EXPLANATORY STATEMENT

ISSUED BY THE AUTHORITY OF THE MINISTER FOR DEFENCE

CUSTOMS ACT 1901

Defence and Strategic Goods List Amendment 2011

The Defence and Strategic Goods List Amendment 2011 (the List) is the document formulated and published under paragraph 112(2A)(aa) of the *Customs Act 1901* by the Minister for Defence. The List identifies the goods which Regulation 13E of the *Customs (Prohibited Exports) Regulations 1958* prohibits from being exported from Australia unless a licence or permission has been granted by the Minister or an authorised person and that licence or permission is produced to a Collector of Customs before exportation.

The Defence Export Control Office (DECO) is responsible for administering controls on the export of defence and dual-use goods, and the granting of authorisations to export, in the form of permits and licenses. DECO's mission is to ensure Australia exports responsibly and detailed information on its roles and functions is available on the DECO website:
http://www.defence.gov.au/strategy/deco/

The List embodies the export control guidelines developed by the multilateral non-proliferation and export control regimes of which Australia is a member.
The List is made up of the Wassenaar Arrangement Munitions List (Part 1), and the European Union Dual-Use List (Part 2), which incorporates the Wassenaar Arrangement, the Missile Technology Control Regime, the Australia Group and the Nuclear Suppliers Group.

The List was first published in 1996 when the *Customs (Prohibited Exports) Regulations 1958* were consolidated and revised. The List includes equipment, assemblies and components, associated test, inspection and production equipment, materials, software and technology. It is divided into two Parts.

Part 1 covers defence and related goods – those goods 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 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 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;
- Category 9 – Aerospace and Propulsion.

The last amendment to the List was made in April 2010.

The List is amended from time to time to reflect changes in multilateral non-proliferation and export control regimes. The List is fully aligned with the European Union Dual-Use List, and the Wassenaar Arrangement Munitions List revised as at the end of 2010. Due to delays within the European Union, the European Union Dual-Use List includes export control regime changes only up to the end of 2008.

There are 58 amendments to the DSGL Amendment 2011, which take the form of either new controls, deletions of previously existing controls, or modifications to existing controls. Of these 58 amendments, ten are assessed by Defence as potentially having a minor impact on Australian industry. The rest of the amendments involve goods and technology that have no known Australian manufacturers or exporters. This assessment was established by consulting DECO records, examining Australian Customs and Border Protection export data, and open-source searching.

DECO has written to Australian companies it assessed as possibly being affected by the changes. The letter informed each company of the impending changes and gave guidance on the steps to take to obtain advice from DECO on whether its goods were subject to the new controls. No objections were received from those companies that responded.

This Explanatory Statement will also be publically available on the DECO website.

The Office of Best Practice Regulation (OBPR) has been consulted in the making of this instrument. Based on the preliminary impact analysis submitted by DECO, the OBPR agreed that the proposed amendments have no, or low impact on business and individuals or the economy. Therefore, no further analysis in the form of a Business Cost Calculator or Regulatory Impact Statement is required.

ANALYSIS OF THE CHANGES IN DSGL AMENDMENT 2011

These amendments do not substantially alter the List's nature or overall content. The amendments of specific controls are summarised below.

Munitions List

ML2.d: New control for mountings that are designed for smooth-bore weapons with a calibre of 20mm or more, or other weapons with a calibre greater than 12.7mm.
This is an extension of the existing controls on large-calibre weapons and accessories therefore.

Estimated impact to Australian exporters: Nil- no known Australian exporters

ML5.d: This control now specifies countermeasure field test or alignment equipment designed for weapon control, target acquisition, range-finding and surveillance systems.
This is an extension of the existing controls on countermeasure equipment related to weapon control, target acquisition, range-finding and surveillance systems. Australia already currently controls these items.

Estimated Impact to Australian exporters: Nil- no known Australian exporters

ML8.b.7: New control for propellants that are not specified elsewhere in the Munitions List, and are specially designed for military use.
This control is aimed to capture any existing or new propellants that are not already specifically listed in the Munitions List.

Estimated Impact to Australian exporters: Nil- no known Australian exporters

ML9.a.2: New control for surface vessels, not necessarily specially designed for military use, and having any of the following fixed or integrated into the vessel:

- weapons or weapon mounts
- fire control systems
- chemical, biological, radiological and nuclear (CBRN) protection

This is an extension to the existing controls on vessels that are designed for offensive or defensive action

Estimated Impact to Australian exporters: Minor

ML9.c: The controls for military underwater detection devices now specifies components that are also specially designed for military use.
This is a minor extension to the existing control. Australia already currently controls these items.

