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Security Council

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English
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Letter dated 13 October 2006 from the Permanent Representative of France to the United Nations addressed to the President of the Security Council

Please find attached a list of items, materials, equipment, goods and technology related to other weapons of mass destruction programmes (see annex). I should be grateful if you would make the necessary arrangements for this list to be issued as a Security Council document.

(*Signed*) Jean-Marc **de La Sablière**

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Annex to the letter dated 13 October 2006 from the Permanent Representative of France to the United Nations addressed to the President of the Security Council

[Original: English]

List of items, materials, equipment, goods and technology related to other weapons of mass destruction programmes

November 2004

EXPORT CONTROL LIST: CHEMICAL WEAPONS PRECURSORS

	PRECURSOR CHEMICAL	CAS NO.	CWC-SCHEDULE
1.	Thiodiglycol	(111-48-8)	2B
2.	Phosphorus oxychloride	(10025-87-3)	3B
3.	Dimethyl methylphosphonate	(756-79-6)	2B
4.	Methylphosphonyl difluoride (DF)	(676-99-3)	1B
5.	Methylphosphonyl dichloride (DC)	(676-97-1)	2B
6.	Dimethyl phosphite (DMP)	(868-85-9)	3B
7.	Phosphorus trichloride	(7719-12-2)	3B
8.	Trimethyl phosphite (TMP)	(121-45-9)	3B
9.	Thionyl chloride	(7719-09-7)	3B
10.	3-Hydroxy-1-methylpiperidine	(3554-74-3)	Not Listed
11.	N,N-Diisopropyl-(beta)-aminoethyl chloride	(96-79-7)	2B
12.	N,N-Diisopropyl-(beta)-aminoethane thiol	(5842-07-9)	2B
13.	3-Quinuclidinol	(1619-34-7)	2B
14.	Potassium fluoride	(7789-23-3)	Not Listed
15.	2-Chloroethanol	(107-07-3)	Not Listed
16.	Dimethylamine	(124-40-3)	Not Listed
17.	Diethyl ethylphosphonate	(78-38-6)	2B
18.	Diethyl N,N-dimethylosphoramidate	(2404-03-7)	2B
19.	Diethyl phosphite	(762-04-9)	3B
20.	Dimethylamine hydrochloride	(506-59-2)	Not Listed
21.	Ethylphosphinyl dichloride	(1498-40-4)	2B
22.	Ethylphosphonyl dichloride	(1066-50-8)	2B
23.	Ethylphosphonyl difluoride	(753-98-0)	1B
24.	Hydrogen fluoride	(7664-39-3)	Not Listed
25.	Methyl benzilate	(76-89-1)	Not Listed
26.	Methylphosphinyl dichloride	(676-83-5)	2B
27.	N,N-Diisopropyl-(beta)-amino-ethanol	(96-80-0)	2B
28.	Pinacolyl alcohol	(464-07-3)	2B
29.	O-Ethyl 2-diisopropylaminoethyl methylphosphonite (QL)	(57856-11-8)	1B
30.	Triethyl phosphite	(122-52-1)	3B

31.	Arsenic trichloride	(7784-34-1)	2B
32.	Benzilic acid	(76-93-7)	2B
33.	Diethyl methylphosphonite	(15715-41-0)	2B
34.	Dimethyl ethylphosphonate	(6163-75-3)	2B
35.	Ethylphosphinyl difluoride	(430-78-4)	2B
36.	Methylphosphinyl difluoride	(753-59-3)	2B
37.	3-Quinuclidone	(3731-38-2)	Not Listed
38.	Phosphorus pentachloride	(10026-13-8)	3B
39.	Pinacolone	(75-97-8)	Not Listed
40.	Potassium cyanide	(151-50-8)	Not Listed
41.	Potassium bifluoride	(7789-29-9)	Not Listed
42.	Ammonium bifluoride	(1341-49-7)	Not Listed
43.	Sodium bifluoride	(1333-83-1)	Not Listed
44.	Sodium fluoride	(7681-49-4)	Not Listed
45.	Sodium cyanide	(143-33-9)	Not Listed
46.	Triethanolamine	(102-71-6)	3B
47.	Phosphorus pentasulphide	(1314-80-3)	Not Listed
48.	Diisopropylamine	(108-18-9)	Not Listed
49.	Diethylaminoethanol	(100-37-8)	Not Listed
50.	Sodium sulphide	(1313-82-2)	Not Listed
51.	Sulphur monochloride	(10025-67-9)	3B
52.	Sulphur dichloride	(10545-99-0)	3B
53.	Triethanolamine hydrochloride	(637-39-8)	Not Listed
54.	N,N-Diisopropyl-2-aminoethyl chloride hydrochloride	(4261-68-1)	2B
55.	Methylphosphonic acid	(993-13-5)	2B
56.	Diethyl methylphosphonate	(683-08-9)	2B
57.	N,N-Dimethylaminophosphoryl dichloride	(677-43-0)	2B
58.	Triisopropyl phosphite	(116-17-6)	Not Listed
59.	Ethyldiethanolamine	(139-87-7)	3B
60.	O,O-Diethyl phosphorothioate	(2465-65-8)	Not Listed
61.	O,O-Diethyl phosphorodithioate	(298-06-6)	Not Listed
62.	Sodium hexafluorosilicate	(16893-85-9)	Not Listed
63.	Methylphosphonothioic dichloride	(676-98-2)	2B

