

EXPLANATORY STATEMENT

Issued by the Authority of the Minister for Defence

Customs Act 1901 Defence and Strategic Goods List Amendment Instrument 2018

The *Defence and Strategic Goods List Amendment Instrument 2018* updates the Defence and Strategic Goods List (DSGL) which is the document formulated and published under paragraph 112(2A)(aa) of the *Customs Act 1901* by the Minister for Defence.

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

Overview and purpose

In many ways, the DSGL is the 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 DSGL Technology; and
- the brokering of goods and technology

that are listed in the DSGL.

DEC grants authorisations to export, supply, publish and broker in the form of permits, licences and approvals. DEC's mission is to ensure Australia exports responsibly and 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 November 2016.

Construct of the DSGL

The DSGL is comprised of listed goods, software and technology that are derived from the control lists developed by the multilateral non-proliferation and export control regimes of which Australia is a member.¹ It includes equipment, assemblies and components, associated

¹ Australia is a member of the Wassenaar Arrangement, the Missile Technology Control Regime, the Australia Group and the Nuclear Suppliers Group.

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 the armed forces or goods that are inherently lethal. These goods include:

- Military Goods, that is, those goods, software or technology that are designed or adapted for military purposes including parts and accessories thereof; and
- Non-Military Lethal Goods, that is, 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.

The amendments

This amending legislative instrument contains 99 amendments to the DSGL.² The majority of these amendments can be categorised as either new controls, deletions of previously existing controls, or modifications to existing controls.

Of these 99 amendments, 46 are changes which remove or reduce the requirement to obtain an approval prior to export, and 30 of the amendments are either new controls or changes to existing controls that result in an expanded scope. The remaining 23 amendments are clarifications that do not involve a scope change.

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.

² This number does not include minor editorial or typographical changes

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 and their use is derived from the control lists of the multilateral non-proliferation and export control regimes. 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 are incorporated as in force at the time of the commencement of the 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, 3rd 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/en/

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 Amendment Instrument 2018*

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.

Munitions List

ML7.a: Rearrangement of this control on weaponised biological agents and radioactive materials to make it clearer, including a new definition for “biological agent”. The scope is unchanged.

Impact: None - clarification only.

ML8.a.40 & 41: New controls for the explosives below, and associated software and technology:

- BTNEN (Bis(2,2,2-trinitroethyl)-nitramine) (CAS 19836-28-3)
- FTDO (5,6-(3',4'-furazano)- 1,2,3,4-tetrazine-1,3-dioxide).

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

ML8.c.3: Rearrangement of this control on boranes and their derivatives. The scope is unchanged.

Impact: None - clarification only.

ML8.h: New control for reactive material powders and structures made from those powders. Powders of aluminium, niobium, boron, zirconium, magnesium, titanium, tantalum, tungsten, molybdenum and hafnium, with a particle size less than 250 micrometres, are now controlled, in addition to structures (shapes) made from those powders. Associated software and technology is also controlled.

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

ML10.d Note 2.a: Explicit decontrol of aircraft engine components where that engine has been certified by civil aviation authorities for use in civil aircraft by one or more members of the Wassenaar Arrangement.

Impact: None - clarification only.

ML13.c: Decrease in the scope of control for military helmet components. The components captured by this control are now limited to shells, liners and comfort pads. However note that other components and accessories may still be captured elsewhere in the Munitions List (e.g. thermal and night vision sights and attachments therefor).

Impact: Will reduce the requirement for an approval.

Category 0 – Nuclear Materials, Facilities and Equipment

There have been several minor amendments and restructures to this Category based on a recent review by the Nuclear Supplier Group, however the scope has not changed. The control for frequency changers specially designed for gas centrifuge use has been reinserted as 0B001.b.13 after an unintentional removal – however these remained controlled elsewhere in the Dual-Use List under the broader scope of 3A225.

Impact: None - clarification only.

Category 1 – Materials, Chemicals, Microorganisms and Toxins

1A001: Decontrol of the following items made from fluorinated compounds:

- Components made from piezoelectric polymers and copolymers made from vinylidene fluoride materials
- Seals, gaskets, valve seats bladders and diaphragms made from fluoroelastomers.

Impact: Will remove the requirement for an approval.

1A004: Rearrangement of this control on nuclear, biological and chemical protection and detection systems to make it clearer, including new definitions for weaponised “biological agent” and ‘radioactive materials’. The scope is unchanged.

Impact: None - clarification only.

