

1990 No. 735

CUSTOMS AND EXCISE

**The Export of Goods (Control) (Amendment No. 2)
Order 1990**

Made - - - - 22nd March 1990

Coming into force 30th April 1990

The Secretary of State, in exercise of powers conferred by section 1 of the Import, Export and Customs Powers (Defence) Act 1939(a) and now vested in him(b), and of all other powers enabling him in that behalf, hereby makes the following Order:

1. This Order may be cited as the Export of Goods (Control) (Amendment No. 2) Order 1990 and shall come into force on 30th April 1990.

2. The Export of Goods (Control) Order 1989(c) shall be amended as follows:

- (a) in article 2, in paragraphs (i), (iv), (v), (vi), (x) and (xi), for the words "relates to those goods" there shall be substituted the words "includes information relating to those goods";
- (b) in article 2(ii), after the word "includes" there shall be inserted the words "information relating to";
- (c) in Group 1 of Part II of Schedule 1 –
 - (i) in entry ML1 (Small arms and machine guns), after the words "the following" there shall be inserted the words ": and specially designed components therefor";
 - (ii) in the same entry, for head (c) there shall be substituted the following head:
“(c) Weapons using caseless ammunitionC”;
 - (iii) in entry ML2 (Large calibre armament or weapons and projectors), for head (b) there shall be substituted the following head:
“(b) Military smoke, gas and pyrotechnic projectors or generatorsC”;
 - (iv) entry PL5004 shall be deleted;
 - (v) in entry ML3 (Ammunition including projectiles), for the words “PL5003 and PL5004 above” in the third line, there shall be substituted the words “and ML26”;
 - (vi) after entry ML3 (Ammunition including projectiles), there shall be inserted the following new entry:
“PL5021 Ammunition, including projectiles, and specially designed components and specially designed ODMA software therefor, for the equipment mentioned in entry PL5018 aboveC”;
 - (vii) for entry ML4 there shall be substituted the following entry:

"ML4 Bombs, torpedos, rockets and missiles, the following: and specially designed components and specially designed ODMA software therefor-

- (a) Bombs, torpedoes, grenades (including smoke grenades), smoke canisters, rockets, mines, missiles, depth charges, fire bombs, incendiary bombs and military demolition charges, devices and kits, pyrotechnic flare signals for military use, cartridges and simulatorsC
- (b) Apparatus and devices specially designed for the handling, control, activation, powering with one time operational output, launching, laying, sweeping, discharging, detonation or detection of items specified in head (a)C
- (c) Military fuel thickeners, including compounds (eg octal) or mixtures of such compounds (eg napalm) specifically formulated for the purpose of producing materials which, when added to petroleum products, provide gel-type incendiary material for use in bombs, projectiles, flamethrowers or other implements of warC";

(viii) after entry ML4 (Bombs, torpedoes, rockets and missiles) there shall be inserted the following new entry:

"PL5019 Radomes specially designed to withstand a combined thermal shock greater than 41.8kJ/m² accompanied by a peak overpressure of greater than 49kPa.....C";

(ix) in entry PL5006 for the words "Apparatus and devices specially designed for dealing with improvised explosive devices and specially designed ODMA software therefor", there shall be substituted the words "Apparatus and devices specially designed for dealing with improvised explosive devices or with other explosive devices not specified in head (a) of entry ML4, and specially designed ODMA software therefor";

(x) for entry ML5 there shall be substituted the following entry:

"ML5 Fire control systems and sub-systems, specially designed for military use, the following: and specially designed components and accessories and specially designed ODMA software therefor-

- (a) Fire control, gun laying, night sighting, missile tracking and guidance equipment and target surveillance equipmentC
- (b) Range, position and height finders, spotting instruments, detection, recognition or identification equipment and sensor integration equipment.....C
- (c) Electronic, electro-optic, gyroscopic, acoustic and optical aiming or sighting devicesC
- (d) Bomb sights, bombing computers, gun sights and periscopesC";

(xi) for entry ML6 there shall be substituted the following entry:

"ML6 Vehicles, specially designed or modified for military use, the following: and specially designed components and specially designed ODMA software therefor -

- (a) Tanks and self-propelled gunsC
- (b) Military type armed or armoured vehicles, and vehicles fitted with mounting for arms.....C
- (c) Armoured railway trainsC
- (d) Military half-tracks.....C
- (e) Military type recovery vehiclesC
- (f) Gun-carriers and tractors specially designed for towing artillery.....C
- (g) Trailers specially designed to carry ammunition.....C
- (h) Amphibious and deep water fording military vehicles.....C
- (i) Military mobile repair shops specially designed to service military equipment.....C

- (j) All other military vehicles specially designed or modified for military use, including tank transporters, tracked amphibious cargo carriers, high speed tractors and heavy artillery transporters.....C
- (k) Pneumatic tyre casings of a kind specially constructed to be bullet proof or to run when deflated.....C
- (l) Engines for the propulsion of the vehicles specified in heads (a) to (j), and specially designed components thereforC
- (m) Tyre inflation pressure control systems, operated from inside a moving vehicle, specially designed or modified for military use.....C
- (n) Large deflection suspensions specially designed or modified for military useC

In this entry "specially modified for military use" means a structural, electrical or mechanical modification which entails replacing a component with at least one specially designed military component, or adding at least one such component.";

(xii) entry PL5007 shall be deleted;

(xiii) entry PL5008 shall be deleted;

(xiv) for entry ML7 there shall be substituted the following entry:

"ML7 Toxicological agents and tear gas and related equipment, components, materials and technology the following: and specially designed ODMA software therefor-

- (a) Biological agents, chemical agents or radioactive materials adapted for use in war to produce casualties in men or animals, or to damage crops.....C
- (b) Equipment specially designed and intended for the dissemination of the materials specified in head (a).....C
- (c) Equipment specially designed and intended for defence against the materials specified in head (a) and for their detection and identificationC
- (d) Components specially designed for the items specified in head (b) or (c).....C
- (e) Biopolymers specially designed or processed for detection and identification of chemical warfare (CW) agents specified in head (a) and the cultures of specific cells used to produce them....C
- (f) Biocatalysts for decontamination and degradation of CW agents, and biological systems therefor, the following-
 - (1) biocatalysts, specially designed for decontamination and degradation of CW agents specified in head (a), resulting from directed laboratory selection or genetic manipulation of biological systems.....C
 - (2) biological systems, the following: expression vectors, viruses or cultures of cells containing the genetic information specific to the production of biocatalysts specified in sub-head (f)(1).....C
- (g) Technology the following -
 - (1) technology for the development, production and use of toxicological agents, related equipment and components, agents, and materials specified in heads (a) to (d), and of tear gasD
 - (2) technology for the development, production and use of biopolymers and the cultures of specific cells used to produce them specified in head (e).....D
 - (3) technology exclusively for the incorporation of biocatalysts specified in sub-head (f)(1) into military carrier substances or military material.....D
- (h) Noxious chemicals, the following -
 - (1) Bromobenzyl cyanideC

- (2) oChlorobenzylidenemalononitrile
(oChlorobenzalmalononitrile).....C
- (3) monoChloromethyl chloroformate.....C
- (4) 2-ChlorotriethylamineC
- (5) Dibenzoxazepine.....C
- (6) Dibromodimethyl etherC
- (7) Dichlorodimethyl ether.....C
- (8) 2:2'-DichlorotriethylamineC
- (9) DiphenylaminechloroarsineC
- (10) Diphenylchloroarsine.....C
- (11) DiphenylcyanoarsineC
- (12) Ethyl NN-dimethylphosphoramidocyanidate.....C
- (13) EthyldibromoarsineC
- (14) Ethyldichloroarsine.....C
- (15) Lewisite (chlorovinylchloroarsine and dichlorodivinyldichloroarsine).....C
- (16) Methyldichloroarsine.....C
- (17) Mustard gas (dichlorodiethyl sulphide).....C
- (18) Phenylcarbylamine chloride (phenylaminocarbonyl chloride)C
- (19) Phenylacyl chloride (w-Chloroacetophenone).....C
- (20) Phenyldibromoarsine.....C
- (21) PhenyldichloroarsineC
- (22) Pinacolyl methylphosphonofluoridate.....C
- (23) isoPropyl methylphosphonofluoridateC
- (24) 2:2':2" TrichlorotriethylamineC

In this entry—

“anti-idiotypic antibodies” means antibodies which bind to the specific antigen binding sites of other antibodies;

“biocatalysts” means enzymes and other biological compounds which bind to and accelerate the degradation of CW agents;

“biopolymers” means the following biological macromolecules:

- (1) enzymes;
- (2) antibodies, monoclonal, polyclonal or anti-idiotypic;
- (3) specially designed or specially processed receptors;

“enzymes” means biocatalysts for specific chemical or biochemical reactions;

“expression vectors” means carriers (eg plasmid or virus) which are used to introduce genetic material into host cells;

“monoclonal antibodies” means proteins which bind to one antigenic site and are produced by a single clone of cells;

“polyclonal antibodies” means a mixture of proteins which bind to the specific antigen and are produced by more than one clone of cells;

“receptors” means biological macromolecular structures capable of binding ligands, the binding of which affects physiological functions.”;

(xv) for entry ML9 there shall be substituted the following entry:

“ML9 Vessels (including ships) of war and special naval equipment, the following: and specially designed components and specially designed ODMA software therefor –

- (a) Combatant vessels or vessels (surface or underwater) specially designed or modified for offensive or defensive action, whether or not converted to non-military use and regardless of current state of repair or operating conditionC

