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## Annex I

### Revised forms for the submission of the Confidence-Building Measures

At the Third Review Conference it was agreed that all States Parties present the following declaration, later amended by the Seventh Review Conference:

#### Declaration form on Nothing to Declare or Nothing New to Declare for use in the information exchange

Measure	Nothing to declare	Nothing new to declare	Year of last declaration if nothing new to declare
A, part 1	<input type="text"/>	<input type="text"/>	<input type="text"/>
A, part 2 (i)	<input type="text"/>	Nothing new to declare	2011
A, part 2 (ii)	<input type="text"/>	<input type="text"/>	<input type="text"/>
A, part 2 (iii)	<input type="text"/>	<input type="text"/>	<input type="text"/>
B	<input type="text"/>	<input type="text"/>	<input type="text"/>
C	<input type="text"/>	<input type="text"/>	<input type="text"/>
E	<input type="text"/>	<input type="text"/>	<input type="text"/>
F	<input type="text"/>	Nothing new to declare	2011
G	<input type="text"/>	Nothing new to declare	2011

Date: 15 April 2012

State Party to the Convention: [Australia](#)

Date of ratification/accession to the Convention: [Signed 10 April 1972, and ratified 5 October 1977](#)

National point of contact: [International Security Division, Department of Foreign Affairs and Trade](#)

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### **Active promotion of contacts**

The Third Review Conference agreed that States parties continue to implement the following:

"Active promotion of contacts between scientists, other experts and facilities engaged in biological research directly related to the Convention, including exchanges and visits for joint research on a mutually agreed basis."

In order to actively promote professional contacts between scientists, joint research projects and other activities aimed at preventing or reducing the occurrence of ambiguities, doubts and suspicions and at improving international cooperation in the field of peaceful bacteriological (biological) activities, the Seventh Review Conference encouraged States parties to share forward looking information, to the extent possible,

- on planned international conferences, seminars, symposia and similar events dealing with biological research directly related to the Convention, and
- on other opportunities for exchange of scientists, joint research or other measures to promote contacts between scientists engaged in biological research directly related to the Convention,

including through the Implementation Support Unit (ISU) within the United Nations Office for Disarmament Affairs.



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3. Location and postal address

\_\_\_\_\_

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\_\_\_\_\_

\_\_\_\_\_

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4. Source(s) of financing of the reported activity, including indication if the activity is wholly or partly financed by the Ministry of Defence

\_\_\_\_\_

5. Number of maximum containment units<sup>5</sup> within the research centre and/or laboratory, with an indication of their respective size (m<sup>2</sup>)

\_\_\_\_\_

6. Scope and general description of activities, including type(s) of micro-organisms and/or toxins as appropriate

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<sup>5</sup> In accordance with the latest edition of the WHO Laboratory Biosafety Manual, or equivalent.

***Background Information***

Australia has four maximum containment units which meet the criteria for a “maximum containment laboratory” as specified in the latest edition of the WHO Laboratory Biosafety Manual.

They are:

- The Australian Animal Health Laboratory (**Attachment 1.2**)
- The National High Security Quarantine Laboratory (**Attachment 1.3**)
- The Queensland Health Forensic and Scientific Services Virology Laboratory (**Attachment 1.4**)
- The Emerging Infectious Diseases and Biohazard Response Unit (**Attachment 1.5**)

Data on these facilities relating to questions 1 to 7 of Form A, Part 1(i) are provided below.

**1. Name of facility**

Australian Animal Health Laboratory (AAHL)

**2. Responsible public or private organisation/company**

Commonwealth Scientific and Industrial Research Organisation (CSIRO) (Federal Government) and the Department of Agriculture, Fisheries and Forestry (Federal Government). Note: Australia has a two-tiered system of Government, with the Federal Government and, to a lesser extent, the six respective State Governments and two Territories all involved in the formulation and implementation of Government policy.

**3. Location and postal address**

Location	Postal address
5 Port Arlington Road Geelong, Victoria AUSTRALIA	PO Bag 24 Geelong VIC 3220 AUSTRALIA

**4. Source(s) of financing of the reported activity, including indication if the activity is wholly or partly financed by the Ministry of Defence**

The AAHL is funded by the Australian Government, via CSIRO and the Department of Agriculture, Fisheries and Forestry. It is also funded by industry organisations and commercial companies.

**5. Number of maximum containment units within the research centre and/or laboratory, with an indication of their respective size (m<sup>2</sup>)**

There are four maximum containment (BSL/PC4) facilities. A laboratory of 90 m<sup>2</sup>, two animal facilities of 127m<sup>2</sup> combined and a combined laboratory/animal facility/insectary of 350m<sup>2</sup>.

**6. If no maximum containment unit, indicate highest level of protection**

N/A

**7. Scope and general description of activities, including type(s) of microorganisms and/or toxins as appropriate.**

The AAHL plays a vital role in maintaining Australia's capability to diagnose quickly exotic (foreign) and emerging animal diseases. This is achieved through ongoing research programs to develop the most sensitive, accurate and timely diagnostic tests, which are critical to the success of any eradication campaign in the event of a disease outbreak.

AAHL also undertakes research on exotic, new and emerging diseases to better understand the disease process and drivers for emergence of new diseases, to develop new diagnostic tests, vaccines and treatments for endemic animal diseases of national importance. Major diseases of livestock, aquaculture animals, and wildlife, are studied. AAHL includes a high-biocontainment facility, to safely fulfil its major role of diagnosing emergency animal disease outbreaks.

The laboratory is a World Animal Health Organisation (OIE) reference laboratory for avian influenza, Newcastle disease, bluetongue disease, and Epizootic Haematopoietic Necrosis Virus (EHNV). The AAHL is also an OIE

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Collaborating Centre for New and Emerging Diseases, a World Health Organisation (WHO) Collaborating Centre for Severe Acute Respiratory Syndrome (SARS), and a national reference laboratory for rabies and *Brucella sp.*

As a microbiologically secure laboratory, AAHL does work with several security sensitive biological agents (SSBAs) and as such, is a registered SSBA facility and complies with the security requirements of the Australian National Health Security Act, 2007 (detailed in Form E).

**1. Name of facility**

National High Security Quarantine Laboratory (NHSQL)

**2. Responsible public or private organisation/company:**

Department of Health and Ageing (Commonwealth Government), Victorian Department of Human Services (State Government).

**3. Location and postal address:**

Location	Postal address
Victorian Infectious Diseases Reference Laboratory 10 Wreckyn Street North Melbourne VIC AUSTRALIA	National High Security Quarantine Laboratory c/o VIDRL Locked Bag 815 Carlton South VIC 3053 AUSTRALIA

**4. Source(s) of financing, of the reported activity, including indication if the activity is wholly or partly financed by the Ministry of Defence**

This facility receives no funding from the Australian Government Department of Defence. It receives funding from the Commonwealth and State Departments of Health.

**5. Number of maximum containment units within the research centre and/or laboratory, with an indication of their respective size (m<sup>2</sup>)**

One high security laboratory, containing two portable isolation units. Total area 90m<sup>2</sup>.

**6. If no maximum containment unit, indicate highest level of protection**

N/A

**7. Scope and general description of activities, including type(s) of micro-organism and/or toxins as appropriate**

The diagnosis of possible imported cases of viral haemorrhagic fever or other quarantinable diseases that present a significant danger to the Australian community. Development of laboratory tests and protocols for exotic respiratory viral diseases, including *influenzavirus A/H5N1* ('bird flu') and SARS. In addition, VIDRL has established and maintained the capability to perform diagnostic testing for the *variola virus*. See also background information.



**1. Name of facility**

Queensland Health Forensic Scientific Services (QHFSS).

**2. Responsible public or private organisation/company:**

Queensland Department of Health (State Government).

**3. Location and postal address:**

Location	Postal address
39 Kessels Road Coopers Plains QLD AUSTRALIA	PO Box 594 Archerfield QLD 4108 AUSTRALIA

**4. Source(s) of financing, of the reported activity, including indication if the activity is wholly or partly financed by the Ministry of Defence**

This facility receives no funding from the Australian Government Department of Defence. It receives funding from Queensland Department of Health.

**5. Number of maximum containment units within the research centre and/or laboratory, with an indication of their respective size (m<sup>2</sup>)**

Two. Total area 150m<sup>2</sup>.

**If no maximum containment unit, indicate highest level of protection**

N/A.

