INTRODUCTION

This document summarises proposed amendments to Annexes I and IV of Council Regulation (EC) No. 428/2009 (as amended by Regulation (EU) No. 1922/2018) to implement the changes in the control lists of the various international fora on non-proliferation.

OVERVIEW

The changes proposed are a result of the reviews carried by the Wassenaar Arrangement, Missile Technology Control Regime (MTCR) over 2018. There are also a number of editorial amendments.

Publically available Regime documents containing the changes are:

WA – List of Dual-Use Goods and Technologies and Munitions List (WA-LIST (18) 1)

MTCR – Equipment, Software and Technology Annex dated 22 March 2018 (MTCR/TEM/2018/Annex)

MTCR – Equipment, Software and Technology Annex dated 30 November 2018 (MTCR/TEM/2018/Annex)

Please note there are no recorded changes for the Nuclear Suppliers Group (NSG) or Australia Group (AG) over 2018.

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POINTS OF PARTICULAR INTEREST

Your attention is drawn to the following proposed changes that are not a straight forward implementation the 2018 Regime changes:

6A108.c. - new control for certain radomes has been created. The radome control in MTCR (M18A3) isn't new but no corresponding control could be found in the Annex.

4A101 – the double quotes around hybrid computers has been removed as this isn't a defined term in MTCR. It is believed that there was once such a defined term in WA but this was removed a number of years ago.

7A103.c. – The acronym for "CEP" has been amended in MTCR to "Circular Error Probable", thus the control text can now use the global "CEP" definition found in WA.

9A106.b. – The MTCR change to 3A3 has highlighted the fact that the Annex incorrectly had a control for liquid and gel rocket motor casings, insulators and nozzles. This has now been removed.

9A108 - The MTCR change to 3A3 has highlight the fact that the Annex was missing control on hybrid rocket motor casings, insulation components and nozzles. The control has now been amended to include them.

EDITORIAL PRACTICES

In the draft documents a full stop (period) is used to separate the whole numbers from the decimals, and whole numbers are presented in a series of three, each series being separated by a thin space.

The publication in the Official Journal of the European Communities will use a comma to separate the whole numbers from the decimals.

Regime references are included in the margins of each control entry of the drafts to aid understanding of where they originate and where the controls are relevant to more than one Regime. These will not appear in the published Annex.

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SUMMARY OF CHANGES FOR EACH SECTION OF ANNEX I:

Bracketed terms mean the definition, Note or control entry has completely disappeared from Annex.

Contents, Notes & Acronyms	Regime	Comment
ENOB	WA	New entry for Effective Number of Bits
EUV	WA	New entry for Extreme Ultraviolet
HEMT	WA	"s" deleted for "Transistors"
PDK	WA	New entry for Process Design Kit
QE	WA	New entry for Quantum Efficiency
rms	Edit	New entry for root mean square
ROIC	WA	New entry for Read-out Integrated Circuit

Definition		
"CEP"	Edit	Definition of CEP amended to lead with acronym
"Circular Error Probable"	Edit	Definition moved to "CEP"
"Cryptography"	WA	New Note 2 added. Existing Note renumbered 1
"Linearity"	Edit	Definition returned as it was removed in 2018 under WA changes but is still needed for NSG controls
"Satellite navigation system"	WA	New definition
"Vacuum electronic devices"	WA	New definition

Category 0		
0B001.b.11.	Edit	Minor editorial change.
0B001.c.3	Edit	Minor editorial change.
0B001.e.1.	Edit	Minor editorial change.
0B001.e.2.	Edit	Minor editorial change.
0B001.f.1.	Edit	Minor editorial change.
0B001.g.3.	Edit	Minor editorial change.
0B002.g.	Edit	Minor editorial change.
0B004.b.2	Edit	Minor editorial change.
0B004.b.6.	Edit	Minor editorial change.
0C005	Edit	Minor editorial change.