CONTROL LIST OF DUAL-USE CHEMICAL MANUFACTURING FACILITIES AND EQUIPMENT AND RELATED TECHNOLOGY

July 2006

I. MANUFACTURING FACILITIES AND EQUIPMENT

Note 1. The objective of these controls should not be defeated by the transfer of any non-controlled item containing one or more controlled components where the controlled component or components are the principal element of the item and can feasibly be removed or used for other purposes.

N.B. In judging whether the controlled component or components are to be considered the principal element, governments should weigh the factors of quantity, value, and technological know-how involved and other special circumstances which might establish the controlled component or components as the principal element of the item being procured.

Note 2. The objective of these controls should not be defeated by the transfer of a whole plant, on any scale, which has been designed to produce any CW agent or AG-controlled precursor chemical.

1. Reaction Vessels, Reactors or Agitators

Reaction vessels or reactors, with or without agitators, with total internal (geometric) volume greater than 0.1 m^3 (100 l) and less than 20 m^3 (20000 l), where all surfaces that come in direct contact with the chemical(s) being processed or contained are made from the following materials:

(a) nickel or alloys with more than 40% nickel by weight;
(b) alloys with more than 25% nickel and 20% chromium by weight;
(c) fluoropolymers;
(d) glass or glass-lined (including vitrified or enamelled coating);
(e) tantalum or tantalum alloys;
(f) titanium or titanium alloys;
(g) zirconium or zirconium alloys; or
(h) niobium (columbium) or niobium alloys.

Agitators for use in the above-mentioned reaction vessels or reactors; and impellers, blades or shafts designed for such agitators, where all surfaces of the agitator or component that come in direct contact with the chemical(s) being processed or contained are made from the following materials:

(a) nickel or alloys with more than 40% nickel by weight;
(b) alloys with more than 25% nickel and 20% chromium by weight;
(c) fluoropolymers;
(d) glass or glass-lined (including vitrified or enamelled coating);
(e) tantalum or tantalum alloys;
(f) titanium or titanium alloys;
(g) zirconium or zirconium alloys; or
(h) niobium (columbium) or niobium alloys.

2. Storage Tanks, Containers or Receivers

Storage tanks, containers or receivers with a total internal (geometric) volume greater than 0.1 m^3 (100 l) where all surfaces that come in direct contact with the chemical(s) being processed or contained are made from the following materials:

(a) nickel or alloys with more than 40% nickel by weight;
(b) alloys with more than 25% nickel and 20% chromium by weight;
(c) fluoropolymers;
(d) glass or glass-lined (including vitrified or enamelled coating);
(e) tantalum or tantalum alloys;
(f) titanium or titanium alloys;
(g) zirconium or zirconium alloys; or
(h) niobium (columbium) or niobium alloys.

3. Heat Exchangers or Condensers

Heat exchangers or condensers with a heat transfer surface area of greater than 0.15 m^2, and less than 20 m^2; and tubes, plates, coils or blocks (cores) designed for such heat exchangers or condensers, where all surfaces that come in direct contact with the chemical(s) being processed are made from the following materials:

(a) nickel or alloys with more than 40% nickel by weight;
(b) alloys with more than 25% nickel and 20% chromium by weight;
(c) fluoropolymers;
(d) glass or glass-lined (including vitrified or enamelled coating);
(e) graphite or carbon-graphite;
(f) tantalum or tantalum alloys;
(g) titanium or titanium alloys;
(h) zirconium or zirconium alloys;
(i) silicon carbide;
(j) titanium carbide; or
(k) niobium (columbium) or niobium alloys.