**7. Scope and general description of activities, including type(s) of micro-organism and/or toxins as appropriate**

The maximum containment facility at QHFSS, a state government public health virology laboratory, has both a diagnostic and a research function. The maximum containment facilities are used for the development and performance of diagnostic tests on patients with suspected exotic or endemic viral illness. This includes Henipah viruses or exotic haemorrhagic fever viruses. The only PC4 level pathogens that the laboratory has are Hendra virus and SARS coronavirus (AQIS QC4), which are used for diagnostic purposes. The laboratory intends to introduce reagents useful for the diagnosis of a number of exotic viral diseases including Ebola, Marburg, Lassa, Junin, Rift Valley fevers and Hantavirus among others. These reagents will consist of either inactivated diagnostic reagents, cloned viral subunits or live virus.

During 2011 the Class III biological safety cabinets were replaced and some refurbishment of the facility undertaken. Research to develop recombinant proteins for Hendra and Nipah virus for diagnostic test development was undertaken. Recertification to AQIS QC4 and OGTR PC4 level was sought and granted. Hendra virus was diagnosed from horses only in 2011. Sequencing was undertaken.

- 1. Name(s) of facility**

Emerging Infections and Biohazard Response Unit (EIBRU).
- 2. Responsible public or private organization or company**

Institute for Clinical Pathology and Medical Research (ICPMR), Sydney West Area Health Service.
- 3. Location and postal address**

Centre for Infectious Diseases and Microbiology  
Laboratory Services (CIDMLS)  
ICPMR  
Institute Road.  
Westmead NSW 2145
- 4. Source(s) of financing of the reported activity, including indication if the activity is wholly or partly financed by the Ministry of Defence**

This facility receives no funding from the Australian Government Department of Defence. It is funded by New South Wales Department of Health.
- 5. Number of maximum containment units within the research centre and/or laboratory, with an indication of their respective size (m<sup>2</sup>)**

One maximum containment PC4 unit—Laboratory work area 85.5m<sup>2</sup>.
- 6. If no maximum containment unit, indicate highest level of protection**

N/A
- 7. Scope and general description of activities, including type(s) of microorganisms and/or toxins as appropriate**

Laboratory investigation of human specimens or substances suspected of containing an exotic agent, emerging infectious disease or bioterrorism agent such as pandemic influenza, anthrax and ricin toxin for the state of New South Wales.

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**Form A, part 1 (ii)**

If no BSL4 facility is declared in Form A, part 1 (i), indicate the highest biosafety level implemented in facilities handling biological agents<sup>6</sup> on a State Party's territory:

Not applicable. Australia has declared maximum containment facilities in Form A, part 1 (i)

Biosafety level 3 <sup>7</sup>	yes / no
Biosafety level 2 <sup>8</sup> (if applicable)	yes / no

Any additional relevant information as appropriate:

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<sup>6</sup> Microorganisms pathogenic to humans and/or animals

<sup>7</sup> In accordance with the latest edition of the WHO Laboratory Biosafety Manual and/or the OIE Terrestrial Manual or other equivalent internationally accepted guidelines.

<sup>8</sup> In accordance with the latest edition of the WHO Laboratory Biosafety Manual and/or the OIE Terrestrial Manual or other equivalent internationally accepted guidelines.

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## **Part 2 Exchange of information on national biological defence research and development programmes**

At the Third Review Conference it was agreed that States Parties are to implement the following:

In the interest of increasing the transparency of national research and development programmes on biological defence, the States Parties will declare whether or not they conduct such programmes. States Parties agreed to provide, annually, detailed information on their biological defence research and development programmes including summaries of the objectives and costs of effort performed by contractors and in other facilities. If no biological defence research and development programme is being conducted, a null report will be provided.

States Parties will make declarations in accordance with the attached forms, which require the following information:

- (1) The objective and summary of the research and development activities under way indicating whether work is conducted in the following areas: prophylaxis, studies on pathogenicity and virulence, diagnostic techniques, aerobiology, detection, treatment, toxinology, physical protection, decontamination and other related research;
- (2) Whether contractor or other non-defence facilities are utilized and the total funding provided to that portion of the programme;
- (3) The organizational structure of the programme and its reporting relationships; and
- (4) The following information concerning the defence and other governmental facilities in which the biological defence research and development programme is concentrated;
  - (a) location;
  - (b) the floor areas (sqM) of the facilities including that dedicated to each of BL2, BL3 and BL4 level laboratories;
  - (c) the total number of staff employed, including those contracted full time for more than six months;
  - (d) numbers of staff reported in (c) by the following categories: civilian, military, scientists, technicians, engineers, support and administrative staff;
  - (e) a list of the scientific disciplines of the scientific/engineering staff;
  - (f) the source and funding levels in the following three areas: research, development, and test and evaluation; and
  - (g) the policy regarding publication and a list of publicly-available papers and reports.

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**Form A, part 2 (i)**

**National biological defence research and development programmes  
Declaration**

Are there any national programmes to conduct biological defence research and development within the territory of the State Party, under its jurisdiction or control anywhere? Activities of such programmes would include prophylaxis, studies on pathogenicity and virulence, diagnostic techniques, aerobiology, detection, treatment, toxinology, physical protection, decontamination and other related research.

Yes. Australia has a science and technology program in defence against biological agents, which occurs in the Defence Science and Technology Organisation (DSTO), Department of Defence, as detailed below (see Form A, Part 2(ii)).

If the answer is Yes, complete Form A, part 2 (ii) which will provide a description of each programme.

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## Form A, part 2 (ii)

### National biological defence research and development programmes

#### Description

1. State the objectives and funding of each programme and summarize the principal research and development activities conducted in the programme. Areas to be addressed shall include: prophylaxis, studies on pathogenicity and virulence, diagnostic techniques, aerobiology, detection, treatment, toxinology, physical protection, decontamination and other related research.

The objective of the program is to provide the Australian Government with an appropriate understanding of the issues pertinent to protection against biological weapons. The program contributes to Defence support to the civil power (e.g. police and hospitals) in the management of biological threats to the community. The program also assists in the provision of a defensive capability for the Australian Defence Force (ADF) by enhancing the ability of the ADF to operate in parts of the world where biological weapons might be used. It also enhances Australia's ability to contribute to biological arms control verification. The principal research activities are concerned with the detection, diagnosis and analysis of biological species that have been identified as potential biological warfare agents and development of medical countermeasures to those agents. The program also covers toxins that are considered threats in terms of both the Biological and Chemical Weapons Conventions.

2. State the total funding for each programme and its source.

The program is funded solely by the Australian Department of Defence, with an allocation for the calendar year (1 January – 31 December 2011) of approximately \$2 500 000.

3. Are aspects of these programmes conducted under contract with industry, academic institutions, or in other non-defence facilities?

Yes. Work is contracted to non-defence facilities

4. If yes, what proportion of the total funds for each programme is expended in these contracted or other facilities?

For the calendar year 2011, the following payments were made;

- \$30,000 (approx.) to Metabolomics Australia.

5. Summarize the objectives and research areas of each programme performed by contractors and in other facilities with the funds identified under paragraph 4.

Metabolomics Australia was funded to provide GC-MS and LC-MS analysis of urine samples as part of a predictive diagnosis program.

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6. Provide a diagram of the organizational structure of each programme and the reporting relationships (include individual facilities participating in the programme).

The organisational structure is as follows. There is a single active research cell operating within the Department of Defence within the hierarchy represented below.



7. Provide a declaration in accordance with Form A, part 2 (iii) for each facility, both governmental and non-governmental, which has a substantial proportion of its resources devoted to each national biological defence research and development programme, within the territory of the reporting State, or under its jurisdiction or control anywhere.

See Form A, Part 2(iii) and the associated attachment (**Attachment 2** below) for Australia's response.

### **Form A, part 2 (iii)**

#### **National biological defence research and development programmes**

##### **Facilities**

Complete a form for each facility declared in accordance with paragraph 7 in Form A, part 2 (ii).

In shared facilities, provide the following information for the biological defence research and development portion only.

Australia's submission of Form A, Part 2 (iii) is at **Attachment 2** below.

1. What is the name of the facility?
2. Where is it located (include both address and geographical location)?

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3. Floor area of laboratory areas by containment level:  
BL2 \_\_\_\_\_ (sqM)  
BL3 \_\_\_\_\_ (sqM)  
BL4 \_\_\_\_\_ (sqM)  
Total laboratory floor area \_\_\_\_\_ (sqM)

4. The organizational structure of each facility.

(i) Total number of personnel \_\_\_\_\_

(ii) Division of personnel:

Military \_\_\_\_\_

Civilian \_\_\_\_\_

(iii) Division of personnel by category:

Scientists \_\_\_\_\_

Engineers \_\_\_\_\_

Technicians \_\_\_\_\_

Administrative and support staff \_\_\_\_\_

(iv) List the scientific disciplines represented in the scientific/engineering staff.