- (b) Engines, the following –
 - (1) diesel engines specially designed for submarines with both of the following characteristics.....C
 - (A) a power output of 1.12 MW (1,500 hp) or more;
 - (B) a rotary speed of 700 rev/min or more;
 - (2) electric motors, specially designed for submarines, having all of the following characteristics.....C
 - (A) a power output of more than 0.75 MW (1,000 hp);
 - (B) quick reversing;
 - (C) liquid cooled;
 - (D) totally enclosed;
 - (3) non-magnetic diesel engines specially designed for military purposes with a power output of 37.3 kW (50 hp) or more.....C
 - (c) Underwater detection devices specially designed for military purposes and controls thereofC
 - (d) Submarine and torpedo nets.....C
 - (e) Compasses and equipment therefor and ship's course indicators, specially designed for submarines.....C
 - (f) Hull penetrators and connectors specially designed for military purposes which enable interaction with equipment external to a vessel.....C
 - (g) Silent bearings specially designed for military purposes and equipment containing those bearings.....C”;
- (xvi) entry PL5010 shall be deleted;
- (xvii) for entry ML10 there shall be substituted the following entry:
- “ML10 Aircraft and helicopters, unmanned airborne vehicles, aero-engines and aircraft or helicopter equipment, associated equipment and components, specially designed for military purposes, the following: and specially designed ODMA software therefor–
- (a) Combat aircraft and helicopters and other aircraft and helicopters specially designed for military purposes, including military reconnaissance, assault, military training and logistic support, and all aircraft and helicopters having special structural features such as multiple hatches, special doors, ramps and reinforced floors, for transporting and airdropping troops, military equipment and supplies, and specially designed components thereforC
 - (b) Aero-engines specially designed or adapted for use with aircraft and helicopters specified in head (a) of this entry, and specially designed components thereforC
 - (c) Unmanned airborne vehicles, including remotely piloted air vehicles (RPVs), and autonomous, programmable vehicles specially designed or modified for military purposes, and their launchers, ground support and associated equipment for command and controlC
 - (d) Airborne equipment, including airborne refuelling equipment, specially designed for use with the aircraft and helicopters and the aero-engines specified in head (a) or (b) of this entry, and specially designed components therefor.....C
 - (e) Pressure refuellers, pressure refuelling equipment, equipment specially designed to facilitate operations in confined areas and ground equipment, developed specially for aircraft and helicopters specified in head (a) of this entry, or for aero-engines specified in head (b) of this entry.....C
 - (f) Pressurised breathing equipment and partial pressure suits for use in aircraft and helicopters, anti-g suits, military crash helmets and protective masks, liquid oxygen converters used for

- aircraft, helicopters and missiles, catapults and cartridge actuated devices utilised in emergency escape of personnel from aircraft and helicoptersC
- (g) Parachutes used for combat personnel, cargo dropping and aircraft deceleration, the following –
- (1) parachutes for–
 - (a) pin point dropping of rangers.....C
 - (b) dropping of paratroopers.....C
 - (2) cargo parachutes.....C
 - (3) paragliders (drag parachutes, drogue parachutes for stabilisation and attitude control of dropping bodies eg recovery capsules, ejection seats, bombs)C
 - (4) drogue parachutes for use with ejection seat systems for deployment and inflation sequence regulation of emergency parachutesC
 - (5) recovery parachutes for guided missiles, drones and space vehicles.....C
 - (6) approach parachutes and landing deceleration parachutes.....C
 - (7) other military parachutesC
- (h) Automatic piloting systems for parachuted loads; equipment specially designed or modified for military purposes for controlled opening jumps at any height including oxygen equipmentC”;
- (xviii) entry PL5011 shall be deleted;
- (xix) entry PL5012 shall be deleted;
- (xx) entry PL5013 shall be deleted;
- (xxi) for entry ML14 there shall be substituted the following entry:
- “ML14 Specialised equipment for military training or for simulating military scenarios, and specially designed components and accessories and specially designed ODMA software thereforC”;
- (xxii) for entry ML16 there shall be substituted the following entry –
- “ML16 Forgings, castings and semi-finished products specially designed for the products specified in entries ML1, 2, 3, 4, 6 and 10 above.C”;
- (xxiii) after entry ML16 (Forgings, castings and semi-finished products), there shall be inserted the following new entry:
- “PL5020 Forgings, castings and semi-finished products specially designed for the products specified in PL5003, 5005, 5006 and 5018 above..C”;
- (xxiv) for entry ML17 there shall be substituted the following entry:
- “ML17 Miscellaneous equipment and materials, the following: and specially designed components and specially designed ODMA software therefor–
- (a) Self-contained diving and underwater swimming apparatus, the following–
 - (1) closed and semi-closed circuit (rebreathing) apparatus....C
 - (2) specially designed components for use in the conversion of open-circuit apparatus to military useC
 - (3) articles designed exclusively for military use with self-contained diving and underwater swimming apparatusC
 - (b) Fire arms silencers (mufflers)C
 - (c) Power-controlled searchlights and control units therefor, designed for military use.....C
 - (d) Construction equipment built to military specifications, specially designed for airborne transport.....C
 - (e) External fittings, coatings and treatments for the suppression of acoustic, radar, infrared and other emissions, specially designed for military useC
 - (f) Field engineer equipment specially designed for use in a combat zoneC”;

(xxv) entry PL5016 shall be deleted;

(xxvi) for the entry ML18 there shall be substituted the following entry:

“ML18 Equipment and technology for the production of items specified in this Group, the following: and specially designed ODMA software therefor—

- (a) Specially designed or modified production equipment for the production of products specified in this Group and specially designed components thereforC
- (b) Specially designed environmental test facilities and specially designed equipment therefor, for the certification, qualification, or testing of products specified in this Group.....C
- (c) Production technology, even if the equipment with which such technology is to be used is not specified in this Group.....D
- (d) Technology specific to the design of, the assembly of components into, and the operation, maintenance and repair of complete production installations even if the components themselves are not specified in this GroupD

In this entry “production” means design, examination, manufacture, testing and checking.”;

(xxvii) entry ML19 shall be deleted;

(xxviii) for entry ML20 there shall be substituted the following entry:

“ML20 Cryogenic and superconductive equipment, the following: and specially designed components and accessories and specially designed ODMA software therefor —

- (a) Equipment specially designed or configured to be installed in a vehicle for military ground, marine, airborne or space application and capable of operating while in motion and of producing or maintaining temperatures below 103 K (–170°C)..C
- (b) Superconductive electrical equipment (rotating machinery and transformers) designed for operation at temperatures below 103 K (–170°C), and which are specially designed or configured to be installed in a vehicle for military ground, marine, airborne or space applications and capable of operating while in motion.....C

except

direct-current hybrid homopolar generators that have single-pole normal metal armatures which rotate in a magnetic field produced by super-conducting windings, provided those windings are the only superconducting component in the generator.”;

(xxix) in entry ML22 (Electrically triggered shutters of the carbon injection or photochromic function type having a shutter speed of less than 100 microseconds), for the words “carbon injection or photochromic function” there shall be substituted the words “photochromic or electro-optical”;

(xxx) in entry ML23 (Directed energy weapons (DEW) systems), for the words “ODMA software” there shall be substituted the words “components and specially designed ODMA software”;

(xxxi) in the same entry for head (e) there shall be substituted the following head:

“(e) Equipment specially designed for the detection and identification of, and defence against, systems specified in heads (a), (b) or (c) above, and specially designed components thereforC”;

(xxxii) for entry ML24 there shall be substituted the following entry:

“ML24 Software not elsewhere specified, the following—

(a) Software specially designed for:

- (1) modelling, simulation or evaluation of military weapon systemsC
- (2) development, monitoring, maintenance or up-dating of software embedded in military weapons systemsC

- (3) modelling or simulating military operation scenarios, not specified in entry ML14 in this GroupC
 - (4) Command, Communications, Control and Intelligence (C₃I) applicationsC
 - (b) Software for determining the effects of conventional, nuclear, chemical or biological warfare weaponsC”;
- (xxxiii) after entry ML24 there shall be inserted the following new entry:
- “ML26 Kinetic energy weapon systems and associated equipment, the following: and specially designed components and specially designed ODMA software therefor—
 - (a) Kinetic energy weapons systems specially designed for destruction or effecting mission-abort of a targetC
 - (b) Specially designed test and evaluation facilities and test models, including diagnostic instrumentation and targets, for dynamic testing of kinetic energy projectiles and systemsC
 - (c) Specially designed subsystems for systems specified in head (a) or (b) above, including the followingC
 - (1) launch-propulsion-subsystems capable of accelerating masses larger than 0.1 g to velocities in excess of 1.6 km/s, in single or rapid fire modes;
 - (2) prime power generation, energy storage, thermal management, conditioning, switching and fuel-handling equipment;
 - (3) target acquisition, tracking, fire control and damage assessment subsystems;
 - (4) homing seeker, guidance and divert propulsion (lateral acceleration) subsystems for projectiles”;
- (xxxiv) entry ML25 shall be deleted;
- (d) in Group 2A of Part II of Schedule 1, after entry PL6006 (Alloys containing a higher percentage of magnesium than of any other element and 10% or more of lithium) there shall be inserted the following new entry:
 - “PL6014 UF₆-resistant fully fluorinated hydrocarbon polymers specially prepared for the manufacture of gaseous diffusion barriers, having a purity of 99.9 per cent or more, a particle size less than 10 microns and a high degree of particle size uniformityC”;
 - (e) in Group 2B of Part II of Schedule 1 –
 - (i) sub-head (b)(2) of entry B1 shall be deleted;
 - (ii) after entry B1 (Plants for the separation of isotopes of natural and depleted uranium and special and other fissile materials) there shall be inserted the following new entry:
 - “PL6013 Blowers and compressors (turbo, centrifugal and axial flow types) wholly made of or lined with nickel alloy, phosphor bronze, stainless steel, aluminium or aluminium alloy, corrosion resistant to uranium hexafluoride (UF₆) or hydrogen fluoride (HF) and having a capacity of 1,000 litres per minute or greater, including compressor sealsC”;
 - (f) in Group 3B of Part II of Schedule 1–
 - (i) entry IL1110 shall be deleted;
 - (ii) in entry IL1129 (Vacuum pump systems), in head (a) “(-328°F)” shall be deleted;
 - (iii) entry IL1142 shall be deleted;
 - (iv) entry IL1145 shall be deleted;
 - (g) in Group 3D of Part II of Schedule 1, entry IL1352 shall be deleted;
 - (h) in Group 3E of Part II of Schedule 1 –
 - (i) for entry IL1416 there shall be substituted the following entry:
 - “IL1416 Vessels (including ships and surface-effect vehicles), water-screw propellers and hub assemblies, water-screw propeller systems, mois-

ture and particulate separator systems and specially designed components, the following—

