectional positioning repeatability” equal to or less (better) than 0.9  $\mu\text{m}$  along one or more linear axis;

(B) Specified by 2B001.b.3, 2B001.d, 2B001.f or 2B003.

(ii) 2E001—“Technology” according to the General Technology Note for the “development” of equipment or “software”, as follows:

(A) Equipment specified by 2B001.a, 2B001.b.1 or 2B001.b.2, and having a “unidirectional positioning repeatability” equal to or less (better) than 0.9  $\mu\text{m}$  along one or more linear axis;

(B) Equipment specified by 2B001.b.3, 2B001.d, 2B001.f or 2B003.

(C) “Software” specified by 2D001 of this Supplement;

(iii) 2E002 “Technology” according to the General Technology Note for the “production” of equipment as follows:

(A) Specified by 2B001.a, 2B001.b.1, or 2B001.b.2, and having a “unidirectional positioning repeatability” equal to or less (better) than 0.9  $\mu\text{m}$  along one or more linear axis;

(B) Specified by 2B001.b.3, 2B001.d, 2B001.f or 2B003.

### **(3) Category 3**

(i) 3A001.b.2 - "Monolithic Microwave Integrated Circuit" ("MMIC") amplifiers that are any of the following:

(A) Rated for operation at frequencies exceeding 2.7 GHz up to and including 6.8 GHz with a "fractional bandwidth" greater than 15%, and having any of the following:

(A.1.) A peak saturated power output greater than **300 W (54.8 dBm)** at any frequency exceeding 2.7 GHz up to and including 2.9 GHz;

(A.2.) A peak saturated power output greater than **300 W (54.8 dBm)** at any frequency exceeding 2.9 GHz up to and including 3.2 GHz;

(A.3.) A peak saturated power output greater than **300 W (54.8 dBm)** at any frequency exceeding 3.2 GHz up to and including 3.7 GHz; or

(A.4.) A peak saturated power output greater than **120 W (50.8 dBm)** at any frequency exceeding 3.7 GHz up to and including 6.8 GHz;

(B) Rated for operation at frequencies exceeding 6.8 GHz up to and including **12 GHz** with a "fractional bandwidth" greater than 10%, and having any of the following:

(B.1) A peak saturated power output greater than **25 W (44 dBm)** at any frequency exceeding 6.8 GHz up to and including 8.5 GHz; or

(B.2.) A peak saturated power output greater than **25 W (44 dBm)** at any frequency exceeding 8.5 GHz up to and including **12 GHz**.

(ii) 3A001.b.3 - Discrete microwave transistors that are any of the following:

(A) Rated for operation at frequencies exceeding 2.7 GHz up to and including 6.8 GHz and having any of the following:

(A.1.) A peak saturated power output greater than **600 W (57.8 dBm)** at any frequency exceeding 2.7 GHz up to and including 2.9 GHz;

(A.2.) A peak saturated power output greater than **600 W (57.8 dBm)** at any frequency exceeding 2.9 GHz up to and including 3.2 GHz;

(A.3.) A peak saturated power output greater than **600 W (57.8 dBm)** at any frequency exceeding 3.2 GHz up to and including 3.7 GHz; or

(A.4.) A peak saturated power output greater than **130 W (51.2 dBm)** at any frequency exceeding 3.7 GHz up to and including 6.8 GHz;

(B) Rated for operation at frequencies exceeding 6.8 GHz up to and including **12 GHz** and having any of the following:

(B.1.) A peak saturated power output greater than **130 W (51.2 dBm)** at any frequency exceeding 6.8 GHz up to and including 8.5 GHz;

(B.2.) A peak saturated power output greater than **60 W (47.8 dBm)** at any frequency exceeding 8.5 GHz up to and including 12 GHz.

(iii) 3A002.g.1.

(iv) 3D001 – “Software” “specially designed” for the “development” or “production” of equipment controlled under 3A001.b.2, 3A001.b.3, and 3A002.g.1.

(v) 3E001 – “Technology” according to the General Technology Note for the “development” or “production” of equipment controlled under 3A001.b.2, 3A001.b.3, and .3A002.g.1.