(v) Are contractor staff working in the facility? If so, provide an approximate number.

(vi) What is (are) the source(s) of funding for the work conducted in the facility, including indication if activity is wholly or partly financed by the Ministry of Defence?

(vii) What are the funding levels for the following programme areas:

Research \_\_\_\_\_

Development \_\_\_\_\_

Test and evaluation \_\_\_\_\_

(viii) Briefly describe the publication policy of the facility:



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(ix) Provide a list of publicly-available papers and reports resulting from the work published during the previous 12 months. (To include authors, titles and full references.)

5. Briefly describe the biological defence work carried out at the facility, including type(s) of micro-organisms<sup>9</sup> and/or toxins studied, as well as outdoor studies of biological aerosols.

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<sup>9</sup> Including viruses and prions.

**National biological defence research and development programme****Facilities**

Australia has one facility that meets the criteria of paragraph 7 in Form A, part 2 (ii).

**1. Name**

Biological Defence Research, Human Protection and Performance Division, DSTO

**2. Location**

Location	Postal address
506 Lorimer Street Fishermans Bend Victoria AUSTRALIA	Platforms Sciences Laboratory (PSL) 506 Lorimer Street Fishermans Bend Victoria AUSTRALIA

<b>3. Floor Area</b>	BL2	150 square metres
	BL3	60
	BL4	nil

**4. Personnel**

- (i) There are 23 full-time equivalent positions for the combined biological defence and arms control programs. Due to the allocation of work, this equates to 29 personnel working in this area in 2011.
- (ii) All personnel are civilian.
- (iii) Personnel comprise 29 scientists, nil engineers, and the full-time equivalent of one shared administrative/support staff.
- (iv) There are no contracted staff members working on this program at the facility.
- (v) Scientific disciplines represented are biochemistry, molecular biology, microbiology, immunology, chemistry, pharmacology, mathematics and physics.
- (vi) Research is currently wholly financed by the Department of Defence.
- (vii) Research is funded at approximately \$2 500 000 per annum.
- (viii) Publication in scientific journals is encouraged, as it is a mechanism for staff to maintain their professional status.
- (ix) Publications are listed at **Attachment 4** (see Form C).

**5. Description of Biological Defence Work**

Various types of work are undertaken, as outlined in the following sections:

*(1) Detection of biological entities recognised as potential biological warfare agents*

Immunological and gene-based techniques for rapid identification of BWA (Biological Warfare Agents) have been developed.

Poly and monoclonal antibodies are being produced against several BWA, including *Burkholderia pseudomallei*, *Bacillus anthracis*, anthrax toxins and ricin. Some of the antibodies are being evaluated as molecular recognition reagents for the detection of respective target agents.

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Current research focuses on the evaluation of DNA-based and immunoassay platforms, and reagents that enable rapid identification and characterisation of bacterial, viral and toxin agents, including microbial antibiotic resistance and genetically manipulated bacteria.

*(2) Development of predictive diagnostics and health monitoring systems for BWA*

A predictive diagnostics program has been established, that aims to develop point-of-care platforms that allow pre-symptomatic detection and diagnosis of BWA. Current work involves the use of metabolomic and proteomic techniques to identify biofluid markers in the host that appear on exposure to detect early infection in humans.

A recently established virology program that is integrated with the predictive diagnostics program aims to monitor ADF personnel for viruses causing encephalitis symptoms such as Ross River Virus, Murray Valley Encephalitis Virus, bunya - viruses and rabdo – viruses.

*(3) Physical methods for rapid detection of bio-aerosols*

Methods of particle characterisation for provision of rapid warning of a bio-aerosol are being assessed.

*(4) Protection/Treatment/Toxicology*

Neutralization and cytotoxicity assays have been developed to assess the usefulness of potential therapeutic agents such as antibodies and antimicrobial peptides. Platforms for the amplification of antibody avidity, such as self-assembling gels, are also being investigated.

Data mining and bioinformatics have been used to identify key virulence factors that are present in multiple bacterial pathogens including the intracellular bacterium *Coxiella burnetii* which causes the disease Q fever in humans. Some of these virulence factors have been evaluated as the targets for drug development. In addition, an *in-house* capability to grow *C. burnetii* in a host-cell free environment has been developed to facilitate further studies into enhanced medical countermeasures against this bacterium.

Human and mouse lung cells have been used as a test bed for examining potential therapeutic compounds against toxin agents. Compounds for treatment of ricin intoxication are currently being examined.

*(5) Detection of biological toxins using physico-chemical methods*

Studies on detection of biological material using mass spectrometry and other physico-chemical methods are being conducted to determine their utility for field detection of biological toxins and BWC verification procedures. This work has included the analysis of ricin and crude extracts of ricin by MALDI and FT-ICR mass spectrometry.

*(6) Strengthening the Biological Weapons Convention (BWC)*

A number of BWC/Biosecurity Regional Workshops have been convened and/or supported by Australia since 2005, with scientific and technical support provided by DSTO. The objectives of these workshops has been to assist BWC States Parties in the Asia-Pacific region become more engaged with the Geneva-based intersessional program of work as a means to reduce the possibility of bioterrorism in the region, or the inadvertent assistance by states in the region to biological weapons programs being developed elsewhere. This outreach process has also led to regional countries conducting their own specialised workshops on biosafety and biosecurity, including the Regional BWC Workshop in Manila in July 2011.

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## **Confidence-Building Measure "B"**

### **Exchange of information on outbreaks of infectious diseases and similar occurrences caused by toxins**

At the Third Review Conference it was agreed that States Parties continue to implement the following:

Exchange of information on outbreaks of infectious diseases and similar occurrences caused by toxins, and on all such events that seem to deviate from the normal pattern as regards type, development, place, or time of occurrence. The information provided on events that deviate from the norm will include, as soon as it is available, data on the type of disease, approximate area affected, and number of cases.

The Seventh Review Conference agreed the following:

No universal standards exist for what might constitute a deviation from the normal pattern.

#### **Modalities**

The Third Review Conference agreed on the following, later amended by the Seventh Review Conference:

1. Exchange of data on outbreaks that seem to deviate from the normal pattern is considered particularly important in the following cases:

- When the cause of the outbreak cannot be readily determined or the causative agent<sup>10</sup> is difficult to diagnose,
- When the disease may be caused by organisms which meet the criteria for risk groups III or IV, according to the classification in the latest edition of the WHO Laboratory Biosafety Manual,
- When the causative agent is exotic to a given geographical region,
- When the disease follows an unusual pattern of development,
- When the disease occurs in the vicinity of research centres and laboratories subject to exchange of data under item A,
- When suspicions arise of the possible occurrence of a new disease.

2. In order to enhance confidence, an initial report of an outbreak of an infectious disease or a similar occurrence that seems to deviate from the normal pattern should be given promptly after cognizance of the outbreak and should be followed up by annual reports. To enable States Parties to follow a standardized procedure, the Conference has agreed that Form B should be used, to the extent information is known and/or applicable, for the exchange of annual information.

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<sup>10</sup> It is understood that this may include organisms made pathogenic by molecular biology techniques, such as genetic engineering.

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3. The declaration of electronic links to national websites or to websites of international, regional or other organizations which provide information on disease outbreaks (notably outbreaks of infectious diseases and similar occurrences caused by toxins that seem to deviate from the normal pattern) may also satisfy the declaration requirement under Form B.

4. In order to improve international cooperation in the field of peaceful bacteriological (biological) activities and in order to prevent or reduce the occurrence of ambiguities, doubts and suspicions, States Parties are encouraged to invite experts from other States Parties to assist in the handling of an outbreak, and to respond favourably to such invitations, respecting applicable national legislation and relevant international instruments.

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## Form B

### Information on outbreaks of infectious diseases and similar occurrences, that seem to deviate from the normal pattern<sup>11</sup>

In 2011, Australia had no outbreaks of infectious diseases and similar occurrences caused by toxins that seemed to deviate from the normal pattern. However, **Attachments 3.1, 3.2 and 3.3** below provide information on outbreaks of infectious disease and similar occurrences in humans, animals and plants.