- (a) Hydrofoil vessels with automatically controlled foil systems which are capable of speeds of above 40 knots in rough water (Sea State Five).....S,I
- (b) Surface effect vehicles,C
except hovercraft having all the following characteristics:
 - (1) designed to carry fewer than 5 passengers including the driver;
 - (2) dry mass less than 500 kg;
 - (3) maximum speed less than 50 knots (90 km/h) at Sea State 0;
 - (4) not designed for operation above Sea State 3;
- (c) Small waterplane area twin-hull (SWATH) vessels having underwater hulls whose cross-sectional area varies along the longitudinal axis between points two major diameters from the bow and two major diameters from the sternC
- (d) Ships and vessels fitted with any of the following—
 - (1) equipment specified in Group 1, in entry IL1485 in this Group or in entry IL1501, IL1502 or IL1510 in Group 3FS,I
 - (2) degaussing facilities.....S,I
or
 - (3) closed ventilation systems designed into the vessel which are designed to maintain air purity and positive pressure regardless of the conditions external to the vessel except where those closed ventilation systems are specially designed for and incorporated in the vessel's medical facilities only.....C
- (e) Water-screw propellers and hub assemblies, the following—
 - (1) supercavitating propellers rated at greater than 7.46 MW (10,000 hp).....C
 - (2) controllable-pitch propellers and hub assemblies rated at above 29.83 MW (40,000 hp) capacity.....C
- (f) Water-screw propeller systems, the following—
 - (1) contrarotating propeller systems rated at greater than 14.92 MW (20,000 hp).....C
 - (2) ventilated, base-ventilated and super-ventilated propeller systems and semi-submerged propeller systems (or surface propellers) rated at more than 2.24 MW (3,000 hp).....C
 - (3) systems employing pre-swirl and post-swirl techniques for smoothing the flow into a propeller so as to improve propulsive efficiency of—
 - (i) SWATH vessels, hydrofoil vessels, and surface-effect vessels.....C
or
 - (ii) other vessels whose propeller rotational speed is above 200 rpm, or having propellers with a rating exceeding 44.74 MW (50,000hp) per shaftC
 - (4) pumpjet systemsC
- (g) Moisture and particulate separator systems which are capable of removing 99.9 per cent of particles larger than 2 micrometres in diameter with a maximum pressure loss of 1.6 kPa (16 millibar) for gas turbine engine air inlets.....C
- (gg) Technology for moisture and particulate separator systems specified in head (g) above, the following—

- (1) technology for preventing water leakage around the filter stagesD
- (2) technology for integrating the components of such a system.....D
- (h) Specially designed components for vessels specified in head (a), (b) or (c) above, the following –
 - (1) advanced hull forms which incorporate any of the following–
 - (i) stepped hulls for hydrofoil vesselsC
 - (ii) hulls for air cushion vehicles with trapezoidal platformsC
 - (iii) hulls for surface effect vehicles with catamaran-like sidewallsC
 - (iv) hulls for wing-in ground effect vehiclesC
 - (v) underwater hulls and struts for SWATH vessels.....C
 - (2) fully submerged subcavitating or supercavitating hydrofoilsC
 - (3) lightweight structural components for SWATH vessels, hydrofoil vessels and surface effect vehicles, constructed using anisotropic, orthotropic or sandwich construction methodsC

In this sub-head –

“anisotropic construction methods” means the use of fibre reinforcing members aligned so that the load-carrying ability of the structure can be primarily orientated in the direction of expected stress.

“orthotropic construction methods” means the means of stiffening plates, in which the structural members are at right angles to each other.

“sandwich construction methods” means the use of structural members or plates which are fabricated and permanently affixed in layers to enhance their strength and reduce their weight.

- (4) flexible skirts, seals and fingers for surface effect vehiclesC
- (5) systems for automatically controlling the stability of SWATH vessels, hydrofoil vessels or surface effect vehiclesC
- (6) power transmission shaft systems which incorporate composite material components, for SWATH vessels, hydrofoil vessels or surface effect vehiclesC
- (7) lightweight, high capacity (K factor greater than 150) gearing (planetary, cross-connect and multiple input/output gears and bearings) for SWATH vessels, hydrofoil vessels or surface effect vehiclesC
- (8) water-cooled electrical propulsion machinery (motor and generator), including AC-AC synchronous and AC-DC systems; sectored-disc and concentric-drum rotors for DC homopolar machines, for SWATH vessels, hydrofoil vessels or surface effect vehiclesC
- (9) superconducting electrical propulsion machinery for SWATH vessels, hydrofoil vessels or surface effect vehiclesC
- (10) lift fans for surface effect vehicles, rated at greater than 300 kW (400 hp).....C
- (11) waterjet propulsor systems rated at an input of 2.24MW (3,000 hp) or greater for hydrofoil vessels or surface

effect vehicles.....C

In this entry "pumpjet systems" means propulsion systems which utilise divergent nozzle and flow conditioning vane techniques to improve propulsive efficiency or reduce propulsion generated underwater radiated noise.";

(ii) for entry IL1417 there shall be substituted the following entry:

"IL1417 Submersible systems including those incorporated in a submersible vehicle and specially designed components, the following: and specially designed ODMA software therefor-

(a) Automatically-controlled atmosphere-regeneration systems specially designed or modified for submersible vehicles which, in a single chemical-reaction cycle, ensure carbon dioxide removal and oxygen renewalC

(b) Systems specially designed or modified for the automated control of the motion of a submersible vehicle using navigation data and having closed-loop servo-controls so as to-

(1) enable the vehicle to move within 10m of a predetermined point in the water columnC

(2) maintain the position of the vehicle within 10m of a predetermined point in the water column.....C

(3) maintain the position of the vehicle within 10m while following a cable on or under the sea bed.C

except automated control systems incorporated in underwater bulldozers or trench-cutters not capable of operating at depths greater than 100 metres and possessing only negative buoyancy.

(c) Underwater vision systems, the following-

(1) television systems (comprising camera, lights, monitor and signal transmission equipment) specially designed or modified for remote operation with a submersible vehicle, having a limiting resolution, when measured in the air, of more than 500 lines or underwater television cameras having a limiting resolution, when measured in the air, of more than 600 lines, using IEEE Standard 208/1960 or any equivalent standard.....C

(2) systems specially designed or modified for remote operation with a submersible vehicle employing techniques to minimize the effects of back-scatter including range-gated illuminators and laser systems.....C

except television cameras used merely through a porthole.

(d) Remotely controlled articulated manipulators specially designed or modified for use with submersible vehicles and having any of the following characteristics -

(1) systems which control the manipulator using information from sensors which measure force or torque applied to an external object, distance from an external object, or tactile sense between the manipulator and an external object....C
except systems where force or torque are only measured and then displayed to the operator.

(2) controlled by proportional master-slave techniques or by using a dedicated stored-programme computerC

(3) capable of exerting a force of 250 N or more or a torque of 250 N.m or more and using titanium based alloys of fibrous and filamentary composite materials in their structural members.....C

(e) Photographic cameras and associated equipment specially designed or modified for underwater use, having a film format of 35 mm or larger, having any of the following -

(1) film advancement of more than 5 frames per secondC

- (2) annotating the film with data provided by a source external to the camera.....C
- (3) taking more than 400 full frame exposures without changing the film.....C
- (4) autofocussing or remote focussing specially designed or modified for use under water.....C
- (5) automatic back focal distance correction.....C
- (6) passive or automatic compensation control specially designed to permit underwater camera housings to be useable at depths exceeding 1,000m.....C
- (7) titanium underwater camera housings specially designed for depths exceeding 1,000 m.....C
- (8) automatic exposure control by using sensing devices in or external to the camera; if the camera is capable of operating at depths of more than 300 m.....C
- (f) Light systems specially designed or modified for underwater use, the following—
 - (1) stroboscopic lights capable of —
 - (A) light output energy of more than 250 Joules per flash.....C
 - (B) flash rates of more than 5 flashes per second at a light output energy of more than 10 Joules per flash.....C
 - (2) other lights and associated equipment, designed for operation with equipment specified in sub-head (e)(1) or (e)(8) above.....C
- (g) Specially designed components for the equipment specified in heads (a) to (f) above.....C
- (h) Air-independent power systems specially designed for underwater use and specially designed components therefor, the following —
 - (1) Brayton, Stirling or Rankine Cycle Engine air-independent power systems having any of the following characteristics —
 - (A) specially designed chemical scrubber or absorber subsystems to remove carbon dioxide, carbon monoxide and particulates from recirculated engine exhaust....C
 - (B) specially designed subsystems for utilising a monoatomic gas.....C
 - (C) specially designed devices for underwater noise reduction in frequencies less than 10 kHz, or special mounting devices for shock mitigation.....C
 - (D) specially designed systems for pressurising products of reaction or for fuel reformation, specially designed systems for the storage of products of the reaction, and specially designed systems for discharging the products of the reaction against a pressure of 100 kPa (1 bar) or more.....C
 - (2) Diesel Cycle Engine air-independent systems having all of the following characteristics.....C
 - (A) specially designed chemical scrubber or absorber subsystems to remove carbon dioxide, carbon monoxide and particulates from recirculated engine exhaust;
 - (B) specially designed subsystems for utilising a monoatomic gas;
 - (C) specially designed devices for underwater noise reduction in frequencies less than 10 kHz, or special mounting devices for shock mitigation;
 - (D) specially designed exhaust systems that do not continuously exhaust products of combustion;
 - (3) alkaline, phosphoric acid or ion exchange membrane fuel cell air-independent power systems with an output exceeding

2 kW and operating at a temperature of less than 523K having any of the following characteristics—

- (A) specially designed enclosures for underwater noise reduction in frequencies less than 10 kHz, or special mounting devices for shock mitigation.....C
- (B) specially designed systems for pressurising products of reaction or for fuel reformation, specially designed systems for the storage of products of the reaction, and specially designed systems for discharging the products of the reaction against a pressure of 100 kPa (1 bar) or more.....C
- (4) specially designed components for subsystems specified in sub-head (h)(1)(C), (h)(3)(A) or (h)(2)(C) above;
- (i) technology, the following –
 - (A) technology for air-independent power systems specified in sub-head (h)(1), (h)(2) or (h)(3) above.....D
 - (B) technology for subsystems specified in sub-head (h)(1)(A), (h)(1)(B), (h)(1)(C), (h)(3)(A) or (h)(4) above.....D
 - (C) technology for subsystems specified in sub-head (h)(2)(A), (h)(2)(B) or (h)(2)(C) above.....D

In this entry “limiting resolution” in television is a measure of resolution usually expressed in terms of the maximum number of lines per picture height discriminated on a test chart”;

(iii) for entry IL1418 there shall be substituted the following entry:

“IL1418 Deep submergence vehicles and autonomous submersible vehicles, the following—

- (a) Deep submergence vehicles, manned or unmanned, tethered or untethered, capable of operating at depths exceeding 1,000 m, and specially designed or modified associated systems and equipment therefor, including the followingC
 - (1) pressure housings or pressure hulls;
 - (2) propulsion motors and thrusters;
 - (3) hull penetrators or connectors;
- (b) Other manned underwater vehicles which are able to operate autonomously for ten hours or more, provided their maximum range underwater exceeds 15 nautical milesC

In this entry –

“operate autonomously” means operate fully submerged, without snorkel, all systems working and cruising at the 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.