**(4) Category 4**

(i) 4A001.a.2.

(ii) 4D001 – “Software” “specially designed” for the “development” or “production” of equipment controlled under ECCN 4A001.a.2 or for the “development” or “production” of “digital computers” having an ‘Adjusted Peak Performance’ (‘APP’) exceeding 16 Weighted TeraFLOPS (WT).

(iii) 4E001 – “Technology” according to the General Technology Note for the “development” or “production” of any of the following equipment or “software”: equipment controlled under ECCN 4A001.a.2, “digital computers” having an ‘Adjusted Peak Performance’ (‘APP’) exceeding 16 Weighted TeraFLOPS (WT), or “software” controlled under the specific provisions of 4D001 described in this Supplement.

**(5) Category 5 – Part 1**

(i) 5A001.b.3, .b.5, and .h.

(ii) 5B001.a – Equipment and specially designed components or accessories therefor, specially designed for the “development” or “production” of equipment, functions or features controlled under 5A001.b.3, b.5, or .h.

(iii) 5D001.a – “Software” specially designed for the “development” or “production” of equipment, functions or features controlled under 5A001.b.3, b.5, or .h.

(iv) [Reserved]

(v) 5E001.a – “Technology” according to the General Technology Note for the “development” or “production” of equipment, functions or features controlled under 5A001.b.3, b.5, or .h or “software” described in this Supplement’s description of 5D001.a.

**(6) Category 6**

(i) 6A001.a.1.b – Systems or transmitting and receiving arrays, designed for object detection or location, having any of the following:

(A) A transmitting frequency below 5 kHz or a sound pressure level exceeding 224 dB (reference 1  $\mu$ Pa at 1 m) for equipment with an operating frequency in the band from 5 kHz to 10 kHz inclusive;

(B) Sound pressure level exceeding 224 dB (reference 1  $\mu$ Pa at 1 m) for equipment with an operating frequency in the band from 10 kHz to 24 kHz inclusive;

(C) Sound pressure level exceeding 235 dB (reference 1  $\mu$ Pa at 1 m) for equipment with an operating frequency in the band between 24 kHz and 30 kHz;

(D) Forming beams of less than 1° on any axis and having an operating frequency of less than 100 kHz;

(E) Designed to operate with an unambiguous display range exceeding 5,120 m; *or*

(F) Designed to withstand pressure during normal operation at depths exceeding 1,000 m and having transducers with any of the following:

(1) Dynamic compensation for pressure; or

(2) Incorporating other than lead zirconate titanate as the transduction element;

(ii) 6A001.a.1.e.

(iii) 6A001.a.2.a.1, a.2.a.2, a.2.a.3, a.2.a.5, and a.2.a.6.

(iv) 6A001.a.2.b.

(v) 6A001.a.2.c – Processing equipment, specially designed for real time application with towed acoustic hydrophone arrays, having “user-accessible programmability” and time or frequency domain processing and correlation, including spectral analysis, digital filtering and beamforming using Fast Fourier or other transforms or processes.

(vi) 6A001.a.2.d.

(vii) 6A001.a.2.e.

(viii) 6A001.a.2.f – Processing equipment, specially designed for real time application with bottom or bay cable systems, having “user-accessible programmability” and time or frequency domain processing and correlation, including spectral analysis, digital filtering and beamforming using Fast Fourier or other transforms or processes.

(ix) 6A002.a.1.a, a.1.b, and a.1.c.

(x) 6A002.a.1.d.

(xi) 6A002.a.2.a – Image intensifier tubes having all of the following:

(A) A peak response in the wavelength range exceeding 400 nm but not exceeding 1,050 nm;

(B) Electron image amplification using any of the following:

(1) A microchannel plate for electron image amplification with a hole pitch (center-to-center spacing) of 12  $\mu\text{m}$  or less; or

(2) An electron sensing device with a non-binned pixel pitch of 500  $\mu\text{m}$  or less, specially designed or modified to achieve ‘charge multiplication’ other than by a microchannel plate; and

(C) Any of the following photocathodes:

(1) Multialkali photocathodes (e.g., S-20 and S-25) having a luminous sensitivity exceeding 700  $\mu\text{A}/\text{lm}$ ;

(2) GaAs or GaInAs photocathodes; *or*

(3) Other “III-V compound” semiconductor photocathodes having a maximum “radiant sensitivity” exceeding 10 mA/W.