1. Time of cognizance of the outbreak  
\_\_\_\_\_
2. Location and approximate area affected  
\_\_\_\_\_
3. Type of disease/intoxication  
\_\_\_\_\_
4. Suspected source of disease/intoxication  
\_\_\_\_\_
5. Possible causative agent(s)  
\_\_\_\_\_
6. Main characteristics of systems  
\_\_\_\_\_
7. Detailed symptoms, when applicable
  - respiratory  
\_\_\_\_\_
  - circulatory  
\_\_\_\_\_
  - neurological/behavioural  
\_\_\_\_\_
  - intestinal  
\_\_\_\_\_
  - dermatological  
\_\_\_\_\_
  - nephrological  
\_\_\_\_\_
  - other  
\_\_\_\_\_
8. Deviation(s) from the normal pattern as regards
  - type  
\_\_\_\_\_

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<sup>11</sup> See paragraph 2 of the chapeau to Confidence-Building Measure B.

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- development  
\_\_\_\_\_
  - place of occurrence  
\_\_\_\_\_
  - time of occurrence  
\_\_\_\_\_
  - symptoms  
\_\_\_\_\_
  - virulence pattern  
\_\_\_\_\_
  - drug resistance pattern  
\_\_\_\_\_
  - agent(s) difficult to diagnose  
\_\_\_\_\_
  - presence of unusual vectors  
\_\_\_\_\_
  - other  
\_\_\_\_\_
9. Approximate number of primary cases  
\_\_\_\_\_
10. Approximate number of total cases  
\_\_\_\_\_
11. Number of deaths  
\_\_\_\_\_
12. Development of the outbreak  
\_\_\_\_\_
13. Measures taken  
\_\_\_\_\_

## **Human diseases**

The Australian Government Department of Health and Ageing (DoHA) through the Office of Health Protection has overall responsibility for national communicable disease surveillance. State and territory health departments collect notifications of communicable diseases from doctors, hospitals and/or laboratories under their public health legislation. In September 2007, the *National Health Security Act 2007* received Royal Assent. This Act provides a legislative basis for and authorises exchange of information, including personal information, between states and territories and the Australian Government. The Act provides for the establishment of the National Notifiable Diseases List (NNDL), which specifies the diseases about which personal information can be provided. There are currently 69 diseases on the NNDL. The *National Health Security Agreement*, which was drafted in 2007 and signed by Health Ministers in 2008, establishes operational arrangements to formalise and enhance existing surveillance and reporting systems. Under the Agreement states and territories forward de-identified data on the nationally agreed set of 65 communicable diseases to the Department's National Notifiable Diseases System database for the purposes of national communicable disease surveillance. The diseases HIV, AIDS, CJD and vCJD are reported through different mechanisms.

Further information is collected from other national, state and sentinel surveillance systems to supplement notifications data for some diseases. This includes data on severity, strains and risk factors.

The Department is responsible for timely and accurate intelligence-gathering, analysis and reporting of communicable diseases, both current and emerging, and coordinates the provision of daily reports available on the Department's website ([www.health.gov.au/nndssdata](http://www.health.gov.au/nndssdata)), fortnightly summary reports through the Communicable Diseases Network Australia (CDNA) (<http://www.health.gov.au/cdnareport>), and quarterly data summaries published in *Communicable Diseases Intelligence* (<http://www.health.gov.au/internet/main/publishing.nsf/Content/cda-pubs-cdi-cdiintro.htm>). *Communicable Diseases Intelligence* is also published on the Department's website.

CDNA provides national public health co-ordination on communicable disease surveillance, prevention and control, and offers strategic advice to governments and other key bodies on public health actions to minimise the impact of communicable diseases in Australia and the region. Its members include representatives from the Australian commonwealth, state and territory governments, New Zealand, key organisations in the communicable diseases field, and others with relevant expertise. CDNA holds fortnightly teleconferences to share and evaluate the latest information and developments in communicable diseases surveillance and enables federal and state health authorities to cooperate in taking prompt action to control outbreaks.



**No. of cases of Nationally Notifiable Communicable Diseases in Humans, 2006 to 2011\***

<b>Disease</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
Anthrax	1	1	0	0	1	12
Arbovirus (NEC)	30	17	12	8	24	13
Barmah Forest virus infection	2130	1712	2087	1480	1471	1864
Botulism	1	1	0	1	0	2
Brucellosis	50	37	45	32	21	40
Campylobacteriosis	15423	16990	15543	16081	16966	17722
Congenital Rubella	0	2	0	0	0	0
Congenital Syphilis	11	7	6	3	3	7
Chlamydial (NEC)	47434	51971	58435	62631	74305	80785
Cholera	3	4	4	5	3	6
Cryptosporidiosis	3201	2810	2003	4626	1479	1805
Dengue	189	314	563	1406	1201	807
Diphtheria	0	0	0	0	0	4
Donovanosis	6	3	2	1	1	0
Gonococcal infection	8597	7635	7642	7963	9971	12116
Haemolytic uraemic syndrome	14	19	31	13	8	12
Haemophilus influenzae type b	22	17	25	19	24	13
Hepatitis (NEC)	1	0	1	0	0	0
Hepatitis A	281	165	277	563	263	144
Hepatitis B (newly acquired)	292	294	256	241	229	184
Hepatitis B (unspecified)	6207	6843	6509	7094	7450	6668
Hepatitis C (newly acquired)	442	380	364	385	362	280
Hepatitis C (unspecified)	11843	11822	11094	11089	11802	9997
Hepatitis D	30	33	42	35	35	35
Hepatitis E	23	18	44	33	38	39
Highly pathogenic avian influenza (HPAI)	0	0	0	0	0	0
Influenza (laboratory confirmed)	3327	10600	9223	59090	13419	27067
Japanese encephalitis	0	0	1	0	0	0
Kunjin virus	3	1	1	2	2	2
Legionellosis	349	307	272	302	298	343
Leprosy	7	13	11	4	11	7
Leptospirosis	145	108	112	146	131	215
Listeriosis	61	50	68	92	71	70
Lyssavirus (NEC)	0	0	0	0	0	0
Malaria	770	565	524	508	399	412
Measles	125	12	65	104	70	193
Meningococcal infection	318	305	286	259	230	241
Mumps	275	582	285	165	95	149
Murray Valley encephalitis	1	0	2	4	0	16

Ornithosis	165	93	102	65	56	84
Pertussis	9764	4864	14292	29794	34793	38564
Plague	0	0	0	0	0	0
Pneumococcal disease (invasive)	1451	1476	1628	1557	1644	1881
Poliomyelitis	0	1	0	0	0	0
Q fever	411	449	376	310	323	318
Rabies	0	0	0	0	0	0
Ross River virus infection	5529	4180	5663	4796	5147	5146
Rubella	59	34	36	27	44	58
Salmonellosis (NEC)	8251	9534	8333	9586	11992	12277
Severe acute respiratory syndrome (SARS)	0	0	0	0	0	0
Shigellosis	546	599	830	622	552	496
SLTEC/VTEC	70	106	107	130	81	96
Smallpox	0	0	0	0	0	0
Syphilis	0	0	0	0	0	1
Syphilis – Infectious (<2 years duration)	890	1185	1325	1310	1099	1225
Syphilis - >2 years or unspecified duration	1315	1351	1370	1398	1241	1253
Tetanus	3	3	4	0	2	3
Tuberculosis	1211	1134	1196	1324	1327	1220
Tularaemia	0	0	0	0	0	2
Typhoid	77	90	105	116	96	133
Varicella zoster (Chickenpox)	1553	1667	1799	1753	1743	2085
Varicella zoster (Shingles)	1089	1562	2326	2716	2978	3976
Varicella zoster (Unspecified)	3763	4284	4411	6775	7152	7744
Viral haemorrhagic fever	0	0	0	0	0	0
Yellow fever	0	0	0	0	0	2

\* 2011 provisional figures only awaiting finalisation from the state and territory health departments

### Animal disease

The Australian Government Department of Agriculture, Fisheries and Forestry is responsible for national coordination on animal health matters and for providing reports on Australia's animal health status, including a joint annual return to the World Organisation for Animal Health (OIE), the Food and Agriculture Organization (FAO) and the WHO.

The following sections contain information on significant animal disease events/issues in 2011. Australia publishes quarterly reports<sup>12</sup> and annual reports<sup>13</sup> on animal health incidents and status, as well as providing emergency, six-monthly and annual reports to the OIE<sup>14</sup>. Australia's status for OIE-listed diseases for 2011 is shown in the table that follows.

