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STATUTORY INSTRUMENTS

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**1996 No. 1124**

**CUSTOMS AND EXCISE**

**The Dual-Use and Related Goods (Export  
Control) (Amendment) Regulations 1996**

<i>Made</i>	- - - -	<i>18th April 1996</i>
<i>Laid before Parliament</i>		<i>18th April 1996</i>
<i>Coming into force</i>	- -	<i>13th May 1996</i>

The Secretary of State, being a Minister designated<sup>(1)</sup> for the purposes of section 2(2) of the European Communities Act 1972<sup>(2)</sup> in relation to the control of the export of goods and measures relating to trade in dual-use goods, in exercise of the powers conferred on him by that section hereby makes the following Regulations:

**1.**—(1) These Regulations may be cited as the Dual-Use and Related Goods (Export Control) (Amendment) Regulations 1996 and shall come into force on 13th May 1996.

(2) In these Regulations, “the principal Regulations” means the Dual-Use and Related Goods (Export Control) Regulations 1995<sup>(3)</sup>.

**2.**—(1) Regulations 1(3), 3(1)(a), (2)(b)(ii) and (5) and 14(2)(b) of the principal Regulations shall have effect as if Schedule 1 to the principal Regulations were amended as provided in the Schedule hereto; and accordingly, Part III of Schedule 1 to the Export of Goods (Control) Order 1994<sup>(4)</sup> shall have effect as if for Groups 2 and 3 thereof there were substituted Schedules 1 (amended as aforesaid) and 3 to the principal Regulations.

(2) Regulation 3(1)(b) of the principal Regulations shall have effect as if Schedule 2 to the principal Regulations were amended as follows:

- (a) in entry 4A003.b, “2000” replaced by “10,000”;
- (b) in entry 9E001, the words “or “software”” and the references to entries 9A108.c and 9A119 left out;
- (c) in entry 9E002, the references to entries 9A108.c and 9A119 left out;
- (d) after entry 9E002, the following entry inserted:

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(1) S.I.1983/1706 and 1994/2791.

(2) 1972 c. 68.

(3) S.I. 1995/271; the relevant amending instrument is S.I. 1995/1424.

(4) S.I. 1994/1191; relevant amending instruments are S.I. 1994/1632, 2518 and 2711 and 1995/271 and 1424.

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**Status:** This is the original version (as it was originally made). UK  
Statutory Instruments are not carried in their revised form on this site.

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“9E101

“Technology” for the “development” or  
“production” of equipment specified in  
9A108.c. or 9A119.”

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18th April 1996

*Phillip Oppenheim,*  
Parliamentary Under Secretary of State, for  
Company Affairs,  
Department of Trade and Industry

## SCHEDULE

Regulation 2

### Amendments to Schedule 1 to principal Regulations

1. The list of definitions under the heading “Definitions of Terms in this Annex” is amended as follows:

- (i) in definition 26, “(4)” is replaced by “(3 4)”;
- (ii) in definition 45, “(3 4)” is replaced by “(3 4 5)”;
- (iii) in definition 49, “(4)” is replaced by “(4 7)”;
- (iv) the text of definition 53 is replaced by the following:
  - ““Fibrous or filamentary materials” (0 1 8) include:
  - (a) continuous “monofilaments”;
  - (b) continuous “yarns” and “rovings”;
  - (c) “tapes”, fabrics, random mats and braids;
  - (d) chopped fibres, staple fibres and coherent fibre blankets;
  - (e) whiskers, either monocrystalline or polycrystalline, of any length;
  - (f) aromatic polyamide pulp.”.
- (v) in definition 191 (which follows definition 79), “(1)” is inserted before “includes”;
- (vi) after definition 97 the following is inserted:
  - “**193.** “Monofilament” (1) or filament is the smallest increment of fibre, usually several micrometres in diameter.”.
- (vii) after definition 121 the following is inserted:
  - “**194.** “Pressure transducers” (2) are devices that convert pressure measurements into an electrical signal.”.
- (viii) after definition 140 the following is inserted:
  - “**195.** “Roving” (1) is a bundle (typically 12 to 120) of approximately parallel “strands”.
  - N.B.:* “Strand” is a bundle of “monofilaments” (typically over 200) arranged approximately parallel.”.
- (ix) after definition 171 the following is inserted:
  - “**196.** “Tape” (1) is a material constructed of interlaced or unidirectional “monofilaments”, “strands”, “rovings”, “tows”, or “yarns”, etc., usually preimpregnated with resin.
  - N.B.:* “Strand” is a bundle of “monofilaments” (typically over 200) arranged approximately parallel.”.
- (x) after definition 178 the following is inserted:
  - “**197.** “Tow” (1) is a bundle of “monofilaments”, usually approximately parallel.”.
- (xi) after definition 185, the following is added:
  - “**198.** “Yarn” (1) is a bundle of twisted “strands”.
  - NB.:* “Strand” is a bundle of “monofilaments” (typically over 200) arranged approximately parallel.”.