Technical note: carbon-graphite is a composition consisting of amorphous carbon and graphite, in which the graphite content is eight percent or more by weight.

4. Distillation or Absorption Columns

Distillation or absorption columns of internal diameter greater than 0.1 m; and liquid distributors, vapour distributors or liquid collectors designed for such distillation or absorption columns, where all surfaces that come in direct contact with the chemical(s) being processed are made from the following materials:

(a) nickel or alloys with more than 40% nickel by weight;
(b) alloys with more than 25% nickel and 20% chromium by weight;
(c) fluoropolymers;
(d) glass or glass-lined (including vitrified or enamelled coating);
(e) graphite or carbon-graphite;
(f) tantalum or tantalum alloys;
(g) titanium or titanium alloys;
(h) zirconium or zirconium alloys; or
(i) niobium (columbium) or niobium alloys.

Technical note: carbon-graphite is a composition consisting of amorphous carbon and graphite, in which the graphite content is eight percent or more by weight.

5. Filling Equipment

Remotely operated filling equipment in which all surfaces that come in direct contact with the chemical(s) being processed are made from the following materials:

(a) nickel or alloys with more than 40% nickel by weight; or
(b) alloys with more than 25% nickel and 20% chromium by weight.

6. Valves

Valves with nominal sizes greater than 1.0 cm (3/8") and casings (valve bodies) or preformed casing liners designed for such valves, in which all surfaces that come in direct contact with the chemical(s) being produced, processed, or contained are made from the following materials:

(a) nickel or alloys with more than 40% nickel by weight;
(b) alloys with more than 25% nickel and 20% chromium by weight;
(c) fluoropolymers;
(d) glass or glass-lined (including vitrified or enamelled coating);
(e) tantalum or tantalum alloys;
(f) titanium or titanium alloys;

(g) zirconium or zirconium alloys; or
(h) niobium (columbium) or niobium alloys.

7. Multi-Walled Piping

Multi-walled piping incorporating a leak detection port, in which all surfaces that come in direct contact with the chemical(s) being processed or contained are made from the following materials:

(a) nickel or alloys with more than 40% nickel by weight;
(b) alloys with more than 25% nickel and 20% chromium by weight;
(c) fluoropolymers;
(d) glass or glass-lined (including vitrified or enamelled coating);
(e) graphite or carbon-graphite;
(f) tantalum or tantalum alloys;
(g) titanium or titanium alloys;
(h) zirconium or zirconium alloys; or
(i) niobium (columbium) or niobium alloys.

Technical note: carbon-graphite is a composition consisting of amorphous carbon and graphite, in which the graphite-content is eight percent or more by weight.

8. Pumps

Multiple-seal and seal-less pumps with manufacturer's specified maximum flow-rate greater than 0.6 m3/h, or vacuum pumps with manufacturer's specified maximum flow-rate greater than 5 m^3/h (under standard temperature (273 K (0o C)) and pressure (101.3 kPa) conditions), and casings (pump bodies), preformed casing liners, impellers, rotors or jet pump nozzles designed for such pumps, in which all surfaces that come into direct contact with the chemical(s) being processed are made from any of the following materials:

a. nickel or alloys with more than 40% nickel by weight;
b. alloys with more than 25% nickel and 20% chromium by weight;
c. fluoropolymers;
d. glass or glass-lined (including vitrified or enamelled coating);
e. graphite or carbon-graphite;
f. tantalum or tantalum alloys;
g. titanium or titanium alloys;
h. zirconium or zirconium alloys;
i. ceramics;
j. ferrosilicon; or
k. niobium (columbium) or niobium alloys.

Technical note: carbon-graphite is a composition consisting of amorphous carbon and graphite, in which the graphite content is eight percent or more by weight.

9. Incinerators

Incinerators designed to destroy CW agents, AG-controlled precursors or chemical munitions, having specially designed waste supply systems, special handling facilities, and an average combustion chamber temperature greater than 1000o C, in which all surfaces in the waste supply system that come into direct contact with the waste products are made from or lined with the following materials:

(a) nickel or alloys with more than 40% nickel by weight;
(b) alloys with more than 25% nickel and 20% chromium by weight; or
(c) ceramics.

Statement of Understanding

These controls do not apply to equipment which is specially designed for use in civil applications (for example food processing, pulp and paper processing, or water purification, etc) and is, by the nature of its design, inappropriate for use in storing, processing, producing or conducting and controlling the flow of chemical warfare agents or any of the AG-controlled precursor chemicals.

