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(3) Department of Defense, Defense Security Assistance Agency: Letter of Offer and Acceptance (DD Form 1513).

§ 120.29 Missile Technology Control Regime.

(a) For purposes of this subchapter, *Missile Technology Control Regime (MTCR)* means the policy statement between the United States, the United Kingdom, the Federal Republic of Germany, France, Italy, Canada, and Japan, announced on April 16, 1987, to restrict sensitive missile-relevant transfers based on the MTCR Annex, and any amendments thereto;

(b) The term *MTCR Annex* means the Guidelines and Equipment and Technology Annex of the MTCR, and any amendments thereto;

(c) *List of all items on the MTCR Annex.* Section 71(a) of the Arms Export Control Act (22 U.S.C. § 2797) refers to the establishment as part of the U.S. Munitions List of a list of all items on the MTCR Annex, the export of which is not controlled under section 6(l) of the Export Administration Act of 1979 (50 U.S.C. app. 2405(l)), as amended. In accordance with this provision, the list of MTCR Annex items shall constitute all items on the U.S. Munitions List in § 121.16 of this subchapter.

PART 121—THE UNITED STATES MUNITIONS LIST

ENUMERATION OF ARTICLES

Sec.
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121.16 Missile Technology Control Regime Annex.

AUTHORITY: Sec. 2, 38, and 71, Pub. L. 90-629, 90 Stat. 744 (22 U.S.C. 2752, 2778, 2797); E.O. 11958, 42 FR 4311, 3 CFR 1977 Comp. p. 79; 22 U.S.C. 2658; Pub. L. 105-261.

SOURCE: 58 FR 39287, July 22, 1993, unless otherwise noted.

ENUMERATION OF ARTICLES

§ 121.1 General. The United States Munitions List.

(a) The following articles, services and related technical data are designated as defense articles and defense services pursuant to sections 38 and 47(7) of the Arms Export Control Act (22 U.S.C. 2778 and 2794(7)). Changes in designations will be published in the FEDERAL REGISTER. Information and clarifications on whether specific items are defense articles and services under this subchapter may appear periodically in the Defense Trade News published by the Center for Defense Trade.

(b) Significant military equipment: An asterisk precedes certain defense articles in the following list. The asterisk means that the article is deemed to be "significant military equipment" to the extent specified in § 120.19. The asterisk is placed as a convenience to help identify such articles.

(c) Missile Technology Control Regime Annex (MTCR). Certain defense articles and services are identified in § 121.16 as being on the list of MTCR Annex items on the United States Munitions List. These are articles as specified in § 120.29 of this subchapter and appear on the list at § 121.16.

CATEGORY I—FIREARMS

*(a) Nonautomatic, semi-automatic and fully automatic firearms to caliber .50 inclusive. (See § 121.9 and §§ 123.17 and 123.18 of this subchapter.)

(b) Riflescopes manufactured to military specifications; firearm silencers and suppressers, including flash suppressors. (See Category XII(c) for night sighting devices.)

*(c) Insurgency-counterinsurgency type firearms or other weapons having a special military application (e.g. close assault weapons systems) regardless of caliber.

*(d) Components, parts, accessories and attachments for the articles in paragraphs (a) through (c) of this category. All the components, parts, accessories and attachments

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covered by this paragraph, except barrels, cylinders, receivers (frames) or complete breach mechanisms, are non-SME (see § 120.7).

(e) Technical data (as defined in § 120.10 of this subchapter) and defense services (as defined in § 120.9 of this subchapter) directly related to the defense articles enumerated in paragraphs (a) through (d) of this category. (See § 125.4 of this subchapter for exemptions.) Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as Significant Military Equipment (SME) shall itself be designated SME.

CATEGORY II—ARTILLERY PROJECTORS

*(a) Guns over caliber .50, howitzers, mortars, and recoilless rifles.

*(b) Military flamethrowers and projectors.

(c) Components, parts, accessories and attachments for the articles in paragraphs (a) and (b) of this category, including but not limited to mounts and carriages for these articles.

(d) Technical data (as defined in 120.21 of this subchapter) and defense services (as defined in § 120.8 of this subchapter) directly related to the defense articles enumerated in paragraphs (a) through (c) of this category. (See § 125.4 of this subchapter for exemptions.) Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as Significant Military Equipment (SME) shall itself be designated SME.

CATEGORY III—AMMUNITION

*(a) Ammunition for the arms in Categories I and II of this section. (See § 121.6.)

(b) Components, parts, accessories, and attachments for articles in paragraph (a) of this category, including but not limited to cartridge cases, powder bags, bullets, jackets, cores, shells (excluding shotgun shells), projectiles, boosters, fuzes and components therefor, primers, and other detonating devices for such ammunition. (See § 121.6.)

(c) Ammunition belting and linking machines.

*(d) Ammunition manufacturing machines and ammunition loading machines (except handloading ones).

(e) Technical data (as defined in § 120.21 of this subchapter) and defense services (as defined in § 120.8 of this subchapter) directly related to the defense articles enumerated in paragraphs (a) through (d) of this category. (See § 125.4 of this subchapter for exemptions.) Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as Significant Military Equipment (SME) shall itself be designated SME.

CATEGORY IV—LAUNCH VEHICLES, GUIDED MISSILES, BALLISTIC MISSILES, ROCKETS, TORPEDOES, BOMBS AND MINES

*(a) Rockets (including but not limited to meteorological and other sounding rockets), bombs, grenades, torpedoes, depth charges, land and naval mines, as well as launchers for such defense articles, and demolition blocks and blasting caps. (See § 121.11.)

*(b) Launch vehicles and missile and anti-missile systems including but not limited to guided, tactical and strategic missiles, launchers, and systems.

(c) Apparatus, devices, and materials for the handling, control, activation, monitoring, detection, protection, discharge, or detonation of the articles in paragraphs (a) and (b) of this category. (See § 121.5.)

*(d) Missile and space launch vehicle powerplants.

*(e) Military explosive excavating devices.

*(f) Ablative materials fabricated or semi-fabricated from advanced composites (e.g., silica, graphite, carbon, carbon/carbon, and boron filaments) for the articles in this category that are derived directly from or specifically developed or modified for defense articles.

*(g) Non/nuclear warheads for rockets and guided missiles.

(h) All specifically designed or modified components, parts, accessories, attachments, and associated equipment for the articles in this category.

(i) Technical data (as defined in § 120.21 of this subchapter) and defense services (as defined in § 120.8 of this subchapter) directly related to the defense articles enumerated in paragraphs (a) through (h) of this category. (See § 125.4 of this subchapter for exemptions.) Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as Significant Military Equipment (SME) shall itself be designated SME.

CATEGORY V—EXPLOSIVES, PROPELLANTS, INCENDIARY AGENTS, AND THEIR CONSTITUENTS

*(a) Military explosives. (See § 121.12.)

*(b) Military fuel thickeners. (See § 121.13.)

(c) Propellants for the articles in Categories III and IV of this section. (See § 121.14.)

(d) Military pyrotechnics, except pyrotechnic materials having dual military and commercial use.

(e) All compounds specifically formulated for the articles in this category.

(f) Technical data (as defined in § 120.21 of this subchapter) and defense services (as defined in § 120.8 of this subchapter) directly related to the defense articles enumerated in paragraphs (a) through (e) of this category. (See § 125.4 of this subchapter for exemptions.) Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as Significant Military Equipment (SME) shall itself be designated SME.

CATEGORY VI—VESSELS OF WAR AND SPECIAL NAVAL EQUIPMENT.

*(a) Warships, amphibious warfare vessels, landing craft, mine warfare vessels, patrol vessels and any vessels specifically designed or modified for military purposes. (See § 121.15.)

(b) Patrol craft without armor, armament or mounting surfaces for weapon systems more significant than .50 caliber machine guns or equivalent and auxiliary vessels. (See § 121.15.)

*(c) Turrets and gun mounts, arresting gear, special weapons systems, protective systems, submarine storage batteries, catapults, mine sweeping equipment (including mine countermeasures equipment deployed by aircraft) and other significant naval systems specifically designed or modified for combatant vessels.

(d) Harbor entrance detection devices (magnetic, pressure, and acoustic) and controls therefor.

*(e) Naval nuclear propulsion plants, their land prototypes, and special facilities for their construction, support, and maintenance. This includes any machinery, device, component, or equipment specifically developed, designed or modified for use in such plants or facilities. (See § 123.20)

(f) All specifically designed or modified components, parts, accessories, attachments, and associated equipment for the articles in paragraphs (a) through (e) of this category.

(g) Technical data (as defined in § 120.10) and defense services (as defined in § 120.9) directly related to the defense articles enumerated in paragraphs (a) through (f) of this category. (See § 125.4 for exemptions.) Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as Significant Military Equipment (SME) shall itself be designated SME.

CATEGORY VII—TANKS AND MILITARY VEHICLES

*(a) Military type armed or armored vehicles, military railway trains, and vehicles specifically designed or modified to accommodate mountings for arms or other specialized military equipment or fitted with such items.

*(b) Military tanks, combat engineer vehicles, bridge launching vehicles, half-tracks and gun carriers.

*(c) Self-propelled guns and howitzers.

(d) Military trucks, trailers, hoists, and skids specifically designed, modified, or equipped to mount or carry weapons of Categories I, II and IV or for carrying and handling the articles in paragraph (a) of Categories III and IV.

*(e) Military recovery vehicles.