Table 2.1 Australia's status for OIE-listed diseases of terrestrial animals, 2011

Disease	Status	Date of last occurrence and notes
<b>Multiple-species diseases</b>		
Anthrax	Present	Limited distribution; last occurrence 2010
Aujeszky's disease	Free	Never occurred
Bluetongue	Viruses present	Restricted to specific northern areas of Australia; sentinel herd program
Brucellosis ( <i>Brucella abortus</i> )	Free	Australia declared freedom in 1989
Brucellosis ( <i>B. melitensis</i> )	Free	
Brucellosis ( <i>B. suis</i> )	Serological evidence	Maintained in feral pigs in northern Australia; rare occurrence in domestic pigs; occurred in free-range piggery in 2010
Crimean Congo haemorrhagic fever	Free	Never occurred
Echinococcosis/hydatidosis	Present	
Epizootic haemorrhagic disease	Virus present	Disease has not been reported
Equine encephalomyelitis (eastern)	Free	Never occurred
Foot-and-mouth disease	Free	1872; officially recognised by the OIE as free without vaccination
Heartwater	Free	Never occurred
Japanese encephalitis	Serological	Detected annually in Torres Strait, and on Cape York in 1998

<sup>12</sup> <http://www.animalhealthaustralia.com.au/status/ahsq.cfm>

<sup>13</sup> <http://www.animalhealthaustralia.com.au/status/ahia.cfm>

<sup>14</sup> <http://web.oie.int/wahis/public.php?page=home>

Table 2.1 Australia's status for OIE-listed diseases of terrestrial animals, 2011

<b>Disease</b>	<b>Status</b>	<b>Date of last occurrence and notes</b>
	evidence	and 2004
New World screw-worm fly ( <i>Cochliomyia hominivorax</i> )	Free	Never occurred
Old World screw-worm fly ( <i>Chrysomya bezziana</i> )	Free	Never occurred
Paratuberculosis	Present	National control/management programs
Q fever	Present	
Rabies	Free	1867
Rift Valley fever	Free	Never occurred
Rinderpest	Free	1923
Surra ( <i>Trypanosoma evansi</i> )	Free	Never occurred
Trichinellosis	Not reported	<i>Trichinella spiralis</i> not present; <i>T. pseudospiralis</i> present in wildlife
Tularaemia	Free	Never occurred
Vesicular stomatitis	Free	Never occurred
West Nile fever	Free	Never occurred
<b>Cattle diseases</b>		
Bovine anaplasmosis	Present	
Bovine babesiosis	Present	
Bovine genital campylobacteriosis	Present	
Bovine spongiform encephalopathy	Free	Never occurred; National Transmissible Spongiform Encephalopathy Freedom Assurance Program includes surveillance; official OIE 'negligible risk' status
Bovine tuberculosis	Free	Australia declared freedom in 1997; last case in any species (including free-living) reported in 2002
Bovine viral diarrhoea	Present	Bovine viral diarrhoea virus (BVDV)-1 — present; BVDV-2 — never occurred
Contagious bovine pleuropneumonia	Free	1967; Australia declared freedom in 1973; officially recognised by the OIE as free
Enzootic bovine leucosis	Present	Licensed dairy cattle herds monitored free of disease; Australia declared provisional freedom of the Australian

Table 2.1 Australia's status for OIE-listed diseases of terrestrial animals, 2011

<b>Disease</b>	<b>Status</b>	<b>Date of last occurrence and notes</b>
		dairy herd, 2010.
Haemorrhagic septicaemia	Free	Never occurred; strains of <i>Pasteurella multocida</i> present, but not the 6b or 6e strains that cause haemorrhagic septicaemia
Infectious bovine rhinotracheitis/infectious pustular vulvovaginitis	Present	Bovine herpesvirus (BHV)-1.2b — present; BHV-1.1 and 1.2a — never occurred
Lumpy skin disease	Free	Never occurred
Theileriosis	Free	<i>Theileria parva</i> and <i>T. annulata</i> not present
Trichomonosis	Present	
Trypanosomosis (tsetse borne)	Free	Never occurred
<b>Sheep and goat diseases</b>		
Caprine arthritis–encephalitis	Present	Voluntary accreditation schemes exist
Contagious agalactia	Not reported	<i>Mycoplasma agalactiae</i> has been isolated, but Australian strains do not produce agalactia in sheep
Contagious caprine pleuropneumonia	Free	Never occurred
Enzootic abortion of ewes (ovine chlamydiosis)	Not reported	Never occurred
Maedi–visna	Free	Never occurred
Nairobi sheep disease	Free	Never occurred
Ovine epididymitis ( <i>Brucella ovis</i> )	Present	Voluntary accreditation schemes in all states
Peste des petits ruminants	Free	Never occurred
Salmonellosis ( <i>Salmonella Abortusovis</i> )	Free	Never occurred; <i>Salmonella Abortusovis</i> was isolated in 1994 from two children, but surveillance has shown no evidence of infection in sheep
Scrapie	Free	1952
Sheep pox and goat pox	Free	Never occurred
<b>Equine diseases</b>		
African horse sickness	Free	Never occurred
Contagious equine metritis	Free	1980
Dourine	Free	Never occurred
Equine encephalomyelitis (western)	Free	Never occurred

Table 2.1 Australia's status for OIE-listed diseases of terrestrial animals, 2011

<b>Disease</b>	<b>Status</b>	<b>Date of last occurrence and notes</b>
Equine infectious anaemia	Present	Limited distribution/sporadic occurrence
Equine influenza	Free	Australia's first outbreak of equine influenza occurred between 24 August and 25 December 2007; Australia declared freedom according to OIE standards on 25 December 2008
Equine piroplasmosis	Free	1976
Equine rhinopneumonitis	Present	
Equine viral arteritis	Serological evidence	
Glanders	Free	1891
Venezuelan equine encephalomyelitis	Free	Never occurred
<b>Swine diseases</b>		
African swine fever	Free	Never occurred
Classical swine fever	Free	1962
Nipah virus encephalitis	Free	Never occurred
Porcine cysticercosis	Free	Never occurred
Porcine reproductive and respiratory syndrome	Free	Never occurred
Swine vesicular disease	Free	Never occurred
Transmissible gastroenteritis	Free	Never occurred
<b>Avian diseases</b>		
Avian chlamydiosis	Present	
Avian infectious bronchitis	Present	
Avian infectious laryngotracheitis	Present	
Avian mycoplasmosis ( <i>Mycoplasma gallisepticum</i> )	Present	
Avian mycoplasmosis ( <i>M. synoviae</i> )	Present	
Duck virus hepatitis	Free	Never occurred
Fowl cholera	Present	
Fowl typhoid	Free	1952

Table 2.1 Australia's status for OIE-listed diseases of terrestrial animals, 2011

<b>Disease</b>	<b>Status</b>	<b>Date of last occurrence and notes</b>
Highly pathogenic avian influenza	Free	1997
Infectious bursal disease (Gumboro disease)	Present	Infectious bursal disease occurs in a mild form; very virulent strains not present
Low pathogenic notifiable avian influenza (poultry)	Free	Not reported in commercial poultry
Newcastle disease in poultry	Lentogenic viruses present	Virulent Newcastle disease last occurred in poultry 2002*
Pullorum disease	Present	Not in commercial chickens
Turkey rhinotracheitis	Free	Never occurred
<b>Lagomorph diseases</b>		
Myxomatosis	Present	Used as a biological control agent for wild rabbits
Rabbit haemorrhagic disease	Present	Used as a biological control agent for wild rabbits
<b>Bee diseases</b>		
Acarapisosis of honey bees	Free	Never occurred
American foulbrood of honey bees	Present	
European foulbrood of honey bees	Present	
Small hive beetle	Present	Restricted distribution
Tropilaelaps infestation of honey bees	Free	Never occurred
Varroosis of honey bees	Free	Varroa destructor has never been reported in Australia
<b>Other diseases</b>		
Camel pox	Free	Never occurred
Leishmaniosis	Novel organism found	A new Leishmania species has been isolated from skin lesions in a group of captive red kangaroos. Occasionally, cases of leishmaniosis are reported in imported dogs.

OIE = World Organisation for Animal Health

\* In August 2011 a paramyxovirus not previously reported in Australia was detected in hobby pigeons in Victoria. Disease cause by this avian paramyxovirus has not spread to poultry. Further details of this incident can be found at: <http://www.dpi.vic.gov.au/agriculture/pests-diseases-and-weeds/animal-diseases/pigeon-paramyxovirus>.