II. TOXIC GAS MONITORING SYSTEMS AND DETECTORS

Toxic gas monitoring systems and dedicated detectors

(a) designed for continuous operation and usable for the detection of chemical warfare agents or AG-controlled precursors at concentrations of less than 0.3 mg/m^3; or

- designed for the detection of cholinesterase-inhibiting activity.

III. RELATED TECHNOLOGY

The transfer of 'technology', including licenses, directly associated with -

. CW agents;
. AG-controlled precursors; or
. AG-controlled dual-use equipment items,

to the extent permitted by national legislation.

Technical assistance is subject to control. Controls on 'technology' transfer, including 'technical assistance', do not apply to information 'in the public domain' or to 'basic scientific research' or the minimum necessary information for patent application.

The approval for export of any AG-controlled item of dual-use equipment also authorises the export to the same end-user of the minimum 'technology' required for the installation, operation, maintenance or repair of that item.

Definition of Terms

'Technology'

Specific information necessary for the 'development', 'production' or 'use' of a product. The information takes the form of 'technical data' or 'technical assistance'.

'Basic scientific research'

Experimental or theoretical work undertaken principally to acquire new knowledge of the fundamental principles of phenomena or observable facts, not primarily directed towards a specific practical aim or objective.

'Development'

'Development' is related to all phases before 'production' such as:

. design
. design research
. design analysis
. design concepts
. assembly of prototypes
. pilot production schemes
. design data
. process or transforming design data into a product
. configuration design
. integration design
. layouts

'in the public domain'

'In the public domain', as it applies herein, means technology that has been made available without restrictions upon its further dissemination. (Copyright restrictions do not remove technology from being in the public domain).

'Production'

Production means all production phases such as:

- construction
- production engineering
- manufacture
- integration
- assembly (mounting)
- inspection
- testing
- quality assurance

'Technical assistance'

May take forms, such as: instruction, skills, training, working knowledge, consulting services.

N.B. 'Technical assistance' may involve transfer of 'technical data'.

'Technical data'

May take forms such as blueprints, plans, diagrams, models, formulae, tables, engineering designs and specifications, manuals and instructions written or recorded on other media or devices such as disk, tape, read-only memories.

'Use'

Operation, installation (including on-site installation), maintenance (checking), repair, overhaul or refurbishing.

'Export'

An actual shipment or transmission of AG-controlled items out of the country. This includes transmission of technology by electronic media, fax or telephone.

CONTROL LIST OF DUAL-USE BIOLOGICAL EQUIPMENT AND RELATED TECHNOLOGY

April 2005

I. Equipment

1. Complete containment facilities at P3 or P4 containment level

Complete containment facilities that meet the criteria for P3 or P4 (BL3, BL4, L3, L4) containment as specified in the WHO Laboratory Biosafety manual (2 nd edition, Geneva, 1993) should be subject to export control.

2. Fermenters

Fermenters capable of cultivation of pathogenic micro-organisms, viruses or for toxin production, without the propagation of aerosols, having a capacity of 20 litres or greater. Fermenters include bioreactors, chemostats and continuous-flow systems.

3. Centrifugal Separators

Centrifugal separators capable of the continuous separation of pathogenic micro-organisms, without the propagation of aerosols, and having all the following characteristics:

a. one or more sealing joints within the steam containment area;
b. a flow rate greater than 100 litres per hour;
c. components of polished stainless steel or titanium;
d. capable of in-situ steam sterilisation in a closed state.

Technical note: Centrifugal separators include decanters.

4. Cross (tangential) Flow Filtration Equipment

Cross (tangential) flow filtration equipment capable of separation of pathogenic micro-organisms, viruses, toxins or cell cultures, without the propagation of aerosols, having all the following characteristics:

- a total filtration area equal to or greater than 1 square metre;
- capable of being sterilized or disinfected in-situ.

(N.B. This control excludes reverse osmosis equipment, as specified by the manufacturer.)

Cross (tangential) flow filtration components (eg modules, elements, cassettes, cartridges, units or plates) with filtration area equal to or greater than 0.2 square metres for each component and designed for use in cross (tangential) flow filtration equipment as specified above.