2. The entries in Schedule 1 are amended as follows:

0A002 NOTE: "This entry" amended to "0A002".

0B001.c.6 substituted by the following:

"6. rings or bellows with a wall thickness of 3 mm or less and a diameter of between 75 mm and 400 mm and designed to give local support to a rotor tube or to join a number together, made from any of the following high strength-to-density ratio materials:

- (a) maraging steel capable of an ultimate tensile strength of 2,050 MPa or more;
- (b) aluminium alloys capable of an ultimate tensile strength of 460 MPa or more;  
or
- (c) "fibrous or filamentary materials" with a "specific modulus" of more than  $3.18 \times 10^6$  m and a "specific tensile strength" greater than  $76.2 \times 10^3$  m;"

0B001.c.7 substituted by the following:

"7. baffles of between 75 mm and 400 mm diameter for mounting inside a rotor tube, made from any of the following high strength-to-density ratio materials:

- (a) maraging steel capable of an ultimate tensile strength of 2,050 MPa or more;
- (b) aluminium alloys capable of an ultimate tensile strength of 460 MPa or more;  
or
- (c) "fibrous or filamentary materials" with a "specific modulus" of more than  $3.18 \times 10^6$  m and a "specific tensile strength" greater than  $76.2 \times 10^3$  m;"

0B001.c.8.c: " $7.62 \times 10^4$ " amended to " $76.2 \times 10^3$ ".

0B001.g.5: The following added at end:

"N.B.: SEE ALSO 6A005 AND 6A205."

0B001.h.6: The following added at end:

"N.B.: SEE ALSO 6A005 AND 6A205."

0B001.k redesignated "0B001.j".

0B001.k.2: "non-magnetic" inserted after "suitable".

0B001.k.5: the following added at end:

"N.B.: SEE ALSO 3A227."

0B001.k.6: the following added at end:

"N.B.: SEE ALSO 3A226."

0B007 substituted by "Not used."

0C006 substituted by the following:

"0C006. Nickel powder or porous nickel metal, specially prepared for the manufacture of gaseous diffusion barriers, as follows:

N.B.: SEE ALSO 1C240

- (a) powder with a nickel purity content of 99.9 weight percent or more and a mean particle size of less than 10 micrometres measured by American Society for Testing and Materials (ASTM) B330 standard and a high degree of particle size uniformity;  
or
- (b) porous nickel metal produced from materials specified in 0C006.a."

1A202 substituted by the following:

“**1A202.** Composite structures, other than those specified in 1A002, in the form of tubes with an inside diameter of between 75 mm and 400 mm made with any of the “fibrous or filamentary materials” specified in 1C010.a. or b. or 1C210.a. or with carbon prepreg materials specified in 1C210.c.

N.B.: SEE ALSO 9A010 AND 9A110.”

1A226 substituted by the following:

“**1A226.** Specialised packings for use in separating heavy water from ordinary water and made of phosphor bronze mesh (chemically treated to improve wettability) and designed for use in vacuum distillation towers.”

1A227 substituted by the following:

“**1A227.** High-density (lead glass or other) radiation shielding windows greater than 0.09 m<sup>2</sup> on cold area and with a density greater than 3 g/cm<sup>3</sup> and a thickness of 100 mm or greater; and specially designed frames therefor.”

1B101 NOTE: “this entry” amended to “1B101”.

1B101.d.NOTE: “by this sub-head” amended to “in 1B101.d.”

1B115 NOTE 1: “this item” amended to “1B115”.

1B228 substituted by the following:

“**1B228.** Hydrogen-cryogenic distillation columns having all of the following characteristics:

- (a) designed to operate with internal temperatures of 35 K (–238°C) or less;
- (b) designed to operate at an internal pressure of 0.5 to 5 MPa (5 to 50 atmospheres);
- (c) constructed of “fine-grain stainless steels” of the 300 series with low sulphur content or equivalent cryogenic and H<sub>2</sub>-compatible materials; and
- (d) with internal diameters of 1 m or greater and effective lengths of 5 m or greater.