*(f) Amphibious vehicles. (See § 121.4)

*(g) Engines specifically designed or modified for the vehicles in paragraphs (a), (b), (c), and (f) of this category.

(h) All specifically designed or modified components and parts, accessories, attachments, and associated equipment for the articles in this category, including but not limited to military bridging and deep water fording kits.

(i) Technical data (as defined in § 120.21 of this subchapter) and defense services (as defined in § 120.8 of this subchapter) directly related to the defense articles enumerated in paragraphs (a) through (h) of this category. (See § 125.4 of this subchapter for exemptions.) Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as Significant Military Equipment (SME) shall itself be designated SME.

CATEGORY VIII—AIRCRAFT AND ASSOCIATED EQUIPMENT

*(a) Aircraft, including but not limited to helicopters, non-expansive balloons, drones, and lighter-than-air aircraft, which are specifically designed, modified, or equipped for military purposes. This includes but is not limited to the following military purposes: Gunnery, bombing, rocket or missile launching, electronic and other surveillance, reconnaissance, refueling, aerial mapping, military liaison, cargo carrying or dropping, personnel dropping, airborne warning and control, and military training. (See § 121.3.)

*(b) Military aircraft engines, except reciprocating engines, specifically designed or modified for the aircraft in paragraph (a) of this category.

*(c) Cartridge-actuated devices utilized in emergency escape of personnel and airborne equipment (including but not limited to airborne refueling equipment) specifically designed or modified for use with the aircraft and engines of the types in paragraphs (a) and (b) of this category.

(d) Launching and recovery equipment for the articles in paragraph (a) of this category, if the equipment is specifically designed or modified for military use. Fixed land-based arresting gear is not included in this category.

*(e) Inertial navigation systems, aided or hybrid inertial navigation systems, Inertial

Measurement Units (IMUs), and Attitude and Heading Reference Systems (AHRS) specifically designed, modified, or configured for military use and all specifically designed components, parts and accessories. For other inertial reference systems and related components refer to Category XII(d).

(f) Developmental aircraft, engines, and components thereof specifically designed, modified, or equipped for military uses or purposes, or developed principally with U.S. Department of Defense funding, excluding such aircraft, engines, and components subject to the jurisdiction of the Department of Commerce.

NOTE: Developmental aircraft, engines, and components thereof, having no commercial application at the time of this amendment and which have been specifically designed for military uses or purposes, or developed principally with U.S. Department of Defense funding, will be considered eligible for a CCL license when actually applied to a commercial aircraft or 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 application from Commerce in respect of a specific export or, in the case of use for broad categories of aircraft, engines, or components, a commodity jurisdiction from State.

*(g) Ground effect machines (GEMS) specifically designed or modified for military use, including but not limited to surface effect machines and other air cushion vehicles, and all components, parts, and accessories, attachments, and associated equipment specifically designed or modified for use with such machines.

(h) Components, parts, accessories, attachments, and associated equipment (including ground support equipment) specifically designed or modified for the articles in paragraphs (a) through (e) of this category, excluding aircraft tires and propellers used with reciprocating engines.

(i) Technical data (as defined in §120.10) and defense services (as defined in §120.9) directly related to the defense articles enumerated in paragraphs (a) through (h) of this category (see §125.4 for exemptions), except for hot section technical data associated with commercial aircraft engines. Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as Significant Military Equipment (SME) shall itself be designated SME.

CATEGORY IX—MILITARY TRAINING EQUIPMENT

(a) Military training equipment including but not limited to attack trainers, radar target trainers, radar target generators, gunnery training devices, antisubmarine warfare trainers, target equipment, armament training units, operational flight trainers, air combat training systems, radar trainers, navigation trainers, and simulation devices related to defense articles.

(b) Components, parts, accessories, attachments, and associated equipment specifically designed or modified for the articles in paragraph (a) of this category.

(c) Technical Data (as defined in §120.21 of this subchapter) and defense services (as defined in §120.8 of this subchapter) directly related to the defense articles enumerated in paragraphs (a) and (b) of this category. (See §125.4 for exemptions.).

CATEGORY X—PROTECTIVE PERSONNEL EQUIPMENT

(a) Body armor specifically designed, modified or equipped for military use; articles, including but not limited to clothing, designed, modified or equipped to protect against or reduce detection by radar, infrared (IR) or other sensors; military helmets equipped with communications hardware, optical sights, slewing devices or mechanisms to protect against thermal flash or lasers, excluding standard military helmets.

(b) Partial pressure suits and liquid oxygen converters used in aircraft in Category VIII(a).

(c) Protective apparel and equipment specifically designed or modified for use with the articles in paragraphs (a) through (d) in Category XIV.

(d) Components, parts, accessories, attachments, and associated equipment specifically designed or modified for use with the articles in paragraphs (a), (b), and (c) of this category.

(e) Technical Data (as defined in §120.21 of this subchapter) and defense services (as defined in §120.8 of this subchapter) directly related to the defense articles enumerated in paragraphs (a) through (d) of this category. (See §125.4 of this subchapter for exemptions.)

CATEGORY XI—MILITARY ELECTRONICS

(a) Electronic equipment not included in Category XII of the U.S. Munitions List which is specifically designed, modified or configured for military application. This equipment includes but is not limited to:

*(1) Underwater sound equipment to include active and passive detection, identification, tracking, and weapons control equipment.

*(2) Underwater acoustic active and passive countermeasures and counter-countermeasures.

(3) Radar systems, with capabilities such as:

*(i) Search,

*(ii) Acquisition,

*(iii) Tracking,

*(iv) Moving target indication,

*(v) Imaging radar systems,

(vi) Any ground air traffic control radar which is specifically designed or modified for military application.

*(4) Electronic combat equipment, such as:

(i) Active and passive countermeasures,

(ii) Active and passive counter-countermeasures, and

(iii) Radios (including transceivers) specifically designed or modified to interfere with other communication devices or transmissions.

*(5) Command, control and communications systems to include radios (transceivers), navigation, and identification equipment.

(6) Computers specifically designed or developed for military application and any computer specifically modified for use with any defense article in any category of the U.S. Munitions List.

(7) Any experimental or developmental electronic equipment specifically designed or modified for military application or specifically designed or modified for use with a military system.

*(b) Electronic systems or equipment specifically designed, modified, or configured for intelligence, security, or military purposes for use in search, reconnaissance, collection, monitoring, direction-finding, display, analysis and production of information from the electromagnetic spectrum and electronic systems or equipment designed or modified to counteract electronic surveillance or monitoring. A system meeting this definition is controlled under this subchapter even in instances where any individual pieces of equipment constituting the system may be subject to the controls of another U.S. Government agency. Such systems or equipment described above include, but are not limited to, those:

(1) Designed or modified to use cryptographic techniques to generate the spreading code for spread spectrum or hopping code for frequency agility. This does not include fixed code techniques for spread spectrum.

(2) Designed or modified using burst techniques (e.g., time compression techniques) for intelligence, security or military purposes.

(3) Designed or modified for the purpose of information security to suppress the compromising emanations of information-bearing signals. This covers TEMPEST suppression technology and equipment meeting or designed to meet government TEMPEST standards. This definition is not intended to include equipment designed to meet Federal Communications Commission (FCC) commercial electro-magnetic interference standards or equipment designed for health and safety.

(c) Components, parts, accessories, attachments, and associated equipment specifically designed or modified for use with the equipment in paragraphs (a) and (b) of this category, except for such items as are in normal commercial use.

(d) Technical data (as defined in §120.21) and defense services (as defined in §120.8) directly related to the defense articles enumerated in paragraphs (a) through (c) of this category. (See §125.4 for exemptions.) Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as Significant Military Equipment (SME) shall itself be designated as SME.

CATEGORY XII—FIRE CONTROL, RANGE FINDER, OPTICAL AND GUIDANCE AND CONTROL EQUIPMENT

*(a) Fire control systems; gun and missile tracking and guidance systems; gun range, position, height finders, spotting instruments and laying equipment; aiming devices (electronic, optic, and acoustic); bomb sights, bombing computers, military television sighting and viewing units, and periscopes for the articles of this section.

*(b) Lasers specifically designed, modified or configured for military application including those used in military communication devices, target designators and range finders, target detection systems, and directed energy weapons.

*(c) Infrared focal plane array detectors specifically designed, 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 (defined below) specifically designed, developed, modified or configured for military use, and infrared, visible and ultraviolet devices specifically designed, developed, modified, or configured for military application. Military second and third generation image intensification tubes and military infrared focal plane arrays identified in this subparagraph are licensed by the Department of Commerce (ECCN 6A02A and 6A03A) when a part of a commercial system (i.e. those systems originally designed for commercial use). This does not include any military system comprised of non-military specification components. Replacement tubes or focal plane arrays identified in this paragraph being exported for commercial systems are subject to the controls of the ITAR.

NOTE: *Special Definition.* For purposes of this subparagraph, *second and third generation image intensification tubes* are defined as having:

A peak response within the 0.4 to 1.05 micron wavelength range and incorporating a

microchannel plate for electron image amplification having a hold pitch (center-to-center spacing) of less than 25 microns and having either:

(a) An S–20, S–25 or multialkali photocathode; or

(b) A GaAs, GaInAs, or other compound semiconductor photocathode.

*(d) Inertial platforms and sensors for weapons or weapon systems; guidance, control and stabilization systems except for those systems covered in Category VIII; astro-compasses and star trackers and military accelerometers and gyros. For aircraft inertial reference systems and related components refer to Category VIII.

