### EXPLANATORY STATEMENT

# **Issued by the Authority of the Minister for Defence**

Customs Act 1901
Defence and Strategic Goods List 2019

The *Defence and Strategic Goods List 2019* (DSGL) is the document formulated and published under paragraph 112(2A)(aa) of the *Customs Act 1901* by the Minister for Defence, as defined in regulation 2 of the Customs (Prohibited Exports) Regulations 1958. The DSGL repeals and replaces the Defence and Strategic Goods List 1996.

The DSGL is a legislative instrument for the purposes of the *Legislation Act 2003*, and will commence operation the day after registration.

# Sunsetting of the DSGL

In accordance with section 50 of the *Legislation Act 2003*, legislative instruments, other than exempt instruments, are automatically repealed or 'sunset'. The DSGL 1996 was registered on 2 December 2008 and in accordance with subsection 50(1) of that Act will be automatically repealed on 1 April 2019.

The purpose of the DSGL is to list goods and technologies subject to export control and provides guidance to multiple agencies. The DSGL underpins Australia's export controls and is required to ensure that Australia remains compliant with its international obligations. Therefore, it is essential that the DSGL 2019 replaces the DSGL 1996.

## Overview and purpose

The DSGL is a centrepiece of Australia's export control system. The purpose of the DSGL is to list the military and dual-use goods and technologies that are subject to export control regulation in Australia.

The DSGL is used by exporters and suppliers to identify which goods and technology are prohibited from being exported, supplied, published, or brokered without a permit first being obtained.

Defence Export Controls (DEC) is responsible for administering Australia's export controls and regulates the following:

- the export of military and dual-use goods and software;
- the supply and publication of technology; and
- the brokering of goods and technology

that are listed in the DSGL.

In accordance with Australia's export control system, DEC grants authorisations to export, supply, publish and broker in the form of permits and approvals. DEC's mission is to ensure Australia exports responsibly. Detailed information on its roles and functions is available on the DEC website: www.defence.gov.au/ExportControls/

The DSGL is updated from time to time to ensure that it remains current.

The last amendment to the DSGL was made in March 2018.

#### **Construct of the DSGL**

The DSGL is comprised of listed goods, software and technology that are derived from the control lists developed by multilateral non-proliferation and export control regimes of which Australia is a Participating State. It includes equipment, assemblies and components, associated test, inspection and production equipment, materials, chemicals, software and technology. It is divided into two parts.

Part 1 covers military and related goods – those goods, software and technologies designed or adapted for use by armed forces or goods that are inherently lethal. These goods include:

- Military Goods, being goods, software or technology that is designed or adapted for military purposes, including their parts and accessories; and
- Non-Military Lethal Goods, being equipment that is inherently lethal, incapacitating
  or destructive, such as non- military firearms, non- military ammunition and
  commercial explosives and initiators.

Part 2 covers those goods that have a dual use. Dual-use goods comprise equipment, software and technologies developed to meet commercial needs but which may be used either as military components or for the development or production of military systems or weapons of mass destruction.

Part 2 is further subdivided into 10 categories:

- Category 0 Nuclear Materials;
- Category 1 Materials, Chemicals, Micro-organisms and Toxins;
- Category 2 Materials Processing;
- Category 3 Electronics;
- Category 4 Computers;
- Category 5 Telecommunications and Information Security;
- Category 6 Sensors and Lasers;
- Category 7 Navigation and Avionics;
- Category 8 Marine; and

• Category 9 – Aerospace and Propulsion.

<sup>1</sup> Australia is a Participating State of the Wassenaar Arrangement, the Missile Technology Control Regime, the Australia Group and the Nuclear Suppliers Group.

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## **Documents Incorporated by Reference**

Several controls in the DSGL refer to internationally recognised testing methods, regulations and standards to define control parameters. These are managed by various international organisations. The standards are generally held by the National Library of Australia and are available free-of-charge to members of the public for loan. Alternatively the Standards are available for purchase from the web links below. Where a standard is not freely and readily available at the National Library of Australia, DEC will provide advice regarding the contents of the standard on request.

The documents referred to in the DSGL 2019 are incorporated as in force at the time of the commencement of this instrument.