“range” means half the maximum distance the vehicle can cover”;

(iv) in entry IL1460 (Aircraft and helicopters, aero-engines and aircraft and helicopter equipment, and technology therefor), before the words “aero-engines” in line 1 there shall be inserted the words “including tilt wing and tilt rotor aircraft.”;

(v) in the same entry, in head (b), after the word “airframes” in line 1 there shall be inserted the words “(including air frames for tilt wing and tilt rotor aircraft)”;

(vi) in the same entry, after exception (b) to sub-head (b)(6), there shall be added the exception :

“(c) constructed mainly of glass-fibre-reinforced or carbon-fibre-reinforced plastics”;

(vii) in the same entry, after sub-head (b)(12), there shall be inserted the following new sub-head:

“(13) technology for the development and production of integrated automated propulsion and airfoil control systems for tilt wing and

- tilt rotor aircraft.....D”;
- (viii) in entry PL7011 (specially designed components for aircraft and helicopters), for the letter “W” there shall be substituted the letters, “L,I,Y,Z”;
- (ix) for entry IL1485 there shall be substituted the following entry:
- “IL1485 Inertial navigation systems, inertial equipment, gyroscopes (gyros) and accelerometers, and specially designed ODMA software therefor, the following: and specially designed components therefor –
- (a) Gyro compasses with provision for determining and transmitting ship's level reference data (roll, pitch) in addition to own ship's course data.....C
 - (b) Integrated digital flight instrument systems which include gyrostabilisers or automatic digital flight control systems for aircraft and specially designed ODMA software for the integration thereofC
except
 - (1) flight instrument systems integrated solely for VOR/ILS or MLS navigation and approaches;
 - (2) integrated flight instrument systems which –
 - (i) have been in normal civil use for more than two years; and
 - (ii) are standard equipment of civil aircraft and civil helicopters;

An “integrated flight instrument system” means a primary instrument and display system using digital data processing techniques to provide manoeuvre guidance information.
 - (c) Gyro-astro compasses and other devices which derive position or orientation by means of automatically tracking celestial bodies.....C
 - (d) Gyro-stabilisers used for other purposes than aircraft controlC
except –
 - (1) those for stabilising an entire surface vessel;
 - (2) those which have been in normal civil use for more than two years;
 - (e) Automatic pilots used for purposes other than aircraft control and specially designed ODMA software for the integration thereof.....C
except–
marine types for surface vessels;
 - (f) Accelerometers designed for use in inertial navigation systems or in guidance systems of all types, having either of the following characteristics–
 - (1) a threshold of 0.005 g or lessC
 - (2) a non-linearity of less than 0.25 per cent of the full scale output.....C
 - (g) Gyros with a rated free directional drift rate (rated free precession) of less than 0.5° (1 Sigma or root mean square value) per hour in a 1 g environmentC
 - (h) Continuous output accelerometers which utilise ‘servo’ or ‘force balance’ techniques and gyros, both specified to function at acceleration levels above 100 g.....C
 - (i) Inertial or other equipment using accelerometers specified in head (f) or (h) above or gyros specified in head (g) or (h) above, and systems incorporating such equipment, and specially designed ODMA software for the integration thereofC
 - (j) Specially designed test, calibration and alignment equipment for goods specified in heads (a) to (i) aboveC”;
- (i) in Group 3F of Part II of Schedule 1 –
- (i) for entry IL1502 there shall be substituted the following entry:

“IL1502 Communication, detection or tracking equipment of a kind using ultra-violet radiation, infrared radiation or ultrasonic waves, and specially designed components and specially designed software therefor.....C

except –

- (1) the following ultrasonic devices –
 - (a) operating in contact with a controlled material to be inspected;
 - (b) used for industrial cleaning, sorting or materials handling;
 - (c) used for emulsification;
 - (d) used for homogenisation;
 - (e) used in simple educational devices;
 - (f) used in simple entertainment devices;
- (2) underwater ultrasonic communication systems which do not have any of the following –
 - (a) electronic beam steering;
 - (b) encryption techniques; or
 - (c) a carrier frequency outside the range from 20 to 60 kHz;
- (3) the following equipment –
 - (a) industrial equipment employing cells not specified in entry IL1548;
 - (b) industrial and civilian intrusion alarm, traffic and industrial movement control and counting systems;
 - (c) medical equipment;
 - (d) industrial equipment used for inspection, sorting or analysis of the properties of materials;
 - (e) simple educational devices which employ photocells;
 - (f) simple devices for entertainment or for home use which employ photocells;
 - (g) flame detectors for industrial furnaces;
 - (h) equipment for non-contact temperature measurement for laboratory or industrial purposes using a single detector cell with no scanning of the detector;
 - (i) instruments capable of measuring radiated power or energy having a response time constant exceeding 10 ms;
 - (j) equipment designed for measuring radiated power or energy for laboratory, agricultural or industrial purposes, using a single detector cell with no scanning of the detector, and single detector cell assemblies or probes specially designed therefor, having a response time constant exceeding 1 microsecond;
 - (k) infrared geodetic equipment, provided that equipment uses a lighting source other than a laser and is manually operated, or uses a lighting source (other than a laser or light-emitting diode) remote from the measuring equipment;
 - (l) infrared communication equipment with characteristics not exceeding those referred to in entry IL1519;
- (4) the following equipment –
 - (a) infrared thermal imaging equipment having all the following characteristics:
 - (1) the detector is a single element;
 - (2) the detector is neither a charge coupled device (CCD) nor an integrate-while-scan device;
 - (3) the detector is either:
 - (i) not cooled; or
 - (ii) cooled by using a liquid nitrogen Dewar vessel; and
 - (4) the equipment is:

- (i) non-ruggedised, medical equipment; or
- (ii) has both of the following:
 - (a) a resolution not exceeding 22,500 resolvable elements; and
 - (b) a Noise Equivalent Temperature Difference (NETD) (or temperature sensitivity) of no less than 1K;
- (b) infrared viewing equipment having all the following characteristics:
 - (1) the detector is a pyroelectric vidicon without reticle;
 - (2) the equipment is designed for fire fighting and buried body detection; and
 - (3) the optimal sensitivity is in the wavelength range from 8 to 14 micrometres.

Note:

This entry includes infrared or ultra-violet sensing devices not specified in Group 1 of Part II of this Schedule and which contain image intensifiers specified in entry IL1555 in this Group.”;

- (ii) in entry IL1510 (Marine or terrestrial acoustic or ultrasonic systems or equipment), for exception (1)(A)(4) there shall be substituted the following exception:

- “(4) acoustic systems or equipment for positioning surface vessels or underwater vehicles, provided that –
 - (a) their control capability is limited to release and basic transponder capabilities;
 - (b) they are not capable of processing responses from more than four beacons in the calculation of a single point;
 - (c) they do not use coherent signals from two or more beacons;
 - (d) they have neither devices nor software for the automatic correction of velocity-of-propagation errors for point calculation;
 - (e) they are capable only of –
 - (i) operating within a range of less than 1,000 m; or
 - (ii) achieving positional accuracy of better (less) than 20 m when measured at a range of 1,000 m;
 - (f) transducers, acoustic modules or hydrophones therefor are not designed to withstand pressure during normal operation at depths of more than 1,000 m; and
 - (g) beacons therefor –
 - (i) are not designed to withstand pressure during normal operation at depths of more than 1,000 m;
 - (ii) do not have oscillators with a stability of more than 10^{-5} over periods of 24 hours;
 - (iii) do not use complex codes; and
 - (iv) do not use beamformers which have shaded or formed beams;”;

- (iii) in the same entry, after exception (3), (moving coil or moving magnet geophones), there shall be inserted the following additional exception:

- “(4) Towed acoustic hydrophone arrays having all of the following characteristics –
 - (a) not specially designed for operation at more than 100 m depth or at tow speeds in excess of 8 knots;
 - (b) not incorporating temperature or heading sensors;
 - (c) having hydrophone groups uniformly spaced at not less than 25 m and not more than 60 m;

- (d) having an assembled diameter of 40 mm or more and using metallic strength members only;
- (e) not having multiplexed hydrophone group signals;
- (f) not having a configuration for multiple or overlapping acoustic aperture operation;
- (g) not having characteristics better than those referred to in (1)(B)(1) and (1)(B)(2) above; and
- (h) not having associated processing equipment which provides any of the following features –
 - (1) electronically-steerable beamforming capabilities;
 - (2) side-lobe suppression techniques such as shading coefficients;
 - (3) on-line real-time processing or off-line batch preprocessing capabilities exceeding the limits referred to in entry IL1529 and entry IL1565.

The exception in paragraph (4) above does not apply to technological documents the information in which includes information relating to goods excluded in paragraph (4)";

- (iv) in entry IL1519 (Telecommunication transmission equipment and measuring and test equipment), in head (b), after the words "Electronic measuring or test equipment" there shall be inserted the words "(eg bit error rate test sets)";
- (v) in entry IL1520 (Radio relay communication equipment, specially designed test equipment and specially designed software), for exception (ii) to head (a) there shall be substituted the following exception:
 - "(ii) microwave radio links having all of the following characteristics –
 - (1) designed for operation at a total bit rate not exceeding 45 million bit/s;
 - (2) not employing quadrature-amplitude-modulation (QAM) techniques above level 4 if the total bit rate exceeds 8.5 million bit/s;
 - (3) not exceeding an operating frequency of 19.7 GHz.";
- (vi) in the same entry in exception (iii) to head (a) for "15 GHz", there shall be substituted "19.7 GHz";
- (vii) in entry IL1522 (Lasers and equipment containing lasers), after exception (vi)(3) to head (a), there shall be added the further exception –
 - "(4) a continuous wave multi-mode output power not exceeding 175 watts.";
- (viii) for entry IL1529 there shall be substituted the following entry:
 - "IL1529 Electronic equipment for testing or measuring or for microprocessor or microcomputer development, the following: and specially designed software therefor –
 - (a) Any testing or measuring equipment –
 - (1) not described in any other entry in this Schedule.....C
 - (2) designed for use at frequencies exceeding 18 GHzC
except the following equipment having a maximum specified operating frequency of 26.5 GHz or less –
 - (1) power meters;
 - (2) broadband noise sources;
 - (3) noise figure meters;
 - (b) Logic analysers having any of the following characteristics: and specially designed accessories and specially designed components therefor–
 - (1) more than a total of 64 channelsC
 - (2) a synchronous (state) channel sampling rate of more than 50 MHzC

