

Comprehensive Change Note Summary for Council Regulation (EU) No. 428/2009

INTRODUCTION

This document summarises the amendments in Annex I of Council Regulation (EC) No. 428/2009 (published in OJ L134 on 29 May 2009) as a result of Regulation (EU) No. ***/2014 (published in OJ L*** on ** *** 2014). Annex I was previously amended by Regulation (EU) No. 388/2012 (published in OJ L129 on 16 May 2012).

OVERVIEW

The changes implemented are a result of the review of the Wassenaar Arrangement (WA) Dual Use Lists, Missile Technology Control Regime (MTCR) Technical Annexes, Australia Group (AG) Control Lists, and Nuclear Suppliers Group over the course of 2011, 2012 and 2013.

SUMMARY OF CHANGES FOR EACH SECTION OF ANNEX I:

Contents, Notes & Acronyms		
General Technology Note	WA13	Amended
General Software Note	WA12	Amended and new Note c. added for object code
CCITT	Edit	Deleted as not now in Annex
YAG	WA13	Editorial correction

Definition		
Adapted for use in war	Edit	Editorial correction
Airship	WA11	New definition
Angular position deviation	NSG13	Definition amended
Average output power	WA11	Amended
Common channel signalling	WA11	Deleted
Cryptography	WA13	Nota Bene renamed Technical Note. New note added.
Diffusion bonding	WA12	Amended
Dynamic Signal Analysers	WA12	Deleted
Expert Systems	WA13	Deleted
Fault Tolerance	WA11	Deleted
Frequency mask trigger	WA12	New definition
Frequency mask trigger	WA13	Amended
Frequency switching time	WA13	Amended
Intrusion Software	WA13	New definition including 2 new Notes & 2 new Technical Notes.
Laser duration	WA11	Deleted

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Materials resistant to corrosion by UF	NSG12	Amended
Measurement uncertainty	WA13	Amended
Object code	WA12	Amended
Peak Power	WA11	Amended
Personal area network	WA12	Paragraph b amended
Pressure transducer	NSG12	Deleted, now a local definition
Pulse duration	WA11	Amended
Real-time bandwidth	WA12	Amended
Space-qualified	WA12 & 13	Amended and new Nota Bene
Spinning mass gyros	WA13	New definition
Substrate blanks	WA12	Amended
Tape	Edit	Amended
Three dimensional integrated circuit.	WA13	New definition

Category 0		
0A001.e.	NSG12	Control on nuclear pressure tubes amended. Control parameter deleted.
0A001.f. & <i>N.B.</i>	NSG12	Control on nuclear fuel cladding amended and Nota Bene added.
0A001.g.	NSG12	Control on coolant pumps amended.
0A001.h. & <i>Tech Note</i>	NSG12	Control on nuclear reactor internals amended and Note re-titled Technical Note.
0A001.i. & <i>Note</i>	NSG12	Control on nuclear heat exchangers amended; 2 new sub-entries; new Note added.
0A001.j.	NSG12	Control for neutron detectors amended.
0A001.k. & <i>Tech Note</i>	NSG12	New control for nuclear reactor external thermal shields, including a Technical Note.
0B001.b. <i>Tech Note</i>	Edit	Note re-titled as Technical Note; Note parameters amended.
0B001.b.3.	NSG12	Control parameters on rotor tube cylinders amended.
0B001.b.4.	NSG12	Control parameters on rings and bellows amended.
0B001.b.5.	NSG12	Control parameters on baffles amended.
0B001.b.6.	NSG12	Control parameters on top and bottom caps amended.
0B001.b.7., a., & b.	NSG12	Control for magnetic suspension bearing amended to include a new sub-entry for active magnetic bearings.
0B001.b.10.	NSG12	Control parameters on motor stators amended.
0B001.b.11.	NSG12	Control for centrifuge housing amended.
0B001.b.12.	NSG12	Control for scoops amended.
0B001.b.13., a., & b.	NSG12	Control for frequency changers (converter & inverter) amended; 2 subparagraphs deleted.
0B001.b.14. a. & b.	NSG12	Control for bellows valves amended to include new sub-control for shut-off & control valves; Bellows valve control amended and renamed b.
0B001.c.3.	NSG12	Control parameters for compressors amended; Control text amended.
0B001.c.5	NSG12	Control for Heat Exchangers amended.
0B001.c.6.	NSG12	Control parameters for bellows-sealed pumps amended.
0B001.d.2.	NSG12	Control parameters for vortex tubes deleted; control text

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		amended.
0B001.d.3.	NSG12	Control for compressors amended.
0B001.d.5.	NSG12	Control text amended.
0B001.d.6.	NSG12	Control parameters for bellows sealed valves amended.
0B001.d.7.d.	NSG12	Control for cold traps amended.
0B001.e.1.	NSG12	Control for liquid-liquid pulse columns amended.
0B001.e.2.	NSG12	Control for liquid-liquid pulse contactors amended.
0B001.g.	NSG12	Control chapeau amended for vapour based separation equipment.
0B001.g.1.	NSG12	Control for vaporization systems re-written.
0B001.g.2.	NSG12	Control for metal handling systems amended, including the addition of components.
0B001.g.3.	NSG12	Control for uranium collector assemblies amended
0B001.g.5.	NSG12	Control for laser systems amended
0B001.h.	NSG12	Control chapeau amended for molecular based or laser systems.
0B001.h.2.	NSG12	Control on uranium collector components/devices amended.
0B001.h.5.	NSG12	Control text amended.
0B001.h.5.c.	NSG12	Control for cold traps amended.
0B001.h.6.	NSG12	Control for laser uranium separation systems amended.
0B001.i.4.	NSG12	Control for uranium liquid handling systems deleted.
0B001.i.5.	NSG12	Control for uranium collector assemblies amended.
0B002.e.	NSG12	Control for piping heading systems amended.
0B002.f.1., 2. & 3.	NSG12	Control for vacuum pumps amended; New control entry for vacuum systems.
0B002.g. 1., 2., 3. & 4.	NSG12	Control for mass spectrometers amended.
0B004.b.1.	NSG12	Control for water-hydrogen sulphide exchange towers amended.
0B004.b.9.	NSG12	New control for ammonium synthesis converters.
0B005 <i>Tech Note</i>	NSG13, Edit	Note to control on nuclear fuel element fabrication plant re-titled as Technical Note; New Technical Note 5 added.
0B006 <i>Note b., d. & f.</i>	NSG13	Note to nuclear fuel element reprocessing plant control amended.
0B006 <i>Note e. Tech Note</i>	Edit	Note renamed Technical Note.
0C004 & <i>Note 1</i>	NSG12 & COM	Control on graphite amended; Note 1 replaced.
0C005	NSG	Control for gaseous diffusion barriers compounds and powders amended.