Technical note: In this control, ‘sterilized’ denotes the elimination of all viable microbes from the equipment through the use of either physical (eg steam) or chemical agents. ‘Disinfected’ denotes the destruction of potential microbial infectivity in the equipment through the use of chemical agents with a germicidal effect. ‘Disinfection’ and ‘sterilization’ are distinct from ‘sanitization’, the latter referring to cleaning procedures designed to lower the microbial content of equipment without necessarily achieving elimination of all microbial infectivity or viability.

5. Freeze-drying Equipment

Steam sterilisable freeze-drying equipment with a condenser capacity of 10 kgs of ice or greater in 24 hours and less than 1000 kgs of ice in 24 hours.

6. Protective and containment equipment as follows:

a. protective full or half suits, or hoods dependent upon a tethered external air supply and operating under positive pressure;

Technical note: This does not control suits designed to be worn with self-contained breathing apparatus.

b. class III biological safety cabinets or isolators with similar performance standards (e.g. flexible isolators, dry boxes, anaerobic chambers, glove boxes, or laminar flow hoods (closed with vertical flow)).

7. Aerosol inhalation chambers

Chambers designed for aerosol challenge testing with micro-organisms, viruses or toxins and having a capacity of 1 cubic metre or greater.

8. Spraying or fogging systems and components therefore, as follows:

a. Complete spraying or fogging systems, specially designed or modified for fitting to aircraft, lighter than air vehicles or UAVs, capable of delivering, from a liquid suspension, an initial droplet "VMD" of less than 50 microns at a flow rate of greater than two litres per minute.

b. Spray booms or arrays of aerosol generating units, specially designed or modified for fitting to aircraft, lighter than air vehicles or UAVs, capable of delivering, from a liquid suspension, an initial droplet "VMD" of less than 50 microns at a flow rate of greater than two litres per minute.

c. Aerosol generating units specially designed for fitting to systems that fulfil all the criteria specified in paragraphs 8.a and 8.b.

Technical Notes

Aerosol generating units are devices specially designed or modified for fitting to aircraft such as nozzles, rotary drum atomisers and similar devices.

This entry does not control spraying or fogging systems and components as specified in paragraph 8 above that are demonstrated not to be capable of delivering biological agents in the form of infectious aerosols.

Pending definition of international standards, the following guidelines should be followed:

Droplet size for spray equipment or nozzles specially designed for use on aircraft or UAVs should be measured using either of the following methods:

a. *Doppler laser method*
b. *Forward laser diffraction method*

Items for inclusion in Awareness Raising Guidelines

Experts propose that the following items be included in awareness raising guidelines to industry:

1. Equipment for the micro-encapsulation of live micro-organisms and toxins in the range of 1-10 um particle size, specifically:
   a) interfacial polycondensors;
   b) phase separators.

2. Fermenters of less than 20 litre capacity with special emphasis on aggregate orders or designs for use in combined systems.

3. Conventional or turbulent air-flow clean-air rooms and self-contained fan-HEPA filter units that may be used for P3 or P4 (BL3, BL4, L3, L4)containment facilities.

II. Related Technology

The transfer of 'technology' for 'development' or 'production' of:

AG-controlled biological agents; or

AG-controlled dual-use biological equipment items.

Controls on 'technology' transfer do not apply to information 'in the public domain' or to 'basic scientific research' or the minimum necessary information for patent application.

The approval for export of any AG-controlled item of dual-use equipment also authorises the export to the same end-user of the minimum 'technology' required for the installation, operation, maintenance, or repair of that item.

Definition of Terms

'Basic scientific research'

Experimental or theoretical work undertaken principally to acquire new knowledge of the fundamental principles of phenomena or observable facts, not primarily directed towards a specific practical aim or objective.

'Development'

'Development' is related to all stages before production such as:

design,

design research,

design analysis,

design concepts,

assembly of prototypes,

pilot production schemes,

design data,

process or transforming design data into a product,

configuration design,

integration design, and

layouts.

'In the public domain'

'In the public domain', as it applies herein, means technology that has been made available without restrictions upon its further dissemination. (Copyright restrictions do not remove technology from being in the public domain.)

'Lighter than air vehicles'

Balloons and airships that rely on hot air or on lighter-than-air gases such as helium or hydrogen for their lift.

'Production'

Production means all production phases such as:

construction,

production engineering,

manufacture,

integration,

assembly (mounting),

inspection,

testing, and

quality assurance.

‘Technical assistance’

May take forms, such as: instruction, skills, training, working knowledge, consulting services. ‘Technical assistance’ may involve transfer of ‘technical data’.

‘Technical data’

May take forms such as blueprints, plans, diagrams, models, formulae, tables, engineering designs and specifications, manuals and instructions written or recorded on other media or devices such as disk, tape, read-only memories.