1A228, 1E201 & 1E202: New control for target assemblies containing lithium-6, and components therefor, specially designed for the production of tritium by irradiation in a nuclear reactor. Associated technology is also controlled.

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

1B001.b: Update of the widths of filament bands in this control for tape laying machines. The width range for filament bands that determine if a machine is controlled has been changed from 25mm - 305mm, to 25.4mm - 304.8mm (these values now match the conversion from inches).

Impact: Will reduce the requirement for an approval.

1B101.b Note: Clarification of this control for composite material production equipment. There are now definitions and explanations for ‘filament band’ and ‘fibre/tow-placement machines’.

Impact: None - clarification only.

1B229: Deletion of this control for water-hydrogen sulphide exchange tray columns and internal contactors. A duplicate control already exists in Category 0 so this control is not required.

Impact: None - clarification only.

1C002 Note: Decontrol of metal alloys, metal alloy powders and alloyed materials that are specially formulated for coating purposes.

Impact: Will remove the requirement for an approval.

1C006.a: Decontrol of hydraulic fluids containing synthetic silahydrocarbon oils or chlorofluorocarbons.

Impact: Will remove the requirement for an approval.

1C007: Update of this control on ceramic powders, ceramic-matrix composite materials and precursor materials. This control now has a reduced scope.

Impact: Will reduce the requirement for an approval.

1C009: Decontrol of vinylidene fluoride copolymers

Impact: Will remove the requirement for an approval.

1C101 and 1C111.a.5: Expansion of these controls for materials and devices for reduced observables, and high energy density materials. These controls now also apply to UAVs with an aerosol dispensing system with a capacity of 20 litres or more, or a range of 300km or more.

Impact: Will expand the requirement for an approval.

1C107.f: New control for bulk machinable ceramic composite materials consisting of an ultra-high temperature ceramic (UHTC) matrix with a melting point of 3000 degrees Celsius or higher. There is also a Technical Note that provides examples of UHTCs. Associated technology is also controlled.

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

1C111.a.4.i: Clarification of this control for dimethylhydrazinium azide. Both 1,1-Dimethylhydrazinium azide (CAS 227955-52-4) and 1,2-Dimethylhydrazinium azide (CAS 299177-50-7) are now explicitly listed in this control.

Impact: None - clarification only.

1C111.a.4.p: Clarification of this control for Diethylhydrazine nitrate. Both 1,1-Diethylhydrazine nitrate (DEHN) and 1,2-Diethylhydrazine nitrate (DEHN) (CAS 363453-17-2) are now explicitly listed in this control.

Impact: None - clarification only.

1C111.c.6.c: Clarification of this control for propyl ferrocene. Both n-Propyl ferrocene (CAS 1273-92-3) and iso-propyl ferrocene (CAS 12126-81-7) are now explicitly listed in this control.

Impact: None - clarification only.

1C350.67: New control for N,N-Diisopropylaminoethanethiol hydrochloride (CAS 41480-75-5). Associated technology is also controlled.

Impact: Will introduce the requirement for approval to be obtained before exporting this item. In addition technology required for the development or production of this item also requires an approval.

1C350.a.6: Deletion of the control for Dengue virus.

Impact: Will remove the requirement for an approval.

1C351.c.17 Note: Clarification that this control only applies to epsilon toxin-producing strains of *Clostridium perfringens*, therefore exempting from control the transfer of other *Clostridium perfringens* strains, including those used as positive control cultures for food testing and quality control.

Impact: None - clarification only.

1C351.c.18 Note: Clarification that this control for Shiga toxin producing *Escherichia coli* (STEC) includes *inter alia* enterohaemorrhagic *E. coli* (EHEC), verotoxin producing *E. coli* (VTEC) or verocytotoxin producing *E. coli* (VTEC).

Impact: None - clarification only.

1C351.d.6: Expansion of this control for Shiga toxins to also include shiga-like toxins, verotoxins, and verocytotoxins. The expansion of this control occurred to be consistent with an existing control on Shiga toxin producing bacteria.

Impact: Will expand the requirement for an approval.

1C352.a.18: New control for Swine vesicular disease virus. Associated technology is also controlled.

Impact: Will introduce the requirement for approval to be obtained before exporting this item. In addition technology required for the development or production of this item also requires an approval.

1C353: Restructure and update of the control for genetically modified organisms and genetic elements, including additional controls for inactivated organisms containing recoverable nucleic acid fragments.