Category 1		
1A004 & <i>N.B.</i>	WA12	Chapeaux & Nota Bene amended for protective and detection equipment.
1A004.a.	WA12	Control entry for gas masks amended.
1A004.a. <i>Note</i>	WA11	New Note for Powered Air Purifying Respirators (PAPR).
1A004.a. <i>Tech Note</i>	WA12	New Technical Note for gas masks.
1A004.a. <i>Tech Notes 1 & 2</i>	WA13	New technical Note 2; original Technical Note re-numbered as 1.
1A004.d. <i>Note.b.</i>	WA12	Note b. amended for Occupational Health or Safety Equipment.
1A005. a. & b.	WA11	Control entry for body armour amended; 2 new sub-entries added.
1A005 <i>Note 1</i>	WA11	Note amended.
1A005 <i>Note 3</i>	WA11	New Note decontrolling body armour for protection from knife, spike, needle or blunt trauma only.

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1B001.b. <i>Tech Note</i>	WA13	New Technical Note for tape laying machines.
1B001.g. & <i>Tech Note</i>	WA13	Control on tow placement machines amended; Technical Note added.
1B001 & <i>Tech Notes 1 & 2</i>	WA13	New technical note 2; original Technical Note re-numbered as 1.
1B102.a.	MTRC13	Metal powder production equipment control amended.
1B117.b. & <i>Note</i>	MTCR13	Sub-paragraph amended and new Note added to control for batch mixers.
1B201.a.3.	NSG13	Sub-paragraph amended for filament winding machine control.
1B227	NSG12	Control on ammonia synthesis convertors deleted
1B228.d. & <i>Tech Note</i>	NSG12	Sub-parameters for control on hydrogen-cryogenic distillation columns amended; new Technical note added
1B233, b., c. & d.	NSG12	Control for lithium isotope separation systems amended; Sub-control b. amended; 2 new sub-entries.
1B234	NSG13	New control for high explosive containment vessels.
1C001.b. <i>Note.a.,b.</i>	WA12	New decontrol Note for materials for laser marking & welding of polymers
1C001.c. <i>Note</i>	WA12	New decontrol Note intrinsically conductive polymeric materials in liquid form
1C006.d. <i>Note</i>	WA11	New Note decontrolling fluorocarbon electronic cooling fluids packaged for medical products.
1C008.a.3.	WA13	Control entry amended for aromatic polyamides.
1C008.a.4.	WA11	Parameter for glass transition temperature increased.
1C008.f.	WA11	Parameter for glass transition temperature increased.
1C008.f. <i>Tech Notes 1 & 2</i>	WA13	New Technical Note 2; original Technical Note amended and renumbered as 1.
1C010.b. <i>Tech Note</i>	WA13	Technical Note deleted.
1C010.c. <i>Tech Notes 1 & 2</i>	WA13	2 new Technical Notes added to fibrous or filamentary materials control.
1C111.a.1.	MTCR12	Control entry on aluminium powder amended.
1C111.a.2.a.	MTCR12	Control entry for zirconium, beryllium and magnesium powder amended and renumbered; Sub-paragraph for alloys deleted as control text now covers alloys.
1C111a.2.b.	MTCR12	New control for boron powder.
1C111a.2. <i>Note</i>	MTCR12	New Note for metal powder mixtures.
1C111.a.5.b. <i>Note</i>	Edit	Editorial correction.
1C116 & <i>Tech Note 1 & 2</i>	MTCR11	Control entry for maraging steels amended, including new sub-paragraphs and 2 Technical Notes.
1C210.a.2., b.2. & <i>Note</i>	Edit	Control parameters formatting amended; Note amended.
1C216	NSG13	Parameter lowered in control entry for maraging steel.
1C229	NSG13	Control for bismuth amended.
1C234	Edit	Control amended to reference 0A001.f.
1C236 & <i>Tech Note</i>	NSG13	Control amended for alpha emitting radionuclides and new Technical Note added.
1C240.a.2.	Edit	Control parameter S.I. unit amended.
1C241	NSG13	New control for rhenium with 2 sub-paragraphs added.
1C351	AG13	Control chapeau amended to include both human and animal pathogens.
1C351.a.1.	AG13	Control for African horse sickness virus moved from 1C352.a.17.
1C351.a.2.	AG13	Control for African swine fever virus moved from 1C352.a.1.
1C351.a.3.	AG13	Control for Andes virus moved from 1C351.a.1.