**Table 2.2 Australia's status for other diseases of terrestrial animals that are reported to the OIE each year, 2011**

<b>Disease</b>	<b>Status</b>	<b>Date of last occurrence and notes</b>
Actinomycosis	Present	
Avian encephalomyelitis	Present	
Avian leucosis	Present	
Avian salmonellosis (excluding fowl typhoid and pullorum disease)	Present	
Avian spirochaetosis	Present	
Blackleg	Present	
Botulism	Present	
Caseous lymphadenitis	Present	
Coccidiosis	Present	
Contagious ophthalmia	Present	
Contagious pustular dermatitis	Present	
Distomatosis (liver fluke)	Present	Restricted distribution
Enterotoxaemia	Present	
Equine coital exanthema	Present	
Filariosis	Present	
Footrot	Present	Restricted distribution
Infectious coryza	Present	
Intestinal <i>Salmonella</i> infections	Present	
Listeriosis	Present	
Melioidosis	Present	Restricted distribution
Nosemosis of bees	Present	
Salmonellosis ( <i>Salmonella</i> Abortusequi)	Free	Never reported
Sheep mange	Free	1896
Strangles	Present	
Swine erysipelas	Present	
Toxoplasmosis	Present	
Ulcerative lymphangitis	Free	Never reported
Vibronic dysentery	Present	
Warble fly infestation	Free	Never reported
Other clostridial infections	Present	
Other pasteurelloses	Present	



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## **Comments on selected OIE-listed diseases**

### *Anthrax*

Anthrax is on the list of nationally notifiable diseases and is subject to compulsory government controls, including quarantine, disposal of carcasses, and vaccination and tracing of at-risk animals and their products. Areas at risk of anthrax occurrence are well defined; they include the northern and northeastern districts of Victoria and central New South Wales. In these areas, anthrax has a low prevalence and occurs only sporadically. Anthrax has never been recorded in the Northern Territory. In Queensland, the last confirmed cases were in 2002 and 1993. South Australia's last recorded anthrax outbreak was in 1914 and Tasmania's was more than 75 years ago. The last case in Western Australia was an isolated case in 1994. The last cases of anthrax were in 2009 in Victoria, and 2010 in New South Wales.

### Plant pests and diseases<sup>15</sup>

The Australian Government Department of Agriculture, Fisheries and Forestry, through the Office of the Chief Plant Protection Officer, is the peak organisation responsible for gathering information on pests of plants. The Department is notified of exotic incursions through State and Territory government agricultural, forestry and natural resource agencies. It provides national leadership in responding to incursions of exotic pests and diseases of plants.

Number	Incident	Scientific Name	Issue Type	Host/Commodity	State/Territory	Notification Year	Notification Month
1.	<b>Cocoa Pod Borer 2011</b>	Conophomorpha cramerella	Invertebrate	Cocoa, rambutan, nam-nam, kola, <i>Pometia</i> sp.	QLD	2011	June
2.	<b>Rice Blast 2011</b>	Magnaporthe grisea (also known as <i>Pyricularia oryza</i> )	Pathogen	Rice	WA	2011	August
3.	<b>Mango malformation disorder 2011</b>	Giberella fujikuroi complex (member of)	Pathogen	Mango <i>Mangifera indica</i> "Calypso" variety.	QLD	2011	September
4.	<b>Potato spindle tuber viroid 2011</b>	Pospiviroid potato spindle tuber	Pathogen	Cherry tomatoes, Tomatoes	QLD, SA	2011	April, November
5.	<b>Cucurbit Aphid-borne Yellows Virus 2011</b>	Polerovirus Luteoviridae	Pathogen	Cucurbits	NT	2011	November
6.	<b>Garlic Allexivirus 2011</b>	Allexivirus, Aplphaflexiviridae	Pathogen	Garlic	WA	2011	August
7.	<b>Coffee Mealybug 2011</b>	Planococcus lilacinus	Invertebrate	Coconut palm ( <i>Cocos nucifera</i> )	QLD	2011	June

<sup>15</sup> Websites that regularly report plant pests and diseases are: <http://www.planthealthaustralia.com.au/go/phau/strategies-and-policy/national-plant-biosecurity-status-report>, and <http://www.outbreak.gov.au/>.

Number	Incident	Scientific Name	Issue Type	Host/Commodity	State/Territory	Notification Year	Notification Month
8.	<b>Jack Beardsley's mealybug 2011</b>	<i>Pseudococcus jackbeardsleyi</i>	Invertebrate	Cassava, <i>Manihot esculenta</i> Tick Weed, <i>Desmodium tortuosum</i>	QLD	2011	June
9.	<b>Cactus X Potexvirus 2011</b>	<i>Cactus X potexvirus</i>	Pathogen	Cacti plants ( <i>Hylocereus</i> grafted with <i>Jymnocalycium</i> pink, <i>Hylocereus</i> grafted with <i>Jymnocalycium</i> red, <i>Epiphyllum</i> cultivar No. 200)	VIC	2011	May
10.	<b>Cecidophyopsis hendersoni 2011</b>	<i>Cecidophyopsis hendersoni</i> (Keifer 1954)	Invertebrate	<i>Yucca elephantipes</i>	TAS	2011	October

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## Confidence-Building Measure "C"

### Encouragement of publication of results and promotion of use of knowledge

At the Third Review Conference it was agreed that States parties continue to implement the following:

Encouragement of publication of results of biological research directly related to the Convention, in scientific journals generally available to States parties, as well as promotion of use for permitted purposes of knowledge gained in this research.

### Modalities

The Third Review Conference agreed on the following:

1. It is recommended that basic research in biosciences, and particularly that directly related to the Convention should generally be unclassified and that applied research to the extent possible, without infringing on national and commercial interests, should also be unclassified.
2. States parties are encouraged to provide information on their policy as regards publication of results of biological research, indicating, *inter alia*, their policies as regards publication of results of research carried out in research centres and laboratories subject to exchange of information under item A and publication of research on outbreaks of diseases covered by item B, and to provide information on relevant scientific journals and other relevant scientific publications generally available to States parties.
3. The Third Review Conference discussed the question of cooperation and assistance as regards the safe handling of biological material covered by the Convention. It concluded that other international forums were engaged in this field and expressed its support for efforts aimed at enhancing such cooperation.

Australia's submission of Confidence Building Measure "C" with respect to the Defence Science and Technology Organisation is below.

### Human Protection and Performance Division, Defence Science Technology Organisation (DSTO)

The policy of the Defence Science and Technology Organisation is to publish results of a general scientific value in the open literature. Information that is more specialised and relevant particularly to defence is published in laboratory reports, which are unclassified and available to the public, unless they contain information that might prejudice the security of Australia or information that is commercial-in-confidence. Most results of the biological research will be either unclassified or "commercial-in-confidence".

Over the past 12 months, several articles have been published or accepted for publishing in the Australian and international scientific literature. These include:

Dawson, R. M., Fox, M. A., Atkins, H. S. and Liu, C. Q. (2011) Potent antimicrobial peptides with selectivity for *Bacillus anthracis* over human erythrocytes *Int J Antimicrob Agents* 38(3), 237-242.

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Nuttall, S. D., Wilkins, M. L., Streltsov, V. A., Pontes-Braz, L., Dolezal, O., Tran, H. and Liu, C. Q. (2011) Isolation, kinetic analysis, and structural characterization of an antibody targeting the *Bacillus anthracis* major spore surface protein BclA. *PROTEINS: Structure, Function, and Bioinformatics* 79, 1306-1617.

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### **Australian Animal Health Laboratory (AAHL)**

Consistent with the goal of encouraging publication of results and promotion of use of knowledge, AAHL has compiled the following list of relevant contributions

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Foord, Adam, Boyd, Vicky, Heine, Hans. A Loop Mediated Isothermal Amplification (LAMP) Assay for Detection of Hendra Virus (HeV) in the Field. In: 1st International One Health Congress; 14-16 February 2011; Melbourne, Vic; The Congress; 2011.

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## Confidence-Building Measure "E"

### Declaration of legislation, regulations and other measures

At the Third Review Conference the States parties agreed to implement the following, later amended by the Seventh Review Conference:

As an indication of the measures which they have taken to implement the Convention, States parties shall declare whether they have legislation, regulations or other measures:

(a) To prohibit and prevent the development, production, stockpiling, acquisition or retention of the agents, toxins, weapons, equipment and means of delivery specified in Article I of the Convention, within their territory or anywhere under their jurisdiction or under their control anywhere;

(b) In relation to the export or import of micro-organisms pathogenic to man, animals and plants or of toxins in accordance with the Convention;

(c) In relation to biosafety and biosecurity.