Impact: Will expand the requirement for an approval.

1C354.b.2: Update of nomenclature synonym in this control for the plant pathogen *Xanthomonas campestris* pv. *citri.*, including the removal of some strains.

Impact: Will reduce the requirement for an approval.

1C354.b.5: Update of nomenclature synonym to *Ralstonia solanacearum*.

Impact: None - clarification only.

1C354.c.1: Update of nomenclature synonym to *Colletotrichum coffeanum* var. *virulans*.

Impact: None - clarification only.

1C354.c.6-11: New controls for the following plant fungi: *Magnaporthe oryzae* (*Pyricularia oryzae*); *Peronosclerospora philippinensis* (*Peronosclerospora sacchari*); *Sclerophthora rayssiae* var. *zeae*; *Synchytrium endobioticum*; *Tilletia indica*; *Thecaphora solani*. Associated technology is also controlled.

Impact: Will introduce the requirement for approval to be obtained before exporting these items. In addition technology required for the development or production of these items also requires an approval.

Category 2 – Materials Processing

2A001.a: Clarification of this control for ball bearings and solid roller bearings.

Impact: None - clarification only.

2B001.a, 2B001.b & 2B201: Update of these controls on computer numerically controlled turning, milling and grinding machines. Overall there is general lowering of the scope of machines, but there is a slight expansion for milling and grinding machines with five or more axes which can be coordinated simultaneously for contouring control.

Impact: Will reduce the requirement for an approval.

2B006.c: Update of this control for laser-based measuring systems. Only those that have a resolution of 0.2nm or less are now controlled. This control now has a reduced scope.

Impact: Will reduce the requirement for an approval.

2B227: Update of this control for vacuum/controlled atmosphere metallurgical melting and casting furnaces. This includes a clarification that all the following types of furnaces are applicable to this control: arc remelt furnaces; arc melt furnaces; arc melt and casting furnaces; electron beam melting furnaces; plasma atomisation furnaces; and plasma melting furnaces. The following specially designed components are now also controlled:

- Plasma torches operating above 1200 degrees Celsius and at powers above 50kW
- Electron beam guns operating at powers above 50kW.

Impact: Will expand the requirement for an approval.

2B350.a-i: Reduction in the scope of control of certain fluoropolymer-lined chemical processing equipment. The fluoropolymer linings captured by the control are now limited to polymeric or elastomeric materials with more than 35% fluorine by weight.

Impact: Will reduce the requirement for an approval.

2B350.j: Expansion of this control for incinerators designed to destroy chemicals. This control now applies to the incinerators designed for chemicals specified in the ML7 and chemical munitions.

Impact: Will expand the requirement for an approval.

2B350.k: New control for prefabricated repair assemblies designed for glass-lined reaction vessels, reactors or storage tanks. Associated software and technology is also controlled.

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

2B352.a: Clarification and expansion of this control for P3 or P4 containment facilities. This control now applies to the following facility components: Double-door pass-through decontamination autoclaves; Breathing air suit decontamination showers; Mechanical-seal or inflatable-seal walkthrough doors.

Impact: Will expand the requirement for an approval.

2B352.b: Clarification of this control for biological fermenters, confirming that fermenters that cultivate without the propagation of aerosols and having a capacity of 20 litres or more are controlled, regardless of the pathogenicity of the microorganism (or the virus or toxin product).

Impact: None - clarification only.

2B352.c: Update of this control for cross (tangential) flow filtration equipment. As per the 2B352.b clarification above for fermenters, the reference to 'pathogenic' has been removed.

However the requirement for separation without the propagation of aerosols has been removed, expanding the scope.

Impact: Will expand the requirement for an approval.

2B352.c Note: Specific decontrol for hemodialysis equipment.

Impact: None - clarification only.

2B352.i: New control for Nucleic acid assemblers and synthesizers, which are partly or entirely automated, and designed to generate continuous nucleic acids greater than 1.5 kilobases in length with error rates less than 5% in a single run. Associated software and technology is also controlled.

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

2E201: Decontrol of technology for the use of robots capable of operating in explosive environments or high ionising radiation environments.

Impact: Will remove the requirement for an approval.

Category 3 – Electronics

3A001.a.2: New control for Magnetic Random Access Memories rated for operation above 125 degrees Celsius; below -55 degrees Celsius; or within this entire range. Associated technology is also controlled.

Impact: Will introduce the requirement for approval to be obtained before exporting these items. In addition technology required for the development or production of these items also requires an approval.