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1C351.a.4.	AG13	Control for Avian influenza virus moved from 1C352.a.2.
1C351.a.5.	AG13	Control for Bluetongue virus moved from 1C352.a.3.
1C351.a.6.	AG13	Control for Chapare virus moved from 1C351.a.2.
1C351.a.7.	AG13	Control for Chikungunya virus moved from 1C351.a.3.
1C351.a.8.	AG13	Control for Choclo virus moved from 1C351.a.4.
1C351.a.9.	AG13	Control for Congo-Crimean haemorrhagic fever virus moved from 1C351.a.5.
1C351.a.10.	AG13	Control for Dengue fever virus moved from 1C351.a.6.
1C351.a.11.	AG13	Control for Dobrava-Belgrade virus moved from 1C351.a.7.
1C351.a.12.	AG13	Control for Eastern equine encephalitis virus moved from 1C351.a.8.
1C351.a.13.	AG13	Control for Ebola virus moved from 1C351.a.9.
1C351.a.14.	AG13	Control for Foot and mouth disease virus moved from 1C352.a.4.
1C351.a.15.	AG13	Control for Goat pox virus moved from 1C352.a.5.
1C351.a.16.	AG13	Control for Guanarito virus moved from 1C351.a.10.
1C351.a.17.	AG13	Control for Hantaan virus moved from 1C351.a.11.
1C351.a.18.	AG13	Control for Hendra virus (Equine morbillivirus) moved from 1C351.a.12.
1C351.a.19.	AG13	Control for Porcine herpes virus (Aujeszky's disease) moved from 1C352.a.6. and renamed Herpes virus (Aujeszky's disease)
1C351.a.20.	AG13	Control for Swine fever virus (Hog cholera virus) moved from 1C352.a.7. and renamed Hog cholera virus (swine fever virus)
1C351.a.21.	AG13	Control for Japanese encephalitis virus moved from 1C351.a.13.
1C351.a.22.	AG13	Control for Junin virus moved from 1C351.a.14.
1C351.a.23.	AG13	Control for Kyasanur Forest virus moved from 1C351.a.15.
1C351.a.24.	AG13	Control for Laguna Negra virus moved from 1C351.a.16.
1C351.a.25.	AG13	Control for Lassa fever virus moved from 1C351.a.17.
1C351.a.26.	AG13	Control for Louping ill virus moved from 1C351.a.18.
1C351.a.27.	AG13	Control for Lujo virus moved from 1C351.a.19.
1C351.a.28.	AG13	Control for Lumpy skin disease virus moved from 1C352.a.16.
1C351.a.29.	AG13	Control for Lymphocytic choriomeningitis virus moved from 1C351.a.20.
1C351.a.30.	AG13	Control for Machupo virus moved from 1C351.a.21.
1C351.a.31.	AG13	Control for Marburg virus moved from 1C351.a.22.
1C351.a.32.	AG13	Control for Monkey pox virus moved from 1C351.a.23.
1C351.a.33.	AG13	Control for Murray Valley encephalitis virus moved from 1C351.a.24.
1C351.a.34.	AG13	Control for Newcastle disease virus moved from 1C352.a.9.
1C351.a.35.	AG13	Control for Nipah virus moved from 1C351.a.25.
1C351.a.36.	AG13	Control for Omsk haemorrhagic fever virus moved from 1C351.a.26.
1C351.a.37.	AG13	Control for Oropouche virus moved from 1C351.a.27.
1C351.a.38.	AG13	Control for Peste des petits ruminants virus moved from 1C352.a.10.
1C351.a.39.	AG13	Control for Porcine enterovirus type 9 (swine vesicular disease virus) moved from 1C352.a.11.
1C351.a.40.	AG13	Control for Powassan virus moved from 1C351.a.28.
1C351.a.41.	AG13	Control for Rabies virus and all other members of the Lyssavirus genus moved from 1C352.a.8.
1C351.a.42.	AG13	Control for Rift Valley fever virus moved from 1C351.a.29.
1C351.a.43.	AG13	Control for Rinderpest virus moved from 1C352.a.12.

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1C351.a.44.	AG13	Control for Rocio virus moved from 1C351.a.30.
1C351.a.45.	AG13	Control for Sabia virus moved from 1C351.a.31.
1C351.a.46.	AG13	Control for Seoul virus moved from 1C351.a.32.
1C351.a.47.	AG13	Control for Sheep pox virus moved from 1C352.a.13.
1C351.a.48.	AG13	Control for Sin nombre virus moved from 1C351.a.33.
1C351.a.49.	AG13	Control for St Louis encephalitis virus moved from 1C351.a.34.
1C351.a.50.	AG13	Control for Teschen disease virus moved from 1C352.a.14.
1C351.a.51.	AG13	Control for Tick-borne encephalitis virus (Russian Spring-Summer encephalitis virus) moved from 1C351.a.35.
1C351.a.52.	AG13	Control for Variola virus moved from 1C351.a.36.
1C351.a.53.	AG13	Control for Venezuelan equine encephalitis virus moved from 1C351.a.37.
1C351.a.54.	AG13	Control for Vesicular stomatitis virus moved from 1C352.a.15.
1C351.a.55.	AG13	Control for Western equine encephalitis virus moved from 1C351.a.38.
1C351.a.56.	AG13	Control for Yellow fever virus moved from 1C351.a.39.
1C351.b.	AG11	Sub control for 4 rickettsiae deleted; sub entries 1C351.b.2. and 1C351.b.4. no longer controlled; 1C351.b.1. and 1C351.b.3. moved to 1C351.c.
1C351.c.5.	AG12	Control for Chlamydia amended
1C351.c.5.	AG13	Control entry for Burkholderia mallei (Pseudomonas mallei) moved from 1C351.c.8.
1C351.c.6.	AG13	Control entry for Burkholderia pseudomallei (Pseudomonas pseudomallei) moved from 1C351.c.9.
1C351.c.7.	AG13	Control for Chlamydophila psittaci (formally known as Chlamydia psittaci) moved from 1C351.c.5.
1C351.c.8.	AG13	Control for Clostridium argentinense (formerly known as Clostridium botulinum Type G), botulinum neurotoxin producing strains moved from 1C351.c.16.
1C351.c.9.	AG13	Control for Clostridium baratii, botulinum neurotoxin producing strains moved from 1C351.c.17.
1C351.c.10.	AG13	Control for Clostridium botulinum moved from 1C351.c.6.
1C351.c.11.	AG13	Control for Clostridium butyricum, botulinum neurotoxin producing strains moved from 1C351.c.18.
1C351.c.12.	AG13	Control for Clostridium perfringens epsilon toxin producing types moved from 1C351.c.14.
1C351.c.13.	AG13	Control for Coxiella burnetii moved from 1C351.c.19.
1C351.c.14.	AG13	Control for Francisella tularensis moved from 1C351.c.7.
1C351.c.15. & <i>Tech Note</i>	AG12	Control entry for Escherichia coli bacteria amended for clarification, including new Technical Note
1C351.c.15.	AG13	Control entry for Mycoplasma capricolum subspecies capripneumoniae moved from 1C352.b.2.; 'Strain F38' added.
1C351.c.16., 17., & 18.	AG12	3 new controls entries for botulinum bacteria
1C351.c.16.	AG13	Control entry for Mycoplasma mycoides subspecies mycoides SC (small colony) moved from 1C352.b.1.
1C351.c.17.	AG13	Control for Rickettsia prowasecki moved from 1C351.c.20.
1C351.c.18.	AG13	Control for Salmonella typhi moved from 1C351.c.10.
1C351.c.19.	AG11	Control for Coxiella burnetii moved from 1C351.b.1.
1C351.c.19. & <i>Tech Note</i>	AG13	Control for Shiga toxin producing Escherichia coli (STEC) of serogroups O26,O45,O103,O104,O111,O121,O145,O157, and other shiga toxin producing serogroups moved from 1C351.c.15.;