Technical Note: “Fine-grain stainless steels” in 1B228 are defined as fine-grain austenitic stainless steels with an ASTM (or equivalent standard) grain size number of 5 or greater.”

1B229 substituted by the following:

“**1B229.** Water-hydrogen sulphide exchange tray columns constructed from “fine carbon steel” with a diameter of 1.8 m or greater, which can operate at nominal pressures of 2 MPa or greater, and internal contactors therefor.

## NOTES

**1.** For columns which are specially designed or prepared for the production of heavy water see 0B004.

**2.** Internal contactors of the columns are segmented trays which have an effective assembled diameter of 1.8 m or greater, are designed to facilitate countercurrent contacting and are constructed of materials resistant to corrosion by hydrogen sulphide/water mixtures. These may be sieve trays, valve trays, bubble cap trays, or turbogrid trays.

**3.** “Fine Carbon steel” in 1B229 is defined as steel with the austenitic ASTM (or equivalent standard) grain size number of 5 or greater.

4. Materials resistant to corrosion by hydrogen sulphide/water mixtures in 1B229 are defined as stainless steels with a carbon content of 0.03% or less.”

1B231 substituted by the following:

“**1B231.** Tritium facilities, plant or equipment, as follows:

- (a) facilities or plant for the production, recovery, extraction, concentration, or handling of tritium;
- (b) equipment for tritium facilities or plant, as follows:
  - (1) hydrogen or helium refrigeration units capable of cooling to 23 K (–250°C) or less, with heat removal capacity greater than 150 watts; or
  - (2) hydrogen isotope storage and purification systems using metal hydrides as the storage, or purification medium.”

After entry 1B231, the following is inserted:

“**1B232.** Turboexpanders or turboexpander-compressor sets designed for operation below 35 K (–238°C) and a throughput of hydrogen gas of 1,000 kg/hr or greater.

**1B233.** Lithium isotope separation facilities, plant or equipment, as follows:

- (a) facilities or plant for the separation of lithium isotopes;
- (b) equipment for the separation of lithium isotopes, as follows:
  - (1) packed liquid–liquid exchange columns specially designed for lithium amalgams;
  - (2) mercury and/or lithium amalgam pumps;
  - (3) lithium amalgam electrolysis cells;
  - (4) evaporators for concentrated lithium hydroxide solution.”

1C115.c substituted by the following:

“(c) other propellant additives and agents:

- (1) butacene;
- (2) triethylene glycol dinitrate (TEGDN);
- (3) 2-Nitrodiphenylamine;
- (4) trimethylolethane trinitrate (TMETN);
- (5) diethylene glycol dinitrate (DEGDN).”

1C115 NOTE: “specified here” amended to “specified in 1C115”.

1C202 substituted by the following:

“**1C202.** Alloys, other than those specified in 1C002.a.2.c. or d., as follows:

- (a) aluminium alloys capable of an ultimate tensile strength of 460 MPa or more at 293 K (20°C), in the form of tubes or cylindrical solid forms (including forgings) with an outside diameter of more than 75 mm;
- (b) titanium alloys capable of an ultimate tensile strength of 900 MPa or more at 293 K (20°C) in the form of tubes or cylindrical solid forms (including forgings) with an outside diameter of more than 75 mm.

Technical Note: The phrase “alloys capable of” encompasses alloys before or after treatment.”

1C210 substituted by the following:

“**1C210.** “Fibrous or filamentary materials” or prepregs, other than those specified in 1C010.a. or b., as follows:

- (a) carbon or aramid “fibrous or filamentary materials” having a “specific modulus” of  $12.7 \times 10^6$  m or greater or a “specific tensile strength” of  $235 \times 10^3$  m or greater; except:  
aramid “fibrous or filamentary materials” having 0.25 per cent or more by weight of an ester based fibre surface modifier;
- (b) glass “fibrous or filamentary materials” having a “specific modulus” of  $3.18 \times 10^6$  m or greater and a “specific tensile strength” of  $76.2 \times 10^3$  m or greater; or
- (c) thermoset resin impregnated continuous “yarns”, “rovings”, “tows” or “tapes” with a width no greater than 15 mm (prepregs), made from carbon or glass “fibrous or filamentary materials” specified in 1C210.a. or b.