Category 1		
1C001.a. Note 1 & Tech	WA	New para. e. and new Technical Note for the local definition of
Note		'open-cell foams'
1A004	Edit	Comma added to remain consistent with regime text
1A007.c.2.	Edit	Comma removed to remain consistent with regime text

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1C107.f.	Edit	Full stop added after control entry
1C350.1. to 65.	Edit	'CAS' added before the number in each entry.
1C353.b.	Edit	Sub-entry b returned for clarity on previous change, 'not used'

Category 2		
2A001 Note	WA	2001 added after ISO 3290. "G" added before "5"
2A001.a.	WA	"or Class 2" added after "Class 4"
2A101	MTCR	"of" added after "having all"
2B003	WA	Gear machine tool entry amended including a cascaded structure for the control criteria
2B006.b.1.	WA	Entry for linear displacement measuring instrument amended including a new Technical Note 2 for the local definition of 'measuring range'
2B109.a.1.	Edit	Comma added to remain consistent with regime text
2B226	Edit	Comma added to remain consistent with regime text
Table – Deposition Techniques – <i>Tech. Note</i> <i>b.4.</i>	WA	Full stop changed to a semi-colon at the end of the paragraph

Category 3		
3A Note 2	WA	Comma added after "3A001.a.14." to ensure that the description applies to ICs in all entries referenced.
3A Note 3	WA	Note 3 for wafers added, was under 3A001.a.
3A001.a. (<i>Note</i> 1) & Note	WA	Note 1 moved to 3A as Note 3; Note 2 renamed Note
3A001.a.2. <i>Note</i>	WA	"designed" added after "integrated circuits"
3A001. <u>a.</u> 5.b.	WA	DAC entry amended to avoid overlapping of the controls between 3A001.a.5.b.1. and 3A001.a.5.b.2.
3A001.b. Tech Note	WA	Deleted since the local definition of 'vacuum electronic devices' has become a global definition. Technical Note 1 renamed Technical Note
3A001.b.1. & Notes 1 & 2	WA	"Vacuum electronic device(s)" now global definition.
3A001.b.1.a., b., c., d. & Technical Note	WA	"Vacuum electronic device(s)" now global definition.
3A001.b.2.	WA	MMIC amplifiers now Wassenaar Sensitive – regime reference amended.
3A001.b.2.b.1.	WA	Space added between "10" and "W"
3A001.b.2.b.2.	WA	Space added between "5" and "W"
3A001.b.3.	WA	Microwave transistors now Wassenaar Sensitive – regime reference amended.
3A001.b.3.f.	WA	New entry for 'other' microwave transistors; "or" moved from the end of 3A001.b.3.d. to the end of 3A001.b.3.e.
3A001.b.3. <i>Note 1</i>	WA	Note amended
3A001.b.8	WA	"Vacuum electronic device(s)" now global definition.
3A001.b.9.	WA	"Vacuum electronic device(s)" now global definition.
3A002.a.6.b.	WA	Digital data recorders entry amended to clarify signal processing
3A002.c.4.b.1.	Edit	Comma added to remain consistent with regime text

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3A002.d.5. & Tech Note	WA	Signal generator entry expanded including sub-paras. a., b. and c. plus a Technical Note for the local definition of 'RF modulation bandwidth'.
3A002.d.6.	WA	New entry for signal generators over 90 GHz. "or" moved from the end of 3A002.d.4.b. to the end of 3A002.d.5.c.
3B001.h.	WA	Multi-layer mask control amended; sub-entry 1 deleted and sub- entry 2 combined into control
3D005	WA	New entry for software designed to restore operation of microcomputers/microprocessors after EMP or ESD disruption.
3E003.g.	WA	"Vacuum electronic device(s)" now global definition.