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		Technical Note moved to 1C351.d.6.
1C351.c.20.	AG11	Control for Rickettsia prowasecki moved from 1C351.b.3.
1C351.c.20.	AG13	Control for Shigella dysenteriae moved from 1C351.c.11.
1C351.c.21.	AG13	Control for Vibrio cholera moved from 1C351.c.12.
1C351.c.22.	AG13	Control for Yersinia pestis moved from 1C351.c.13.
1C351.d.2.	AG13	Control for Clostridium perfringens toxins amended
1C351.d.6. <i>Tech Note</i>	AG13	New Technical Note (moved from 1C351.c.19).
1C351.d.7.	AG12	Control entry for Staphylococcus aureus toxin amended for clarification
1C352.a.b. & <i>Note</i>	AG13	Control Chapeau and paras a & b deleted; Note deleted; Controls on animal pathogens now combined with 1C351.
1C352.a.8.	AG11	Control for 'Lyssa virus' renamed 'Rabies virus and all other members of the Lyssavirus genus'.
1C353.a.	AG13	Consequential change due to deletion of 1C352
1C353 <i>Tech Notes 1, 2, & 3</i>	AG11	New Technical Note 1 added; current Technical Notes renumbered 2 and 3; New Technical Note 2 amended. Reference to 1C351.b. and 1C2352 in Note 3 removed.
1C353 <i>Note</i>	AG13	Note amended.
1C354.a.1.	AG12	Nomenclature change to plant virus in control entry
1C354.b.2	AG12	Nomenclature change to plant bacteria in control entry
1C354.b.3. & 4.	Edit	Minor amendments to align with AG
1C354.b.5.	AG12	Nomenclature change to plant fungi in control entry
1C354.c.1.	AG12	Nomenclature change to plant fungi in control entry
1C354.c.4.	AG12	Nomenclature change to plant fungi in control entry
1C354.c.6.	AG12	Nomenclature change to plant fungi in control entry
1C354.c.7., 8., 9., 10. & 11.	AG12	5 new controls entries for plant pathogens
1D101	MTCR13	Software control for MTCR production equipment amended
1E201	NSG13	Consequential change in technology control.

Category 2		
2A101.b.	edit	Text for ball bearings amended to correlate with MTCR.
2A225.a.2.	NSG13	Sub-paragraph for control for crucibles amended.
2B <i>Technical Note 5, 5b & footnote</i>	WA11	Amended to refer to ISO 230/2; foot note amended to refer to ISO 230/2 (1988) and (1997)
2B <i>Technical Note 5f</i>	WA13	Note 5.f. amended.
2B <i>Tech Note 6</i>	WA11	New Technical Note for measurement uncertainty added.
2B001	WA12	Chapeau for machine tools amended to remove specially designed components.
2B001 Note 2.e.	WA12	New sub paragraph e. for dental prostheses.
2B001.a.1.	WA11 & WA12	Turning machine tool control amended; refers to ISO 230/2 (2006); new parameter.
2B001.b.1.a.	WA11 & WA12	Milling machine tool controls amended; refers to ISO 230/2 (2006); new parameter.
2B001.b.2	WA12	Five or more axis milling machine control amended and now includes 4 sub-entries and Technical Note.
2B001.b.3.	WA12	Milling machine tool control amended; refers to ISO 230/2 (2006); new parameter.

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2B001.c.1.a. & <i>footnote</i>	WA11 & WA12	Grinding machine tool control amended; refers to ISO 230/2 (2006); new parameter.
2B001.c <i>Note b</i>	WA12	Note amended to refer to ISO 230/2 (2006) with new parameter.
2B001.f.	WA12	Control for deep hole drilling machines amended to remove components.
2B006.b.1. <i>Note</i>	WA12	New Note for linear displacement measuring instruments.
2B006.b.1.b.1.a., b. & <i>Tech Note</i> .	WA13	Control entry for LVDT systems amended; sub-paragraph 1 amended with 2 new sub-paragraphs; new Technical Note.
2B006.b.1.c.2.b.	WA13	Sub-paragraph b for laser measuring systems amended.
2B006.b.2.	WA13	Control for angular displacement measuring instruments amended.
2B006.c.	WA12	Control for surface roughness measuring equipment amended
2B008.a., b. & <i>Note</i>	WA11	Amendment to controls on dimensional inspection systems; New Note clarifying the feedback units.
2B009.a.	WA11	Control parameters amended for spin and flow forming machines.
2B201 <i>footnote</i>	Edit	Machine tools control footnote amended to refer to ISO 230/2 (2006).
2B206.a., a.1., a.2. & <i>Tech Note</i>	NSG13	CMM control amended; new Technical Note.
2B230, a., b., c. & <i>Tech Notes 1 & 2</i>	NSG12	Control on pressure transducers amended, including a local definition; sub-paragraphs amended; sub-paragraph b. renamed c.; new sub-paragraph b.; New Technical Note added.
2B232 & N.B.	NSG13	High-velocity gun system control amended; new Nota Bene.
2B233, a., b., c. & N.B.	NSG12	New control for bellows-sealed compressors and vacuum pumps, including 3 sub-paragraphs and a Nota Bene.
2B350.b.	AG13	Agitator control amended.
2B350.g., 1.a.,b. 2.a.,b.,c.,d., 3.a.,b. & <i>Tech Notes 1 & 2</i>	AG13	Control entry for valves re-written. New Technical Notes 1 & 2. Original Technical note re-numbered as 2.
2B350.i.	NSG12	Control amended as a consequence of 2B233.
2B350.i. <i>Tech Note</i>	AG13	New Technical Note.
2B350 <i>Note</i>	AG13	New Note for 2B350 concerning seals, gaskets and other interchangeable components.
2B352.b.1., b.2. & <i>Tech Note</i>	AG13	Control for fermenters and Technical Note amended; sub-control for certain components added.
2B352.d.1	AG11	Control on filtration equipment amended; Note moved to before sub-paragraph d.2.
2B352.h., 1., 2. & 3.	AG12	New control for spray drying equipment, including 3 new sub-paragraphs.
2D001.a.,b. & <i>Note</i>	WA12	Control amended. 2 new sub-paragraphs to separate development and production software from use software; new Note.
2D002 <i>Notes 2 & 3</i>	WA12	Note 2 amended & New note 3.
2D002 <i>Notes 1 & 3</i>	WA13	Notes amended.
2D003	WA12	New control for software relating to optical finishing equipment.
2D202 <i>Note</i>	NSG13	New Note for NSG machine tool software.
2E001 <i>Note</i>	WA11	New Note added for CMM technology.
2E201	NSG13	Consequential change to technology control.