3A001.a.5: Update of this control for analog-to-digital converters. This control now has a reduced scope.

Impact: Will reduce the requirement for an approval.

3A001.a.14: New control for integrated circuits that perform high-performance analog-to-digital conversion, in addition to storing or processing digitised data. Associated technology is also controlled.

Impact: Will introduce the requirement for approval to be obtained before exporting these items. In addition technology required for the development or production of these items also requires an approval.

3A001.b.1: Update of this control for vacuum electronic devices, including new controls for:

- Helix based devices having a gridded electron gun

- Devices with a fractional bandwidth of 10% or more with either an annular electron beam, a non-axisymmetric electron beam, or multiple electron beams
- Thermionic cathodes producing a continuous current density exceeding 5 A/cm² or a pulsed current density exceeding 10 A/cm².
- Dual-mode device that can be changed between continuous and pulsed operation.

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

3A001.b.11: Update of this control for frequency synthesisers. This control now has a reduced scope.

Impact: Will reduce the requirement for an approval.

3A001.b.12: New control for microwave transmit/receive modules/integrated circuits and transmit-only modules/integrated circuits having a fractional bandwidth of 5% or greater for any channel, and an electronically variable phase shifter per channel. Associated software and technology is also controlled.

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

3A001.e.1: Update of this control for high energy electrochemical cells. Secondary cells (those that are designed to be charged by an external electrical source) with an energy density of 350 Wh/kg or less are no longer controlled.

Impact: Will reduce the requirement for an approval.

3A001.f: New control for components of rotary input absolute position encoders with an accuracy equal to or less than 1.0 second of arc. Associated software and technology is also controlled.

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

3A002.a: Update of this control for digital data recorders. This control now has a lower scope.

Impact: Will reduce the requirement for an approval.

3A002.d.4: Update of this control for signal generators operating either between 10Hz and 10kHz, or between 10kHz and 100kHz. This control now has a lower scope.

Impact: Will reduce the requirement for an approval.

3A002.h: New control for electronic assemblies, modules or equipment that have high-performance analog-to-digital conversion capability in addition to storing or processing the digitised data, or having an output for the digitised data. Software for the development or

production of this equipment is now controlled in 3D001. Associated software and technology is also controlled.

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

3B001.a.1: Update of this control for semiconductor device manufacturing equipment that can produce a layer of any material other than silicon with a thickness uniform to less than $\pm 2.5\%$ across a distance of 75 mm or more. This equipment must now be designed or modified for this purpose, not just have a capability.

Impact: Will reduce the requirement for an approval.

3B001.c: Decontrol of anisotropic plasma dry etching equipment for semiconductor device manufacturing.

Impact: Will remove the requirement for an approval.

3B001.f.3 & 3B001.f.4: New controls for the semiconductor manufacturing lithography equipment below. Associated software and technology is also controlled:

- Mask-making equipment with a spot size smaller than 65nm and an image placement of 17nm or less
- Direct writing processing equipment using a deflected focused electron beam and a beam size smaller than 15nm.

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

3E001 Note 1: Decontrol of all technology associated with spray cooling thermal management systems employing closed loop dielectric fluid handling and reconditioning equipment.

Impact: Will remove the requirement for an approval.

3E001 Note 2: Decontrol of microwave integrated circuit technology at or above 0.13 micrometres and incorporating multi-layer structures with three or fewer metal layers.

Impact: Will remove the requirement for an approval.

3E002.c: Update of this control for technology for microcircuits having an arithmetic logic unit and an access width of 32 bits or more. Technology for those designed to perform eight or less 16-bit fixed-point multiply-accumulate results per cycle is no longer controlled. This control now no longer applies to technology for multimedia extensions.

Impact: Will reduce the requirement for an approval.

3E002 Note 2: Decontrol of microprocessor core technology at or above 0.13 micrometres and incorporating multi-layer structures with five or fewer metal layers.

Impact: Will remove the requirement for an approval.

Category 4 – Computers

4A003.b: Update of this control for high-performance digital computers. Those with an adjusted peak performance of 16 Weighted TeraFLOPS or less are no longer controlled.

Impact: Will reduce the requirement for an approval.

4A005 & 4D004: Clarification of these controls for systems, equipment and software associated with intrusion software, to make it clearer that legitimate and defensive actions in response to intrusion software are not controlled. There is also an explicit Note stating that the technology controls do not apply to vulnerability disclosures or cyber incident responses.

