

**LIST OF GOODS REQUIRING PRE-SHIPMENT DECLARATIONS FOR EXPORTS/RE-EXPORTS<sup>1</sup> TO DPRK AND IRAN**

**A. Biological<sup>2</sup>**

**(1) Viruses**

- a. Chikungunya virus
- b. Dengue fever virus
- c. Hantaan virus
- d. Lymphocytic choriomeningitis virus
- e. White pox
- f. Japanese encephalitis virus
- g. Kyasanur Forest Virus
- h. Louping ill virus
- i. Murray Valley encephalitis virus
- j. Omsk haemorrhagic fever virus
- k. Oropouche virus
- l. Powassan virus
- m. Rocio virus
- n. St Louis encephalitis virus

**(2) Rickettsiae**

- a. Bartonella quintana (Rochalimea quintana, Rickettsia quintana)

**(3) Bacteria**

- a. Chlamydia psittaci
- b. Clostridium botulinum
- c. Salmonella typhi
- d. Shigella dysenteriae
- e. Vibrio cholerae
- f. Clostridium perfringens\*
- g. Clostridium tetani\*
- h. Enterohaemorrhagic Escherichia coli, serotype 0157 and other verotoxin producing serotypes
- i. Legionella pneumophila
- j. Yersinia pseudotuberculosis

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<sup>1</sup> Re-exports include transshipments consigned to a local party.

<sup>2</sup> 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.

**B. Toxins as follows and subunits thereof<sup>3</sup>:**

1. Conotoxin
2. Tetrodotoxin
3. Verotoxin
4. Microcystin (Cyanginosin)
5. Aflatoxins
6. Cholera toxin
7. Diacetoxyscirpenol toxin
8. T-2 toxin
9. HT-2 toxin
10. Modeccin toxin
11. Volkensin toxin
12. Viscum Album Lectin 1 (Viscumin)

**C. Genetic Elements and Genetically-modified Organisms:**

- 1 Genetic elements that contain nucleic acid sequences associated with the pathogenicity of any of the microorganisms in the list.
2. Genetic elements that contain nucleic acid sequences coding for any of the toxins in the list, or for their sub-units.
3. Genetically-modified organisms that contain nucleic acid sequences associated with the pathogenicity of any of the microorganisms in the list.
4. 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.*

**D. Plant Pathogens**

1. Xanthomonas albilineans
2. Xanthomonas campestris pv. citri
3. Xanthomonas campestris pv. Oryzae
4. Xylella fastidiosa
5. Cochliobolus miyabeanus (Helminthosporium oryzae)
6. Microcyclus ulei (syn. Dothidella ulei)
7. Puccinia graminis (syn. Puccinia graminis f. sp. tritici)
8. Puccinia striiformis (syn. Puccinia glumarum)
9. Pyricularia grisea / Pyricularia oryzae
10. Deuterophoma tracheiphila (syn. Phoma tracheiphila)
11. Monilia rorei (syn. Moniliophthora rorei)
12. Banana bunchy top virus

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<sup>3</sup> Excluding immunotoxins.

#### **E. Genetic Elements and Genetically-modified Organisms:**

1. Genetic elements that contain nucleic acid sequences associated with the pathogenicity of any of the microorganisms in the above list.
2. Genetically-modified organisms that contain nucleic acid sequences associated with the pathogenicity of any of the microorganisms in the above list.

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

#### **F. Animal Pathogens**

1. Goat pox virus
2. Herpes virus (Aujeszky's disease)
3. Hog cholera virus (*synonym: swine fever virus*)
4. Lyssa virus
5. Porcine enterovirus type 9 (*synonym: swine vesicular disease virus*)
6. Sheep pox virus

#### **G. Genetic Elements and Genetically-modified Organisms:**

1. Genetic elements that contain nucleic acid sequences associated with the pathogenicity of any of the microorganisms in the list.
2. 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.*

#### **H. Chemical**

1. 3-Hydroxy-1-methylpiperidine
2. Potassium Fluoride
3. 2-Chloroethanol
4. Dimethylamine
5. Dimethylamine Hydrochloride
6. Hydrogen Fluoride
7. Methyl Benzilate
8. 3-Quinuclidone
9. Pinacolone
10. Potassium Bifluoride
11. Ammonium Bifluoride
12. Sodium Bifluoride
13. Sodium Fluoride
14. Phosphorus Pentasulphide
15. Di-isopropylamine
16. Diethylaminoethanol
17. Sodium Sulphide
18. Triethanolamine Hydrochloride