International Organization for Standardization (ISO): This is a network of national standard bodies of which Australia is a member. ISO Standards are available for purchase through the ISO website at www.iso.org

International Telecommunications Union (ITU): This is a specialised agency of the United Nations. The ITU Radio Regulations include internationally recognised allocations for the use of different bands of the radio frequency spectrum. The ITU Radio Regulations are available free-of-charge on the ITU website at www.itu.int/pub/R-REG-RR-2012

Institute of Electrical and Electronics Engineers (IEEE): This is a professional association that has a standards function. IEEE Standards are available for purchase at https://www.ieee.org/standards/index.html

World Health Organisation (WHO) Laboratory Biosafety Manual, 3<sup>rd</sup> edition, Geneva, 2004: This document is published by the WHO and provides guidance on biosafety techniques for use in laboratories at all levels. It is available free-of-charge at http://www.who.int/csr/resources/publications/biosafety/WHO CDS CSR LYO 2004 11/e n/

American National Standards Institute: This is a US-focused standards system, with standards available for purchase at www.ansi.org

ASTM (American Society for Testing and Materials) International: This is an international standards organisation, with standards available for purchase at www.astm.org

American Bearing Manufacturers Association (ABMA): This organisation published standards specific to bearings, with standards available at www.americanbearings.org

## Analysis of the changes in the Defence and Strategic Goods List 2019

The structure of the DSGL 2019 is the same as the DSGL 1996. The content of the 2019 DSGL replicates much of the content of the DSGL 1996 with 70 notable amendments.<sup>2</sup> The majority of these amendments can be categorised as either new controls, deletions of previously existing controls, or modifications to existing controls.

As outlined below, of these 70 amendments:

- 23 remove or reduce the requirement to obtain an approval prior to export;
- 13 introduce new controls or expand the scope of existing controls; and
- 34 are clarifications that do not involve a scope change.

<sup>&</sup>lt;sup>2</sup> This number does not include minor editorial or typographical changes

DEC has assessed that overall, the amendments will have a limited impact on Australian exporters and researchers. Consultation on these amendments occurred previously at the export control regime proposal stage. The amendments do not substantially alter the nature or overall purpose of the DSGL.

The amendments that result in effective changes to the DSGL are discussed below. Minor editorial changes where the scope of the control has not changed are not discussed here. Some global definitions have been deleted from the Definitions section. These have been replaced by local definitions in the form of technical notes.

### **Munitions List**

ML1.d: Simplification of text around optical weapon sights.

Impact: None - clarification only.

ML8.a.42: New entry for EDNA (Ethylenedinitramine) (CAS 505-71-5) as an energising material.

Impact: Will introduce the requirement for an approval to be obtained before exporting this item. In addition, technology and software required for the development, production or use of these items will also require an approval.

ML8.c.1 & ML8.c.10.b: Removal of control for aircraft fuels JP-4, JP-5 and JP-8. These are no longer considered military fuels.

*Impact: Will reduce the requirement for an approval.* 

ML8.e.19-21: New entries for:

4,5 diazidomethyl-2-methyl-1,2,3-triazole (iso- DAMTR)

PNO (Poly(3-nitrato oxetane))

TMETN (Trimethylolethane trinitrate) (CAS 3032-55-1)

Impact: Will introduce the requirement for an approval to be obtained before exporting these chemicals.

ML9.b.1: Simplification of text around the control of diesel engines specially designed for submarines and removal of the requirement for engines to meet power output and rotary speed thresholds.

Impact: Will expand the requirement for an approval to be obtained before exporting these engines.

ML15: Removal of an example list of countermeasure and counter-countermeasure components. There is difficulty in keeping such lists up-to-date with technology advances.

*Impact: None - clarification only.* 

ML17.1: Change of generic text controlling containers to specify ISO intermodal containers and demountable vehicle bodies (i.e. swap bodies).

*Impact: Will reduce the requirement for an approval.* 

# Category 0 - Nuclear Materials, Facilities and Equipment

0B006: Additional text to specify that both element decladding equipment and chopping machines are controlled.

Impact: None - clarification only.

# Category 1 – Materials, Chemicals, Microorganisms and Toxins

1A002: Additional text to clarify that 1C010.e are prepregs or preforms.

Impact: None - clarification only.

1C001: Replacement of the word "waves" for more accurate word "radiation".

Impact: None - clarification only.

1C001.b: Rearrangement of text and inclusion of wavelength values which are related to the already stated frequency values (through the speed at which light travels).

Impact: None - clarification only.

## **Category 2 – Materials Processing**

2A001.a: Insertion of reference to national equivalent standards in the decontrol note as an alternative to the ISO standard

Impact: None - clarification only.

2B001.c.1.b: Change of text to only include three and four axes machine tools, as five or more axes are included in 2B001.c.2.

*Impact: None - clarification only.* 

2B006 & 2B008: Two sections in 2B008 have been removed from this section and added to 2B006 where there was more commonality with equipment. 2B006 was rearranged for clarity. Addition of text to 2B008 for clarity.