- (3) an asynchronous (timing) channel sampling rate of more than 200 MHzC
- (4) probe interfaces and inverse assemblers, except those designed for use with a microprocessor or microcomputer microcircuit family which contains at least one microprocessor or microcomputer microcircuit that is not specified in entry IL1564.....C
- (c) Frequency standards having both of the following characteristics.....C
 - (1) designed as reference standards for laboratory use;
 - (2) either of the following:
 - (A) a long-term drift (ageing) over 24 hours or more of 1 part or less in 10^{10} or
 - (B) a short-term drift (instability) over a period from 1 to 100 seconds of 1 part or less in 10^{12}
- (d) Equipment containing frequency standards, having any of the following characteristics -
 - (1) designed for mobile use and having a long-term drift (ageing) over 24 hours or more of 1 part or less in 10^9C
 - (2) designed for fixed ground use and having a long-term drift (ageing) over 24 hours or more of 5 parts or less in 10^{10} C
 - (3) a short-term drift (instability) over a period from 1 to 100 seconds of 1 part or less than 10^{12}C
- (e) Comb frequency generators designed for use at frequencies exceeding 12.5 GHz.....C
- (f) Instruments, as follows, designed for use at frequencies exceeding 1 GHz-
 - (1) Specially calibrated microwave instrumentation receivers capable of measuring amplitude and phase simultaneously.....C
 - (2) Automatic frequency (heterodyne) convertersC
 - (3) Automatic transfer oscillatorsC
- (g) Digital counters, the following -
 - (1) capable of counting successive input signals with less than 5 ns time difference without prescaling (digital division) of the input signal.....C

NOTE:

 - for counter/timers having a time interval measurement mode, see also head (h) below.
 - (2) employing prescaling of the input signal, in which the prescaler is capable of resolving successive input signals with less than 1 ns time differenceC
 - (3) capable of measuring burst frequencies exceeding 100 MHz for a burst duration of less than 5 msC
- (h) Time interval measuring equipment, having both of the following characteristics.....C
 - (1) employing digital techniques;
 - (2) capable of measuring time intervals of less than 5 ns on a single shot basis;
- (i) Digital voltage measuring equipment capable of more than 1,000 readings per second with a resolution of more than $4^{1/2}$ digits, not including changes in range or polarity.....C

except-

 - (A) visual quantisation apparatus capable of providing an average value, displayed or not, of the results of the measurement;

- (B) multichannel analysers of all types used in nuclear experimentation;
- (C) industrial telemeasuring devices in which a pre-set storage value is used as a basis for measuring.
- (j) General purpose data communication protocol analysers, testers and simulators for X.25 level 3 and above as well as Integrated Service Digital Network protocols (CCITT-150)..C
- (k) Microprocessor or microcomputer development instruments or systems, capable of developing software for, or capable of programming, microcircuits specified in entry IL1564, including accessories specially designed for these microprocessor or microcomputer development instruments or systems, such as the followingC
 - (A) Cross-hosted assemblers and cross-hosted compilers;
 - (B) Adapter interfaces for prototypes and/or emulation probes;
 - (C) Debuggers;
 - (D) Programmable read-only memory (PROM) programmers;
 - (E) Programmable read-only memory (PROM) copiers of a capacity more than 32 kbit and a word length greater than 8 bit;
 - (F) So-called personality modules which contain more than one of the accessories specified in (A) to (E) above
 - except
 - microprocessor or microcomputer development instruments or systems having all of the following characteristics –
 - (a) they can be used to develop software for, or to program a family of microprocessor or microcomputer microcircuits not designed in a country listed in Schedule 2;
 - (b) they can be used only for microprocessor or microcomputer microcircuits having both–
 - (1) an operand (data) word length of no more than 8 bit; and
 - (2) an arithmetic logic unit (ALU) not wider than 8 bit;
 - (c) the family of microprocessor or microcomputer microcircuits contains at least one member which is excluded from entry IL1564.

In this entry –

“burst frequency” measurement means the capability of a counter to start only when the input signal is present and stop counting at the completion of the burst;

“comb frequency generators” means apparatus which generate a spectrum of harmonics;

“frequency (heterodyne) converters” means equipment which down-converts an unknown frequency by mixing it with an accurately known frequency. This accurately known reference frequency is derived from a crystal, by multiplication of its frequency and passing it through a harmonic generator. By mixing the appropriate harmonic and the unknown frequency, an accurate third frequency results;

“transfer oscillators” means oscillators based on the principle of harmonic mixing. The known reference frequency is derived from a local oscillator instead of from a crystal. The unknown frequency is mixed with the local oscillator frequency, the two are phase-locked by tuning the local oscillator and can then be measured by a counter.

“family” means a group of microprocessor microcomputer microcircuits which have –

- (a) the same architecture;
- (b) the same basic instruction set, and

(c) the same basic technology (eg only NMOS or only CMOS). “pulse frequency profiling” means the capability of measuring the changes of frequency (or phase) within a pulse as a function of time; such changes in frequency would be present in a transmitted pulse-compression radar pulse (“chirp radar”). This profiling may be achieved by internal or external gating. Pulse frequency profiling is not intended to include ‘frequency modulation tolerance’ while it is being frequency modulated. The ability to perform measurement of the time interval of the pulse itself (pulse width) as opposed to frequency measurements within a pulse is covered under time interval instruments in head (h) above.”;

(ix) in entry IL1531 (Frequency synthesizers and equipment containing such frequency synthesizers, and specially designed components and accessories therefor), in line 2 the words “and specially designed components and accessories therefor,” shall be deleted;

(x) in the same entry, in sub-head (b)(3), the words in brackets shall be deleted;

(xi) in the same entry, for sub-head (b)(4), there shall be substituted the following sub-head:

“(4) electrically programmable in phase with a switching time from one selected phase value to another of less than 10 ms, except equipment incorporating pre-emphasis networks for frequency modulationC”;

(xii) in the same entry, for head (e), there shall be substituted the following head:

“(e) Radio transmitters incorporating transmitter drive units, exciters and master oscillators using frequency synthesis, the following: and specially designed components and accessories therefor—

(1) those having all the following characteristicsC

(A) an output frequency of up to 32 MHz;

(B) a frequency resolution of better (less) than 10 Hz;

(C) a frequency switching time of less than 10 ms;

(2) those having all the following characteristicsC

(A) an output frequency from 32 MHz to 235 MHz;

(B) a frequency resolution of better (less) than 250 Hz;

(C) a frequency switching time of less than 10 ms;

(3) those having an output frequency of more than 235 MHz....C
except

(A) television broadcasting transmitters having all the following characteristics –

(a) an output frequency from 470 MHz to 960 MHz;

(b) a frequency resolution of not better (less) than 1 kHz;

(c) any manually-operated frequency synthesizer incorporated in or driving the transmitter has an output frequency not exceeding 120 MHz;

(B) FM and AM ground communication equipment having all the following characteristics –

(a) for use in the land mobile service;

(b) operating in the 403 to 470 MHz band;

(c) a power output of 50 W or less for mobile units, or 300 W or less for fixed units;

(d) a frequency resolution of not better (less) than 6.25 kHz;

(e) a frequency switching time of more than 50 ms;

(C) portable (personal) or mobile radio-telephones for civil use, eg for use with commercial civil cellular radio-communications systems, having all the following characteristics –

(a) operating in the 403 to 960 MHz range;

(b) a power output of 25 W or less;

- (c) a frequency switching time of 10 ms or more.
 - (4) those having more than three different selected synthesized output frequencies available simultaneously from one or more outputsC
 - (5) those with facilities for pulse modulation of the output frequency of the transmitter or of the incorporated frequency synthesizerC
 - (6) frequency synthesizers designed for equipment specified in this sub-head, whether supplied separately or with the said equipment, exceeding the parameters referred to in head (b) above; except those specially designed for radio telephones excluded by (e)(3)(C) above.....C”;
- (xiii) in the same entry, after the definition of “frequency switching time”, there shall be inserted the following definitions:

““electrically programmable in frequency” means the output frequency can be controlled or selected by the injection of digitally coded electrical signals from an external control source;

“electrically programmable in phase” means the phase of the output frequency can be varied relative to the internal or external reference standard, or selected in accordance with an externally supplied code or signal.”;

- (xiv) for entry IL1533 there shall be substituted the following entry:

“IL1533 Signal analysers, including spectrum analysers and network analysers, the following: and specially designed components, accessories and specially designed ODMA software therefor –

- (a) Signal analysers having any of the following characteristics –
 - (1) capable of analysing frequencies exceeding 18 GHz.....C
 - (2) capable of analysing frequencies exceeding 2.3 GHz with a frequency span of more than 2.3 GHz.....C
 - (3) using time compression of the input signal.....C
- (b) Dynamic signal analysers, except those having a real-time bandwidth less than 5.12 kHz.C
- (c) Swept frequency network analysers for the automatic measurement of complex equivalent circuit parameters over a range of frequencies and having a maximum operating frequency exceeding 1.0 GHzC
except equipment for continuous wave, point-to-point measurement.
- (d) Scaler network analysers having a maximum operating frequency exceeding 2.3 GHzC
except
 - (a) optical spectrum analysers such as –
 - (1) prism or grating monochrometers;
 - (2) optical interferometers;
 - (3) optical spectrometers;
 - (b) equipment using only constant percentage bandwidth filters (also known as octave or fractional octave filters);
 - (c) medical equipment containing, as an integral part, signal analysers.