(e) Components, parts, accessories, attachments and associated equipment specifically designed or modified for the articles in paragraphs (a) through (d) of this category, except for such items as are in normal commercial use.

(f) Technical data (as defined in §120.21) and defense services (as defined in §120.8) directly related to the defense articles enumerated in paragraphs (a) through (e) of this category. (See §125.4 for exemptions.) Technical data directly related to manufacture and production of any defense articles enumerated elsewhere in this category that are designated as Significant Military Equipment (SME) shall itself be designated as SME.

CATEGORY XIII—AUXILIARY MILITARY EQUIPMENT

(a) Cameras and specialized processing equipment therefor, photointerpretation, stereoscopic plotting, and photogrammetry equipment which are specifically designed or modified for military purposes, and components specifically designed or modified therefor;

(b) Military Information Security Systems and equipment, cryptographic devices, software, and components specifically designed or modified therefor (i.e., such items when specifically designed, developed, configured, adapted or modified for military applications (including command, control and intelligence applications)). This includes:

(1) Military cryptographic (including key management) systems, equipment, assemblies, modules, integrated circuits, components or software with the capability of maintaining secrecy or confidentiality of information or information systems, including equipment and software for tracking, telemetry and control (TT&C) encryption and decryption.

(2) Military cryptographic (including key management) systems, equipment, assemblies, modules, integrated circuits, components of software which have the capability of generating spreading or hopping codes for spread spectrum systems or equipment.

(3) Military cryptanalytic systems, equipment, assemblies, modules, integrated circuits, components or software.

(4) Military systems, equipment, assemblies, modules, integrated circuits, components or software providing certified or certifiable multi-level security or user isolation exceeding class B2 of the Trusted Computer System Evaluation Criteria (TCSEC) and software to certify such systems, equipment or software.

(5) Ancillary equipment specifically designed or modified for paragraphs (b) (1), (2), (3), and (4) of this category.

(c) Self-contained diving and underwater breathing apparatus as follows:

(1) Closed and semi-closed circuits (rebreathing) apparatus;

(2) Specially designed components for use in the conversion of open-circuit apparatus to military use; and

(3) Articles exclusively designed for military use with self-contained diving and underwater swimming apparatus.

(d) Carbon/carbon billets and preforms which are reinforced with continuous unidirectional tows, tapes, or woven cloths in three or more dimensional planes (i.e. 3D, 4D, etc.). This is exclusive of carbon/carbon billets and preforms where reinforcement in the third dimension is limited to interlocking of adjacent layers only, and carbon/carbon 3D, 4D, etc. end items which have not been specifically designed or modified for defense articles (e.g., brakes for commercial aircraft or high speed trains). Armor (e.g., organic, ceramic, metallic), and reactive armor which has been specifically designed or modified for defense articles. Structural materials including carbon/carbon and metal matrix composites, plate, forgings, castings, welding consumables and rolled and extruded shapes which have been specifically designed or modified for defense articles.

(e) Concealment and deception equipment, including but not limited to special paints, decoys, and simulators and components, parts and accessories specifically designed or modified therefor.

(f) Energy conversion devices for producing electrical energy from nuclear, thermal, or solar energy, or from chemical reaction which are specifically designed or modified for military application.

(g) Chemiluminescent compounds and solid state devices specifically designed or modified for military application.

(h) Devices embodying particle beam and electromagnetic pulse technology and associated components and subassemblies (e.g., ion beam current injectors, particle accelerators for neutral or charged particles, beam handling and projection equipment, beam steering, fire control, and pointing equipment, test and diagnostic instruments, and targets) which are specifically designed

or modified for directed energy weapon applications.

(i) Metal embrittling agents.

*(j) Hardware and equipment, which has been specifically designed or modified for military applications, that is associated with the measurement or modification of system signatures for detection of defense articles. This includes but is not limited to signature measurement equipment; prediction techniques and codes; signature materials and treatments; and signature control design methodology.

(k) Technical data (as defined in §120.21 of this subchapter) and defense services (as defined in §120.8 of this subchapter) related to the defense articles listed in this category. (See §125.4 of this subchapter for exemptions; see also §123.21 of this subchapter). Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as Significant Military Equipment (SME) shall itself be designated as SME.

CATEGORY XIV—TOXICOLOGICAL AGENTS AND EQUIPMENT AND RADIOLOGICAL EQUIPMENT

*(a) Chemical agents, including but not limited to lung irritants, vesicants, lachrymators, tear gases (except tear gas formulations containing 1% or less CN or CS), sternutators and irritant smoke, and nerve gases and incapacitating agents. (See §121.7.)

*(b) Biological agents.

*(c) Equipment for dissemination, detection, and identification of, and defense against, the articles in paragraphs (a) and (b) of this category.

*(d) Nuclear radiation detection and measuring devices, manufactured to military specification.

(e) Components, parts, accessories, attachments, and associated equipment specifically designed or modified for the articles in paragraphs (c) and (d) of this category.

(f) Technical data (as defined in §120.21 of this subchapter) and defense services (as defined in §120.8 of this subchapter) related to the defense articles enumerated in paragraphs (a) through (e) of this category. (See §125.4 of this subchapter for exemptions; see also §123.21 of this subchapter). Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as Significant Military Equipment (SME) shall itself be designated as SME.

CATEGORY XV—SPACECRAFT SYSTEMS AND ASSOCIATED EQUIPMENT

*(a) Spacecraft, including communications satellites, remote sensing satellites, scientific satellites, research satellites, navigation satellites, experimental and multi-mission satellites.

*NOTE TO PARAGRAPH (a): Commercial communications satellites, scientific satellites, research satellites and experimental satellites are designated as SME only when the equipment is intended for use by the armed forces of any foreign country.

(b) Ground control stations for telemetry, tracking and control of spacecraft or satellites, or employing any of the cryptographic items controlled under category XIII of this subchapter.

(c) Global Positioning System (GPS) receiving equipment specifically designed, modified or configured for military use; or GPS receiving equipment with any of the following characteristics:

(1) Designed for encryption or decryption (e.g., Y-Code) of GPS precise positioning service (PPS) signals;

(2) Designed for producing navigation results above 60,000 feet altitude and at 1,000 knots velocity or greater;

(3) Specifically designed or modified for use with a null steering antenna or including a null steering antenna designed to reduce or avoid jamming signals;

(4) Designed or modified for use with unmanned air vehicle systems capable of delivering at least a 500 kg payload to a range of at least 300 km.

NOTE: GPS receivers designed or modified for use with military unmanned air vehicle systems with less capability are considered to be specifically designed, modified or configured for military use and therefore covered under this paragraph (d)(4).)

Any GPS equipment not meeting this definition is subject to the jurisdiction of the Department of Commerce (DOC). Manufacturers or exporters of equipment under DOC jurisdiction are advised that the U.S. Government does not assure the availability of the GPS P-Code for civil navigation. It is the policy of the Department of Defense (DOD) that GPS receivers using P-Code without clarification as to whether or not those receivers were designed or modified to use Y-Code will be presumed to be Y-Code capable and covered under this paragraph. The DOD policy further requires that a notice be attached to all P-Code receivers presented for export. The notice must state the following: ''ADVISORY NOTICE: This receiver uses the GPS P-Code signal, which by U.S. policy, may be switched off without notice.''

(d) Radiation-hardened microelectronic circuits that meet or exceed all five of the following characteristics:

(1) A total dose of 5×105 Rads (SI);

(2) A dose rate upset of 5×108 Rads (SI)/Sec;

(3) A neutron dose of 1×1014 N/cm^2;

(4) A single event upset of 1×10^{-7} or less error/bit/day;

(5) Single event latch-up free and having a dose rate latch-up of 5×108 Rads(SI)/sec or greater.

(e) All specifically designed or modified systems, components, parts, accessories, attachments, and associated equipment for the articles in this category, including the articles identified in §1516 of Public Law 105–261: satellite fuel, ground support equipment, test equipment, payload adapter or interface hardware, replacement parts, and non-embedded solid propellant orbit transfer engines (see also categories IV and V).

(f) Technical data (as defined in §120.10 of this subchapter) and defense services (as defined in §120.9 of this subchapter) directly related to the articles enumerated in paragraphs (a) through (e) of this category, as well as detailed design, development, manufacturing or production data for all spacecraft and specifically designed or modified components for all spacecraft systems. This paragraph includes all technical data, without exception, for all launch support activities (e.g., technical data provided to the launch provider on form, fit, function, mass, electrical, mechanical, dynamic, environmental, telemetry, safety, facility, launch pad access, and launch parameters, as well as interfaces for mating and parameters for launch.) (See §124.1 for the requirements for technical assistance agreements before defense services may be furnished even when all the information relied upon by the U.S. person in performing the defense service is in the public domain or is otherwise exempt from the licensing requirements of this subchapter.) Technical data directly related to the manufacture or production of any article enumerated elsewhere in this category that is designated as Significant Military Equipment (SME) shall itself be designated SME. Further, technical data directly related to the manufacture or production of all spacecraft, notwithstanding the nature of the intended end use (e.g., even where the hardware is not SME), is designated SME.

NOTE TO PARAGRAPH (f): The special export controls contained in §124.15 of this subchapter are always required before a U.S. person may participate in a launch failure investigation or analysis and before the export of any article or defense service in this category for launch in, or by nationals of, a country that is not a member of the North Atlantic Treaty Organization or a major non-NATO ally of the United States. Such special export controls also may be imposed with respect to any destination as deemed appropriate in furtherance of the security and foreign policy of the United States.