Estimated Impact to Australian exporters: Nil- no known Australian exporters

ML9.f: The control for vessel hull penetrators and connectors specially designed for military use now specifies components thereof.
This is a minor extension to the existing control.

Estimated Impact to Australian exporters: Nil- no known Australian exporters

ML10.h: This control on military parachutes has been simplified, but there is no scope change.
This amended control is equivalent to the existing control.

Estimated Impact to Australian exporters: Nil- no known Australian exporters

ML17.e.3: This control is for robots that are designed or rated for operation in an electro-magnetic pulse (EMP) environment. There is now a Technical Note that clarifies that this EMP environment is not referring to unintentional interference caused by electromagnetic radiation from nearby equipment or lighting.
This is a minor clarification only and does not affect DECO's implementation of the existing control.

Estimated Impact to Australian exporters: Nil- no known Australian exporters

ML17.p: New control for fuel cells specially designed or modified for military use
Fuel cells are an emerging type of battery device that converts chemical energy into electrical energy and have been identified as having significant military potential.

Estimated Impact to Australian exporters: Nil- no known Australian exporters

Dual-Use List

Category 0: Nuclear Materials, Facilities, and Equipment

0A001.a: Minor amendment to the control on nuclear reactors. Any research for the development of fusion reactors is now controlled.
Although fusion reactors are still experimental, research required for their development, production or use is now controlled.

Estimated Impact to Australian exporters: Nil- no known Australian exporters

Category 1: Materials, chemicals, microorganisms, and toxins

1A002: Decontrol of composite structures for:

- metal heat-treatment furnaces designed for tempering metals, and
- silicon boule production equipment.

Composite structures have high strength and low weight, and can be used in military aircraft and vessels. However composite structures specially designed for the above equipment are viewed as having no military utility.

Estimated Impact to Australian exporters: Nil- no known Australian exporters

1A004.d: New control on electronic equipment that can detect explosive traces at less than 1 ppm for vapour, or 1 mg for solid or liquid.
This equipment could be used to help defeat security measures.

Estimated impact to Australian exporters: minor

1A008: New control on non-military shaped charges, linear shaped cutting charges and related equipment.
This amendment addresses specialised explosives devices that are used in industries such as mining and construction. Australia already has domestic export controls that cover these items.

Estimated Impact to Australian exporters: Nil- no known Australian exporters

1D101: This control now covers software used in:

- metal alloy powder production equipment, and
- non-military propellant production and handling equipment.

Metal alloy powder can be used to make high strength homogenous components for aircraft and missiles, and non-military propellants can be used as a fuel in missiles.

Estimated Impact to Australian exporters: *Nil no known Australian exporters*

Category 2: Materials Processing

2B350.g: New control on valves and valve casings with liquid-contacting parts that are made from ceramic materials.
Ceramic materials have high corrosion resistance, so valves lined with these materials are capable of handling corrosive chemicals used to make chemical weapons.

Estimated Impact to Australian exporters: Minor

2B352.d.1.b: Decontrol of cross (tangential) flow filtration systems that are not capable of being sterilised in-situ, and do not use disposable filtration components.
This type of flow filtration systems are not considered practical for biological weapon production.

Estimated Impact to Australian exporters: Nil- no known Australian exporters

Category 3: Electronics

3A001.a.7: Lowering the scope of controls on field programmable gate arrays (FPGA) to better reflect the current state of the art.
Although these items have utility in advanced military systems, the current controls were specifying FPGAs that are now widely available, making export control impractical. New controls better reflect the current state of the art.

Estimated Impact to Australian exporters: Minor

3A001.a.10: Lowering the scope of the controls on integrated circuits with an unknown function to better reflect the state of the art. The parameters are now: more than 1500 terminals, a basic gate propagation time of less than 0.02ns, and an operating frequency above 3GHz.
Although these items have utility in advanced military systems, the current controls were specifying integrated circuits that are now widely available, making export control impractical. New controls better reflect the current state of the art.

Estimated Impact to Australian exporters: Minor

3A001.b.10: New control on oscillators with very low phase noise.
These items have utility in advanced military radar systems and electronic warfare systems.

Estimated Impact to Australian exporters: Nil- no known Australian exporters

3A001.c: Minor change of parameters for acoustic wave devices to better reflect the state of the art.
These items have utility in advanced military radar systems and electronic warfare systems.

Estimated Impact to Australian exporters: Nil- no known Australian exporters

3A001.f: Change of parameters for rotary type shaft absolute position encoders to better reflect the state of the art.
These items are used in various military systems for motion control. This amendment aims to decontrol encoders that are now widely available.