In this entry–

“signal analysers” means apparatus capable of measuring and displaying basic properties of the single-frequency components of multi-frequency signals;

“dynamic signal analysers” means signal analysers which use digital sampling and transformation techniques to form a Fourier spectrum display of the given waveform including amplitude and

phase information;

“real-time bandwidth” for dynamic signal analysers is the widest frequency range which the analyser can output to display or mass storage without causing any discontinuity in the analysis of the input data. For analysers which more than one channel, the channel configuration yielding the widest real time bandwidth shall be used to make the calculation;

“frequency span” means the maximum range of the frequency segment displayed.”;

- (xv) in entry IL1537 (microwave (including millimetric wave) equipment, including parametric amplifiers capable of operating at frequencies over 1 GHz), in head (b), and sub-head (c)(1), for the words “greater than” there shall be substituted the word “above”;
- (xvi) in the same entry, in sub-head (c)(2), for the word “greater” in line 2, there shall be substituted the word “wider”;
- (xvii) in the same entry, for head (d), there shall be substituted the following head:
 - “(d) Transverse electromagnetic mode (TEM) devices using either –
 - (1) magnetic, including gyro-magnetic, propertiesC
 - (2) diode waveguide components using diodes specified in entry IL1544.....C”;
- (xviii) in the same entry, for head (e), there shall be substituted the following head:
 - “(e) Transmit Receive (TR) and anti-TR tubes and specially designed components thereforC
except those designed for use in waveguides, and which are in normal civil use for ground or marine radar, having any of the following characteristics–
 - (1) operating at a peak power not exceeding 3 MW and at a frequency of 1.5 GHz or less;
 - (2) operating at a peak power not exceeding 1.2 MW and at a frequency in the range 1.5 to 6 GHz;
 - (3) operating at a peak power not exceeding 300 kW and at a frequency in the range 6 GHz to 10.5 GHz;
- (xix) in the same entry, in head (j), for the word “greater” there shall be substituted the word “more”;
- (xx) in the same entry, for exception (1) to head (k) there shall be substituted the following exception:
 - “(1) parametric or paramagnetic amplifiers having any of the following characteristics –
 - (1) specially designed for medical applications;
 - (2) specially designed for use in simple educational devices and operating at industrial, scientific or medical (ISM) frequencies;
 - (3) an output power of not more than 10 W and specially designed for any of the following –
 - (A) industrial or civilian intrusion detection and alarm systems;
 - (B) traffic or industrial movement control and counting systems;
 - (C) environmental systems for the detection of pollution of air or water;
 - (D) simple educational devices.”;
- (xxi) for entry IL1549 there shall be substituted the following entry:
 - “IL1549 Photomultiplier tubes having any of the following characteristics –
 - (a) Solar blind types for which the long wavelength cutoff is below 350 nm, where the long wavelength cutoff is defined as 10 per cent of the maximum sensitivityC
except

photomultiplier tubes specially designed for use in spectrophotometry having a peak sensitivity at a wavelength shorter than 300 nm.

(b) Having an anode pulse rise time of less than 1 ns.....C

(c) Containing microchannel-plate electron multipliers.....C”;

(xxii) for entry IL1555 there shall be substituted the following entry:

“IL1555 Electron tubes, the following: and specially designed components therefor—

(a) Electron tubes for image conversion or intensification (including those designed for streak or framing cameras), incorporating either—

(1) microchannel-plate electron multipliers.....C

(2) semi-transparent photocathodes incorporating epitaxially grown layers of compound semiconductors such as gallium arsenide.....C

(b) Electron tubes for television or video cameras, having any of the following characteristics —

(1) incorporating microchannel-plate electron multipliers.....C

(2) coupled with electron tubes specified in head (a) above..C

(3) ruggedised and having a maximum length-to-bulb diameter ratio of 5:1 or lessC

except

commercial standard X-ray amplifier tubes.”;

(xxiv) for entry IL1558 there shall be substituted the following entry:

“IL1558 Electronic vacuum tubes (valves) and cathodes, the following: and other components specially designed for those tubes —

(a) Tubes in which space charge control is utilized as the primary functional parameter, including triodes and tetrodes, the following —

(1) tubes rated for continuous wave operation having either of the following characteristics —

(A) above 4 GHz at maximum rated anode dissipation .C

(B) within the frequency range 0.3 to 4 GHz and for which, under any condition of cooling, the product of the maximum rated anode dissipation (expressed in kW) and the square of the maximum frequency (expressed in GHz) at the maximum rated anode dissipation is greater than 10, except tubes specially designed for television transmitters operating in the frequency range of 0.47 to 0.96 GHz and rated for operation without a grid current, for which the product of the rated anode dissipation (expressed in kW) and the square of the maximum frequency (expressed in GHz) may reach 20.....C

(2) tubes, rated only for pulse operation, having either of the following characteristics —

(A) above 1 GHz, with maximum peak pulse output power greater than 45 kWC

(B) between 0.3 and 1 GHz and for which, under any condition of cooling, the product of the peak pulse output power (expressed in kW) and the square of the maximum frequency (expressed in GHz) exceeds 45.....C

(3) tubes specially designed for use as pulse modulators for radar or similar applications, having a peak anode voltage rating of 100 kV or more, or rated for a peak pulse power of 20 MW or moreC

except—

tubes specially designed for civil telecasting according to CCIR or OIR standards and specially designed components therefor.

The above exception does not apply to technological documents the information in which includes information relating to goods excluded by the above exception.

(b) Tubes which utilise interaction between a beam of electrons and microwave elements and in which the electrons travel in a direction perpendicular to the applied magnetic field, including magnetrons, cross-field amplifier tubes and cross-field oscillator tubes.....C

except-

(i) fixed frequency and tunable pulsed magnetrons and crossed-field amplifier tubes which are in normal civil use, the following -

- (1) magnetrons designed to operate at frequencies below 3 GHz with a maximum rated peak output power of 5 MW or less, or between 3 to 12 GHz with the product of the maximum rated peak output power (expressed in kW) and the frequency (expressed in GHz) less than 4,200 and a frequency tuning time of more than 100 ms;
- (2) crossed-field amplifier tubes designed to operate at frequencies below 4 GHz with a maximum rated average output power of 1.2 kW or less, a bandwidth of 200 MHz or less and a gain of less than 15 dB;

(ii) fixed frequency continuous wave magnetrons designed for medical use or for industrial heating or cooking purposes operating at a frequency of 2.375 GHz + 0.05 GHz or 2.45 GHz + 0.05 GHz with a maximum rated output power not exceeding 6 kW or, at a frequency lower than 1 GHz, with a maximum rated output power not exceeding 35 kW;

(iii) magnetrons and klystrons specially designed for particle accelerators for medical radiation therapy, having all of the following characteristics -

- (1) capable of operation only at a frequency of 3,000 MHz \pm 15 MHz or at a frequency of 2,856 MHz \pm 15 MHz;
- (2) not capable of being tuned mechanically or electronically outside the above bands;
- (3) mechanically tuned within the above bands; and
- (4) having a peak output power not exceeding 10 MW and an average output power not exceeding 15 kW.

The exception in paragraph (iii) above does not apply to technological documents the information in which includes information relating to goods excluded in paragraph (iii).

(c) Tubes which utilise interaction between a beam of electrons and microwave elements or cavities and in which the electrons travel in a direction parallel to the applied magnetic field (eg klystrons or travelling wave tubes)C

except-

(i) continuous wave tubes having all of the following characteristics -

- (1) designed for use in civil ground communication;
- (2) instantaneous bandwidth tubes with any of the following sets of characteristics -

(a) tubes with-

- (1) an instantaneous bandwidth of half an octave or less (ie the highest operating frequency does not exceed 1.5 times the lowest operating frequency);
- (2) the product of the rated output power (expressed in kW) and the maximum operating frequency (expressed in GHz) does not exceed 0.3;

(b) tubes which -

- (1) have an instantaneous bandwidth of 10% or

- less (ie the highest operating frequency does not exceed 1.1 times the lowest operating frequency);
- (2) the product of the rated output power (expressed in kW) and the maximum operating frequency (expressed in GHz) does not exceed 3;
- (3) operate in standard international telecommunications bands;
- (c) tubes which –
 - (1) have an instantaneous bandwidth of 3% or less (ie the highest operating frequency does not exceed 1.03 times the lowest operating frequency)
 - (2) the product of the rated output power (expressed in kW) and the maximum operating frequency (expressed in GHz) does not exceed 25; and
 - (3) operate in standard international telecommunications bands;
- (3) an operating frequency no higher than 20 GHz;
- (4) no multiple grid including shadow grid electron guns;
- (5) collectors with no more than two depressed stages;
- (ii) pulsed tubes, having all of the following characteristics –
 - (1) for civil applications;
 - (2) an instantaneous bandwidth of half an octave or less, (ie the highest operating frequency is not higher than 1.5 times the lowest operating frequency);
 - (3) collectors with no more than two depressed stages;
 - (4) having either of the following sets of characteristics –
 - (a) (1) a peak saturated output power not exceeding 1 kW;
 - (2) an average output power not exceeding 40 W; and
 - (3) operating frequency not exceeding 10 GHz; or
 - (b) (1) a peak saturated output power not exceeding 100 W;
 - (2) an average output power not exceeding 20 W; and
 - (3) operating frequency between 10 and 20 GHz;
- (iii) fixed frequency pulsed tubes, the following –
 - (A) for civil applications;
 - (B) operating at frequencies below 3.5 GHz;
 - (C) having a peak output power of 1.6 MW or less; and
 - (D) having an operating bandwidth of less than 1%;
- (iv) tubes, the following –
 - (A) used as fixed frequency or voltage tunable oscillator tubes;
 - (B) designed to operate at frequencies below 20 GHz; and
 - (C) having a maximum output power of less than 3 W;
- (v) tubes specially designed for civil telecasting according to CCIR or OIR standards, and specially designed components therefor;
- (vi) magnetrons and klystrons specially designed for particle accelerators for medical radiation therapy, having all of the following characteristics –
 - (1) capable of operation at a frequency of 3,000 MHz \pm 15 MHz or at a frequency of 2,856 \pm 15 MHz;
 - (2) not capable of being tuned mechanically or electronically outside the above bands;
 - (3) mechanically tuned within the above bands; and

- (4) having a peak output power not exceeding 10 MW and an average output power not exceeding 15 kW.

The exceptions in paragraphs (v) and (vi) above do not apply to technological documents the information in which includes information relating to goods excluded in paragraphs (v) and (vi).