Technical Note: The resin forms the matrix of the composite.

NOTE: In 1C210, “fibrous or filamentary materials” is restricted to continuous “monofilaments”, “yarns”, “rovings”, “tows” or “tapes”.

1C230 substituted by the following:

“**1C230.** Beryllium metal, alloys containing more than 50% of beryllium by weight, beryllium compounds, or manufactures thereof; except:

- (a) metal windows for X-ray machines, or for bore-hole logging devices;
- (b) oxide shapes in fabricated or semi-fabricated forms specially designed for electronic component parts or as substrates for electronic circuits;
- (c) beryl (silicate of beryllium and aluminium) in the form of emeralds or aquamarines.

NOTE: 1C230 includes waste and scrap containing beryllium as defined above.”.

1C232 substituted by the following:

“**1C232.** Helium-3 or helium isotopically enriched in the helium-3 isotope, mixtures containing helium-3, or products or devices containing any of the foregoing; except:

a product or device containing less than 1 g of helium-3.”.

1C233 substituted by the following:

“**1C233.** Lithium enriched in the 6 isotope ( $^6\text{Li}$ ) to greater than 7.5 atom per cent, alloys, compounds or mixtures containing lithium enriched in the 6 isotope, or products or devices containing any of the foregoing; except:

thermoluminescent dosimeters.

Technical Note: The natural occurrence of the 6 isotope in lithium is 7.5 atom per cent.”.

1C234 substituted by the following:

“**1C234.** Zirconium with a hafnium content of less than 1 part hafnium to 500 parts zirconium by weight, in the form of metal, alloys containing more than 50% zirconium by weight, or compounds, or manufactures wholly thereof; except:

zirconium in the form of foil having a thickness not exceeding 0.10 mm.”.

NOTE: 1C234 includes waste and scrap containing zirconium as defined here.”.

1C235 substituted by the following:

“**1C235.** Tritium, tritium compounds, mixtures containing tritium in which the ratio of tritium to hydrogen by atoms exceeds 1 part in 1,000, or products or devices containing any of the foregoing;

except:

a product or device containing not more than  $1.48 \times 10^3$  GBq (40 Ci) of tritium in any form.”.

1C236 substituted by the following:

“**1C236.** Alpha-emitting radionuclides having an alpha half-life of 10 days or greater but less than 200 years, compounds or mixtures containing any of these radionuclides with a total alpha activity of 37 GBq/kg (1 Ci/kg) or greater, or products or devices containing any of the foregoing;

except:

a product or device containing less than 3.7 GBq (100 millicuries) of alpha activity.”.

1C237 substituted by the following:

“**1C237.** Radium-226, radium-226 compounds, mixtures containing radium-226, or products or devices containing any of the foregoing;

except:

- (a) medical applicators;
- (b) a product or device containing not more than 0.37 GBq (10 millicuries) of radium-226 in any form.”.

After entry 1C239 the following is inserted:

“**1C240.** Nickel powder or porous nickel metal, other than those specified in 0C006, as follows:

- (a) powder with a nickel purity content of 99.0% by weight or greater and a mean particle size of less than 10 micrometres measured by American Society for Testing and Materials (ASTM) B330 standard;

except:

filamentary nickel powders;

- (b) porous nickel metal produced from materials specified in 1C240.a.;

except:

single porous nickel sheets not exceeding  $1,000 \text{ cm}^2$  per sheet.

NOTE: 1C240.b. refers to porous metal formed by compacting and sintering the materials in 1C240.a, to form a metal material with fine pores interconnected throughout the structure.”.

1C350 substituted by the following:

“**1C350.** Chemicals, which may be used as precursors for toxic chemical agents, as follows:

N.B.: SEE ALSO MILITARY GOODS CONTROLS.