States parties shall complete the attached form (Form E) and shall be prepared to submit copies of the legislation or regulations, or written details of other measures on request to the Implementation Support Unit (ISU) within the United Nations Office for Disarmament Affairs or to an individual State party. On an annual basis States parties shall indicate, also on the attached form, whether or not there has been any amendment to their legislation, regulations or other measures.

### Form E

#### Declaration of legislation, regulations and other measures

Relating to	Legislation	Regulations	Other measures <sup>16</sup>	Amended since last year
(a) Development, production stockpiling, acquisition or retention of microbial or other biological agents, or toxins, weapons, equipment and means of delivery specified in Article I	Yes	Yes	No	Yes
(b) Exports of micro-organisms <sup>17</sup> and toxins	Yes	Yes	Yes	No
(c) Imports of micro-organisms <sup>11</sup> and toxins	Yes	Yes	No	No
(d) Biosafety <sup>18</sup> and biosecurity <sup>19</sup>	Yes	Yes	Yes	Yes

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<sup>16</sup> Including guidelines.

<sup>17</sup> Micro-organisms pathogenic to man, animals and plants in accordance with the Convention.

<sup>18</sup> In accordance with the latest version of the WHO Laboratory Biosafety Manual or equivalent national



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In addition to the above summary, an overview of key Australian Government legislation relevant to the BWC is provided below:

## **Background**

Australia has the following Australian Government legislation, regulations and other measures to declare under this confidence-building measure. Australia has taken a range of legislative and executive measures that ensure compliance with UN Security Council Resolution 1540 (2004).

Australia is fully committed to the work of the 1540 Committee in ensuring global implementation of this resolution. As well as legislation dedicated to Weapons of Mass Destruction (WMD), there is a considerable amount of health, safety and environmental legislation that control access to hazardous biological materials. The Australian Government is reviewing all WMD and hazardous materials controls, with a view to enhancing them if necessary for counter-terrorism purposes.

### ***National Health Security Act 2007***

The *National Health Security Act 2007* (NHS Act) was passed by the Australian Parliament in September 2007. It has two main operative parts: Part 2 of the Act enacts Australia's responsibilities under the International Health Regulations 2005 and formalises surveillance systems in Australia, while Part 3 establishes a regulatory scheme for biological agents of security concern. Part 3 of the NHS Act enables the Department of Health and Ageing to regulate the handling of Security Sensitive Biological Agents (SSBAs). The NHS Act establishes a list of SSBAs that are regulated, a National Register that is informed by mandatory reporting, purposes for which the SSBAs may be handled, security (physical, personnel, information management and transport) standards that must be met, exemptions from regulation, and an inspection and auditing scheme to monitor compliance with the regulatory scheme.

The regulatory scheme in Part 3 of the NHS Act is built around the List of SSBAs, which was established by the Minister for Health and Ageing in November 2008 and amended in November 2009. Changes to the operational detail of the regulatory scheme continued to be made as the need arises.

### ***Security Sensitive Biological Agent Standards***

The SSBA Standards set out minimum requirements relating to physical security, personnel, information management, decontamination and inactivation, disposal and transport of SSBAs. They include specific directions for dealing with biosecurity risks and establish a systematic approach to the management of the security of SSBAs. The SSBA Standards are comprised of normative requirements that are mandatory and informative statements to assist in meeting the normative statements.

The SSBA Standards were revised in July 2011 to incorporate the lessons learned during implementation and feedback from the regulated community, inspectors and other stakeholders. A further review and possible revision will be undertaken in 2012 to ensure the SSBA Standards maintain appropriate security measures.

The SSBA Regulatory Scheme is further strengthened through a background checking scheme for personnel who handle SSBAs. The background checks consist of a national criminal history check against a list of disqualifying offences and a security assessment. Together the checks are called a National Health Security check.

Inspections of facilities handling SSBAs continued in 2011. The inspections have revealed a high level of compliance. Registered facilities that handle Tier 1 SSBAs are inspected every 18 months. Registered facilities that handle Tier 2 SSBAs are inspected every two years. Inspection of non-registered facilities has also been undertaken.

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or international guidance.

<sup>19</sup> In accordance with the latest version of the WHO Laboratory Biosecurity Guidance or equivalent national or international guidance.

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### ***Chemical Weapons (Prohibition) Act 1994 and associated regulations***

This Act, administered by the Australian Safeguards and Non-Proliferation Office within the Department of Foreign Affairs and Trade, gives effect to Australia's obligations to the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction. The Act controls certain chemicals which may be used as weapons, including the natural toxins ricin and saxitoxin. The Act's general purpose criterion also applies to the hostile use of any chemical, including other toxins. The Act extends to the acts of Australian citizens outside Australia. Contravention of the Act is an indictable offence.

### ***Crimes (Biological Weapons) Act 1976***

This Act, which is administered by the Attorney-General, makes it unlawful for Australians to develop, produce, stockpile or otherwise acquire or retain microbial or other biological agents or toxins whatever their origin or method of production, of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes; or weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict. The Act extends to the acts of Australian citizens outside Australia. Contravention of the Act is an indictable offence.

### ***Crimes (Biological Weapons) Regulations 1980***

These Regulations specify the way in which substances acquired under the Act should be stored, disposed of and analysed.

### ***Customs Act 1901 and Customs (Prohibited Exports) Regulations***

Under the *Customs Act 1901*, the *Customs (Prohibited Exports) Regulations 1958* prohibits the exportation from Australia of defence and dual-use goods listed in the 'Defence and Strategic Goods List' (DSGL) without prior permission from the Minister for Defence or an authorised person. Under the regulations, the Minister for Defence may authorise in writing a person employed in the Department of Defence to approve exports of defence and dual-use goods listed on the DSGL. Applications to export goods listed in the DSGL are considered on a case-by-case basis against published policy criteria to ensure exports of defence and dual-use goods are consistent with Australia's broader national interests and international obligations.

The DSGL is divided into two parts: Part 1 of the DSGL covers defence and related goods, which are those goods and technologies designed or adapted for use by armed forces or goods that are inherently lethal; Part 2 of the DSGL 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 WMD. As such, Part 2 includes human pathogens and toxins, animal pathogens, plant pathogens and equipment capable of being used to develop biological weapons.

The DSGL is amended from time-to-time to reflect changes in the various multilateral non-proliferation and export control regimes of which Australia is a member.

### ***Quarantine Act 1908 and associated regulations***

The *Quarantine Act 1908* is designed to prevent the introduction of serious pests and diseases affecting humans, plants and animals into Australia. Accordingly, in conjunction with the *Biological Control Act* (see below), it controls the import into Australia of all biological material and may prohibit the import in some circumstances.

Responsibility for human quarantine is administered by the Minister for Health and Ageing through this Act. Responsibility for plant and animal quarantine is administered by the Minister for Agriculture, Fisheries and Forestry through this Act. All biological agents require prior permission to import. Under the provisions of section 13 of the Act, goods of biological origin, including human pathogenic microorganisms and toxins, may only be imported into Australia if approval has been given by a Director of Quarantine (Animal/Plant or Human). In giving approval, the Director may require that the importer adhere to certain conditions or requirements, including, but not limited to, the storage, transportation, distribution and disposal of the goods, the use to which the goods may be put, and the personnel authorised to handle or use the goods.

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Import conditions vary depending on the nature of the organisms, and on the risks involved. High risk organisms such as serious pathogens of humans, animals and plants which might be considered as potential biological weapons would only be permitted under the most stringent, high security conditions. Very few such imports are approved, and generally those would be for diagnostic research in preparation for emergency responses to specific serious exotic disease incursions.

Penalties for the importation of controlled goods without a permit, and for breaches of permit requirements, are severe and may include a fine, imprisonment or both.

#### ***Biological Control Act 1984 and associated regulations***

This Act is administered jointly by the Bureau of Rural Sciences and the Agriculture Industry Division of the Department of Agriculture, Fisheries and Forestry within the framework of the Federal Government's quarantine policy. It provides powers additional to those of the Quarantine Act in order to regulate the release of biological agents for the control of pests, diseases and weeds. It primarily covers issues of compensation for the release of a biological control agent.

#### ***Gene Technology Act 2000 and associated regulations***

This Act regulates dealings with genetically modified organisms (GMOs) to protect the health and safety of people and the environment. The legislation is administered by an independent statutory office holder, the Gene Technology Regulator, and provides a risk-based system for regulation of GMOs. There are also legislative provisions for accreditation of organisations, certification of physical containment facilities and extensive monitoring and enforcement powers.