‘Technology’

Specific information necessary for the ‘development’, ‘production’, or ‘use’ of a product. The information takes the form of ‘technical data’ or ‘technical assistance’.

‘UAVs’

Unmanned Aerial Vehicles.

‘Use’

Operation, installation, (including on-site installation), maintenance, (checking), repair, overhaul or refurbishing.

‘VMD’

Volume Median Diameter *(note: for water-based systems, VMD equates to MMD – the Mass Median Diameter).*

LIST OF BIOLOGICAL AGENTS FOR EXPORT CONTROL

CORE LIST[1]

July 2006

Viruses

V1. Chikungunya virus
V2. Congo-Crimean haemorrhagic fever virus
V3. Dengue fever virus
V4. Eastern equine encephalitis virus
V5. Ebola virus
V6. Hantaan virus
V7. Junin virus
V8. Lassa fever virus
V9. Lymphocytic choriomeningitis virus
V10. Machupo virus
V11. Marburg virus
V12. Monkey pox virus
V13. Rift Valley fever virus
V14. Tick-borne encephalitis virus (Russian Spring-Summer encephalitis virus)
V15. Variola virus
V16. Venezuelan equine encephalitis virus
V17. Western equine encephalitis virus
V18. White pox
V19. Yellow fever virus
V20. Japanese encephalitis virus
V21. Kyasanur Forest virus
V22. Louping ill virus
V23. Murray Valley encephalitis virus
V24. Omsk haemorrhagic fever virus
V25. Oropouche virus
V26. Powassan virus
V27. Rocio virus
V28. St Louis encephalitis virus
V29. Hendra virus (Equine morbillivirus)
V30. South American haemorrhagic fever (Sabia, Flexal, Guanarito)
V31. Pulmonary & renal syndrome-haemorrhagic fever viruses (Seoul, Dobrava, Puumala, Sin Nombre)
V32. Nipah virus

Rickettsiae

R1. Coxiella burnetii
R2. Bartonella quintana (Rochalimea quintana, Rickettsia quintana)
R3. Rickettsia prowazeki
R4. Rickettsia rickettsii

Bacteria

B1. Bacillus anthracis
B2. Brucella abortus
B3. Brucella melitensis
B4. Brucella suis
B5. Chlamydia psittaci
B6. Clostridium botulinum

B7. Francisella tularensis
B8. Burkholderia mallei (Pseudomonas mallei)
B9. Burkholderia pseudomallei (Pseudomonas pseudomallei)
B10. Salmonella typhi
B11. Shigella dysenteriae
B12. Vibrio cholerae
B13. Yersinia pestis
B14. Clostridium perfringens, epsilon toxin producing types2
B15. Enterohaemorrhagic Escherichia coli, serotype O157 and other verotoxin producing serotypes

Toxins as follow and subunits thereof:3

T1. Botulinum toxins4
T2. Clostridium perfringens toxins
T3. Conotoxin
T4. Ricin
T5. Saxitoxin
T6. Shiga toxin
T7. Staphylococcus aureus toxins
T8. Tetrodotoxin
T9. Verotoxin and shiga-like ribosome inactivating proteins
T10. Microcystin (Cyanginosin)
T11. Aflatoxins
T12. Abrin
T13. Cholera toxin
T14. Diacetoxyscirpenol toxin
T15. T-2 toxin
T16. HT-2 toxin
T17. Modeccin toxin
T18. Volkensin toxin
T19. Viscum Album Lectin 1 (Viscumin)

Fungi

F1. Coccidioides immitis
F2. Coccidioides posadasii

1. Biological agents are controlled when they are an isolated live culture of a pathogen agent, or a preparation of a toxin agent which has been isolated or extracted from any source, or material including living material which has been deliberately inoculated or contaminated with the agent. Isolated live cultures of a pathogen agent include live cultures in dormant form or in dried preparations, whether the agent is natural, enhanced or modified.

An agent is covered by this list except when it is in the form of a vaccine. A vaccine is a medicinal product in a pharmaceutical formulation licensed by, or having marketing or clinical trial authorisation from, the regulatory authorities of either the country of manufacture or of use, which is intended to stimulate a protective immunological response in humans or animals in order to prevent disease in those to whom or to which it is administered.

2. It is understood that limiting this control to epsilon toxin-producing strains of Clostridium perfringens therefore exempts from control the transfer of other Clostridium perfringens strains to be used as positive control cultures for food testing and quality control.