1. Thiodiglycol (111-48-8);
2. Phosphorus oxychloride (10025-87-3);
3. Dimethyl methylphosphonate (756-79-6);

4. SEE MILITARY GOODS CONTROLS FOR  
Methyl phosphonyldifluoride (676-99-3);
5. Methyl phosphonyl dichloride (676-97-1);
6. Dimethylphosphite (868-85-9);
7. Phosphorus trichloride (7719-12-2);
8. Trimethyl phosphite (121-45-9);
9. Thionyl chloride (7719-09-7);
10. 3-Hydroxy-1-methylpiperidine (3554-74-3);
11. N,N-Diisopropyl-(beta)-aminoethyl chloride (96-79-7);
12. N,N-Diisopropyl-(beta)-aminoethane thiol (5842-07-9);
13. 3-Quinuclidinol (1619-34-7);
14. Potassium fluoride (7789-23-3);
15. 2-Chloroethanol (107-07-3);
16. Dimethylamine (124-40-3);
17. Diethyl ethylphosphonate (78-38-6);
18. Diethyl-N,N-dimethylphosphoramidate (2404-03-7);
19. Diethyl phosphite (762-04-9);
20. Dimethylamine hydrochloride (506-59-2);
21. Ethyl phosphinyl dichloride (1498-40-4);
22. Ethyl phosphonyl dichloride (1066-50-8);
23. Ethyl phosphonyl difluoride (753-98-0);
24. Hydrogen fluoride (7664-39-3);
25. Methyl benzilate (76-89-1);
26. Methyl phosphinyl dichloride (676-83-5);
27. N,N-Diisopropyl-(beta)-amino ethanol (96-80-0);
28. Pinacolyl alcohol (464-07-3);
29. SEE MILITARY GOODS CONTROLS FOR  
o-Ethyl-2-diisopropylaminoethyl methylphosphonite (57856-11-8);
30. Triethyl phosphite (122-52-1);
31. Arsenic trichloride (7784-34-1);
32. Benzilic acid (76-93-7);
33. Diethyl methylphosphonite (15715-41-0);
34. Dimethyl ethylphosphonate (6163-75-3);
35. Ethyl phosphinyl difluoride (430-78-4);
36. Methyl phosphinyl difluoride (753-59-3);

37. 3-Quinuclidone (3731-38-2);
38. Phosphorus pentachloride (10026-13-8);
39. Pinacolone (75-97-8);
40. Potassium cyanide (151-50-8);
41. Potassium bifluoride (7789-29-9);
42. Ammonium hydrogen fluoride (1341-49-7);
43. Sodium fluoride (7681-49-4);
44. Sodium bifluoride (1333-83-1);
45. Sodium cyanide (143-33-9);
46. Triethanolamine (102-71-6);
47. Phosphorus pentasulphide (1314-80-3);
48. Di-isopropylamine (108-18-9);
49. Diethylaminoethanol (100-37-8);
50. Sodium sulphide (1313-82-2);
51. Sulphur monochloride (10025-67-9);
52. Sulphur dichloride (10545-99-0);
53. Triethanolamine hydrochloride (637-39-8);
54. N,N-Diisopropyl-(beta)-aminoethyl chloride hydrochloride (4261-68-1).".

1C351 substituted by the following:

“**1C351.** Human pathogens, zoonoses and “toxins”, as follows:

- (a) viruses, whether natural, enhanced or modified, either in the form of “isolated live cultures” or as material including living material which has been deliberately inoculated or contaminated with such cultures, as follows:
  - (1) Chikungunya virus;
  - (2) Congo-Crimean haemorrhagic fever virus;
  - (3) Dengue fever virus;
  - (4) Eastern equine encephalitis virus;
  - (5) Ebola virus;
  - (6) Hantaan virus;
  - (7) Junin virus;
  - (8) Lassa fever virus;
  - (9) Lymphocytic choriomeningitis virus;
  - (10) Machupo virus;
  - (11) Marburg virus;
  - (12) Monkey pox virus;
  - (13) Rift Valley fever virus;
  - (14) Tick-borne encephalitis virus (Russian Spring-Summer encephalitis virus);

- (15) Variola virus;
- (16) Venezuelan equine encephalitis virus;
- (17) Western equine encephalitis virus;
- (18) White pox;
- (19) Yellow fever virus;
- (20) Japanese encephalitis virus;
- (b) rickettsiae, whether natural, enhanced or modified, either in the form of “isolated live cultures” or as material including living material which has been deliberately inoculated or contaminated with such cultures, as follows:
  - (1) *Coxiella burnetii*;
  - (2) *Rickettsia quintana*;
  - (3) *Rickettsia prowasecki*;
  - (4) *Rickettsia rickettsii*;
- (c) bacteria, whether natural, enhanced or modified, either in the form of “isolated live cultures” or as material including living material which has been deliberately inoculated or contaminated with such cultures, as follows:
  - (1) *Bacillus anthracis*;
  - (2) *Brucella abortus*;
  - (3) *Brucella melitensis*;
  - (4) *Brucella suis*;
  - (5) *Chlamydia psittaci*;
  - (6) *Clostridium botulinum*;
  - (7) *Francisella tularensis*;
  - (8) *Pseudomonas mallei*;
  - (9) *Pseudomonas pseudomallei*;
  - (10) *Salmonella typhi*;
  - (11) *Shigella dysenteriae*;
  - (12) *Vibrio cholerae*;
  - (13) *Yersinia pestis*;
- (d) “toxins”, as follows:
  - (1) Botulinum toxins;
  - (2) *Clostridium perfringens* toxins;
  - (3) Conotoxin;
  - (4) Ricin;
  - (5) Saxitoxin;
  - (6) Shiga toxin;
  - (7) *Staphylococcus aureus* toxins;
  - (8) Tetrodotoxin;
  - (9) Verotoxin;
  - (10) Microcystin (Cyanginosin);