Category 4		
4A102	Edit	Double quotes removed from hybrid computers as not a defined term in MTCR
4E001 Note 1	Edit	Minor amendment

Category 5 Part 1		
No Changes		
Category 5 Part 2		
5A002. N.B.	WA	"Satellite navigation system" replaces Global Navigation Satellite Systems (GNSS)
5A002.a.	WA	'described security algorithm' replaces 'in excess of 56 bits of symmetric key length, or equivalent'
5A002.a.4.;	WA	'described security algorithm' replaces 'in excess of 56 bits of symmetric key length, or equivalent'
5A002.a. Tech Note 2;	WA	Tech Note now outlines 'described security algorithm' rather than 'in excess of 56 bits of symmetric key length, or equivalent'
5A002.a. Note 2.a.1.a.1.b.	WA	'described security algorithm' replaces 'in excess of 56 bits of symmetric key length, or equivalent'
5A002.a. Tech Note 2.c.	WA	New Note for "asymmetric algorithm"; including sub-paras 1., 2. & 3. and a Technical Note.
5A002.a., <i>Note 2.j.</i>	WA	New decontrol Note for items specially designed for a 'connected civil industry application'; includes sub-paras. 1. & 2. and Technical Notes 1 & 2
5A002.b. & Tech Note	WA	Cryptographic activation token entry rewritten including a Technical Note for the local definition of 'cryptographic activation token'
5D002.b.	WA	Cryptographic activation token software entry rewritten
5E002.b.	WA	Cryptographic activation token technology entry rewritten

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Category 6		
6A001.a.1.c.	Edit	Comma added to remain consistent with regime text
6A001.a.2. Note	WA	Note referring to receiving equipment is moved from the end of
		the 6A001.a.2. entries to under the chapeau
6A001.a.2.a. <i>Tech Note 1</i>	WA	New Technical Note 2 for acoustic transducers; existing
& 2		Technical Note numbered 1
6A001.a.2.a.6.	WA	Hydrophone sensitivity' parameter added to those operating over
510001 11 17 01 1	****	1000m.
6A003.b.4.b. <i>Note 3.b.1</i> .	WA	Parameter changed from 10 to 2 mrad for the decontrol of certain
64.005 N 6	****	imaging cameras.
6A005 Note 6	WA	New Note 6 for lasers defining 'Single transverse mode' and
CA005 - 2 - 0 1	XX 7 A	'Multiple transverse mode'
6A005.a.3.a. & b.	WA	Local definition for 'single transverse mode' and 'Multiple
6A005.a.5.a. & b.	WA	transverse mode'.
6A003.a.3.a. & 6.	WA	Local definition for 'single transverse mode' and 'Multiple transverse mode'.
6A005.a.6.a. & b.	WA	Local definition for 'single transverse mode' and 'Multiple
0A003.a.o.a. & 0.	WA	transverse mode'.
6A005.a.6.a.	WA	Entry amended including new sub-paras. 1. and 2.
6A005.a.6.b.1.	WA	Parameter changed from 500 to 1,000 W
6A005.a.6.b. <i>Note 1</i> &	WA	Local definition for 'single transverse mode' and 'Multiple
Note 2		transverse mode'.
6A005.a.6.b. <i>Note</i> 2	WA	Sub-paras. a., f. and g. deleted; sub-para. e. parameter changed
011003.4.0.0.11010 2	''''	from 4 to 6 kW
6A005.a.7.a. & b.	WA	Local definition for 'single transverse mode' and 'Multiple
		transverse mode'.
6A005.a.9.a. & b.	WA	Local definition for 'single transverse mode' and 'Multiple
		transverse mode'.
6A005.b.3.a. & b.	WA	Local definition for 'single transverse mode' and 'Multiple
		transverse mode'.
6A005.b.5.a., b. & c.	WA	Local definition for 'single transverse mode' and 'Multiple
		transverse mode'.
6A005.b.6.c. & d.	WA	Local definition for 'single transverse mode' and 'Multiple
		transverse mode'.
6A005.b.7.a. & b.	WA	Local definition for 'single transverse mode' and 'Multiple
		transverse mode'.
6A005.b.9.a. & b.	WA	Local definition for 'single transverse mode' and 'Multiple
		transverse mode'.
6A005.d.1.b.	WA	Comma deleted after "Individual"
6A108	Edit	Radomes added to chapeaux
6A108.c.	Edit	New control added for radomes.
6B002	WA	New entry for masks and reticles designed for 6A002 optical
50004 4	F 11	sensors.
6C004.e.1.	Edit	Minor editorial change.