3. Excluding immunotoxins.

4. Excluding botulinum toxins and conotoxins in product form meeting all of the following criteria:

- are pharmaceutical formulations designed for testing and human dministration in the treatment of medical conditions;
- are pre-packaged for distribution as clinical or medical products; and
- are authorised by a state authority to be marketed as clinical or medical products.

Genetic Elements and Genetically-modified Organisms:

G1 Genetic elements that contain nucleic acid sequences associated with the pathogenicity of any of the microorganisms in the list.

G2 Genetic elements that contain nucleic acid sequences coding for any of the toxins in the list, or for their sub-units.

G3 Genetically-modified organisms that contain nucleic acid sequences associated with the pathogenicity of any of the microorganisms in the list.

G4 Genetically-modified organisms that contain nucleic acid sequences coding for any of the toxins in the list or for their sub-units.

Technical note:

Genetic elements include inter alia chromosomes, genomes, plasmids, transposons, and vectors whether genetically modified or unmodified.

Nucleic acid sequences associated with the pathogenicity of any of the micro-organisms in the list means any sequence specific to the relevant listed micro-organism:

- that in itself or through its transcribed or translated products represents a significant hazard to human, animal or plant health; or
- that is known to enhance the ability of a listed micro-organism, or any other organism into which it may be inserted or otherwise integrated, to cause serious harm to human, animal or plant health.

These controls do not apply to nucleic acid sequences associated with the pathogenicity of enterohaemorrhagic Escherichia coli, serotype O157 and other verotoxin producing strains, other than those coding for the verotoxin, or for its sub-units**.**

WARNING LIST1

Bacteria

WB1. Clostridium tetani*
WB2. Legionella pneumophila
WB3. Yersinia pseudotuberculosis

* Australia Group recognises that this organism is ubiquitous, but, as it hasbeen acquired in the past as part of biological warfare programs, it isworthy of special caution.

1. Biological agents are controlled when they are an isolated live culture of a pathogen agent, or a preparation of a toxin agent which has been isolated or extracted from any source, or material including living material which has been deliberately inoculated or contaminated with the agent. Isolated live cultures of a pathogen agent include live cultures in dormant form or in dried preparations, whether the agent is natural, enhanced or modified.

An agent is covered by this list except when it is in the form of a vaccine. A vaccine is a medicinal product in a pharmaceutical formulation licensed by, or having marketing or clinical trial authorisation from, the regulatory authorities of either the country of manufacture or of use, which is intended to stimulate a protective immunological response in humans or animals in order to prevent disease in those to whom or to which it is administered.

Genetic Elements and Genetically-modified Organisms:

WG1 Genetic elements that contain nucleic acid sequences associated with the pathogenicity of any of the microorganisms in the list.

WG2 Genetic elements that contain nucleic acid sequences coding for any of the toxins in the list, or for their sub-units.

WG3 Genetically-modified organisms that contain nucleic acid sequences associated with the pathogenicity of any of the microorganisms in the list.

WG4 Genetically-modified organisms that contain nucleic acid sequences coding for any of the toxins in the list or for their sub-units.

Technical note:

Genetic elements include inter alia chromosomes, genomes, plasmids, transposons, and vectors whether genetically modified or unmodified.

Nucleic acid sequences associated with the pathogenicity of any of the micro-organisms in the list means any sequence specific to the relevant listed micro-organism:

- that in itself or through its transcribed or translated products represents a significant hazard to human, animal or plant health; or
- that is known to enhance the ability of a listed micro-organism, or any other organism into which it may be inserted or otherwise integrated, to cause serious harm to human, animal or plant health.

LIST OF PLANT PATHOGENS FOR EXPORT CONTROL

April 2005

CORE LIST

Bacteria

PB1. Xanthomonas albilineans

PB2. Xanthomonas campestris pv. citri

PB3. Xanthomonas oryzae pv. oryzae (Pseudomonas campestris pv. oryzae)

PB4. Clavibacter michiganensis subsp. sepedonicus (Corynebacterium michiganensis subsp. sepedonicum or Corynebacterium sepedonicum)

PB5. Ralstonia solanacearum races 2 and 3 (Pseudomonas solanacearum races 2 and 3 or Burkholderia solanacearum races 2 and 3)

Fungi

PF1. Colletotrichum coffeanum var. virulans (Colletotrichum kahawae)

PF2. Cochliobolus miyabeanus (Helminthosporium oryzae)

PF3. Microcyclus ulei (syn. Dothidella ulei)

PF4. Puccinia graminis (syn. Puccinia graminis f. sp. tritici)

PF5. Puccinia striiformis (syn. Puccinia glumarum)

PF6. Pyricularia grisea / Pyricularia oryzae

Viruses

PV1. Potato Andean latent tymovirus

PV2. Potato spindle tuber viroid

Genetic Elements and Genetically-modified Organisms:

PG1 Genetic elements that contain nucleic acid sequences associated with the pathogenicity of any of the microorganisms in the Core List.