except:

any goods specified in 1C351 in the form of a vaccine.”.

1C352 substituted by the following:

“**1C352.** Animal pathogens, as follows:

(a) viruses, whether natural, enhanced or modified, either in the form of “isolated live cultures” or as material including living material which has been deliberately inoculated or contaminated with such cultures, as follows:

(1) African swine fever virus;

(2) Avian influenza virus, which are:

(a) uncharacterised; or

(b) defined in Community Directive [92/40/EEC](#) (O.J. No. L16, 23.1.92, p.19) as having high pathogenicity, as follows:

(1) type A viruses with an IVPI (intravenous pathogenicity index) in six-week old chickens of greater than 1.2; or

(2) type A viruses H5 or H7 subtype for which nucleotide sequencing has demonstrated multiple basic amino acids at the cleavage site of haemagglutinin;

(3) Bluetongue virus;

(4) Foot and mouth disease virus;

(5) Goat pox virus;

(6) Porcine herpes virus (Aujeszky’s disease);

(7) Swine fever virus (Hog cholera virus);

(8) Lyssa virus;

(9) Newcastle disease virus;

(10) Peste des petits ruminants virus;

(11) Porcine enterovirus type 9;

(12) Rinderpest virus;

(13) Sheep pox virus;

(14) Teschen disease virus;

(15) Vesicular stomatitis virus;

(b) mycoplasma mycoides, whether natural, enhanced or modified, either in the form of “isolated live cultures” or as material including living material which has been deliberately inoculated or contaminated with such mycoplasma mycoides;

except:

any goods specified in 1C352 in the form of a vaccine.”.

1E104 NOTE: “This item” amended to “1E104”.

1E201 substituted by the following:

“**1E201.** “Technology” according to the General Technology Note for the “use” of goods specified in 1A002, 1A202, 1A225 to 1A227, 1B201, 1B225 to 1B233, 1C002.a.2.c. or d., 1C010.b., 1C202, 1C210, 1C216, 1C225 to 1C240 or 1D201.”.

2A226 substituted by the following:

**“2A226.** Valves 5 mm or greater in “nominal size”, with a bellows seal, wholly made of or lined with aluminium, aluminium alloy, nickel, or alloy containing 60% or more nickel, either manually or automatically operated.

NOTE: For valves with different inlet and outlet diameters, the “nominal size” above refers to the smallest diameter.”.

2B001.a. NOTE a: “this item;” amended to “2B001;”.

2B001.a. NOTE b: “this item.” amended to “2B001.”.

2B001.c.4. Technical Note: “this item” amended to “2B001”.

2B115 Technical Note 1: “this item” amended to “2B115”.

2B116 substituted by the following:

**“2B116.** Vibration test systems, equipment and components therefor, as follows:

- (a) vibration test systems employing feedback or closed loop techniques and incorporating a digital controller, capable of vibrating a system at 10 g rms or more over the entire range 20 Hz to 2,000 Hz and imparting forces of 50 kN, measured “bare table”, or greater;
- (b) digital controllers, combined with specially designed vibration test software, with a “real-time bandwidth” greater than 5 kHz designed for use with vibration test systems specified in 2B116.a.;
- (c) vibration thrusters (shaker units), with or without associated amplifiers, capable of imparting a force of 50 kN, measured “bare table”, or greater and usable in vibration test systems specified in 2B116.a.;
- (d) test piece support structures and electronic units designed to combine multiple shaker units in a system capable of providing an effective combined force of 50 kN, measured “bare table”, or greater, and usable in vibration systems specified in 2B116.a.

NOTE: In 2B116, “bare table” means a flat table, or surface, with no fixture or fittings.”.