All dealings with GMOs must be licensed by the Regulator, unless otherwise authorised under the legislation. Dealings include manufacture, import, transport or conducting experiments with GMOs. All licence applications are subject to case-by-case scientific risk assessment and risk management.

The legislation requires licensing for 'higher risk' GMOs, which would include those that could potentially be used as biological weapons or for other malicious purposes, including those that involve: modifications that may alter pathogenicity, virulence, host range or treatment of a microorganism; cloning or high expression of toxin genes; or animals, plants or fungi that are capable of secreting infectious agents as a result of the genetic modification. Work with such 'higher risk' GMOs is typically for medical research purposes and licence conditions include requirements that dealings be conducted in facilities certified by the Regulator to a specific physical containment (PC) level.

#### ***Therapeutic Goods Act 1989 and associated regulations***

The Therapeutic Goods Administration (TGA) is a division of the Commonwealth Department of Health and Ageing in Australia, and regulates therapeutic goods for human use under this Act. The Act covers the import, manufacture, supply and export of therapeutic goods, and includes pathogenic micro-organisms where these are included in vaccines for human use.

Prior to initial supply for human use, products must be entered in the Australian Register of Therapeutic Goods (the Register). Vaccines are registerable products, and undergo evaluation by the TGA prior to entry in the Register.

#### ***Weapons of Mass Destruction (Prevention of Proliferation) Act 1995 and associated regulations***

The Act is administered by the Department of Defence and complements the existing controls contained in the *Customs Act 1901* and the *Customs (Prohibited Exports) Regulations*. The WMD Act and the associated Regulations provide the legislative basis for controlling the movement of goods and services that will or may assist in the development of a WMD program. It prohibits the supply or export of goods, not otherwise controlled by the *Customs Act*, or the provision of services, in circumstances where the goods or services may be used to assist in the development, production, acquisition or stockpiling of WMD, including biological weapons or their delivery systems. The prohibitions under the legislation apply where the person involved knows or suspects the connection with a WMD program, including a biological weapons program.

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The Act applies extraterritorially as well as within Australia, covering the activities of Australian citizens or residents, as well as bodies incorporated in Australia. It provides a mechanism for exporters to obtain written guidance from the Government on the risk of a particular planned transaction contributing to a biological weapons program.

**Guidelines to prevent the inadvertent supply of biological weapons-applicable plant, equipment, source cultures and expertise**

The Guidelines are a non-statutory, non-proliferation measure, developed by the Department of Foreign Affairs and Trade, to raise the awareness of industry and researchers about the risk of inadvertent involvement in the biological weapons programs of other countries. The Guidelines have been circulated to biological industry, universities, relevant professional associations and government agencies.

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## Confidence-Building Measure "F"

### **Declaration of past activities in offensive and/or defensive biological research and development programmes**

In the interest of increasing transparency and openness, States parties shall declare whether or not they conducted any offensive and/or defensive biological research and development programmes since 1 January 1946.

If so, States parties shall provide information on such programmes, in accordance with Form F.

### **Form F**

### **Declaration of past activities in offensive and/or defensive biological research and development programmes**

In addition to the following information, see [Attachment 4](#) below for explanation of research related to biological warfare defence in Australia.

1. Date of entry into force of the Convention for the State party.

[5 October 1977](#)

2. Past offensive biological research and development programmes:

- YES – NO

[No](#)

- Period(s) of activities

[Not applicable](#)

- Summary of the research and development activities indicating whether work was performed concerning production, test and evaluation, weaponization, stockpiling of biological agents, the destruction programme of such agents and weapons, and other related research.

[Not applicable, but see Attachment 4.](#)

3. Past defensive biological research and development programmes:

- YES – NO

[No](#)

- Period(s) of activities

[Not applicable](#)

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- Summary of the research and development activities indicating whether or not work was conducted in the following areas: prophylaxis, studies on pathogenicity and virulence, diagnostic techniques, aerobiology, detection, treatment, toxinology, physical protection, decontamination, and other related research, with location if possible.

[Not applicable, but see Attachment 4.](#)

**EXPLANATORY STATEMENT  
RESEARCH AND DEVELOPMENT PROGRAMS RELATED TO  
BIOLOGICAL WARFARE AND DEFENCE IN AUSTRALIA  
SINCE 1 JANUARY 1946**

Between 1946 and 1994, Australia had no research and development program specifically aimed at defence against biological and toxin weapons. However, some methods for protection against chemical warfare agents could also be used to protect against biological agents. As Australia has had a longstanding research and development program to develop protection against chemical agents, it had, though only incidentally, also been involved in the development of means capable of offering some protection from biological weapons.

**The position at the end of World War II**

During World War II, Australia acquired a protective capability against chemical and biological warfare (CBW), which included the equipping of military units with protective clothing, respirators, detection apparatus and decontamination equipment. This capability was associated with the threat of chemical warfare, as almost all of the major combatants possessed chemical weapons.

Australia had no biological weapons and knew little about them. While a need for some defence against them was generally perceived, no major specific steps were taken to achieve this. The tendency was to regard chemical and biological weapons as a single category of threat, with biological weapons treated as the lesser element.

**The situation from 1945 to the 1970s**

In the late 1940s and 1950s Defence committees assessed the need for defence against biological agents. The view adopted was that if biological threats arose, Defence authorities would co-opt staff from public health facilities who were trained in microbiology and biological sciences.

Australia also received limited information on biological defence from the United States of America, the United Kingdom and Canada through the Technical Cooperation Program (TTCP). Under the TTCP, there is provision for collaborative research on biological defence, but Australia never participated in that research.

During the 1960s and 1970s some research was conducted in an Australian Defence laboratory on toxins and venoms from Australian animals and plants. The research had no biological warfare focus, and was undertaken solely for the purpose of developing expertise in toxicology. The results of the research were published in scientific journals, contributing to the open scientific literature.

**1970 to 1994**

During this period the policy was to maintain a watching brief on developments in biological warfare defence research so that a competency could be maintained to advise on policy and to give direction to training for the Australian Defence Force (ADF). This competency was derived from open literature and from Australia's partners under TTCP. No research on defence against toxins (or other biological warfare agents) was undertaken during this period.

Australia did, however, maintain a research and development program into chemical defence, and the protective aspects of this program had some incidental common utility in biological defence.

**1994 – Present**

In 1994, it was recognised that Australia's knowledge of toxins as warfare agents needed to be strengthened if appropriate advice on defensive measures was to be given to the ADF and in support of the country's arms control objectives. Consequently, the Government gave approval to commence a modest program of research into defence against toxins as warfare agents.

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It was also recognised that the Government needed advice on defence against biological weapons if it was to pursue its aims of strengthening the Biological Weapons Convention. Consequently, the policy of maintaining only a watching brief on BW defence research was modified to allow research in BW defence that did not involve pathogenic reproducing organisms. This policy allowed research to include activities such as epidemiological studies, computer simulations and studies of the detection of toxins to be undertaken.

In 1998, government approval was given for DSTO to undertake biological defence work with reproducing organisms up to Risk Group 3, with interdepartmental oversight of all such activities. This research allows Australia to play a larger part in those TTCP Panels that deal with BW defence research and obtain access to more information held by our cooperative partners. Australia still maintains its active program into researching protective aspects of defence against chemical agents and has expanded the scope to include defence against biological weapons (e.g. incorporation of antibacterials in carbon absorbents).





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There are other manufacturers in Australia with a GMP licence issued by the TGA to produce biological goods – this category includes, but is not limited to, vaccines. The list of these facilities may be accessed from the TGA on-line services home page at [www.tga.gov.au](http://www.tga.gov.au) and by selecting the link to “Industry”, “Manufacturing therapeutic goods”, followed by the Quick Link to “ebusiness Services” and then “Australian Manufacturers”.

A search of “Australian Manufacturers” identifies the following manufacturers licensed to manufacture vaccines for human use (additional to CSL Limited):

- Queensland Institute of Medical Research, 300 Herston Road, has been issued with a licence (MI-11112004-LI-000153-1) that authorizes the preparation and maintenance of cell banks only.
- Ludwig Institute for Cancer Research, Austin Hospital, Heidelberg VIC, has been issued with a licence (MI-01072005-LI-000662-1) that authorises quality control testing, packaging and labelling, and release for supply of peptide vaccines, monoclonal antibodies, recombinant proteins & other clinical trial products.

Neither of these manufacturers is listed on the ARTG as sponsors of vaccines (i.e. responsible for the commercial supply).