PG2 Genetically-modified organisms that contain nucleic acid sequences associated with the pathogenicity of any of the microorganisms in the Core List.

Technical note : Genetic elements include inter alia chromosomes, genomes, plasmids, transposons, and vectors whether genetically modified or unmodified.

Nucleic acid sequences associated with the pathogenicity of any of the micro-organisms in the list means any sequence specific to the relevant listed micro-organism:

- that in itself or through its transcribed or translated products represents a significant hazard to human, animal or plant health; or

- that is known to enhance the ability of a listed micro-organism, or any other organism into which it may be inserted or otherwise integrated, to cause serious harm to human, animal or plant health.

Items for Inclusion in Awareness-raising Guidelines

Bacteria

PWB1. Xylella fastidiosa

Fungi

PWF1. Deuterophoma tracheiphila (syn. Phoma tracheiphila)

PWF2. Monilia rorei (syn. Moniliophthora rorei)

Viruses

PWV1. Banana bunchy top virus

Genetic Elements and Genetically-modified Organisms:

PWG1 Genetic elements that contain nucleic acid sequences associated with the pathogenicity of any of the microorganisms in the Awareness-raising Guidelines.

PWG2 Genetically-modified organisms that contain nucleic acid sequences associated with the pathogenicity of any of the microorganisms in the Awareness-raising Guidelines.

Technical note : Genetic elements include inter alia chromosomes, genomes, plasmids, transposons, and vectors whether genetically modified or unmodified.

Nucleic acid sequences associated with the pathogenicity of any of the micro-organisms in the list means any sequence specific to the relevant listed micro-organism:

- that in itself or through its transcribed or translated products represents a significant hazard to human, animal or plant health; or

- that is known to enhance the ability of a listed micro-organism, or any other organism into which it may be inserted or otherwise integrated, to cause serious harm to human, animal or plant health.

List of Animal Pathogens for Export Control[1]

April 2005

Viruses

AV1. African swine fever virus
AV2. Avian influenza virus [2]
AV3. Bluetongue virus
AV4. Foot and mouth disease virus
AV5. Goat pox virus
AV6. Herpes virus (Aujeszky's disease)
AV7. Hog cholera virus (synonym: swine fever virus)
AV8. Lyssa virus
AV9. Newcastle disease virus
AV10. Peste des petits ruminants virus
AV11. Porcine enterovirus type 9 (synonym: swine vesicular disease virus)
AV12. Rinderpest virus
AV13. Sheep pox virus
AV14. Teschen disease virus
AV15. Vesicular stomatitis virus
AV16. Lumpy skin disease virus
AV17. African horse sickness virus

1. Except where the agent is in the form of a vaccine.

2. This includes only those Avian influenza viruses of high pathogenicity as defined in EC Directive 92/40/EC:

   "Type A viruses with an IVPI (intravenous pathogenicity index) in 6 week old chickens of greater than 1.2: or

   Type A viruses H5 or H7 subtype for which nucleotide sequencing has demonstrated multiple basic amino acids at the cleavage site of haemagglutinin"

Bacteria

AB3. Mycoplasma mycoides

Genetic Elements and Genetically-modified Organisms

AG1 Genetic elements that contain nucleic acid sequences associated with the pathogenicity of any of the microorganisms in the list.

AG2 Genetically-modified organisms that contain nucleic acid sequences associated with the pathogenicity of any of the microorganisms in the list.

Technical note : Genetic elements include inter alia chromosomes, genomes, plasmids, transposons, and vectors whether genetically modified or unmodified.

Nucleic acid sequences associated with the pathogenicity of any of the micro-organisms in the list means any sequence specific to the relevant listed micro-organism:

- that in itself or through its transcribed or translated products represents a significant hazard to human, animal or plant health; or

- that is known to enhance the ability of a listed micro-organism, or any other organism into which it may be inserted or otherwise integrated, to cause serious harm to human, animal or plant health.