2B204 substituted by the following:

**“2B204.** “Isostatic presses”, other than those specified in 2B004 or 2B104, capable of achieving a maximum working pressure of 69 MPa or greater and having a chamber cavity with an inside diameter in excess of 152 mm, and specially designed dies, moulds or controls therefor.

Technical Note: The inside chamber dimension is that of the chamber in which both the working temperature and the working pressure are achieved and does not include fixtures. That dimension will be the smaller of either the inside diameter of the pressure chamber or the inside diameter of the insulated furnace chamber, depending on which of the two chambers is located inside the other.”.

2B207 substituted by the following:

**“2B207.** “Robots” or “end-effectors”, other than those specified in 2B007, specially designed to comply with national safety standards applicable to handling high explosives (for example, meeting electrical code ratings for high explosives) and specially designed controllers therefor.”.

2B215 substituted by the following:

**2B215.** Flow forming machines, or spin forming machines capable of flow forming functions, other than those specified in 2B115, or mandrels, as follows:

- (a) (1) having three or more rollers (active or guiding); and
- (2) according to the manufacturer's technical specification can be equipped with "numerical control" units or a computer control;
- (b) rotor-forming mandrels designed to form cylindrical rotors of inside diameter between 75 mm and 400 mm.

NOTE: 2B215 includes machines which have only a single roller designed to deform metal plus two auxiliary rollers which support the mandrel, but do not participate directly in the deformation process."

2B225 substituted by the following:

**2B225.** Remote manipulators that can be used to provide remote actions in radiochemical separation operations and hot cells, as follows:

- (a) having a capability of penetrating 0.6 m or more of hot cell wall (through-the-wall operation); or
- (b) having a capability of bridging over the top of a hot cell wall with a thickness of 0.6 m or more (over-the-wall operation).

NOTE: Remote manipulators provide translation of human operator actions to a remote operating arm and terminal fixture. They may be of "master/slave" type or operated by joystick or keypad."

2B226 substituted by the following:

**2B226.** Vacuum or controlled environment (inert gas) induction furnaces capable of operation above 1,123 K (850°C) and having induction coils 600 mm or less in diameter, and designed for power inputs of 5 kW or more, and power supplies specially designed therefor with a specified power output of 5 kW or more.

N.B.: SEE ALSO 3B.

NOTE: 2B226 does not control furnaces designed for the processing of semiconductor wafers."

2B230 substituted by the following:

**2B230.** "Pressure transducers" which are capable of measuring absolute pressure at any point in the range 0 to 13 kPa, with pressure sensing elements made of or protected by nickel, nickel alloys with more than 60% nickel by weight, aluminium or aluminium alloys, having any of the following:

- (a) a full scale of less than 13 kPa and an accuracy of better than in 1% (full-scale); or
- (b) a full scale of 13 kPa or greater and an accuracy of better than in 130 Pa.

Technical Note: For the purposes of 2B230, "accuracy" includes non-linearity, hysteresis and repeatability at ambient temperature."

2B231 substituted by the following:

**2B231.** Vacuum pumps with an input throat size of 380 mm or greater with a pumping speed of 15,000 litres/s or greater and capable of producing an ultimate vacuum better than 13 mPa.

Technical Notes:

(1) The ultimate vacuum is determined at the input of the pump with the input of the pump blocked off.

(2) The pumping speed is determined at the measurement point with nitrogen gas or air.”.

2B352.f.2. Note: “In this entry,” amended to “In 2B352.f.2.,”.

3A001.a.2. substituted by the following:

“2. “Microprocessor microcircuits”, “microcomputer microcircuits”, microcontroller microcircuits, electrical erasable programmable read-only memories (Eeproms), static random-access memories (SRAMs), storage integrated circuits manufactured from a compound semiconductor, analogue-to-digital converters, digital-to-analogue converters, electro-optical or “optical integrated circuits” for “signal processing”, field programmable gate arrays, field programmable logic arrays, neural network integrated circuits, custom integrated circuits for which either the function is unknown or the control status of the equipment in which the integrated circuit will be used is unknown, or fast Fourier Transform (FFT) processors, as follows:

- (a) rated for operation at an ambient temperature above 398 K (125°C);
- (b) rated for operation at an ambient temperature below 218 K (–55°C); or
- (c) rated for operation over the entire ambient temperature range from 218 K (–55°C) to 398 K (125°C);

NOTE: 3A001.a.2. does not apply to integrated circuits for civil automobiles or railway train applications.”.