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Category 3		
3A. <i>Notes 1 & 2 & N.B</i>	WA11	Reference to 3A001.a.13. added.
3A001.a. <i>Note 2</i>	WA13	Three dimensional integrated circuits added to Note.
3A001.a.1.c. <i>Note</i>	Edit	Editorial amendment.
3A001.a.2.c. <i>Note</i>	Edit	Editorial amendment.
3A001.a.5.a.1.	WA13	Control parameter for 8 bit ADCs amended.
3A001.a.7.a., b. & <i>Tech Note 3.</i>	WA12	Control parameters for Field Programmable logic devices amended; new Tech Note 3.
3A001.a.13.	WA11	New control entry for Direct Digital Synthesiser ICs including a Technical Note for DAC clock frequency.
3A001.b. <i>Tech Note.</i>	WA13	New Technical Note for microwave components.
3A001.b.2. d., e., f., g & h.	WA12	Control parameters amended and paragraphs d, e, & f re-written including additional paragraphs g & h.
3A001.b.2.a.1., a.2., a.3., a.4. b.1., b.2. c. d. e. f. g. h & <i>Note 2.</i>	WA13	Control entry for MMIC power amplifiers completely re-written; Note 2 amended.
3A001.b.3.a.1., a.2., a.3., a.4., b.1., b.2., b.3., b.4., c., d., e. & <i>Notes 1 & 2.</i>	WA13	Control entry for MMIC power amplifiers completely re-written; new Note 2 added; original Note amended & re-numbered as 1.
3A001.b.4.f.3 & <i>Note 3</i>	WA12	Paragraph 3 amended & New Note 3.
3A001.b.4.a.1., a.2., a.3., a.4., b.1., b.2., b.3., b.4., c., d., e.1., e.2., e.3., f.1., f.2., f.3 & <i>Tech Note & Note 2.</i>	WA13	Control entry for microwave solid state amplifiers completely re-written; control parameters amended in Technical note; Note 2 amended.
3A001.b.10.	WA11	Parameters for oscillators and oscillator assemblies amended.
3A001.b.10.a. & b.	WA12	Control on oscillators amended.
3A001.b.11.e., f., & g.	WA11	Control entries for frequency synthesisers and assemblies further divided with new sub-entries f. and g.; sub-entry e. amended.
3A001.b.11.a., b., f. & g.	WA12	Control parameters for frequency synthesisers amended.
3A001.e.1.b.	WA11	Parameter for secondary cells increased.
3A001.e.2. <i>NB</i>	WA13	Nota Bene amended.
3A002.a.1., 2., 3., 4. 6., 6.a., 7 & <i>Tech Note & Note</i>	WA13	Main chapeau and sub-entry a. amended for recording equipment; Sub-entries 1, 2, 3 & 4 deleted. Sub-entry 6 amended; new Technical Note added under 6.b.; new sub-entry 7 added including new Note.
3A002.c.2., 3., 4.a., 4.b., & <i>Tech Notes 1,2 & Note</i>	WA12	Control parameters amended for signal analysers in sub-entries 2, & 3; sub-entry 4 amended to include 2 new sub-paragraphs a. & b. & 2 new Technical Notes 1 & 2.; Note amended.
3A002.c.5	WA12	New sub-entry for signal analysers having a frequency mask trigger.
3A002.d.1., a., & b.	WA11	Sub-entry for frequency synthesized signal generators amended. Also adding Parameter for on/off ratio introduced for signal generators.
3A002.d.4., a., & b.	WA11	Clarification for signal generators having low noise floor.
3A002.d. <i>Tech Notes 1 & 2</i>	WA11	Technical Notes amended.
3A002.d.1., 2., 3.a., 3.b., 3.f., 4., 4.a., 4.b. & 5.	WA12	Parameters in sub-entries for frequency synthesized signal generators amended; sub-entry 3.a. deleted.