(xii) 6A002.a.2.b.

(xiii) 6A002.a.3 – Subject to the following additional notes:

**Note 1:** 6A002.a.3 does not apply to the following “focal plane arrays” in this Supplement:

a. Platinum Silicide (PtSi) “focal plane arrays” having less than 10,000 elements;

b. Iridium Silicide (IrSi) “focal plane arrays”.

**Note 2:** 6A002.a.3 does not apply to the following “focal plane arrays” in this Supplement:

a. Indium Antimonide (InSb) or Lead Selenide (PbSe) “focal plane arrays” having less than 256 elements;

b. Indium Arsenide (InAs) “focal plane arrays”;

c. Lead Sulfide (PbS) “focal plane arrays”;

d. Indium Gallium Arsenide (InGaAs) “focal plane arrays”.

**Note 3:** 6A002.a.3 does not apply to Mercury Cadmium Telluride (HgCdTe) “focal plane arrays” as follows in this Supplement:

a. ‘Scanning Arrays’ having any of the following:

1. 30 elements or less; or

2. *Incorporating time delay-and-integration within the element and having 2 elements or less;*

b. *'Staring Arrays' having less than 256 elements.*

**Technical Notes:**

a. *'Scanning Arrays' are defined as "focal plane arrays" designed for use with a scanning optical system that images a scene in a sequential manner to produce an image;*

b. *'Staring Arrays' are defined as "focal plane arrays" designed for use with a non-scanning optical system that images a scene.*

**Note 6:** *6A002.a.3 does not apply to the following "focal plane arrays" in this List:*

a. *Gallium Arsenide (GaAs) or Gallium Aluminum Arsenide (GaAlAs) quantum well "focal plane arrays" having less than 256 elements;*

b. *Microbolometer "focal plane arrays" having less than 8,000 elements.*

**Note 7:** *6A002.a.3.g does not apply to "focal plane arrays", "specially designed" or modified to achieve 'charge multiplication', as follows:*

a. *Linear (1-dimensional) arrays having 4,096 elements or less.*

b. *Non-linear (2-dimensional) arrays having all of the following;*

b.1. *A total of 250,000 elements or less; and*

b.2. *A maximum of 4,096 elements in each dimension.*

(xiv) 6A002.b.

(xv) 6A002.c – 'Direct view' imaging equipment incorporating any of the following:

(A) Image intensifier tubes having the characteristics listed in this Supplement's description of 6A002.a.2.a or 6A002.a.2.b;

(B) "Focal plane arrays" having the characteristics listed in this Supplement's description of 6A002.a.3; or

(C) Solid-state detectors having the characteristics listed in 6A002.a.1.

(xvi) 6A003.b.3 – Imaging cameras incorporating image intensifier tubes having the characteristics listed in this Supplement's description of 6A002.a.2.a or 6A002.a.2.b

*Note: 6A003.b.3 does not apply to imaging cameras specially designed or modified for underwater use.*

(xvii) 6A003.b.4 – Imaging cameras incorporating “focal plane arrays” having any of the following:

(A) Incorporating “focal plane arrays” specified by this Supplement’s description of 6A002.a.3.a to 6A002.a.3.e;

(B) Incorporating “focal plane arrays” specified by this Supplement’s description of 6A002.a.3.f; or

(C) Incorporating “focal plane arrays” specified by this Supplement’s description of 6A002.a.3.g.