CATEGORY XVI—NUCLEAR WEAPONS DESIGN AND TEST EQUIPMENT

*(a) Any article, material, equipment, or device which is specifically designed or modified for use in the design, development, or fabrication of nuclear weapons or nuclear explosive devices. (See §123.21 of this subchapter and Department of Commerce Export Regulations, 15 CFR part 778).

*(b) Any article, material, equipment, or device which is specifically designed or modified for use in the devising, carrying out, or evaluating of nuclear weapons tests or any other nuclear explosions, except such items as are in normal commercial use for other purposes.

(c) Technical data (as defined in §120.21 of this subchapter) and defense services (as defined in §120.8 of this subchapter) directly related to the defense articles enumerated in paragraphs (a) through (b) of this category. (See §125.4 of this subchapter for exemptions.) Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as Significant Military Equipment (SME) shall itself be designated SME.

CATEGORY XVII—CLASSIFIED ARTICLES, TECHNICAL DATA AND DEFENSE SERVICES NOT OTHERWISE ENUMERATED

*(a) All articles, technical data (as defined in §120.21 of this subchapter) and defense services (as defined in §120.8 of this subchapter) relating thereto which are classified in the interests of national security and which are not otherwise enumerated in the U.S. Munitions List.

CATEGORY XVIII—[RESERVED]

CATEGORY XIX—[RESERVED]

CATEGORY XX—SUBMERSIBLE VESSELS, OCEANOGRAPHIC AND ASSOCIATED EQUIPMENT

*(a) Submersible vessels, manned or unmanned, tethered or untethered, designed or modified for military purposes, or powered by nuclear propulsion plants.

*(b) Swimmer delivery vehicles designed or modified for military purposes.

(c) Equipment, components, parts, accessories, and attachments specifically designed or modified for any of the articles in paragraphs (a) and (b) of this category.

(d) Technical data (as defined in §120.21 of this subchapter) and defense services (as defined in §120.8 of this subchapter) directly related to the defense articles enumerated in paragraphs (a) through (c) of this category. (See §125.4 of this subchapter for exemptions.) Technical data directly related to the manufacture or production of any defense articles enumerated elsewhere in this category that are designated as Significant Military Equipment (SME) shall itself be designated as SME.

CATEGORY XXI—MISCELLANEOUS ARTICLES

(a) Any article not specifically enumerated in the other categories of the U.S. Munitions

List which has substantial military applicability and which has been specifically designed or modified for military purposes. The decision on whether any article may be included in this category shall be made by the Director of the Office of Defense Trade Controls.

(b) Technical data (as defined in § 120.21 of this subchapter) and defense services (as defined in § 120.8 of this subchapter) directly related to the defense articles enumerated in paragraphs (a) of this category.

[58 FR 39287, July 22, 1993, as amended at 58 FR 47638, Sept. 10, 1993; 58 FR 60115, Nov. 15, 1993; 59 FR 46548 and 46549, Sept. 9, 1994; 59 FR 47800, Sept. 19, 1994; 61 FR 56895, Nov. 5, 1996; 61 FR 68633, Dec. 30, 1996; 64 FR 13680, Mar. 22, 1999; 64 FR 17533, Apr. 12, 1999]

§ 121.2 Interpretations of the U.S. Munitions List and the Missile Technology Control Regime Annex.

The following interpretations (listed alphabetically) explain and amplify the terms used in § 121.1. These interpretations have the same force as if they were a part of the U.S. Munitions List (USML) category to which they refer. In addition, all the items listed in § 121.16 shall constitute all items on the United States Munitions List which are Missile Technology Control Regime Annex items in accordance with section 71(a) of the Arms Export Control Act.

§ 121.3 Aircraft and related articles.

In Category VIII, *aircraft* means aircraft designed, modified, or equipped for a military purpose, including aircraft described as ''demilitarized.'' All aircraft bearing an original military designation are included in Category VIII. However, the following aircraft are not included so long as they have not been specifically equipped, reequipped, or modified for military operations:

(a) 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.

(b) Trainer aircraft bearing ''T'' designations and using reciprocating engines or turboprop engines with less than 600 horsepower (s.h.p.)

(c) Utility aircraft bearing ''U'' designations and using reciprocating engines only.

(d) All liaison aircraft bearing an ''L'' designation.

(e) All observation aircraft bearing ''O'' designations and using reciprocating engines.

§ 121.4 Amphibious vehicles.

An *amphibious vehicle* in Category VII(f) is an automotive vehicle or chassis which embodies all-wheel drive, is equipped to meet special military requirements, and which has sealed electrical systems or adaptation features for deep water fording.

§ 121.5 Apparatus and devices under Category IV(c).

Category IV includes but is not limited to the following: Fuzes and components specifically designed, modified or configured for items listed in that category, bomb racks and shackles, bomb shackle release units, bomb ejectors, torpedo tubes, torpedo and guided missile boosters, guidance systems equipment and parts, launching racks and projectors, pistols (exploders), ignitors, fuze arming devices, intervalometers, thermal batteries, hardened missile launching facilities, guided missile launchers and specialized handling equipment, including transporters, cranes and lifts designed to handle articles in paragraphs (a) and (b) of this category for preparation and launch from fixed and mobile sites. The equipment in this category includes robots, robot controllers and robot end-effectors specially designed or modified for military applications.

§ 121.6 Cartridge and shell casings.

Cartridge and shell casings are included in Category III unless, prior to export, they have been rendered useless beyond the possibility of restoration for use as a cartridge or shell casing by means of heating, flame treatment, mangling, crushing, cutting, or popping.

§ 121.7 Chemical agents.

A *chemical agent* in Category XIV(a) is a substance having military application which by its ordinary and direct chemical action produces a powerful physiological effect. The term ''chemical agent'' includes, but is not limited to, the following chemical compounds:

(a) Lung irritants:
(1) Diphenylcyanoarsine (DC).
(2) Fluorine (but not fluorene).
(3) Trichloronitro methane (chloropicrin PS).
(b) Vesicants:
(1) B-Chlorovinyldichloroarsine (Lewisite, L).
(2) Bis(dichloroethyl)sulphide (Mustard Gas, HD or H).
(3) Ethyldichloroarsine (ED).
(4) Methyldichloroarsine (MD).
(c) Lachrymators and tear gases:
(1) A-Bromobenzyl cyanide (BBC).
(2) Chloroacetophenone (CN).
(3) Dibromodimethyl ether.
(4) Dichlorodimethyl ether (ClCi).
(5) Ethyldibromoarsine.
(6) Phenylcarbylamine chloride.
(7) Tear gas solutions (CNB and CNS).
(8) Tear gas orthochlorobenzalmalononitrile (CS).
(d) Sternutators and irritant smokes:
(1) Diphenylamine chloroarsine (Adamsite, DM).
(2) Diphenylchloroarsine (BA).
(3) Liquid pepper.
(e) Nerve agents, gases and aerosols. These are toxic compounds which affect the nervous system, such as:
(1) Dimethylaminoethoxycyanophosphine oxide (GA).
(2) Methylisopropoxyfluorophosphine oxide (GB).
(3) Methylpinacolyloxyfluoriphosphine oxide (GD).
(f) Antiplant chemicals, such as: Butyl 2-chloro-4-fluorophenoxyacetate (LNF).

§ 121.8 End-items, components, accessories, attachments, parts, firmware, software and systems.

(a) An *end-item* is an assembled article ready for its intended use. Only ammunition, fuel or another energy source is required to place it in an operating state.

(b) A *component* is an item which is useful only when used in conjunction with an end-item. A major component includes any assembled element which forms a portion of an end-item without which the end-item is inoperable. (EXAMPLE: Airframes, tail sections, transmissions, tank treads, hulls, etc.) A minor component includes any assembled element of a major component.

(c) *Accessories* and *attachments* are associated equipment for any component, end-item or system, and which are not necessary for their operation, but which enhance their usefulness or effectiveness. (EXAMPLES: Military riflescopes, special paints, etc.)

(d) A *part* is any single unassembled element of a major or a minor component, accessory, or attachment which is not normally subject to disassembly without the destruction or the impairment of design use. (EXAMPLES: Rivets, wire, bolts, etc.)

(e) Firmware and any related unique support tools (such as computers, linkers, editors, test case generators, diagnostic checkers, library of functions and system test diagnostics) specifically designed for equipment or systems covered under any category of the U.S. Munitions List are considered as part of the end-item or component. *Firmware* includes but is not limited to circuits into which software has been programmed.

(f) *Software* includes but is not limited to the system functional design, logic flow, algorithms, application programs, operating systems and support software for design, implementation, test, operation, diagnosis and repair. A person who intends to export software only should, unless it is specifically enumerated in § 121.1 (e.g., XIII(b)), apply for a technical data license pursuant to part 125 of this subchapter.

(g) A *system* is a combination of end-items, components, parts, accessories, attachments, firmware or software, specifically designed, modified or adapted to operate together to perform a specialized military function.

§ 121.9 Firearms.

(a) Category I includes revolvers, pistols, rifles, carbines, fully automatic rifles, submachine guns, machine pistols and machine guns to .50 inclusive. It includes combat shotguns. It excludes other shotguns with barrels 18″ or longer, BB, pellet, and muzzle loading (black powder) firearms. It also excludes accessories and attachments for firearms that do not enhance the usefulness, effectiveness, or capabilities of the firearm, its components and parts (e.g. belts, slings, after market rubber grips, cleaning kits).