- 19. Sodium Cyanide
- 20. Potassium Cyanide

## **I. Production Equipment (Chemical)**

### **1. Reaction Vessels, Reactors or Agitators**

- a. Reaction vessels or reactors, with or without agitators, with total internal (geometric) volume greater than 0.1m<sup>3</sup> (100 l) and less than 20m<sup>3</sup> (20000 l), where all surfaces that come in direct contact with the chemical(s) being processed or contained are made from the following materials:
  - (i) nickel or alloys with more than 40% nickel by weight;
  - (ii) alloys with more than 25% nickel and 20% chromium by weight;
  - (iii) fluoropolymers;
  - (iv) glass or glass-lined (including vitrified or enamelled coating);
  - (v) tantalum or tantalum alloys;
  - (vi) titanium or titanium alloys; or
  - (vii) irconium or zirconium alloys.
  
- b. Agitators for use in the above-mentioned reaction vessels or reactors where all surfaces of the agitator that come in direct contact with the chemical(s) being processed or contained are made from the following materials:
  - (i) nickel or alloys with more than 40% nickel by weight;
  - (ii) alloys with more than 25% nickel and 20% chromium by weight;
  - (iii) fluoropolymers;
  - (iv) glass or glass-lined (including vitrified or enamelled coating);
  - (v) tantalum or tantalum alloys;
  - (vi) titanium or titanium alloys; or
  - (vii) zirconium or zirconium alloys.

### **2. Storage Tanks, Containers or Receivers**

Storage tanks, containers or receivers with a total internal (geometric) volume greater than 0.1m<sup>3</sup> (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; or
- g. zirconium or zirconium alloys.

### **3. Heat Exchangers or Condensers**

Heat exchangers or condensers with a heat transfer area of greater than 0.15 m<sup>2</sup>, and less than 20m<sup>2</sup>, 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;
- f. tantalum or tantalum alloys
- g. titanium or titanium alloys;
- h. zirconium or zirconium alloys;  
silicon carbide; or  
titanium carbide.

#### **4. Distillation or Absorption Columns**

Distillation or absorption columns of internal diameter greater than 0.1m; 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;
- f. tantalum or tantalum alloys;
- g. titanium or titanium alloys; or
- h. zirconium or zirconium alloys.

#### **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 normal sizes greater than 1.0 cm (3/8"), 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; or
- g. zirconium or zirconium 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;
- f. tantalum or tantalum alloys;
- g. titanium or titanium alloys; or
- h. zirconium or zirconium alloys.

## 8. Pumps

Multiple-seal, canned drive, magnetic drive, bellows or diaphragm pumps, with manufacturer's specified maximum flow-rate greater than 0.6 m<sup>3</sup>/h, or vacuum pumps with the manufacturer's specified maximum flow-rate greater than 5 m<sup>3</sup>/h (under standard temperature (0o C) and pressure (101.30 kPa) conditions) 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;
- 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;
- f. tantalum or tantalum alloys;
- g. titanium or titanium alloys;
- h. zirconium or zirconium alloys;
- i. ceramics; or
- j. ferrosilicon.

## 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 1000oC, 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 precursor chemicals.*

## 10. 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<sup>3</sup>; or
- b. designed for the detection of cholinesterase-inhibiting activity.

## **J. Production Equipment (Biological)**

### **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 (2nd edition, Geneva, 1993) should be subject to export control.

[The WHO Manual can be viewed from this website:

[http://www.who.int/csr/resources/publications/biosafety/who\\_cds\\_csr\\_lyo\\_20034/en/](http://www.who.int/csr/resources/publications/biosafety/who_cds_csr_lyo_20034/en/) ]

### **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 continuous separation of pathogenic micro-organisms, viruses, toxins and cell cultures, having all the following characteristics:

- a. equal to or greater than 5 square metres;
- b. capable of in-situ sterilization.

### **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.

**Note:** *The following items will be included:*

*1. Equipment for the micro-encapsulation of live micro-organisms and toxins in the range of 1-10 um particle size, specifically:*

- a) interfacial polycondensers;  
b) phase separators.*

*2. Fermenters of less than 100 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.*

**IMPORTANT NOTE:**

When submitting the Jnt3 “XO” permits for the above listed items, you need to write the **Category Code** as: “OTH02”, regardless of the end-use. However, if you know or suspect that the item will be used for nuclear, chemical or biological weapons, or missiles delivering these weapons, you must write the Category Code as “WMD01”.

We would advise you to obtain the necessary technical specifications from the supplier or manufacturer to determine if the item you are dealing in meets the description and technical specifications specified in the list.