Estimated Impact to Australian exporters: Nil- no known Australian exporters

3A001.h: New control on high-performance solid-state power semiconductor switches and diodes that can operate at temperatures above 125 degrees Celsius, have a blocking voltage above 300 Volts, and operate at currents above 1 Amp.

These items can be used in various military electronic systems.
Estimated Impact to Australian exporters: Nil- no known Australian exporters

3A002.d: Change of parameters for high-performance frequency synthesised signal generators to better reflect the state of the art.
These items can be used in various military electronic systems.

Estimated Impact to Australian exporters: Nil- no known Australian exporters

Category 4: Computers

4D003: Decontrol of operating system software, development tool software, and compliers, which are specially designed for multi-data-stream processing (e.g. parallel processing), and when in source-code form.
These specific types of software are no longer considered sensitive due to the current state of the art.

Estimated Impact to Australian exporters: Nil- no known Australian exporters

Category 5 Part 1: Telecommunications

5A001.f: Expansion of controls on jamming equipment to include that equipment which exploits specific characteristics of the mobile telecommunications protocol that is employed.
This type of jamming equipment was previously controlled only if it performed both detection and exploitation. Controlling jamming equipment that only performs exploitation addresses a potential loophole in the control.

Estimated Impact to Australian exporters: minor

5A001.h: New control on electronic equipment designed or modified to prematurely activate or prevent the initiation of Radio Controlled Improvised Explosive Devices (RCIED).
This control is focused on commercial RCIED jamming and activation equipment. Military RCIED jamming and activation equipment is already controlled in the Munitions List.

Estimated Impact to Australian exporters: minor

5B001.a, 5D001.a, and 5E001.a: Decontrol of production equipment, software, and technology for telecommunication test and inspection equipment
This equipment, software and technology is no longer considered sensitive.

Estimated Impact to Australian exporters: Nil- no known Australian exporters

5B001.b.2.b: Minor reduction to the scope of control on equipment employing a laser, for the development of telecommunication transmission and switching equipment. *Such equipment is now only controlled if it performs optical amplification using praseodymium-doped fluoride fibre amplifiers.*

Estimated Impact to Australian exporters: Nil- no known Australian exporters

5E001.c.6: New control on the technology required for the development or production of mobile equipment operating as a local area network, and operating at an optical wavelength 200-400 nm.
This is an emerging mobile optical communications method.

Estimated Impact to Australian exporters: Nil- no known Australian exporters

5E001.d: New control on technology required for the development or production of microwave monolithic integrated circuit (MMIC) power amplifiers, specially designed for telecommunication use.
These items have utility in advanced military communication systems, and their development requires complex manufacturing processes.

Estimated Impact to Australian exporters: Nil- no known Australian exporters

5E001.e: New control on technology for the development and manufacture of superconductive materials and electronics designed for telecommunication use.
These items offer high speed and efficiency, and have utility in advanced military communication systems.

Estimated Impact to Australian exporters: Nil- no known Australian exporters

Category 5 Part 2: Information Security

Medical end-use equipment incorporating encryption: The previous exemption for equipment in this category that has a medical end-use has been removed. Equipment for medical use that employs encryption is hence now controlled.

5A002.a.7: New control on non-cryptographic information and communications technology (ICT) equipment. ICT security systems and devices evaluated to EAR-6 (Evaluation Assurance Level) of the Common Criteria (CC) or equivalent are now controlled.
This equipment includes data diodes, content filters and multiple independent levels of security (MILS) kernels, and is used for connecting and segregating networks with different levels of information sensitivity. The equipment has utility in military and government communication systems.

Estimated Impact to Australian exporters: minor

5A002.h (Technical Note): Decontrol of equipment designed for the servicing of portable or mobile radiotelephones and similar client wireless devices that have encryption, where the cryptographic functionality of the servicing equipment cannot be easily changed.
The export of this equipment is no longer considered sensitive.

Estimated Impact to Australian exporters: Nil- no known Australian exporters

5A002.i (Technical Note): Decontrol of wireless personal area network equipment that implements only published or commercial cryptographic standards and where the cryptographic capability limited to a range of 30 metres or less.
The export of this equipment is no longer considered sensitive.

Estimated Impact to Australian exporters: Nil- no known Australian exporters

5B002.a and 5D002.a: Decontrol of the software and technology that is related to equipment designed for the development or production of information security test, inspection and production equipment.
This software and technology is no longer considered sensitive.

Estimated Impact to Australian exporters: Nil- no known Australian exporters

5D002.c.1: Decontrol of software having the characteristics, or performing or simulating the functions of information security test, inspection or production equipment.
This software is no longer considered sensitive.