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3A002.d.1.	WA13	Sub-entry amended.
3A002.d. <i>Tech Note 2</i>	WA13	Technical Note 2 amended.
3A002.e.1.	WA11	Control entry for network analysers amended.
3A002.e.1., 2., 3., 4. & <i>Tech Note</i>	WA12	Control on network analysers amended. Control parameters amended in sub-entries 1. & 2.; new sub-entries 2 & 3 including new Technical Note; original sub-entry 2 renamed 4 with control parameter amended.
3A002.f.1.	WA11	Maximum operating frequency for microwave test receivers increased.
3A002.f.1.	WA12	Maximum operating frequency for microwave test receivers increased.
3A225, a., b., c., <i>NB 1 & 2, Note & Tech Note 2</i>	NSG12	Control chapeau for frequency changers amended; control parameters in sub-paragraphs amended, including the removal of harmonic distortion parameter; new Nota Bene for software & technology; new decontrol Note for certain constrained equipment; new Technical Note 2 with original renamed 1.
3A229.a.	NSG13	Control for detonated firing sets returned.
3A229.b.2., 3., 4., & 5.	NSG13	Sub-parameters in control on Modular electrical pulse generators amended; Technical Note deleted
3A229.c.	NSG13	New control on micro-firing sets added.
3A230 & <i>Tech Notes 1 & 2</i>	NSG13	Pulse Heads added to control on high-speed pulse generators; New Technical Note 2 and original renamed 1.
3A233.d., e. & <i>Tech Note 1 & 2</i>	NSG13	Sub-control on Electron bombardment mass spectrometers amended with 2 new sub-paragraphs; sub-entry on molecular beam mass spectrometers deleted; 2 new Technical Notes.
3A234 a., & b.	NSG13	New control on Striplines with 2 sub-paragraphs.
3A231.b., b.1. & b.2.	NSG13	Control on neutron generator systems amended with 2 new sub-paragraphs.
3B001.a.2., b.1.,2.,5.	WA12	Sub-control for MOCVD reactors amended.
3B001.b.1., 2. & 5.	WA12	Sub-controls for ion implantation equipment amended; sub-entry 1 deleted; hydrogen/deuterium/helium implant sub-entry amended; new sub-entry for silicon implant equipment.
3B001.d.	WA11	Control entry for Plasma enhanced Chemical Vapour Deposition (CVD) equipment deleted.
3B001.e.1	WA12	Sub-paragraph for wafer handling sub-entry amended.
3B001.h.1., 2.	WA12	Sub-control amended for multi-layer masks. 2 new sub-paragraphs 1 & 2 added.
3C001 <i>Note</i>	WA11	New decontrol Note for certain substrates.
3C002.a.1., a.2., c., d. & <i>Tech Note</i>	WA12	Sub-entry for resist materials amended; 2 new sub-paragraphs to a.; sub-paragraph c deleted; sub-paragraph d amended and Technical Note deleted.
3C005	WA13	Control entry for substrates amended.
3D002	NSG12	Software control amended to add frequency changer equipment;
3D225	NSG12	New control for software capable of releasing constraints of frequency changers.
3E002.b.	WA13	Control parameter amended for technology for processors.
3E003.b.	WA11	Technology relating to hetero-structured devices amended.
3E201	NSG13	Consequential amendment to technology control.
3E225	NSG12	New control for technology capable of releasing constraints of frequency changers.

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Category 4		
4A003.a. & <i>Note</i>	WA11	Control entry and Note for fault tolerant computers deleted.
4A003.b.	WA11 & 13	Parameter for computer performance raised.
4A005	WA13	New control entry for equipment for intrusion software.
4D <i>Note</i>	WA11	Note amended.
4D001.a.	WA12	Computer software control entry amended to remove “use”.
4D001.b.1.	WA13	Control parameter amended.
4D004	WA13	New control entry for intrusion software.
4E001.b.1.	WA13	Control parameter amended.
4E001.c.	WA13	New control entry for technology for the development of intrusion software.
APP	Edit	Heading text corrected.
APP <i>Note 6 Tech Note</i>	WA11	Technical Note added to clarify the calculation of APP.

Category 5 Part 1		
5A001.b.3.b. <i>Note. a. & b.</i>	WA11	Note amended to include decontrol for certain radio equipment for civil satellite communications; new paragraphs a & b.
5A001.b.5.b & <i>Tech Note</i>	WA13	Sub-paragraph b amended for control on radio receivers; new Technical Note added.
5A001.f.1.,2.,3.,a.,b.,c.4.	WA12	Control entry for mobile telecoms jamming equipment re-written to include 5A001.i. monitoring/interception equipment; new sub-entries 1 to 4; Original chapeau & sub-paragraphs now control entry 3. a., b. & c.
5A001.f.4. <i>Note a., b., c. & NB.1., 2.</i>	WA12	Nota Bene renumber 1; New Nota Bene 2; new Note added.
5A001.h. <i>N.B.</i>	Edit	Nota Bene amended.
5A001.h.1., 2. & <i>N.B.</i>	WA12	Control entry for counter IED equipment amended; original control re-named 1.; new sub-entry 2.; Nota Bene amended.
5A001.i., <i>N.B., Note & Tech Note</i>	WA11	New control entry for telecommunications monitoring/interception equipment; including Nota Bene, Note and Technical Note.
5A001.i., <i>N.B., Note & Tech Note</i>	WA12	Control entry, Nota bene, Note & Technical Note moved to 5A001.f.; now not used.
5A001.j., 1., 1.a., 1.b., 1.c., 2., 2.a., 2.b. & <i>Note a, b, c & Tech Note.</i>	WA13	New control entry for IP network communication surveillance; includes 2 new sub-divided sub-paragraphs; new Notes & Technical note.
5B001.a.	WA12	Control entry for telecoms test equipment amended.
5B001.b.2.c., <i>Note & Tech Note</i>	WA11	Control entry for development equipment for telecoms equipment employing lasers amended; including new Note and Technical Note.
5B001.b.5.	WA11	Control entry for development equipment for equipment employing common signal channeling deleted.
5E001.b.4. <i>Note a. & b.</i>	WA11	Note amended to include certain radio equipment for civil satellite communications; including new sub-paragraphs a. & b.
5E001.c.1.	WA11	Control parameter for technology relating to equipment employing digital techniques increased.