(b) A *firearm* is a weapon not over .50 caliber which is designed to expel a projectile by the action of an explosive or which may be readily converted to do so.

(c) A *rifle* is a shoulder firearm which can discharge a bullet through a rifled barrel 16 inches or longer.

(d) A *carbine* is a lightweight shoulder firearm with a barrel under 16 inches in length.

(e) A *pistol* is a hand-operated firearm having a chamber integral with or permanently aligned with the bore.

(f) A *revolver* is a hand-operated firearm with a revolving cylinder containing chambers for individual cartridges.

(g) A *submachine gun*, ''machine pistol'' or ''machine gun'' is a firearm originally designed to fire, or capable of being fired, fully automatically by a single pull of the trigger.

[58 FR 39287, July 22, 1993, as amended at 64 FR 17533, Apr. 12, 1999]

§ 121.10 Forgings, castings and machined bodies.

Articles on the U.S. Munitions List include articles in a partially completed state (such as forgings, castings, extrusions and machined bodies) which have reached a stage in manufacture where they are clearly identifiable as defense articles. If the end-item is an article on the U.S. Munitions List (including components, accessories, attachments and parts as defined in § 121.8), then the particular forging, casting, extrusion, machined body, etc., is considered a defense article subject to the controls of this subchapter, except for such items as are in normal commercial use.

§ 121.11 Military demolition blocks and blasting caps.

Military demolition blocks and blasting caps referred to in Category IV(a) do not include the following articles:

(a) Electric squibs.

(b) No. 6 and No. 8 blasting caps, including electric ones.

(c) Delay electric blasting caps (including No. 6 and No. 8 millisecond ones).

(d) Seismograph electric blasting caps (including SSS, Static-Master, Vibrocap SR, and SEISMO SR).

(e) Oil well perforating devices.

§ 121.12 Military explosives and propellants.

(a) Military Explosives in Category V are military explosives or energetic materials consisting of high explosives, propellants or low explosives, pyrotechnics and high energy solid or liquid fuels, including aircraft fuels specially formulated for military purposes. Military explosives are solid, liquid or gaseous substances or mixtures of substances which, in their application as primary, booster or main charges in warheads, demolition and other military applications, are required to detonate.

Military explosives, military propellants and military pyrotechnics in Category V include substances or mixtures containing any of the following:

(1) Spherical aluminum powder of particle size 60 micrometres or less manufactured from material with an aluminum content of 99% or more;

(2) Metal fuels in particle sizes less than 60 micrometres whether spherical, atomized, spheroidal, flaked or ground, manufactured from material consisting of 99% or more of any of the following: Zirconium, magnesium and alloys of these; beryllium; fine iron powder with average particle size of 3 micrometres or less produced by reduction of iron oxide with hydrogen; boron or boron carbide fuels of 85% purity or higher and average particle size of 60 micrometers or less;

(3) Any of the foregoing metals or alloys of paragraphs (a) (1) and (2) of this section, whether or not encapsulated in aluminum, magnesium, zirconium or beryllium;

(4) Perchlorates, chlorates and chromates composited with powered metal or other high energy fuel components;

(5) Nitroganidine (NQ);

(6) With the exception of chlorinetrifluoride, compounds composed of fluorine and one or more of the following: Other halogens, oxygen, nitrogen;

(7) Carboranes; decaborane; pentaborane and derivatives;

(8) Cyclotetramethylenetetranitramine (HMX); octahydro-1,3,5,7-tetranitro-

1,3,5,7-tetrazine; 1,3,5,7-tetranitro-1,3,5,7-tetraza-cyclooctane; (octogen, octogene);

(9) Hexanitrostilbene (HNS);

(10) Diaminotrinitrobenzene (DATB);

(11) Triaminotrinitrobenzene (TATB);

(12) Triaminoguanidinenitrate (TAGN);

(13) Titanium subhydride of stiochiometry TiH 0.65–168;

(14) Dinitroglycoluril (DNGU, DNGU); tetranitroglycoluril (TNGU, SORGUYL);

(15) Tetranitrobenzotriazolobenzotriazole (TACOT);

(16) Diaminohexanitrobiphenyl (DIPAM);

(17) Picrylaminodinitropyridine (PYX);

(18) 3-nitro-1,2,4-triazol-5-one (NTO or ONTA);

(19) Hydrazine in concentrations of 70% or more; hydrazine nitrate; hydrazine perchlorates; unsymmetrical dimethyl hydrazine; monomethyl hydrazine; symmetrical dimethyl hydrazine;

(20) Ammonium perchlorate;

(21) 2-(5-cyanotetrozolato) penta amminecobalt (III) perchlorate (CP);

(22) cis-bis (5-nitrotetrazolato) penta amminechobalt (III) perchlorate (or BNCP);

(23) 7-amino 4,6-dinitrobenzofurazane-1-oxide (ADNBF); amino dinitrobenzofuroxan;

(24) 5,7-diamino-4,6-dinitrobenzofurazane-1-oxide, (CL–14 or diaminodinitrobenzofurozan);

(25) 2,4,6-trinitro-2,4,6-triaza-cyclohexanone (K–6 or keto-RDX);

(26) 2,4,6,8-tetranitro-2,4,6,8-tetraaza-bicyclo (3,3,0)-octanone-3(tetranitrosemiglycouril, K–55, or keto-bicyclic HMX);

(27) 1,1,3-trinitroazetidine (TNAZ);

(28) 1,4,5,8-tetranitro-1,4,5,8-tetraazadecalin (TNAD);

(29) Hexanitrohexaazaisowurtzitane (CL-20 or NNIW; and chlathrates of CL-20);

(30) Polynitrocubanes with more than four nitro groups;

(31) Ammonium dinitramide (ADN or SR–12);

(32) Cyclotrimethylentrinitramine (RDX); cyclonite; T4; hexahydro-1,3,5-trinitro-1,3,5-triazine; 1,3,5-trinitro-1,3,5-triaza-cyclohexane; hexogen, hexogene;

(33) Hydroxylammonium nitrate (HAN); hydroxylammonium perchlorate (HAP);

(34) Hydroxy terminated Polybutadiene (HTPB) with a hydroxyl functionality of less than 2.28, a hydroxyl value of less than 0.77 meq/g, and a viscosity at 30 degrees C of less than 47 poise;

(b) ''Additives'' include the following:

(1) Glycidylazide Polymer (GAP) and its derivatives;

(2) Polycyanodifluoroamino-ethyleneoxide (PCDE);

(3) Butanetrioltrinitrate (BTTN);

(4) Bis-2-Fluoro-2,2-dinitroethylformal (FEFO);

(5) Butadienenitrileoxide (BNO);

(6) Catocene, N-butyl-ferrocene and other ferrocene derivatives;

(7) 3-nitraza-1,5 pentane diisocyanate;

(8) Bis(2,2-dinitropropyl) formal and acetal;

(9) Energetic monomers, plasticisers and polymers containing nitro, azido, nitrate, nitraza or difluroamino groups;

(10) 1,2,3-Tris [1,2-bis(difluoroamino)ethoxy] propane; Tris vinoxy propane adduct, (TVOPA);

(11) Bisazidomethyloxetane and its polymers;

(12) Nitratomethylmethyloxetane or poly (3-nitratomethyl, 3-methyl oxetane); (Poly-NIMMO); (NMMO);

(13) Azidomethylmethyloxetane (AMMO) and its polymers;

(14) Tetraethylenepentamine-acrylonitrile (TEPAN); cyanoethylated polyamine and its salts;

(15) Polynitroorthocarbonates;

(16) Tetraethylenepentamine-acrylonitrileglycidol (TEPANOL); cyanoethylated polyamine adducted with glycidol and its salts;

(17) Polyfunctional aziridine amides with isophthalic, trimesic BITA or butylene imine trimesamide isoyanuric, or trimethyladipic backbone structures and 2-methyl or 2-ethyl substitutions on the aziridine ring;

(18) Basic copper salicylate; lead salicylate;

(19) Lead beta resorcylate;

(20) Lead stannate, lead maleate, lead citrate;

(21) Tris-1-(2-methyl)aziridinyl phosphine oxide (MAPO), bis(2-methyl aziridinyl) 2-(2-hydroxypropanoxy) propylamino phosphine oxide (BOBBA 8), and other MAPO derivatives;

(22) Bis(2-methyl aziridinyl) methylamino phosphine oxide (methyl BAPO);

(23) Organo-metallic coupling agents, specifically:

(i) Neopentyl (diallyl) oxy, tri [dioctyl] phosphato titanate or titanium IV, 2,2[bis 2-propenolatomethyl, butanolato or tris [dioctyl] phosphato-O], or LICA 12;

(ii) Titanium IV, [(2-propenolato-1)methyl, N-propanolatemethyl] butanolato-1 or tris(dioctyl)pyrophosphato, or KR3538;

(iii) Titanium IV, [2-propenolato-1)methyl, N-propanolatomethyl] butanolato-1; or tris(dioctyl) phosphate;

(24) FPF–1 poly-2,2,3,3,4,4-hexafluoro pentane-1,5-diolformal;

(25) FPF–3 poly-2,4,4,5,5,6,6-heptafluoro-2-trifluoromethyl-3-oxaheptane-1,7-diolformal;

(26) Polyglycidylnitrate (PGN) or poly(nitratomethyl oxirane); (poly-GLYN) (PGN);

(27) Lead-copper chelates of beta-resorcylate and/or salicylates;

(28) Triphenyl bismuth (TPB);

(29) bis-2-hydroxyethylglycolamide (BHEGA);

(30) Superfine iron oxide (Fe_2O_3 hematite) with a specific surface area greater than 250 m^2/g and an average particle size of 0.003 micrometres or less;

(31) N-methyl-p-nitroaniline;

(c) ''Precursors'' include the following:

(1) 1,2,4-trihydroxybutane (1,2,4-butanetriol);

(2) Guanidine nitrate;

(3) 1,3,5-trichlorobenzene;

(4) Bischloromethyloxetane (BCMO);

(5) Low (less than 10,000) molecular weight, alcohol-functionalised, poly(ephichlorohydrin); poly(ephichlorhydrindiol); and triol;

(6) Propyleneimide, 2-methylaziridine;

(7) 1,3,5,7,-tetraacetyl-1,3,5,7-tetraazacyclooctane (TAT);

(8) Dinitroazetidine-t-butyl salt;

(9) Hexabenzylhexaazaisowurtzitane (HBIW);

(10) Tetraacetyldibenzylhexa-azaisowurtzitane (TAIW);

(11) 1,4,5,8-tetraazadecaline.