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Category 7		
7A002.a.1. & 2.	WA	Minor Amendment in gyros and angular rate sensor control
7A003. Technical Note a.	WA	"Satellite navigation system" replaces Global Navigation Satellite Systems (GNSS)
7A005	WA	GNSS replaced
7A005.b. <i>Note</i>	WA	GSNN replaced
7A101	Edit	Minor text change to chapeaux to align with MTCR
7A103.c.	MTCR	MTCR now use same acronym for "CEP" as WA.
7A103.d.	Edit	Minor text change to chapeaux to align with MTCR
7A116	Edit	Comma added to remain consistent with regime text
7A117 & Tech Note	Edit	CEP amended to 'Circle of Equal Probability' to align with
		MTCR; new local defintion.
7D003.b.2	WA	GNSS replaced
7D005	WA	GNSS replaced

Category 8		
8A001.b.1.	Edit	Minor text change.
8A001.c.	WA	Entry for underwater submersible vehicles rewritten, removing reference to tether/untethered.
8A001.d.	WA	Entry deleted and combined with revised 8A001c; now not used.
8A002.d.	WA	Control for underwater vision systems restructured.
8B001	WA	Entry for water tunnel for measuring acoustic field amended

Category 9		
9A003 Note 2	Edit	Editorial correction
9A004	WA	Air-launch platforms added to chapeaux
9A004.g.	WA	New entry for air-launch platforms for space launch
9A010.d. & Tech Note	WA	'response time' made into a local definition with corresponding Technical Note
9A012	Edit	Comma removed to remain consistent with regime text
9A106.b.	Edit	Sub-control deleted as these items only controlled for solid and hybrid propulsion systems in MTCR.
9A107	Edit	Text changed to 'motors' to align with MTCR.
9A108	Edit	Hybrid rocket propulsion systems added to chapeaux.
9A108.a.	Edit	Control references to hybrid rocket motors added to control on motor cases and insulation components.
9A108.b.	Edit	Control references to hybrid rocket motors added to control on nozzles.
9A111 & Tech Note	MTCR	Entry rewritten to include detonation engines. New Technical Note for clarification of detonation engines
9A112.b. Tech Note 1	Edit	Remove double quotes around payload.
9A120	Edit	Comma removed to align with MTCR text.
9B001	WA	Entry for gas turbine engine blade manufacturing equipment amended
9B106.a.	Edit	Minor text change to align with MTCR.

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9D103	Edit	Comma added to remain consistent with regime text
9E003.a.7.	WA	Entry deleted for technology for diffusion bonding fo gas turbine
		engine components

Annex IV		
1C101	Edit	Minor Annex I alignment amendment
1A007	Edit	Minor Annex I alignment amendment
3E201	Edit	Minor Annex I alignment amendment
6A001.a.2.e.	Edit	Minor Annex I alignment amendment
5D002.a.3	Addition	Control added for software for cryptanalytic equipment
5E002.a.	Addition	Technology control amended to add 5D002a3.
7A117 & Tech Note	Edit	CEP amended to 'Circle of Equal Probability' to align with
		MTCR; new local definition.
7B001 <i>Note</i>	Edit	Minor Annex I alignment amendment
9D101	Edit	Minor Annex I alignment amendment
0C002	Edit	Minor Annex I alignment amendment
1C012	Edit	Moved to correct position.

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