*Note 1: ‘Imaging cameras’ described in 6A003.b.4 include “focal plane arrays” combined with sufficient “signal processing” electronics, beyond the read out integrated circuit, to enable as a minimum the output of an analog or digital signal once power is supplied.*

*Note 2: 6A003.b.4.a does not control imaging cameras incorporating linear “focal plane arrays” with twelve 12 elements or fewer, not employing time-delay-and-integration within the element, and designed for any of the following:*

*a. Industrial or civilian intrusion alarm, traffic or industrial movement control or counting systems;*

*b. Industrial equipment used for inspection or monitoring of heat flows in buildings, equipment or industrial processes;*

*c. Industrial equipment used for inspection, sorting or analysis of the properties of materials;*

*d. Equipment specially designed for laboratory use; or*

*e. Medical equipment.*

*Note 3: 6A003.b.4.b does not control imaging cameras having any of the following characteristics:*

*a. A maximum frame rate equal to or less than 9 Hz;*

*b. Having all of the following:*

*1. Having a minimum horizontal or vertical ‘Instantaneous-Field -of-View (IFOV)’ of at least 10 mrad/pixel (milliradians/pixel);*

*2. Incorporating a fixed focal-length lens that is not designed to be removed;*

3. Not incorporating a 'direct view' display; and

**Technical Note:** 'Direct view' refers to an imaging camera operating in the infrared spectrum that presents a visual image to a human observer using a near-to-eye micro display incorporating any light-security mechanism.

4. Having any of the following:

- a. No facility to obtain a viewable image of the detected field-of-view; or
- b. The camera is designed for a single kind of application and designed not to be user modified; or

**Technical Note:**

'Instantaneous Field of View (IFOV)' specified in Note 3.b is the lesser figure of the 'Horizontal FOV' or the 'Vertical FOV'.

'Horizontal IFOV' = horizontal Field of View (FOV)/number of horizontal detector elements

'Vertical IFOV' = vertical Field of View (FOV)/number of vertical detector elements.

c. Where the camera is specially designed for installation into a civilian passenger land vehicle of less than 3 tonnes three tons (gross vehicle weight) and having all of the following:

1. Is operable only when installed in any of the following:

- a. The civilian passenger land vehicle for which it was intended; or
- b. A specially designed, authorized maintenance test facility; and

2. Incorporates an active mechanism that forces the camera not to function when it is removed from the vehicle for which it was intended.

**Note:** When necessary, details of the items will be provided, upon request, to the Bureau of Industry and Security in order to ascertain compliance with the conditions described in Note 3.b.4 and Note 3.c in this Note to 6A003.b.4.b.

**Note 4:** 6A003.b.4.c does not apply to 'imaging cameras' having any of the following characteristics:

- a. Having all of the following:

1. *Where the camera is specially designed for installation as an integrated component into indoor and wall-plug-operated systems or equipment, limited by design for a single kind of application, as follows:*

a. *Industrial process monitoring, quality control, or analysis of the properties of materials;*

b. *Laboratory equipment specially designed for scientific research;*

c. *Medical equipment;*

d. *Financial fraud detection equipment; and*

2. *Is only operable when installed in any of the following:*

a. *The system(s) or equipment for which it was intended; or*

b. *A specially designed, authorized maintenance facility; and*

3. *Incorporates an active mechanism that forces the camera not to function when it is removed from the system(s) or equipment for which it was intended;*

b. *Where the camera is specially designed for installation into a civilian passenger land vehicle of less than 3 tonnes (gross vehicle weight), or passenger and vehicle ferries having a length overall (LOA) 65 m or greater, and having all of the following:*

1. *Is only operable when installed in any of the following:*

a. *The civilian passenger land vehicle or passenger and vehicle ferry for which it was intended; or*

b. *A specially designed, authorized maintenance test facility; and*

2. *Incorporates an active mechanism that forces the camera not to function when it is removed from the vehicle for which it was intended;*

c. *Limited by design to have a maximum “radiant sensitivity” of 10 mA/W or less for wavelengths exceeding 760 nm, having all of the following:*

1. *Incorporating a response limiting mechanism designed not to be removed or modified; and*

2. *Incorporates an active mechanism that forces the camera not to function when the response limiting mechanism is removed; and*

3. *Not specially designed or modified for underwater use; or*

- d. *Having all of the following:*
1. *Not incorporating a ‘direct view’ or electronic image display;*
  2. *Has no facility to output a viewable image of the detected field of view;*
  3. *The “focal plane array” is only operable when installed in the camera for which it was intended; and*
  4. *The “focal plane array” incorporates an active mechanism that forces it to be permanently inoperable when removed from the camera for which it was intended.*

**Note:** *When necessary, details of the item will be provided, upon request, to the Bureau of Industry and Security in order to ascertain compliance with the conditions described in Note 4 above.*

**Note 5:** *6A003.b.4.c does not apply to imaging cameras specially designed or modified for underwater use.*

(xviii) 6A003.b.5.