Impact: None - clarification only.

4D001.b.1 & 4E001.b.1: Update of these controls for software and technology for the development or production of high-performance digital computers. Software and technology for those computers with an adjusted peak performance of 8 Weighted TeraFLOPS or less are no longer controlled.

Impact: Will reduce the requirement for an approval.

Category 5 Part 1 – Telecommunications

5A001.b.6: Update of this control for telecommunications equipment employing digital signal processing to provide voice coding. Those with an output rate of 700 bit/s or greater are no longer controlled.

Impact: Will reduce the requirement for an approval.

5A001.d: Update of this control for electronically steerable phased array antennae operating above 31.8GHz. This control now has a reduced scope.

Impact: Will reduce the requirement for an approval.

5B001.b.2: Decontrol of equipment and components specially designed for the development of telecommunication transmission or switching equipment employing a laser at a wavelength of 1750nm or less.

Impact: Will remove the requirement for an approval.

5B001.b.4, 5D001.d.4 & 5E001.c.4.a: Decontrol of equipment, components, software and technology for the development of radio equipment employing Quadrature-Amplitude-Modulation techniques below level 1024.

Impact: Will remove the requirement for an approval.

5E001.c: Update of this control for technology for the development or production of telecommunications equipment. This control now has a reduced scope.

Impact: Will reduce the requirement for an approval.

Category 5 Part 2 – Information Security

5A002.a.7: Decontrol of non-cryptographic information and communications technology security systems and devices. This decontrol also extends to associated software.

Impact: Will remove the requirement for an approval.

Addition of a General Information Security Note (GISN): This note states that information security items or functions should be considered against the provisions in Category 5 Part 2, even if they are components, software or functions of other items.

Impact: None - clarification only.

Note: Some of the text in this Category has been rewritten, but has remained scope neutral.

Category 6 – Sensors and Lasers

6A002.a.3 Note 2.d: Decontrol of non-space qualified thermopile arrays having less than 5,130 elements.

Impact: Will remove the requirement for an approval.

6A004.a Note: Decontrol of lightweight mirror/reflectors specially designed to direct solar radiation for terrestrial heliostat installations.

Impact: Will remove the requirement for an approval.

6A005.a.6.a: Update of this control for high power non-tunable continuous wave lasers with a lasing wavelength range of 975-1150nm and single transverse mode output. Those with an output power of 500W or less are no longer controlled.

Impact: Will reduce the requirement for an approval.

6A005.a.8-10: Update of the controls for high power non-tunable continuous wave lasers with an output wavelength exceeding 1555nm. This control now has a reduced scope.

Impact: Will reduce the requirement for an approval.

6A005.b.6: Update of the controls for high power non-tunable pulsed lasers with a lasing wavelength range of 975-1150nm. This control now has a reduced scope.

Impact: Will reduce the requirement for an approval.

6A005.b.8-10: Update of the controls for high power non-tunable pulsed lasers with an output wavelength exceeding 1555nm. This control now has a reduced scope.

Impact: Will reduce the requirement for an approval.

6A226.a: Correction to this control for shock pressure gauges capable of measuring pressures greater than 10GPa. Those made with polyvinylidene bifluoride (PVBF) are no longer controlled, however those made with polyvinylidene fluoride (PVDF)/polyvinyl difluoride (PVF₂) are now controlled.

Impact: None - clarification only.

Category 7 – Navigation and Avionics

7E003 Note: Decontrol of technology for the maintenance of accelerometers, gyroscopes, inertial measurement units and star trackers as listed in 7A001 to 7A004, when that maintenance is directly associated with calibration, removal or replacement of damaged or unserviceable Line Replacement Units (LRUs) or Shop Replaceable Assemblies (SRAs) of a civil aircraft. Note that this decontrol does not apply to accelerometers, gyroscopes, inertial navigation equipment and star trackers that are listed in 7A101, 7A102, 7A103 and 7A104.

Impact: Will remove the requirement for an approval.

7A103: Clarification of this control on inertial equipment and systems that contain accelerometers or gyroscopes. Equipment and systems that contain accelerometers or gyroscopes, but not for inertial navigation purposes, are no longer controlled. The overall scope is reduced.

Impact: Will reduce the requirement for an approval.