(d) Military high energy solid or liquid fuels specially formulated for military purposes: (1) Aircraft fuels controlled by §121.12(a) are finished products not their independent constituents. (2) military materials containing thickeners for hydrocarbon fuels specially formulated for use in flamethrowers or incendiary munitions; metal stearates or palmates (also known as octol); and M1, M2 and M3 thickeners;

(e) Any substance, or mixture meeting the following performance requirements:

(1) Any explosive with a detonation velocity greater than 8,700 m/s or a detonation pressure greater than 340 kilobars;

(2) Other organic high explosives yielding detonation pressures of 250 kilobars or greater that will remain stable at temperatures of 523 K (250 degrees C) or higher for periods of 5 minutes or longer;

(3) Any other UN Class 1.1 solid propellant with a theoretical specific impulse (under standard conditions) greater than 250 seconds for non-metallized, or greater than 270 seconds for aluminized compositions;

(4) Any UN Class 1.3 solid propellant with a theoretical specific impulse greater than 230 seconds for non-halogenized, 250 seconds for non-metallized and 266 seconds for metallized compositions;

(5) Any other explosive, propellant or pyrotechnic that can sustain a steady-state burning rate greater than 38mm (1.5 in) per second under standard conditions of 68.9 bar (1,000 PSI) pressure and 294K (21 degrees C);

(6) Any other gun propellants having a force constant greater than 1,200 kJ/kg;

(7) Elastomer modified cast double based propellants (EMCDB) with extensibility at maximum stress greater than 5% at 233 K (−40 degrees C).

(f) Liquid oxidizers comprised of or containing the following:

(1) Inhibited red fuming nitric acid (IRFNA));

(2) Oxygen difluoride.

NOTE: Category V includes the following substances when compounded or mixed with military explosives, fuels or propellants controlled under this category:

—Ammonium picrate
—Black powder
—Hexanitrodiphenylamine
—Difluoroamine (HNF2)
—Nitrostarch
—Potassium nitrate
—Tetranitronaphthalene
—Trinitroanisol
—Trinitronaphthalene
—Trinitroxylene
—Fuming nitric acid non-inhibited and non-enriched
—Acetylene
—Propane
—Liquid oxygen
—Hydrogen peroxide in concentrations less than 85%
—Misch metal
—N-pyrrolidinone and l-methyl-2-pyrrolidinone
—Dioctylmaleate
—Ethylhexylacrylate
—Triethylaluminum (TEA), trimethylaluminum (TMA) and other pyrophoric metal alkyls and aryls of lithium, sodium, magnesium, zinc or boron
—Nitrocellulose
—Nitroglycerin (or glyceroltrinitrate, trinitroglycerine (NG)
—2,4,6 trinitrotoluene (TNT)
—Pentaerythritol tetranitrate (PETN)
—Trinitrophenylmethylnitramine (Tetryl)
—Ethylenediaminedinitrate (EDDN)
—Lead azide, normal and basic lead styphnate, and primary explosives or priming composition containing azides or azide complexes
—Triethyleneglycoldinitrate (TEGDN)
—2,4,6-trinitroresorcinol (styphnic acid)
—Diethyldiphenyl urea, dimethyldiphenyl urea and methylethyldiphenyl urea (Centralites)
—N,N-diphenylurea (unsymmetrical diphenylurea)
—Methyl-N,N-diphenylurea (methyl unsymmetrical diphenylurea)
—Ethyl-N,N-diphenylurea (ethyl unsymmetrical diphenylurea)
—2-nitrodiphenylamine (2–NDPA)
—4-nitrodiphenylamine (4–NDPA)
—2,2-dinitropropanol
—Chlorinetrifluoride.

[58 FR 60113, Nov. 15, 1993]

§ 121.13 Military fuel thickeners.

Military fuel thickeners in Category V include compounds (e.g., octal) or mixtures of such compounds (e.g., napalm) specifically formulated for the purpose of producing materials which, when added to petroleum products, provide a gel-type incendiary material for use in bombs, projectiles, flame throwers, or other defense articles.

§ 121.14 [Reserved]

§ 121.15 Vessels of war and special naval equipment.

Vessels of war means vessels, waterborne or submersible, designed, modified or equipped for military purposes, including vessels described as developmental, ''demilitarized'' or decommissioned. Vessels of war in Category VI, whether developmental, ''demilitarized'' and/or decommissioned or not, include, but are not limited to, the following:

(a) Combatant vessels: (1) Warships (including nuclear-powered versions):

(i) Aircraft carriers.

(ii) Battleships.

(iii) Cruisers.

(iv) Destroyers.

(v) Frigates.

(vi) Submarines.

(2) Other Combatants:

(i) Patrol Combatants (e.g., including but not limited to PHM).

(ii) Amphibious Aircraft/Landing Craft Carriers.

(iii) Amphibious Materiel/Landing Craft Carriers.

(iv) Amphibious Command Ships.

(v) Mine Warfare Ships.

(vi) Coast Guard Cutters (e.g., including but not limited to: WHEC, WMEC).

(b) Combatant Craft: (1) Patrol Craft (patrol craft described in § 121.1, Category VI, paragraph (b) are considered non-combatant):

(i) Coastal Patrol Combatants.

(ii) River, Roadstead Craft (including swimmer delivery craft).

(iii) Coast Guard Patrol Craft (e.g., including but not limited to WPB).

(2) Amphibious Warfare Craft:

(i) Landing Craft (e.g., including but not limited to LCAC).

(ii) Special Warfare Craft (e.g., including but not limited to: LSSC, MSSC, SDV, SWCL, SWCM).

(3) Mine Warfare Craft and Mine Countermeasures Craft (e.g., including but not limited to: MCT, MSB).

(c) Non-Combatant Auxiliary Vessels and Support Ships:

(1) Combat Logistics Support:

(i) Underway Replenishment Ships.

(ii) Surface Vessel and Submarine Tender/Repair Ships.

(2) Support Ships:

(i) Submarine Rescue Ships.

(ii) Other Auxiliaries (e.g., including but not limited to: AGDS, AGF, AGM, AGOR, AGOS, AH, AP, ARL, AVB, AVM, AVT).

(d) Non-Combatant Support, Service and Miscellaneous Vessels (e.g., including but not limited to: DSRV, DSV, NR, YRR).

[58 FR 60115, Nov. 15, 1993]

§ 121.16 Missile Technology Control Regime Annex.

Some of the items on the Missile Technology Control Regime Annex are controlled by both the Department of Commerce on the Commodity Control List and by the Department of State on the United States Munitions List. To the extent an article is on the United States Munitions List, a reference appears in parentheses listing the U.S. Munitions List category in which it appears. The following items constitute all items on the Missile Technology Control Regime Annex which are covered by the U.S. Munitions List:

ITEM 1—CATEGORY I

Complete rocket systems (including ballistic missile systems, space launch vehicles, and sounding rockets (see §121.1, Cat. IV(a) and (b)) and unmanned air vehicle systems (including cruise missile systems see §121.1, Cat. VIII (a), target drones and reconnaisance drones (see §121.1, Cat. VIII (a)) capable of delivering at least a 500 kg payload to a range of at least 300 km.

ITEM 2—CATEGORY I

Complete subsystems usable in the systems in Item 1 as follows:

(a) Individual rocket stages (see §121.1, Cat. IV(h));

(b) Reentry vehicles (see §121.1, Cat. IV(g)), and equipment designed or modified therefor, as follows, except as provided in Note (1) below for those designed for non-weapon payloads;

(1) Heat shields and components thereof fabricated of ceramic or ablative materials (see §121.1, Cat. IV(f));

(2) Heat sinks and components thereof fabricated of light-weight, high heat capacity materials;

(3) Electronic equipment specially designed for reentry vehicles (see §121.1, Cat. XI(a)(7));

(c) Solid or liquid propellant rocket engines, having a total impulse capacity of 1.1 x 10 N-sec (2.5 x 10 lb-sec) or greater (see §121.1, Cat. IV, (h)).