(xix) 6A004.c.

(xx) 6A004.d.

(xxi) 6A006.a.1.

(xxii) 6A006.a.2 – “Magnetometers” using optically pumped or nuclear precession (proton/Overhauser) “technology” having a ‘sensitivity’ lower (better) than 2 pT (rms) per square root Hz.

(xxiii) 6A006.c.1 – “Magnetic gradiometers” using multiple “magnetometers” specified by 6A006.a.1 or this Supplement’s description of 6A006.a.2.

(xxiv) 6A006.d – “Compensation systems” for the following:

(A) Magnetic sensors specified by 6A006.a.2 and using optically pumped or nuclear precession (proton/Overhauser) “technology” that will permit these sensors to realize a ‘sensitivity’ lower (better) than 2 pT rms per square root Hz.

(B) Underwater electric field sensors specified by 6A006.b.

(C) “Magnetic gradiometers” specified by 6A006.c. that will permit these sensors to realize a ‘sensitivity’ lower (better) than 3 pT/m rms per square root Hz.

(xxv) 6A006.e – Underwater electromagnetic receivers incorporating “magnetometers” specified by 6A006.a.1 or this Supplement’s description of 6A006.a.2.

(xxvi) 6A008.d, .h, and .k.

(xxvii) 6B008.

(xxviii) 6D001 – “Software” specially designed for the “development” or “production” of equipment specified by 6A004.c, 6A004.d, 6A008.d, 6A008.h, 6A008.k, or 6B008.

(xxix) 6D003.a.

(xxx) 6E001.

(xxxi) 6E002 – “Technology” according to the General Technology Note for the “production” of equipment specified by the 6A or 6B provisions described in this Supplement.

**(7) Category 7**

(i) 7D002.

(ii) 7D003.a.

(iii) 7D003.b.

(iv) [RESERVED]

(v) 7D004.a to .d and .g.

(vi) 7E001.

(vii) 7E002.

**(8) Category 8**

(i) 8A001.b to .c.

(ii) 8A002.b – Systems specially designed or modified for the automated control of the motion of submersible vehicles specified by 8A001.b through .c using navigation data having closed loop servo-controls and having any of the following:

(A) Enabling a vehicle to move within 10 m of a predetermined point in the water column;

(B) Maintaining the position of the vehicle within 10 m of a predetermined point in the water column; or

(C) Maintaining the position of the vehicle within 10 m while following a cable on or under the seabed.

(iii) 8A002.h and .j.

(iv) 8A002.o.3.

(v) 8A002.p.

(vi) 8D001 – “Software” specially designed for the “development” or “production” of equipment in 8A001.b to .c, 8A002.b (as described in this Supplement), 8A002.h, 8A002.j, 8A002.o.3, or 8A002.p.

(vii) 8D002.

(viii) 8E001 – “Technology” according to the General Technology Note for the “development” or “production” of equipment specified by 8A001.b to .c, 8A002.b (as described in this Supplement), 8A002.h, 8A002.j, 8A002.o.3, or 8A002.p.

(ix) 8E002.a.

### **(9) Category 9**

(i) 9A011.

(ii) 9B001.

(iii) 9D001 – “Software” specially designed or modified for the “development” of equipment or “technology”, specified by 9A011, 9B001.b, 9E003.a.1 to a.5 or 9E003.a.8 or 9E003.h.

(iv) 9D002 – “Software” specially designed or modified for the “production” of equipment specified by 9A011 or 9B001.b.

(v) 9D004.a and .c.

(vi) 9E001.