7A105: Clarification of this control on receiving equipment for global navigation satellite systems (GNSS). This control now explicitly states that it also applies to receiving equipment for the Chinese BeiDou system. This control now also applies to receiving equipment specially designed for UAVs with an aerosol dispensing system with a capacity of 20 litres or more (Note: generic receiving equipment that is not specially designed for any particular UAV is not captured by this control).

Impact: None - clarification only.

7A115 Note: Clarification of this control for passive sensors for determining bearing to specific electromagnetic source or terrain characteristics. The Note now explicitly says this control can apply to scene mapping and correlation (both digital and analog) equipment, and Doppler navigation radar equipment.

Impact: None - clarification only.

7A116: Expansion in scope of this control for flight control systems designed for space launch vehicles or sounding rockets. This control now applies to pneumatic and fly-by-light systems.

Impact: Will expand the requirement for an approval.

Category 8 – Marine

8A002.d: Update of the controls for underwater vision systems. These are now only controlled if they are designed or modified for remote operation with an underwater vehicle, and they employ techniques to minimise backscatter (including range-gated illuminators and laser systems).

Impact: Will reduce the requirement for an approval.

Category 9 – Aerospace and Propulsion

9A101.a: Reduction in the scope of this control for turbojet and turbofan engines with an uninstalled maximum thrust greater than 400N and specific fuel consumption of 0.15kg/N/hr or less. Those engines with a dry weight of 750kg or higher and a first-stage rotor diameter of 1m or more are no longer controlled (Note: this control excludes civil-certified engines with a maximum thrust greater than 8.89kN).

Impact: Will reduce the requirement for an approval.

9A105: Expansion in the scope of this control for liquid propellant rocket engines. This control now also applies to gel propellant rocket motors with a total impulse capacity of 1.1MN or more.

Impact: Will expand the requirement for an approval.

9A106: Restructure of this control for liquid rocket propulsion system components (combustion chambers, rocket nozzles, thrust vector control sub-systems and propellant control systems). This control now also applies to components for gel propellant systems.

Impact: Will expand the requirement for an approval.

9A108: Restructure of this control for solid rocket propulsion system components (rocket motor cases, rocket nozzles and thrust vector control sub-systems). These components are now controlled if they are for 9A107 motors.

Impact: None – clarification only.

9A112: New control for all UAVs with a range exceeding 300km, and for certain UAVs incorporating aerosol dispensing systems with a capacity of 20 litres or more. Associated technology and software is also controlled.

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

9A115: Reduction in scope of this control for launch support equipment. This control now only applies to UAVs with a range of 300km or more.

Impact: Will reduce the requirement for an approval.

9A120: Update of this control on liquid propellant tanks to also include gel propellant tanks.

Impact: Will expand the requirement for an approval.

9B001.b: Expansion of this control for casting cooling for manufacturing gas turbine engine blades, vanes or tip shrouds. Combined core and shell units made from refractory metals or ceramics are now controlled (individual cores and shells are already controlled).

Impact: Will expand the requirement for an approval.

9B009 Note: Clarification that this control for tooling for the production of powder metallurgy gas turbine engine rotor components does not apply to tooling for the production on powder.

Impact: None - clarification only.

9B107: New control for aerothermodynamic test facilities usable for missiles and having either an electrical power supply of 5MW or greater, or a gas supply total pressure of 3MPa or more.

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

9D105: Expansion in scope of this control for software that coordinates the functions of more than one subsystem of space launch vehicles or sounding rockets. This software control now also applies to missiles.

Impact: Will expand the requirement for an approval.

Sensitive List

There have been no deletions or additions, however amendments to those controls in the main body of the DSGI have been duplicated in the Sensitive List.

Very Sensitive List

Removal of software for the development or production of radar systems, equipment and assemblies listed in 6A008.

Impact: Will reduce the scrutiny for an approval.

The new controls 1A228, 1E201 and 1E202 (regarding target assemblies containing lithium-6 for tritium production) have also been added to the Very Sensitive List.

Impact: Will increase the scrutiny for an approval.

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

DEC has undertaken consultation with other member States of the export control regimes over the past two years to arrive at the proposed amendments to the various control lists. The proposed amendments have been consensus agreed within the regimes. Consultation has been achieved through direct participation in regime technical meetings.

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 Amendment Instrument 2018

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

Overview of the Legislative Instrument

This Legislative Instrument amends the Defence and Strategic Goods List (DSGL).

The amending 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 to which Australia is a member.

The amendment to the DSGL ensures that Australia's regulatory framework for export controls is reflective of 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.

Senator the Hon Marise Payne, Minister for Defence