(d) ''Guidance sets'' capable of achieving system accuracy of 3.33 percent or less of the range (e.g., a CEP of 1 j,. or less at a range of 300 km), except as provided in Note (1) below for those designed for missiles with a range under 300 km or manned aircraft (see §121.1, Cat. XII(d));

(e) Thrust vector control sub-systems, except as provided in Note (1) below for those designed for rocket systems that do not exceed the range/payload capability of Item 1 (see §121.1, Cat. IV);

(f) Warhead safing, arming, fuzing, and firing mechanisms, except as provided in Note (1) below for those designed for systems other than those in Item 1 (see §121.1, Cat. IV(h)).

NOTES TO ITEM 2

(1) The exceptions in (b), (d), (e), and (f) above may be treated as Category II if the subsystem is exported subject to end use statements and quantity limits appropriate for the excepted end use stated above.

(2) CEP (circle of equal probability) is a measure of accuracy, and defined as the radius of the circle centered at the target, at a specific range, in which 50 percent of the payloads impact.

(3) A ''guidance set'' integrates the process of measuring and computing a vehicle's position and velocity (i.e. navigation) with that of computing and sending commands to the vehicle's flight control systems to correct the trajectory.

(4) Examples of methods of achieving thrust vector control which are covered by (e) include:

(i) Flexible nozzle;

(ii) Fluid or secondary gas injection;

(iii) Movable engine or nozzle; Deflection of exhaust gas stream (jet vanes or probes); or

(v) Use of thrust tabs.

ITEM 3—CATEGORY II

Propulsion components and equipment usable in the systems in Item 1, as follows:

(a) Lightweight turbojet and turbofan engines (including) turbocompound engines) that are small and fuel efficient (see §121.1, both Cat. IV(h) and VIII(b));

(b) Ramjet/Scramjet/pulse jet/combined cycle engines, including devices to regulate combustion, and specially designed components therefor (see §121.1, both Cat. IV(h) and Cat. VIII(b));

(c) Rocket motor cases, ''interior lining'', ''insulation'' and nozzles therefor (see §121.1, Cat. IV(h) and Cat. V(c));

(d) Staging mechanisms, separation mechanisms, and interstages therefor (see §121.1, Cat. IV(c) and (h));

(e) Liquid and slurry propellant (including oxidizers) control systems, and specially designed components therefor, designed or modified to operate in vibration environments of more than 100 g RMS between 20 Hz and,000 Hz (see § 121.1, Cat. IV(c) and (h));

(f) Hybrid rocket motors and specially designed components therefor (see § 121.1, Cat. IV(h)).

NOTES TO ITEM 3

(1) Item 3(a) engines may be exported as part of a manned aircraft or in quantities appropriate for replacement parts for manned aircraft.

(2) In Item 3(C), ''interior lining'' suited for the bond interface between the solid propellant and the case or insulating liner is usually a liquid polymer based dispersion of refractory or insulating materials, e.g., carbon filled HTPB or other polymer with added curing agents to be sprayed or screeded over a case interior (see § 121.1, Cat. V(c)).

(3) In Item 3(c), ''insulation'' intended to be applied to the components of a rocket motor, i.e., the case, nozzle inlets, case closures, includes cured or semi-cured compounded rubber sheet stock containing an insulating or refractory material. It may also be incorporated as stress relief boots or flaps.

(4) The only servo valves and pumps covered in (e) above, are the following:

(i) Servo valves designed for flow rates of 24 liters per minute or greater, at an absolute pressure of 7,000 kPa (1,000 psi) or greater, that have an actuator response time of less than 100 msec;

(ii) Pumps, for liquid propellants, with shaft speeds equal to or greater than 8,000 RPM or with discharge pressures equal to or greater than 7,000 kPa (1,000 psi).

(5) Item 3(e) systems and components may be exports as part of a satellite.

ITEM 4—CATEGORY II

Propellants and constituent chemicals for propellants as follows: (see § 121.1, Cat. V(c) and § 121.12 and § 121.14).

(a) Propulsive substances:

(1) Hydrazine with a concentration of more than 70 percent and its derivatives including monomethylhydrazine (MMH) (see § 121.12(a)(22));

(2) Unsymmetric dimethylhydrazine (UDHM) (see § 121.12(a)(22));

(3) Ammonium perchlorate (see § 121.12(a)(23));

(4) Spherical aluminum powder with particle of uniform diameter of less than 500 x 10-m (500 micrometer) and an aluminum content of 97 percent or greater (see § 121.12(a)(1));

(5) Metal fuels in particle sizes less than 500 x 10-m (500 Microns), whether spherical, atomized, spheroidal, flaked or ground, consisting of 97 percent or more of any of the following: zirconium, beryllium, boron, magnesium, zinc, and alloys of these (see § 121.12(a)(2));

(6) Nitro-amines (cyclotetramethylene-tetranitramene (HMX) (see § 121.12(a)(11)), cyclotrimethylene-trinitramine (RDX)) (see 121.12(a)(35));

(7) Perchlorates, chlorates or chromates mixed with powdered metals or other high energy fuel components (see § 121.12(a)(4);

(8) Carboranes, decaboranes, pentaboranes and derivatives thereof (see § 121.12(a)(10);

(9) Liquid oxidizers, as follows:

(i) Nitrogen dioxide/dinitrogen tetroxide (see § 121.14.(g));

(ii) Inhibited Red Fuming Nitric Acid (IRFNA) (see § 121.12(f)(1);

(iii) Compounds composed of flourine and one or more of other halogens, oxygen or nitrogen (see § 121.12(a)(9).

(b) Polymeric substances:

(2) Hydroxy-terminated polybutadiene (HTPB) (see § 121.12(a)(38);

(3) Glycidyl azide polymer (GAP) (see § 121.12(b)(1)).

(c) Other high energy density propellants such as, Boron Slurry, having an energy density of 40 x 10 joules/kg or greater (see § 121.12(a)(3)).

(d) Other propellant additives and agents:

(1) Bonding agents as follows:

(i) tris(1-(2-methyl)aziridinyl phosphine oxide (MAPO) (see § 121.12(b)(17));

(ii) trimesol-1(2-ethyl)aziridine (HX–868, BITA) (see § 121.12(b)(13));

(iii) ''Tepanol'' (HX–878), reaction product of tetraethylenepentamine, acrylonitrile and glycidol (see § 121.12.(b)(11));

(iv) ''Tepan'' (HX–879), Reaction product of tet enepentamine and acrylonitrile (see § 121.12(b)(11));

(v) Polyfunctional aziridene amides with isophthalic, trimesic, isocyanuric, or trimethyladipic backbone also having a 2-methyl or 2-ethyl aziridine group (HX–752, HX–872 and HX–877). (see § 121.12(b)(13)).

(2) Curing agents and catalysts as follows:

(i) Triphenyl bismuth (TPB) (see § 121.12(b)(23));

(3) Burning rate modifiers as follows:

(i) Catocene (see § 121.12(b)(5));

(ii) N-butyl-ferrocene (see § 121.12(b)(5));

(iii) Other ferrocene derivatives (see § 121.12(b)).

(4) Nitrate esters and nitrato plasticizers as follows:

(i) 1,2,4-butanetriol trinitrate (BTTN) (see § 121.12(b)(3));

(5) Stabilizers as follows:

(i) N-methyl-p-nitroaniline (see § 121.12(d)(1)).

ITEM 8—CATEGORY II

Structural materials usable in the systems in Item 1, as follows:

(a) Composite structures, laminates, and manufactures thereof, including resin impregnated fibre prepregs and metal coated fibre preforms therefor, specially designed for use in the systems in Item 1 and the subsystems in Item 2 made either with organix matrix or metal matrix utilizing fibrous or filamentary reinforcements having a specific tensile strength greater than 7.62×10^4 m (3×10^6 inches) and a specific modules greater than 3.18×10^6 m (1.25×10^8 inches), (see §121.1, Category IV (f), and Category XIII (d));

(b) Resaturated pyrolized (i.e. carbon-carbon) materials designed for rocket systems, (see §121.1 Category IV (f));

(c) Fine grain recrystallized bulk graphites (with a bulk density of at least 1.72 g/cc measured at 15 degrees C), pyrolytic, or fibrous reinforced graphites useable for rocket nozzles and reentry vehicle nose tips (see §121.1, Category IV (f) and Category XIII;

(d) Ceramic composites materials (dielectric constant less than 6 at frequencies from 100 Hz to 10,000 MHz) for use in missile radomes, and bulk machinable silicon-carbide reinforced unfired ceramic useable for nose tips (see §121.1, Category IV (f));

ITEM 9—CATEGORY II

Instrumentation, navigation and direction finding equipment and systems, and associated production and test equipment as follows; and specially designed components and software therefor:

(a) Integrated flight instrument systems, which include gyrostabilizers or automatic pilots and integration software therefor; designed or modified for use in the systems in Item 1 (See §121.1, Category XII(d));

(b) Gyro-astro compasses and other devices which derive position or orientation by means of automatically tracking celestrial bodies or satellites (see §121.1, Category XV(d));

(c) Accelerometers with a threshold of 0.05 g or less, or a linearity error within 0.25 percent of full scale output, or both, which are designed for use in inertial navigation systems or in guidance systems of all types (see §121.1, Category VIII(e) and Category XII (d));

(d) All types of gyros usable in the systems in Item 1, with a rated drift rate stability of less than 0.5 degree (1 sigma or rms) per hour in a 1 q environment (see §121.1, Category VIII(e) and Category XII(d));

(e) Continuous output accelerometers or gyros of any type, specified to function at acceleration levels greater than 100 g (see §121.1, Category XII(d));

(f) Inertial or other equipment using accelerometers described by subitems (c) and (e) above, and systems incorporating such equipment, and specially designed integration software therefor (see §121.1, Category VIII (e) and Category XII(d));

NOTES TO ITEM 9

(1) Items (a) through (f) may be exported as part of a manned aircraft or satellite or in quantities appropriate for replacement parts for manned aircraft.