Impact: None - an expansion of one section and reduction of another – resulting in overall little change in requirements for approvals.

2B007.a: Removal of control relating to robots capable of 3D image processing or 3D scene analysis.

*Impact: Will reduce the requirement for an approval.* 

2B206.b.2.b: Inclusion of values in degrees Celsius (where values were already stated in Kelvin)

*Impact: None - clarification only.* 

2E003.a: Decontrol of technology for the development of interactive graphics as an integrated part in numerical control units for preparation or modification of part programs.

*Impact: Will remove the requirement for an approval.* 

2E003.d: Decontrol of technology for the development of generators of machine tool instructions from design data residing inside numerical control units.

Impact: Will remove the requirement for an approval.

# Category 3 – Electronics

3A001.a.2: Removal of electrical erasable programmable read-only memories (EEPROMs), flask memories and magnetic random access memories (MRAMs) from electrical component control.

*Impact: Will reduce the requirement for an approval.* 

3A001.a.7: Removal of Simple Programmable Logic devices (SPLDs) from electrical component control.

*Impact: Will reduce the requirement for an approval.* 

3A001.a.14: Additional text to clarify control of integrated circuits and explanatory technical notes.

Impact: None - clarification only.

3A001.b.4: Insertion of internal reference to another section for related controls.

*Impact: None - clarification only.* 

3A001.e.1: Removal of the term "secondary cell" under high energy devices and additional of text and technical note for clarification.

Impact: None - clarification only.

3A001.i: New entry for intensity, amplitude and phase electro-optic modulators designed for analogue signals, and related technical note.

Impact: Will introduce the requirement for an approval.

3A002.c.1: Reduction of the control frequency range for signal analysers.

Impact: Will reduce the requirement for an approval.

3A002.h: Additional technical notes related to the determination of resolution and sample rate of electronic assemblies.

Impact: None - clarification only.

3B001.j: New entry for mask substrate blanks with a multilayer reflector structure consisting of molybdenum and silicon, and related technical note.

*Impact: Will introduce the requirement for an approval.* 

3B002.a: Reference to testing above 31.8 GHz removed and replaced with reference to items specified by 3A001.b.3. This expands the control of test equipment as a greater range of frequencies are specified.

*Impact: Will expand the requirement for an approval.* 

3B002.c: Change of text for consistency with internal reference.

*Impact: None - clarification only.* 

3C002.a.1: Reduction of control for resists used in semiconductor lithography for use at wavelengths between 15nm and 193nm (previously 245nm).

*Impact: Will reduce the requirement for an approval.* 

3C005: Restructure of section which includes a new entry for polycrystalline substrates and polycrystalline ceramic substrates.

Impact: Will introduce the requirement for an approval. In addition technology required for the development, production or use of these items also requires an approval.

3C006: Additional text to clarify control of substrates with at least one epitaxial layer of silicon carbide, gallium nitride, aluminium nitride or aluminium gallium nitride.

*Impact: None - clarification only.* 

3E001 Note 1: Addition of a decontrol for some Process Design Kits.

Impact: Will reduce the requirement for an approval.

### **Category 4 – Computers**

4A003.b: Reduction in the threshold for control for digital computers from an adjusted peak performance exceeding 16 Weighted TeraFLOPS to 19 Weighted TeraFLOPS.

Impact: Will reduce the requirement for an approval.

4D001.b.1 & 4E001.b.1: Reduction in the threshold for control of software and technology for digital computers from an adjusted peak performance exceeding 8 Weighted TeraFLOPS to 15 Weighted TeraFLOPS.

Impact: Will reduce the requirement for an approval.

4D004: Decontrol of updates, meeting certain criteria, for software related to the generation, command and control, or delivery of intrusion software.

Impact: Will reduce the requirement for an approval.

# **Category 5 Part 1 – Telecommunications**

5A001.a.2: Restructure of section relating to controls for telecommunications specially designed to function at extreme temperatures.

*Impact: None - clarification only.* 

5A001.d Note 2: Decontrol of antenna specially designed for civil cellular or WLAN radio-communications systems, iEEE802.15 or wireless HDMI, and fixed or mobile satellite earth stations for commercial civil telecommunications.

*Impact: Will reduce the requirement for an approval.* 

# **Category 5 Part 2 – Information Security**

5A002.a: Addition of text to clarify that cryptographic equipment is only controlled if the encryption has been activated or can be activated by means of cryptographic activation not employing a secure mechanism.

Impact: None - clarification only.

5A002.b & 5D002.b: Insertion of internal references to other sections for related controls to clarify the control.