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5E001.c.2.c., <i>Note & Tech Note</i>	WA11	Control entry for technology for equipment employing lasers and using coherent transmission and detection techniques amended; including Note and Technical Note.
5E001.c.5.	WA11	Control entry for technology relating to equipment employing common signal channeling deleted.
5E001.d.4., 5., 6., 7. & 8.	WA12	Control entry amended for MMIC power amplifier technology; control parameters amended; new sub-entries 7 & 8.
5E001.d.1., 1.a., 1.b., 1.c., 1.d., 2., 2.a., 2.b., 3., 4., 5., 6., 7., 8. & <i>Tech Note</i>	WA13	Control entry re-written for MMIC power amplifier technology; new Technical Note.
Category 5 Part 2		
Cat 5 Pt 2. <i>Note 3., a.1., 2., 3., 4., b.1., 2., 3., 4. & Note 1., a., b. & 2.</i>	WA12	Cryptography Note re-written and moved into sub-paragraph a.; New paragraph b. for components, includes sub-paragraphs 1. to 4.; New Note relating to the CN added.
Cat 5 Pt2. <i>Note 3.b., 1., 2., 3., 4. & Tech Note & Note</i>	WA13	CN 3 paragraph b. amended; new Technical Note; new Note.
Cat 5 Pt2. <i>Note 4. Tech Note</i>	WA13	Technical Note deleted.
5A002.a.1. & <i>Tech Notes 1., 2. & 3.</i>	WA12	Control entry for cryptographic equipment amended; Technical Note 1 amended.
5A002.a.1.a. <i>NB, Note & Tech Notes</i>	WA13	Nota Bene amended; Note & Technical Note 3 deleted; New Technical Note added (original deleted Technical Note from Cat 5 Pt2. <i>Note 4</i>).
5A002.a.2. <i>Note</i>	WA12	New note added to control entry for crypanalytic equipment.
5A002.a.7.	WA12	Control entry for class EAL-6 equipment amended.
5A002.a. 8. <i>Note</i>	WA11	Note added to control entry for cable intrusion detection systems.
5A002.a.9.	WA13	Control entry for quantum cryptography amended.
5A002 <i>Note g. & i.</i>	WA12	Consequential amendment to Note g.; Note i. amended.
5A002 <i>Note i., j. & k.</i>	WA13	Amendments to Notes i & j; New Note k. added for RAN equipment.
5D002 <i>Note</i>	WA11	Note for cryptographic software deleted.
5E002 <i>Note</i>	WA12	New Note added for technical data.

Category 6		
6A001.a.1.a.2., a., a.1., a.2 & <i>Tech Notes</i>	WA12	Sub-entry for underwater survey equipment amended: 2 sub-paragraphs 1& 2; Technical Note to sub-paragraph b.amended; New Technical note added.
6A002.a.1.a.2.b. 1., 2., 3.a., 3.b., 4.a., 4.b. & 4.c.	WA12	New control for underwater survey equipment. Including 4 sub-paragraphs.
6A002.a.1.a.3.a., b., c & <i>Tech Notes 1, 2, 3.</i>	WA12	Sub-entry for side scan sonar amended; sub-paragraphs a. and b. amended and new paragraph c added; Technical notes 1 & 2 amended.
6A001.a.1.b.	WA11	Control text amended for object detection location arrays..
6A001.a.1.c <i>Note 3</i>	WA13	New note 3 added to control on acoustic projectors.
6A001.a.1.e.	WA13	Acoustic arrays added to control on active sonars.
6A001.a.2.a. <i>Tech Note</i>	WA11	New Technical Note for hydrophones
6A001.a.2.a.3.b., d., e.	WA13	Editorial amendment to sub-paragraph b; new sub-paragraphs d.

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		& e. added to hydrophone control.
6A001.a.2.b. <i>Tech Note</i>	WA11	New technical note for towed hydrophone arrays.
6A001.a.2.b.5. & 8.	WA13	Editorial amendment to sub-paragraph 5; new sub-paragraph 8 added to control on hydrophones.
6A001.a.2.e.	WA11	Control text amended for bottom or bay cable arrays
6A001.a.2.e.1. 2.b. & 3.	WA13	Amendments to sub-paragraphs e.1 & e.2.b; new sub-paragraph 3. For accelerometer-based hydrophones arrays added.
6A001.a.2.g., 1., 2., 3., 4 & <i>Note & Tech Notes 1, 2.</i>	WA13	New control entry g. added for accelerometer-based hydro-acoustic sensors, including 4 sub-paragraphs; new Note & 2 new Technical Notes added.
6A002.a.3.d.2.b.	WA12	Sub-paragraph b amended for control on FPAs.
6A005 <i>Note 2 & Tech Note</i>	WA13	Technical Note added to Note 2 concerning controls on lasers.
6A005.a.2., 3. & 6.a.	WA12 & Edit	Laser parameters in sub-paragraphs 2 & 3 amended; sub-paragraph 6 amended.
6A005.a.6.b.2 <i>Notes 1 & 2., a., b., c., d., e., f., g., h., i & Tech Note</i>	WA13	New Note 2 added with new Technical Note to laser controls; original Technical Note re-numbered as 1.
6A005.b.2. & 3.	WA12	Control parameters for lasers amended in sub-paragraphs 2 & 3.
6A005.b.4.a.1., a.2., b.1. & b.2.	WA13	Laser control entry re-written with original sub-paragraphs a. & b. now b.1. & b.2.
6A005.b.5.a.1., a.2., b.1., b.2., b.3., c.1., c.2. & c.3.	WA13	Laser control entry re-written; new sub-paragraph a.; original sub-paragraphs a. & b. now b. & c.; sub-paragraph b. amended.
6A005.b.6.a.1., a.2., a.3., b.1., b.2., b.3., c. & d.	WA13	Laser control re-written; new sub-paragraph a.; sub-paragraph b. amended; original sub-paragraph b. re-numbered as c.; original sub-paragraph c. re-numbered as d.
6A005.d.1.e.2 <i>Note 3</i>	WA13	Note amended.
6A006 <i>N.B.</i>	Edit	Nota Bene editorial to reference control entry 7A103.d.
6A007.a., b.1., b.2 <i>Technical Note.</i>	WA13	Units of measurement amended in sub-entries for gravity meters; sub-paragraph b.2. amended; new Technical Note.
6A008.k.2 & <i>Note a., b., c., d. & e.</i>	WA13	Sub-paragraph 2 amended for control on radars, with new Note added.
6A008.l.1., l.4., <i>Notes & Technical Notes 1, 2.</i>	WA13	Notes to radar control amended; new Technical Notes 1 & 2 added.
6A107.a.	MTCR13	Control on gravity meters amended.
6A203.a., b., c., <i>N.B.1 & 2, Note & Tech Note</i>	NSG13	Controls for fast acting cameras rewritten; new Nota Benes, Note and Technical Note; Annex IV reference amended.
6A203.d.	NSG13	Consequential change for radiation hardened TV cameras with original c. renamed d.
6A205.e.	Edit	S.I. unit amended
6A205.g.	NSG12	New control for carbon monoxide lasers, including 4 sub-paragraphs
6A225 <i>Note</i>	NSG13	Note to control on velocity interferometers amended.
6A226.a.	NSG13	Control on shock pressure gauges amended.
6B007	WA13	Units of measurement amended.
6C004.b., b.2., b.4., & b.5.	WA12	Control entry for electro-optic and non-linear optical materials re-written; sub-paragraph b.2 amended; new sub-paragraphs b.4 & 5.
6C004.c., c.1., c.1.a., c.1.b. & c.2.	WA12	Control entry for non-linear optical materials re-written; original sub-paragraphs c.1. & c.2. amended & re-written as c.1.a. & c.1.b.; new sub-paragraph c.2 added.