(vii) 9E002.

(viii) [Reserved]

(ix) 9E003.a.1 to a.5, a.8.

(x) 9E003.h.

**SUPPLEMENT NO. 7 TO PART 774 – VERY SENSITIVE LIST**

*Note to Supplement No. 7: While the items on this list are identified by ECCN rather than by Wassenaar Arrangement numbering, the item descriptions are drawn directly from the Wassenaar Arrangement's Very Sensitive List, which is a subset of the Wassenaar Arrangement's Sensitive List. If text accompanies an ECCN below, then the Very Sensitive List is limited to a subset of items classified under the specific ECCN or has differing parameters.*

**(1) Category 1**

- (i) 1A002.a.1.
- (ii) 1C001.
- (iii) 1C012.
- (iv) 1E001 – “Technology” according to the General Technology Note for the “development” or “production” of equipment and materials specified by 1A002.a, 1C001, or 1C012.

**(2) Category 5 – Part 1**

- (i) 5A001.b.5.
- (ii) 5A001.h.
- (iii) 5D001.a – “Software” specially designed for the “development” or “production” of equipment, functions or features specified by 5A001.b.5 or 5A001.h.
- (iv) 5E001.a – “Technology” according to the General Technology Note for the “development” or “production” of equipment, functions, features or “software” specified by 5A001.b.5, 5A001.h, or 5D001.a.

**(3) Category 6**

- (i) 6A001.a.1.b.1 – Systems or transmitting and receiving arrays, designed for object detection or location, having a sound pressure level exceeding 210 dB (reference 1  $\mu$ Pa at 1 m) and an operating frequency in the band from 30 Hz to 2 kHz.

(ii) 6A001.a.2.a.1 to a.2.a.3, a.2.a.5, or a.2.a.6.

(iii) 6A001.a.2.b.

(iv) 6A001.a.2.c – Processing equipment, specially designed for real time application with towed acoustic hydrophone arrays, having “user-accessible programmability” and time or frequency domain processing and correlation, including spectral analysis, digital filtering and beamforming using Fast Fourier or other transforms or processes.

(v) 6A001.a.2.e.

(vi) 6A001.a.2.f – Processing equipment, specially designed for real time application with bottom or bay cable systems, having “user-accessible programmability” and time or frequency domain processing and correlation, including spectral analysis, digital filtering and beamforming using Fast Fourier or other transforms or processes.

(vii) 6A002.a.1.c.

(viii) 6B008.

(ix) 6D001 – “Software” specially designed for the “development” or “production” of equipment specified by 6B008.

(x) 6D003.a.

(xi) 6E001 – “Technology” according to the General Technology Note for the “development” of equipment or “software” specified by the 6A, 6B, or 6D provisions described in this Supplement.

(xii) 6E002 – “Technology” according to the General Technology Note for the “production” of equipment specified by the 6A or 6B provisions described in this Supplement.

#### **(4) Category 7**

(i) 7D003.a.

(ii) 7D003.b.

#### **(5) Category 8**

(i) 8A001.b.

(ii) 8A001.c.1.

(iii) 8A002.o.3.b.

(iv) 8D001 – “Software” specially designed for the “development” or “production” of equipment specified by 8A001.b, 8A001.c.1, or 8A002.o.3.b.

(v) 8E001 – “Technology” according to the General Technology Note for the “development” or “production” of equipment specified by 8A001.b, 8A001.c.1, or 8A002.o.3.b.

**(6) Category 9**

(i) 9A011.

(ii) 9D001 – “Software” specially designed or modified for the “development” of equipment or “technology” specified by 9A011, 9E003.a.1, or 9E003.a.3.a.

(iii) 9D002 – “Software” specially designed or modified for the “production” of equipment specified by 9A011.

(iv) 9E001 – “Technology” according to the General Technology note for the “development” of equipment or “software” specified by 9A011 or this Supplement’s description of 9D001 or 9D002.

(v) 9E002 – “Technology” according to the General Technology Note for the “production” of equipment specified by 9A011.

(vi) 9E003.a.1.

(vii) 9E003.a.3.a.