3A001.e.5: “N.B.: see also 3A201.c.” amended to

“N.B.: see also 3A101.b. AND 3A201.c.”.

3A226 substituted by the following:

“**3A226.** Direct current high-power supplies, other than those specified in 0B001.j.6., capable of continuously producing, over a time period of 8 hours, 100 V or greater with current output of 500 A or greater and with current or voltage regulation better than 0.1%.”.

3A227 substituted by the following:

“**3A227.** High-voltage direct current power supplies, other than those specified in 0B001.j.5, capable of continuously producing, over a time period of 8 hours, 20,000 V or greater with current output of 1 A or greater and with current or voltage regulation better than 0.1%.”.

3A230 Technical Note: “In this item,” amended to “In 3A230,”.

4A002.b: “having any of” amended to “having both of”.

5A001.c.5: the following added at end:

“NOTE: 5A001.c.5 does not apply to networks using only “network access controllers” or to “network access controllers” themselves.”.

5A001.c.6. NOTE substituted by the following:

“NOTE: 5A001.c.6 does not apply to networks using only “network access controllers” or to “network access controllers” themselves.”.

6A002.c.1: “6A002.a.2.” amended to “6A002.a.2.a.”.

6A005: in the opening words, “ “Lasers”, components” amended to “ “Lasers”, other than those specified in 0B001.g.5. or 0B001.h.6., components”.

6A005.f.2: “specified “lasers”;;” amended to “ “lasers” specified in 6A005;”.

6A203.a substituted by the following:

“(a) mechanical rotating mirror cameras, as follows, and specially designed components therefor:

- (1) framing cameras with recording rates greater than 225,000 frames per second;  
or
- (2) streak cameras with writing speeds greater than 0.5 mm per microsecond;

NOTE: Components of such cameras include their synchronizing electronic units and rotor assemblies consisting of turbines, mirrors and bearings.”.

6A203.c substituted by the following:

“(c) radiation-hardened TV cameras, or lenses therefor, specially designed or rated as radiation hardened to withstand greater than  $50 \times 10^3$  grays (Silicon) ( $5 \times 10^6$  rad (Silicon)) without operational degradation.”.

6A205: in the opening words, “specified in 6A005,” amended to “specified in 0B001.g.5, 0B001.h.6 or 6A005.”.

7A115 NOTE: “This item includes” amended to “7A115 includes”.

8A001.i.2. Technical Note: “draft” amended to “draught”.

9A007.d substituted by the following:

“(d) insulation and propellant bonding systems using direct-bonded motor designs to provide a “strong mechanical bond” or a barrier to chemical migration between the solid propellant and case insulation material.

Technical Note: In 9A007.d., a “strong mechanical bond” means bond strength equal to or more than propellant strength.”.

9A008.a substituted by the following:

“(a) insulation and propellant bonding systems using liners to provide a “strong mechanical bond” or a barrier to chemical migration between the solid propellant and case insulation material;

Technical Note: In 9A008.a., a “strong mechanical bond” means bond strength equal to or more than propellant strength.”.

9A106.d. NOTE: “in this item” amended to “in 9A106.d”.

9E003.a.1 substituted by the following:

“**1.** gas turbine blades, vanes or tip shrouds made from directionally solidified or single crystal alloys having (in the 001 Miller index direction) a stress-rupture life exceeding 400 hours at 1,273 K (1,000°C) at a stress of 200 MPa, based on the average property values;”.

9E003.a: item 2 is left out and all subsequent items are renumbered accordingly.

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## EXPLANATORY NOTE

*(This note is not part of the Regulations)*

The Dual-Use and Related Goods (Export Control) Regulations 1995 (“the principal Regulations”) contain provisions arising from Council Regulation (EC) No. 3381/94 (O.J. No. L 367, 31.12.94, p.1) on the control of exports of dual-use goods, which in turn makes provision in respect of (amongst other things) the goods listed in Annexes I and IV to Council Decision 94/942/CFSP (O.J. No. L 367, 31.12.94, p.8) on the joint action concerning the control of exports of dual-use goods. Schedules 1 and 2 to the principal Regulations reproduce Annexes I and IV.

Annexes I and IV have been amended by Council Decision 96/173/CFSP (O.J. No. L 52, 1.3.96, p.1). These Regulations make equivalent amendments to Schedules 1 and 2 to the principal Regulations.