(2) In subitem (d):

(i) 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.

(ii) 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.

ITEM 10—CATEGORY II

Flight control systems and ''technology'' as follows; designed or modified for the systems in Item 1.

(a) Hydraulic, mechanical, electro-optical, or electro-mechanical flight control systems (including fly-by-wire systems), (see §121.1, Category IV (h));

(b) Attitude control equipment, (see §121.1, Category IV, (c) and (h));

(c) Design technology for integration of air vehicle fuselage, propulsion system and lifting control surfaces to optimize aerodynamic performance throughout the flight regime of an unmanned air vehicle, (see §121.1, Category VIII (k));

(d) Design technology for integration of the flight control, guidance, and propulsion data into a flight management system for optimization of rocket system trajectory, (see §121.1, Category IV (i)).

NOTE TO ITEM 10

Items (a) and (b) may be exported as part of a manned aircraft or satellite or in quantities appropriate for replacement parts for manned aircraft.

ITEM 11—CATEGORY II

Avionics equipment, ''technology'' and components as follows; designed or modified for use in the systems in Item 1, and specially designed software therefor:

(a) Radar and laser radar systems, including altimeters (see §121.1, Category XI(a)(3));

(b) Passive sensors for determining bearings to specific electromagnetic sources (direction finding equipment) or terrain characteristics (see §121.1, Category XI(b) and (d));

(c) Global Positioning System (GPS) or similar satellite receivers;

(1) Capable of providing navigation information under the following operational conditions:

(i) At speeds in excess of 515 m/sec (1,000 nautical miles/hours); and

(ii) At altitudes in excess of 18 km (60,000 feet), (see § 121.1, Category XV(d)(2); or

(2) Designed or modified for use with unmanned air vehicles covered by Item 1 (see § 121.1, Category XV(d)(4)).

(d) Electronic assemblies and components specifically designed for military use and operation at temperatures in excess of 125 degrees C, (see § 121.1, Category XI(a)(7)).

(e) Design technology for protection of avionics and electrical subsystems against electromagnetic pulse (EMP) and electromagnetic interference (EMI) hazards from external sources, as follows, (see § 121.1, Category XI (b)).

(1) Design technology for shielding systems;

(2) Design technology for the configuration of hardened electrical circuits and subsystems;

(3) Determination of hardening criteria for the above.

NOTES TO ITEM 11

(1) Item 11 equipment may be exported as part of a manned aircraft or satellite or in quantities appropriate for replacement parts for manned aircraft.

(2) Examples of equipment included in this Item:

(i) Terrain contour mapping equipment;

(ii) Scene mapping and correlation (both digital and analog) equipment;

(iii) Doppler navigation radar equipment;

(iv) Passive interferometer equipment;

(v) Imaging sensor equipment (both active and passive);

(3) In subitem (a), laser radar systems 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.

ITEM 12—CATEGORY II

Launch support equipment, facilities and software for the systems in Item 1, as follows:

(a) Apparatus and devices designed or modified for the handling, control, activation and launching of the systems in Item 1, (see § 121.1, Category IV(c));

(b) Vehicles designed or modified for the transport, handling, control, activation and launching of the systems in Item 1, (see § 121.1, Category VII(d));

(c) Telemetering and telecontrol equipment usable for unmanned air vehicles or rocket systems, (see § 121.1, Category XI(a));

(d) Precision tracking systems:

(1) Tracking systems which use a translb nv installed on the rocket system or unmanned air vehicle in conjunction with either surface or airborne references or navigation satellite systems to provide real-time measurements of in-flight position and velocity, (see § 121.1, Category XI(a));

(2) Range instrumention radars including associated optical/infrared trackers and the specially designed software therefor with all of the following capabilities (see § 121.1, Category XI(a)(3)):

(i) angular resolution better than 3 milliradians (0.5 mils);

(ii) range of 30 km or greater with a range resolution better than 10 meters RMS;

(iii) velocity resolution better than 3 meters per second.

(3) Software which processes post-flight, recorded data, enabling determination of vehicle position throughout its flight path (see § 121.1, Category IV(i)).

ITEM 13—CATEGORY II

Analog computers, digital computers, or digital differential analyzers designed or modified for use in the systems in Item 1 (see § 121.1, Category XI (a)(6), having either of the following characteristics:

(a) Rated for continuous operation at temperature from below minus 45 degrees C to above plus 55 degrees C; or

(b) Designed as ruggedized or ''radiation hardened''.

NOTE TO ITEM 13

Item 13 equipment may be exported as part of a manned aircraft or satellite or in quantities appropriate for replacement parts for manned aircraft.

ITEM 14—CATEGORY II

Analog-to-digital converters, usable in the system in Item 1, having either of the following characteristics:

(a) Designed to meet military specifications for ruggedized equipment (see § 121.1, Category XI(d)); or,

(b) Designed or modified for military use (see § 121.1, Category XI(d)); and being one of the following types:

(1) Analog-to-digital converter ''microcircuits,'' which are ''radiation hardened'' or have all of the following characteristics:

(i) Having a resolution of 8 bits or more;

(ii) Rated for operation in the temperature range from below minus 54 degrees C to above plus 125 degrees C; and

(iii) Hermetically sealed.

(2) Electrical input type analog-to-digital converter printed circuit boards or modules, with all of the following characteristics:

(i) Having a resolution of 8 bits or more;

(ii) Rated for operation in the temperature range from below minus 45 degrees C to above plus 55 degrees C; and

(iii) Incorporated ''microcircuits'' listed in (1), above.

ITEM 16—CATEGORY II

Specially designed software, or specially designed software with related specially designed hybrid (combined analog/digital) computers, for modeling, simulation, or design integration of the systems in Item 1 and Item 2 (see §121.1, Category IV(i) and Category XI(a)(6)).

NOTE TO ITEM 16

The modelling includes in particular the aerodynamic and thermodynamic analysis of the system.

ITEM 17—CATEGORY II

Materials, devices, and specially designed software for reduced observables such as radar reflectivity, ultraviolet/infrared signatures on acoustic signatures (i.e. stealth technology), for applications usable for the systems in Item 1 or Item 2 (see §121.1, Category XIII (e) and (k)), for example:

(a) Structural material and coatings specially designed for reduced radar reflectivity;

(b) Coatings, including paints, specially designed for reduced or tailored reflectivity or emissivity in the microwave, infrared or ultraviolet spectra, except when specially used for thermal control of satellites.

(c) Specially designed software or databases for analysis of signature reduction.

(d) Specially designed radar cross section measurement systems (see §121.1, Category XI(a)(3)).

ITEM 18—CATEGORY II

Devices for use in protecting rocket systems and unmanned air vehicles against nuclear effects (e.g. Electromagnetic Pulse (EMP), X-rays, combined blast and thermal effects), and usable for the systems in Item 1, as follows (see §121.1, Category IV (c) and (h)):

(a) ''Radiation Hardened'' ''microcircuits'' and detectors (see §121.1, Category XI(c)(3) Note: This commodity has been formally proposed for movement to category XV(e)(2) in the near future).

(b) Radomes designed to withstand a combined thermal shock greater than 1000 cal/sq cm accompanied by a peak over pressure of greater than 50 kPa (7 pounds per square inch) (see §121.1, Category IV(h)).

NOTE TO ITEM 18(a)

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. The following pages were removed from the final itar for replacement by DTC's updated version section 6(l) of the Export Administration Act of 1979 (50 U.S.C. App. 2405(l)), as amended. In accordance with this provision, the list of MTCR Annex items shall constitute all items on the U.S. Munitions List in §121.16.

PART 122—REGISTRATION OF MANUFACTURERS AND EXPORTERS

Sec.
122.1 Registration requirements.
122.2 Submission of registration statement.
122.3 Registration fees.
122.4 Notification of changes in information furnished by registrants.
122.5 Maintenance of records by registrants.

AUTHORITY: Secs. 2 and 38, Pub. L. 90–629, 90 Stat. 744 (22 U.S.C. 2752, 2778); E.O. 11958, 42 FR 4311, 1977 Comp. p. 79; 22 U.S.C. 2658.

SOURCE: 58 FR 39298, July 22, 1993, unless otherwise noted.

§ 122.1 Registration requirements.

(a) Any person who engages in the United States in the business of either manufacturing or exporting defense articles or furnishing defense services is required to register with the Office of Defense Trade Controls. Manufacturers who do not engage in exporting must nevertheless register.

(b) *Exemptions.* Registration is not required for:

(1) Officers and employees of the United States Government acting in an official capacity.

(2) Persons whose pertinent business activity is confined to the production of unclassified technical data only.

(3) Persons all of whose manufacturing and export activities are licensed under the Atomic Energy Act of 1954, as amended.

(4) Persons who engage only in the fabrication of articles for experimental or scientific purpose, including research and development.

(c) *Purpose.* Registration is primarily a means to provide the U.S. Government with necessary information on who is involved in certain manufacturing and exporting activities. Registration does not confer any export rights or privileges. It is generally a precondition to the issuance of any license or other approval under this subchapter.