- (d) Tubes which utilize interaction between an electron beam and microwave elements or cavities but do not require a magnetic field to control or focus the electron beam, except low power reflex oscillator klystrons designed to operate at frequencies below 20 GHz and at a maximum output power of less than 3 W.....C
- (e) Tubes which utilize interaction between a beam of electrons and microwave elements or cavities in which the electrons drift in a direction parallel to the applied magnetic field but also require for their operation a large component of velocity transverse to the direction of the applied magnetic field, including gyrotrons, ubitrons and peniotrons except gyrotron oscillators.....C
- (f) Tubes designed to withstand on any axis an acceleration of short duration (shock) greater than 1,000 g.....C
- (g) Tubes designed for operation in ambient temperatures exceeding 437K.....C
- (h) Tubes of the type referred to in head (c), (d) or (e) above, which are designed to operate with no filament or cathode heating element as indicated by the absence of heating supply connections.....C
- (i) Tubes which utilize a modulated beam of electrons striking one or more semiconductor diodes to provide power gain....C
- (j) Cathodes for electronic vacuum tubes, the following –
 - (1) Specially designed for tubes specified in heads (a) to (i) .C
 - (2) Impregnated cathodes capable of producing a current density exceeding 0.5 A/cm² at rated operating conditions.....C

In this entry –

“frequency tuning time” means the time required to change the operating frequency from a starting frequency, through the maximum frequency, through the minimum frequency, and return to the starting frequency, ie one complete tuning cycle.

frequency tuning time: $T = \frac{1}{2f_0}$
 f_0 : dither rate.”;

- (xxv) entry IL1560 shall be deleted;
- (j) in Group 3G of Part II of Schedule 1 –
 - (i) in entry IL1566 (Software and technology therefor) in exception (2) to the entry, the words “Part A of” shall be deleted;
 - (ii) for entry IL1574 there shall be substituted the following entry:
 “IL1574 Electronic devices, circuits and systems containing components manufactured from superconductive materials, and specially designed for operation at temperatures below the critical temperature of at least one of their superconductive constituents performing functions such as the following.....C
 - (1) electromagnetic sensing and amplification;
 - (2) current switching;
 - (3) frequency selection;
 - (4) electromagnetic energy storage at resonant frequencies above 1 MHz.

NOTE:

This entry includes Josephson-effect devices and superconducting quantum interference devices (squids).

In this entry –

“superconductive” refers to materials (ie metals, alloys or compounds) which can lose all electrical resistance (ie which can attain infinite electrical conductivity and carry very large electrical currents without Joule heating).

the superconductive state of a material is individually characterised by a critical temperature, a critical magnetic field, which is a function of temperature, and a critical current density, which is a function of both magnetic field and temperature;

the “critical temperature” (sometimes referred to as the transition temperature) of a specific superconductive materials means the temperature at which the material loses all resistance to the flow of direct current.”;

(iii) for entry IL1584 there shall be substituted the following entry:

“IL1584 Oscilloscopes (including waveform recorders or waveform digitisers) transient recorders and plug-in modules, the following: and specially designed components (including amplifiers, preamplifiers and sampling devices) therefor–

(a) Analogue oscilloscopes or plug-in modules having any of the following characteristics–

(1) non-modular oscilloscopes having a bandwidth exceeding 250 MHzC

(2) modular oscilloscope systems having either of the following –

(A) mainframes with a bandwidth exceeding 250 MHz..C

(B) plug-in modules with an individual bandwidth exceeding 400 MHzC

(3) having a horizontal sweep speed faster than 1 ns per cm with an accuracy (linearity) better (less) than 2 per cent measured over a 1 ns time intervalC

(4) containing or designed for use with cathode-ray tubes specified in head (c) of entry IL1541 in Group 3FC

(b) Digital oscilloscopes or transient recorders with either of the following characteristics –

(1) a digitising rate exceeding 50 million samples per second for measurement of single-shot phenomena.....C

(2) a bandwidth exceeding 4 GHz for measurement of recurring phenomenaC

In this entry–

“bandwidth” means the band of frequencies over which the displayed signal does not fall by more than 3dB (ie below 70.7 per cent) of that at the maximum point measured with a constant input voltage;

“mainframe” means equipment which includes a display, power supply and means of accepting and utilising the plug-in modules.”;

(iv) for entry IL1585 there shall be substituted the following entry:

“IL1585 Cameras, components and photographic recording media therefor, the following –

(a) High speed cinema recording cameras and equipment, the following–

(1) Cameras in which the film is continuously advanced throughout the recording period, and which are capable of recording at framing rates exceeding 13,150 frames per sec-

- ond, using any camera and film combination from the standard 8mm to the 90mm size inclusive.....C
- (2) Special optical or electronic devices which supplement, replace or are interchangeable with standard camera components for the purpose of increasing the number of frames per second.....C
- (b) Mechanical high speed cameras in which the film does not move, and which are capable of recording at rates exceeding 1,000,000 frames per second for the full framing height of standard 35mm wide photographic film, or at proportionately higher rates for lesser frame heights, or at proportionately lower rates for greater frame heightsC
- (c) Cameras incorporating electron tubes specified in entry IL1555 in Group 3F, except television or video cameras specially designed for television broadcasting use.....C
- (d) Mechanical or electronic streak cameras having writing speeds of 10 mm/microsecond and above.....C
- (e) Electronic framing cameras having a speed exceeding 10^6 frames per second.....C
- (f) Video cameras incorporating solid state sensors, having any of the following characteristics—
- (1) more than 4×10^6 active pixels per solid state array for monochrome (black and white) cameras.....C
 - (2) more than 4×10^6 active pixels per solid state array for colour cameras incorporating three solid state arraysC
 - (3) more than 12×10^6 active pixels for solid state array colour cameras incorporating one solid state arrayC
- (g) Electronic cameras having both of the following characteristicsC
- (1) an electronic shutter speed (gating capability) of less than 10 microseconds per full frame;
 - (2) a read out time allowing a framing rate of more than 125 full frames per second;
- (h) Camera shutters with speeds of 50 ns or less per operation, and specialised parts and accessories thereforC
- (i) Film, the following—
- (1) having a speed of ISO 10,000 (or its equivalent) or betterC
 - (2) colour film having a spectral sensitivity extending beyond 7,200 Angströms or below 2,000 AngströmsC
- (j) Cameras incorporating linear detector arrays exceeding a size of 4,096 elements per array and mechanical scanning in one direction.....C

In this entry—

“active pixel” is a minimum element of the solid state array (sensor) which has a photoelectric transfer function and which is exposed to the light.”;

- (v) in entry, IL 1587 (Quartz crystals and assemblies thereof), in sub-head (a)(2), for the word “three” there shall be substituted the word “four”;
- (vi) in the same entry, after exception (ii) to head (a), there shall be inserted the following —
- “The exceptions in paragraph (i) or (ii) above do not apply to technological documents the information in which includes information relating to goods excluded by paragraphs (i) or (ii)”;
- (vii) in the same entry, for head (c) there shall be substituted the following head:
- “(c) Temperature-compensated crystal oscillators (TCXO) having any of the following characteristics —

- (1) a stability with respect to temperature of better (less) than $\pm 1.0 \times 10^{-7}$ over an operating temperature range exceeding 70°CC
 - (2) an operating temperature range wider than 120°C C
 - (3) rated to have an acceleration sensitivity of less than 1×10^{-9} of the operating frequency per g (where $g = 9.81 \text{ m/sec}^2$) over a vibration test frequency range from 10 to 2,000 Hz sine wave and with a maximum level of acceleration not exceeding 20 gC
 - (4) designed to withstand a shock greater than 10,000 g over a period of 1msC
 - (5) radiation hardened to better (less) than 10^{-10} of the operating frequency per gray (1 rad = 10^{-2} gray).....C”;
- (viii) in the same entry, after head (c), there shall be inserted the following exception:
 “There shall be excluded from this entry optical grade quartz crystals;
 This exception does not apply to technological documents the information in which includes information relating to goods excluded by the exception.”;
- (k) in Group 3H of Part II of Schedule 1–
- (i) in entry IL1648 (Cobalt-based alloys), in head (b), the word “didymium” shall be deleted;
 - (ii) in entry IL1661 (Nickel-based alloys), in head (b), the word “didymium” shall be deleted;
 - (iii) for entry IL1675 there shall be substituted the following entry:
 “IL1675 Superconductive materials and composite conductors, the following–
- (a) Superconductive materials of all types, the following.....C
 - (1) having a critical temperature, at zero magnetic induction, of 9.85 K or higher; and
 - (2) in quantities of more than 25 g;
 - (b) Superconductive niobium-titanium wire not embedded in a metallic matrix with a cross section area of less than $3.14 \times 10^{-4} \text{ mm}^2$ (ie 20 micrometre diameter for circular filaments)C
 - (c) Composite conductors containing at least one superconductive constituent having a critical temperature, at zero magnetic induction, of 9.3 K or higherC
 except
 such conductors which –
 - (1) have superconductive filaments embedded in a copper or copper-based mixture matrix; and
 - (2) have either of the following two sets of characteristics–
 - (A) the superconductive constituent or filament –
 - (a) has a cross section area of more than $3.14 \times 10^{-4} \text{ mm}^2$ (ie 20 micrometre diameter for circular filaments);
 - (b) is either non-coated, or insulated with –
 - (1) varnish;
 - (2) glass fibre;
 - (3) polyamide; or
 - (4) polyimide; and
 - (c) does not remain in the superconductive state when–
 - (1) evaluated in sample lengths of less than 1 m; and
 - (2) exposed to a magnetic field with an induction of more than 12 tesla at a temperature of 4.2 K (-268.95°C); or

(B) the composite conductor contains –

- (a) superconductive niobium-titanium wire with a cross section area of more than $9.5 \times 10^{-5} \text{ mm}^2$ (ie 11 micrometre diameter for circular filaments); and
- (b) a total mass (including the mass of the matrix) not exceeding 10 kg.

In this entry –

“superconductive” means materials (ie metals, alloys or compounds) which can lose all electrical resistance, ie which can attain infinite electrical conductivity and carry very large electrical currents without Joule heating. The superconductive state of a material is individually characterised by a critical temperature, a critical magnetic field, which is a function of temperature, and a critical current density which is, however, a function of both magnetic field and temperature;

“critical temperature” means the temperature at which the material loses all resistance to the flow of direct current. Critical temperature (sometimes referred to as the transition temperature) is of a specific superconductive material.”;

(I) in Group 3I of Part II of Schedule 1 –

- (i) in entry IL1733 (Base materials, non-composite ceramic materials, ceramic-ceramic composite materials, and precursor materials), in sub-head (a)(1)(i), for the words “silicon and aluminium”, there shall be substituted the words “silicon or aluminium”;
- (ii) in the same entry in sub-head (a)(1)(ii), after the word “zirconium”, there shall be inserted the words “or titanium”;
- (iii) in the same entry, in sub-head (d)(3), for the word “polycarbosilazines” there shall be substituted the word “polycarbosilazanes”;
- (iv) for entry IL1746 there shall be substituted the following entry:

“IL1746 Non-fluorinated polymeric substances, the following: and manufactures thereof–