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6C005.b.	WA12	Control entry for alexandrite deleted.
6D203	NSG13	New control for camera software.
6E203	NSG13	New control for camera technology.

Category 7		
7A001.a.2.a. & b.	WA12	Control parameters amended for control on accelerometers.
7A002.a. & b <i>Technical Notes</i>	WA13	Technical Notes for spinning mass gyros deleted, now in Definitions.
7A002.a.2.a & b.	WA13	Control parameters amended for gyros.
7A003.1.a., b., c., d. & <i>NB, Notes & Technical Notes.</i>	WA13	Control entry on Inertial Measurement equipment completely re-written; 3 new Notes & 4 new Technical Notes.
7A004, a., b., & <i>Tech Note</i>	WA11	Gyro-astro compass control entry rewritten to use the more common terminology of star trackers; 2 new sub-entries including controls on specific related components; new Technical Note.
7A103.a.2.	WA12	Sub-entry amended as a result of WA amendment to 7A001.a.2.
7A103.d.	Edit	Control entry amended to remove those controlled by 6A006.
7A105	Edit	Control entry amended to remove those controlled by 7A005.
7D002	WA11	Control on inertial navigation equipment source code amended.
7D003.c.	WA13	Control entry for certain integrated avionics source code deleted.
7D003.d	WA11 & 12	Now not used; Control entry for certain flight management source code moved, with amendments, to 7D004.
7D004	WA13	Chapeau amended for source code control entry for various flight technology.
7D004.a., b., c., d., e., f., g. & <i>Note</i>	WA12 & 13	New control entry for source code for various flight technology, based on old 7D003.d.; new Note added.
7D005	WA13	New control entry for GNSS decrypt software.
7E001 & <i>Note</i>	WA12 & 13	Technology control entry amended; new Note.
7E004.a.1.	WA11	Control entry for technology relating to direction finding equipment deleted.
7E004.b.1., 2., 3., 4. & <i>Notes</i>	WA12	Sub-controls 1, 3 & 4 for technology for active flight control systems re-written; sub-entry 2 deleted; Note under 3 amended; New Notes added to control and sub-entry 4.
7E004.b.6 & <i>NB</i>	WA13	Control entry and Nota Bene deleted.

Category 8		
8A002.c	WA11	Control entry amended to delete fibre optic connectors.
8A002.i.2 & <i>Tech Note</i>	WA13	Sub-paragraph for control entry for articulated manipulators amended; Technical Note amended.
8A002.q. <i>Nota Bene</i>	WA13	New Nota Bene to underwater diving equipment.

Category 9		
9A001.a. <i>Notes 1 & 2</i>	WA13	New Note 2 for aero engines; Original Note renumbered as 1.

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9A012, a., b., b.1., b.2., b.3. & b.4.	WA11	Control entry amended to include airships; Associated systems amended to related systems; UAV navigation/control systems control amended.
9A101.a.1., a.2. & <i>Tech Note</i>	MTCR12 & 13	Control entry for turbo jet and turbo fan engines amended to include a local definition; new Technical Note.
9A102 <i>Tech Note 2</i>	MTCR13	Technical Note to turbo engine systems amended.
9A105.a. & b.	MTCR13	Control entry on liquid propellant rocket engines amended;
9A106.d.	MTCR13	Control entry on propellant control systems amended.
9A117 <i>N.B.</i>	MTRC12	New Nota Bene referencing 9A121 added to control entry for staging mechanisms for missiles.
9A121 & <i>Tech Note</i>	MTCR12	New control for missile/rocket connectors, including new Technical Note
9B105, <i>Note & Tech Notes 1, 2 & 3</i>	MTCR12	Control on wind tunnels expanded to include shock tunnels; New Note and 2 Technical Notes added; original Technical Note renamed 3.
9B106.a.2.	MTCR13	Control entry on chambers incorporating shaker units amended.
9D004.d. & <i>Note</i>	WA11	Control entry and Note for software relating to rotor blade tip clearance control deleted.
9D004.e.	WA11	Control entry amended to only capture operation software for UAVs.
9E <i>Note</i>	WA11	Note amended for technology relating to turbines engines.
9E002.a.2., a., b., c., d., <i>Note, Tech Note & N.B.</i>	WA11	Control entry relating to technology for combustors rewritten to include 4 new sub-paragraphs; new Note, Technical Note and Nota Bene.
9E003.a.5 & <i>Tech Notes 1, 2.</i>	WA12	Control entry amended for cooled turbine blades technology; new Technical Note added; original Technical note re-numbered as 2.
9E003.c., <i>Note & Tech Notes</i>	WA11	Control entry relating to cooling hole technology amended and rewritten; 2 sub-paragraphs; Note and 4 Technical Notes
9E003.h.	Edit	Minor editorial correction.
9E101.a. & b.	MTCR12	Control entry for MTCR technology amended to include new control 9A121
9E101	MTCR11 & 12	Control entry for MTCR technology amended to include new controls 9A120 and 9A121
9E102	MTCR11 & 12	Control on technology amended to include 9A120 and 9A121

Annex IV		
No amendments		

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