Estimated Impact to Australian exporters: Nil- no known Australian exporters

Category 6: Sensors and Lasers

6A001.c: New control on diver deterrent acoustic systems designed or modified to disrupt divers, and having a sound pressure level equal to or exceeding 190dB at frequencies of 200Hz and below.
These systems are used to protect ports and vessels, and are becoming commercially available.

Estimated Impact to Australian exporters: Nil- no known Australian exporters

6A002.b.1: Decontrol of monospectral imaging sensors with a response between 300-900nm, and having either charged coupled devices or metal oxide semiconductor devices that are not designed or modified to achieve charge multiplication.
Imaging cameras using these sensors are no longer considered sensitive.

Estimated Impact to Australian exporters: Nil- no known Australian exporters

6A006 (Technical Note): 'Sensitivity' (noise level) is defined as the root mean square of the device-limited noise floor which is the lowest signal that can be measured.
The definition is included as an aid, and to achieve consistency between members.

Estimated Impact to Australian exporters: N/A- no actual change to the control

6A008.j.3: New control on laser and light detection and ranging (LIDAR) equipment designed for airborne bathymetric littoral surveys and using one or more lasers with a wavelength between 400-600nm.
This equipment has broad geographic and geological use, and can also have military utility.

Estimated Impact to Australian exporters: Nil- no known Australian exporters

6A108.b.2.a: Decrease in the scope of the controls on range instrumentation radars, usable for missiles. The control threshold has changed from better than 3 milliradians to better than 1.5 milliradians.
This amendment reflects the current state of the art.

Estimated Impact to Australian exporters: Nil- no known Australian exporters

Category 7: Navigation and Avionics

7A101: Decontrol of continuous output accelerometers specified to function at acceleration levels exceeding 100g, which are not designed for inertial navigation systems.
This amendment decontrols accelerometers that have no utility in missile navigation or guidance systems.

Estimated Impact to Australian exporters: minor

Category 8: Marine

8A001.b.3: Increase in the scope of the controls for manned, untethered submersible vehicles. All vehicles that can operate autonomously for 10 or more hours and having a range of 25 or more nautical miles are now controlled.
These vehicles can have military utility.

Estimated Impact to Australian exporters: Nil- no known Australian exporters

8A002.f: The scope on electronic imaging systems designed for underwater use is reduced to cover only those with night vision or thermal detectors.
This amendment reflects the current state of the art.

Estimated Impact to Australian exporters: Nil- no known Australian exporters

Category 9: Aerospace and Propulsion

9A108.a: Decrease in the scope of control on solid rocket propulsion system components (rocket motor cases, rocket nozzles, thrust vector control sub-systems) that are designed for space launch vehicles and sounding rockets. These components are now only controlled if they are designed for space launch vehicles or sounding rockets that are already controlled (9A004 and 9A104 respectively).
This amendment decontrols rocket components that have no significant military utility.

Estimated Impact to Australian exporters: Nil- no known Australian exporters

9A110: Decontrol of composite structures and laminates for space launch vehicles and sounding rockets. Only those composite structures and laminates for missiles and subsystems are controlled.
This amendment decontrols composite structures and laminates that have no significant military utility.

Estimated Impact to Australian exporters: Nil- no known Australian exporters

9B116: Increase in the scope of controls on missile launch-related production facilities. This control now includes those production facilities designed for controlled liquid propellant tanks, and controlled UAV turboprop engine systems.
These production facilities are assessed as being a significant enabler for the production of items that can be used to launch missiles.

Estimated Impact to Australian exporters: Nil- no known Australian exporters

9E102: Increase in the scope of this control to include technology for the use (including operation, maintenance, and repair) of UAVs capable of a range greater than 300km.
UAVs with this range have significant military utility, and the technology required for their use (including operation, maintenance, and repair) *is sensitive.*

Estimated Impact to Australian exporters: minor

Sensitive List of Dual-Use Goods and Technologies
Items on the Sensitive List are already listed in the DSGL, but are considered to have a higher sensitivity.

- Removal of all Category 5 Part 2 controls (Information Security)
- Addition of 6A002.a.1.d (space-qualified focal plane arrays)
- Addition of 6A006.c.1 (magnetic gradiometers using multiple magnetometers)
- Removal of 7B001 and 7B003 (test, calibration or alignment equipment, and production equipment, for controlled navigation equipment and components)
- Removal of 9E003.a.9 (technology for full authority digital engine control of gas turbine and combined cycle engines and components)

Designation on the sensitive list only affects the licensing decision, so no outreach is required

Very Sensitive List of Dual-Use Goods and Technologies
Items on the Very Sensitive List are already listed in the DSGL, but are considered to have a very high sensitivity.

None