- (a) Polyimides (including maleimides).....C
except
fully cured polyimide or polyimide-based film, sheet, tape or ribbon having a maximum thickness of 0.254 mm (10 mils), whether or not coated or laminated with heat or pressure-sensitive resinous substances of an adhesive nature, which contain no fibrous reinforcing materials and which have not been coated or laminated with carbon, graphite, metals or magnetic substances.
- (b) PolybenzimidazoleC
- (c) Aromatic polyamides, including heterocyclic aromatic polyamides characterized as aromatic due to the presence of a benzene ringC
- (d) Polybenzothiazoles.....C
- (e) PolyoxadiazoleC
- (f) Polyphosphazenes (Polyphosponitriles).....C
- (g) Polystyrylpyridine (PSP).....C
- (h) Thermoplastic liquid crystal copolyesters, the following–
 - (1) ethylene copolyesters of terephthalic acid and parahydroxybenzoic acidC
except
manufactures thereof, having both of the following characteristics –
 - (i) a tensile modulus of less than 15 GPa;

- (ii) specially designed for non-aerospace, non-electronic civil applications;
- (2) phenylene or biphenylene copolyesters of terephthalic acid and parahydroxybenzoic acid.....C
- (i) PolybenzoxazolesC
- (j) Aromatic polyether ether ketones (PEEK).....C
- (k) Butadiene polymers the following –
 - (1) carboxyl terminated polybutadiene (CTPB)C
 - (2) hydroxyl terminated polybutadiene (HTPB).....C
 - (3) thiol terminated polybutadiene (TTPB)C
 - (4) vinyl terminated polybutadiene (VTPB).....C
 - (5) cyclised 1-2 polybutadiene.....C
 - (6) mouldable copolymers of butadiene and acrylic acidC
- (7) mouldable terpolymers of butadiene, acrylonitrile and acrylic acid or any of the homologues of acrylic acidC
- (l) Carboxyl terminated polyisoprene.....C

There shall be excluded from this entry manufactured articles where the value of the polymeric component together with materials specified elsewhere in this Schedule is less than 50 per cent of the total value of the materials used.”;

(v) for entry IL1754 there shall be substituted the following entry:

“IL1754 Fluorinated compounds, materials and manufactures thereof, the following–

- (a) Non-polymeric materials, the following–
 - (1) dibromotetrafluoroethane, except when having a purity of 99.8 per cent or less and containing at least 25 particles of 200 micrometres or larger in size per 100 ml.....C
 - (2) perfluoroalkylaminesC
- (b) Unprocessed polymeric materials and intermediates, the following –
 - (1) polychlorotrifluoroethylene, oily and waxy modifications only...C
 - (2) fluoroelastomeric compounds at least 95 per cent of which is composed of –
 - (A) a combination of two or more of the following monomersC
 - (a) tetrafluoroethylene;
 - (b) chlorotrifluoroethylene;
 - (c) vinylidene fluoride;
 - (d) hexafluoropropylene;
 - (e) bromotrifluoroethylene;
 - (f) iodotrifluoroethylene;
 - (g) perfluoromethylvinylether;
 - (h) perfluoropropoxypropylvinylether;
 - (B) a copolymer of tetrafluoroethylene and propylene...C
 - (C) a terpolymer of tetrafluoroethylene, vinylidene fluoride and propylene:.....C
 - (3) polybromotrifluoroethylene;.....C
 - (4) copolymers of vinylidene fluoride having 75 per cent or more beta crystalline structure without stretching.....C
 - (5) fluorinated silicone rubbers and intermediates for their production, containing 30 per cent or more of combined fluorine.....C
 - (6) fluorinated polyimides, and hexafluoroacetone and other intermediates for their production, containing 30 per cent or more of combined fluorine.....C
 - (7) fluorinated phosphazene elastomers and intermediates for

their production, containing 30 per cent or more of combined fluorineC

(c) Manufactures, the following—

- (1) greases, lubricants and dielectric fluids, damping fluids and flotation fluids at least 85 per cent of which is made of any of the materials specified in head (a) or (b) above, except greases and lubricants made from polyperfluoroalkyl-ethersC
- (2) electric wire and cable coated with or insulated with any of the materials specified in sub-head (b)(2) above, except oil well logging cableC
- (3) seals, gaskets, rods, sheets, sealants or fuel bladders 50 per cent or more of which is made of any of the materials specified in sub-head (b)(2), (b)(5), (b)(6) or (b)(7) above, and specially designed for aerospace or aircraft useC
- (4) piezoelectric polymers and copolymers made from vinylidene fluoride having both of the following characteristicsC

(A) in sheet or film form; and

(B) with a thickness of more than 200 micrometres;

- (5) reinforced tubing (including connectors and fittings for use with such tubing) incorporating coagulated dispersion grades of polytetrafluoroethylene, copolymers of tetrafluoroethylene and hexafluoropropylene, or any of the fluorocarbon materials specified in sub-head (b)(2) above and designed for operating (working) pressures of 21 MPa or more, whether or not specially processed to make the flow surfaces electrically conductive.....C

except

polychlorotrifluoroethylene-based lubricating oils in quantities of 19 litres or less.

This exception does not apply to technological documents the information in which includes information relating to goods excluded in the exception.”;

(vi) for entry IL1759 there shall be substituted the following entry:

“IL1759 Syntactic foam for underwater use and microspheres, the following—

- (a) Syntactic foam having either of the following characteristics—
 - (1) designed for marine depths exceeding 1000 mC
 - (2) a density less than 0.561 g/cm³ unless designed for use at marine depths less than 100 mC
- (b) Hollow microspheres (microballoons) for use in syntactic foam, having all of the following characteristics –C
 - (1) made from glass or plastic;
 - (2) a true particle density of more than 0.16 g/cm³ and less than 0.41 g/cm³;
 - (3) a bulk density of more than 0.088 g/cm³ and less than 0.23 g/cm³;
 - (4) a compressive strength more than 2.8 MPa;
 - (5) a particle size range of 20 to 200 micrometre; and
 - (6) a floater content of at least 94 per cent by volume.

In this entry—

“syntactic foam” means hollow spheres of plastic or glass embedded in a resin matrix.”;

(vii) in entry IL1763 (Fibrous and filamentary materials) in head (a), for “3.18 × 10⁶m” there shall be substituted “4 × 10⁶m”;

(viii) in the same entry, after paragraph (b) of the exception to heads (a) and (b), there shall be inserted the following:

“This exception does not apply to technological documents the

information in which includes information relating to goods excluded by the exception”;

(ix) in entry IL1781 (Synthetic lubricating oils and greases), for head (b) there shall be substituted the following head:

“(b) Phenylene or alkylphenylene ethers or thioethers, or their mixtures, containing more than 2 ether or thio-ether functions, or mixtures thereofC”.

22nd March 1990

R J Meadway
An Under Secretary,
Department of Trade and Industry

EXPLANATORY NOTE

(This note is not part of the Order)

This Order further amends the Export of Goods (Control) Order 1989.

Export control is:

- (a) *lifted on*: certain environmental chambers; didymium; certain flight instrumentation systems; simple infrared devices for entertainment; simple infrared devices for educational use; certain infrared communications equipment; certain programmable instruments exceeding 1 GHz; certain FFT signal analysers; medical equipment containing signal analysers; certain parametric or paramagnetic amplifiers for simple education use; certain photomultiplier tubes; first generation electron tubes; capacitors; certain digital oscilloscopes; certain transient recorders; electronic TV or video cameras for broadcast use; high speed plates for cameras; certain photographic film; optical grade quartz crystals; equipment for the production of liquid fluorine; containers for storage or transportation of liquid fluorine; nozzles, dies and extruder barrels;
- (b) *reduced in scope on*: surface effect vehicles (hovercraft); certain water screw propeller systems; fluorinated silicon rubber; fluorinated polyimides; fluorinated phosphazenes; fibrous and filamentary materials; underwater vision systems; photographic cameras specially designed or modified for underwater use; light systems specially designed or modified for underwater use; manned underwater vehicles; technology for the design and production of propeller blades; underwater ultrasonic communications equipment; acoustic systems for positioning vessels (including ships); ground communication radio equipment for use with temporary fixed services; Nd: YAG lasers; power meters; broadband noise sources; noise figure meters; logic analysers; digital voltage measuring equipment; PROM copiers; certain PROM programmers; radio transmitters using frequency synthesis; programmable signal analysers; non-programmable signal analysers; scaler network analysers; certain electronic tubes (valves); certain devices manufactured from super conducting materials; plug-in modules for analogue oscilloscopes; optical devices for cinema recording cameras; electronic framing cameras; quartz filter elements; temperature-compensated crystal oscillators;
- (c) *redefined or clarified* in relation to technological documents, and on: small arms and machine guns; military smoke producing appliances; ammunition, bombs, torpedoes, rockets and missiles; fire control system and sub-systems; tanks and vehicles specially designed for military purposes; toxicological agents and tear gas; vessels (including ships) of war and special naval equipment; aircraft and helicopters; unmanned airborne vehicles; aero-engines and aircraft or helicopter equipment, associated equipment and components; military infrared, thermal

imaging and image intensifier equipment; external fittings, coatings and treatments for the suppression of acoustic, radar, infrared and other emissions specially designed for military use; equipment and technology for the production of goods specified in Group 1; cryogenic and superconductive equipment and components; electrically triggered shutters; directed energy weapons (DEW) systems; vacuum pump systems; reinforced tubing; submersible systems; deep submergence vehicles; tilt wing and tilt rotor aircraft; compasses, gyroscopes, accelerometers and inertial equipment; marine or terrestrial acoustic or ultrasonic systems or equipment; bit error rate test sets; microwave radio links; electronic equipment and instruments; instrument frequency synthesizers; signal analysers; swept frequency network analysers; microwave equipment; photomultiplier tubes; electronic vacuum tubes (valves) and cathodes; software; electronic devices; circuits and systems manufactured from superconducting materials; oscilloscopes; cameras, components and photographic recording media; superconductive materials; base materials, non-fluorinated polymeric substances; syntactic foam; fibrous and filamentary materials; synthetic lubricating oils and greases;

- (d) *extended in scope on*: forgings and castings and semi-finished products; specially designed environmental test facilities; software for modelling or simulating military operation scenarios and Command, Communications, Control and Intelligence (C₃I) applications; pump-jet systems; technology for aircraft and helicopters; borides of titanium; gaseous diffusion blowers and compressors;
- (e) *introduced on*: weapons using caseless ammunition; tyre inflation pressure control systems and large deflection suspensions specially designed or modified for military use; specialised equipment for simulating military scenarios; field engineer equipment specially designed for use in a combat zone; kinetic energy weapon systems; air independent power systems for submersibles; general purpose data communications protocol analysers, testers and simulators for X.25; certain high resolution CCD video cameras; certain cameras incorporating detector arrays; UF₆-resistant fully fluorinated hydrocarbon polymers; radomes.

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