Impact: None - clarification only.

# **Category 6 – Sensors and Lasers**

6A002.f: New entry for read-out integrated circuits specially designed for focal plane arrays specified by 6A002.a.3, and addition of a technical note.

Impact: Will introduce the requirement for an approval.

6A003.a.1 & 6A003.a.2: Removal of controls relating to high speed cinema recording cameras and mechanical high speed cameras.

Impact: Will reduce the requirement for an approval.

6A003.a.3: Removal of control relating to mechanical streak cameras.

Impact: Will reduce the requirement for an approval.

6A004.f & 6A005.f.1: New entry for dynamic wavefront measuring equipment under optical equipment and components. Removal of control for dynamic wavefront measurement under lasers, components and optical equipment.

Impact: None - an expansion of one section and reduction of another – resulting in overall little change in requirements for approvals.

6A005.f.2: Addition of text to clarify the threshold of control of laser diagnostic equipment using angular accuracy.

Impact: None - clarification only.

6A005.f.3: Addition of text to clarify the threshold of control of optical equipment and components specially designed for coherent beam combination in a phased-array SHPL system using accuracy.

Impact: None - clarification only.

6A008.e: Name change to electronically scanned array antennae and addition of a technical note to describe alternative name.

Impact: None - clarification only.

## Category 7 – Navigation and Avionics

None.

# Category 8 – Marine

None.

# **Category 9 – Aerospace and Propulsion**

9A002: Simplification of text relating to marine gas turbine engine controls and addition of new technical note to define corrected specific fuel consumption.

Impact: None - clarification only.

9A004.f.1 & 9A004.f.2: Change of generic text controlling terrestrial equipment specially designed for spacecraft to specific descriptions reducing the scope of the control.

Impact: Will reduce the requirement for an approval.

9D001 & 9D002: Insertion of internal references to other sections for related controls to clarify the control.

Impact: None - clarification only.

9D004.b: Restructure of section relating to control of aero gas turbine engine software and new entry for control of software related to multi-stage compressors related to aforementioned engines.

Impact: Will introduce the requirement for an approval.

#### **Sensitive List**

Amendments to controls in the main body of the DSGL have been duplicated in the Sensitive List for relevant sections.

6A001.a.1.b: Addition of active individual sonars to the sensitive list.

*Impact: Will expand the requirement for an approval.* 

# **Very Sensitive List**

Amendments to controls in the main body of the DSGL have been duplicated in the Very Sensitive List for relevant sections.

### Consultation

DEC has assessed that overall the amendments will have minimal impact on Australian exporters and researchers.

DEC's domestic consultation process began at the point in time that proposals for change were submitted to the regimes. This consultation covered both Australia-initiated proposals and proposals by other regime members ('foreign proposals'). DEC's regulatory stakeholder consultation process involved consultation both within government and also with industry and academia. DEC maintains a register of interested parties who can be consulted on proposals that impact their interests. DEC also used its own data, data from the Australian Border Force, data from the Australian Research Council, and advice from other Government agencies, to identify potentially impacted exporters and researchers.

DEC identified a number of stakeholders potentially affected by proposals and sought their advice as to how the proposal would impact their business or research. DEC considered stakeholder responses when formulating Australia's position on each of the regime proposals by using it to strike an appropriate balance between national and global security

considerations and the impact on Australian industry and researchers. No stakeholders opposed the proposed changes.	

# **Statement of Compatibility with Human Rights**

Prepared in accordance with Part 3 of the Human Rights (Parliamentary Scrutiny) Act 2011

### **Defence and Strategic Goods List 2019**

This Legislative Instrument is compatible with the human rights and freedoms recognised or declared in the international instruments listed in section 3 of the *Human Rights (Parliamentary Scrutiny) Act* 2011.

### **Overview of the Legislative Instrument**

This Legislative Instrument repeals and replaces the Defence and Strategic Goods List 1996 (DSGL).

The instrument updates the DSGL so that it aligns with the changes that have been made to the international control lists for the non-proliferation and export control regimes of which Australia is a member.

The update to the DSGL ensures that Australia's regulatory framework for export controls reflects international best practice and continues to support the responsible export and supply of defence and dual-use goods and technologies.

The Legislative Instrument does not introduce any amendments that substantially alter the nature or purpose of the DSGL in any way.

### **Human rights implications**

This Legislative Instrument does not engage any of the applicable rights or freedoms.

### Conclusion

This Legislative Instrument is compatible with human rights as it does not raise any human rights issues.

The Hon Christopher Pyne MP, Minister for Defence