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MARITIME AND PORT AUTHORITY OF SINGAPORE ACT (CHAPTER 170A)

MARITIME AND PORT AUTHORITY OF SINGAPORE (DANGEROUS GOODS, PETROLEUM AND EXPLOSIVES) REGULATIONS 2005

ARRANGEMENT OF REGULATIONS

Regulation

1. Citation and commencement
2. Definitions

PART I

CARRIAGE OF PETROLEUM

Division 1 — Preliminary provisions

3. Compliance with this Part
4. Exemption from this Part
5. Power to board vessels

Division 2 — Tests and licensing

6. Tests to determine class of petroleum
7. Restrictions on carriage of Class 'A' or 'B' petroleum
8. Quantity of Class 'A' petroleum which may be carried on deck of vessel
9. Notice of arrival
10. Notice of departure
11. Directions on entering port
12. Loading and discharging and other operations
13. Restrictions on cleaning or gas-freeing of tanks
14. Compliance with acceptable standards of safety
15. Compliance with specific safety measures
16. Restrictions on hot work, high speed drilling and other similar operations
17. Carrying out of hot work, high speed drilling or other similar operations or ship-breaking or dismantling operations
18. Issue of certificate of freedom from flammable vapour

Regulation

19. Display of certificate of freedom from flammable vapour
20. Pump-room sea-suction valves
21. Loading and discharging of petroleum in port
22. Use of specific anchorages and terminals
23. Limit to time within which petroleum may remain in wharf, etc.
24. Limit to time within which vessels may remain in port
25. Prohibition on handling by night
26. Conditions of discharge
27. Appointment of Inspectors of Petroleum

Division 3 — Packed cargo

28. Carriage of packaged petroleum
29. Restrictions on handling of Class 'A' petroleum

Division 4 — Safety (General)

30. Leaking or damaged receptacle
31. Safety measures
32. Precautions to prevent accident
33. Unsafe equipment
34. Exhibition of warning notices

PART II**CARRIAGE OF DANGEROUS CARGOES, DANGEROUS GOODS, ARMS
AND EXPLOSIVES***Division 1 — Preliminary provisions*

35. Coverage of dangerous goods
36. Application of IMDG Code to these Regulations
37. Exemption from this Part
38. Compliance with this Part
39. Powers of entry and search

Division 2 — Description, loading, discharge and movement of dangerous goods

40. Notice of arrival
41. Master to carry special list, manifest or detailed stowage plan
42. Packing, labelling and marking of dangerous goods
43. Notice and permission required for discharging of dangerous goods
44. Loading of dangerous cargoes and goods
45. Passage through prohibited area

Regulation

46. Restrictions on night movements of vessels carrying First Schedule dangerous goods
47. First Schedule dangerous goods prohibited alongside wharf
48. Anchoring and mooring
49. Permission required for harbour craft to enter designated anchorages
50. First Schedule dangerous goods to be conveyed to harbour craft at anchorage or landing place
51. Handling of dangerous goods at wharf
52. Landing or loading at authorised places
53. Restrictions on loading or discharging of First Schedule dangerous goods at night

Division 3 — Safety (General)

54. Precautionary measures for carriage of spontaneously combustible substances
55. General safety precautions on vessels
56. Carriage of dangerous goods in passenger vessels
57. Dangerous goods to be removed from landing place without delay
58. Priority for loading and discharging First Schedule dangerous goods other than explosives
59. Dangerous goods not permitted in wharf unless properly described
60. Vessel with leaking or damaged receptacle containing dangerous goods on board
61. Defective or damaged receptacles
62. Procedure upon discovery of leaking or damaged receptacle on vessel
63. Inspection of packages of dangerous goods
64. Powers to stop operations
65. Continuous supervision of harbour craft
66. Unauthorised person prohibited on board harbour craft
67. Prohibition on possession of means of ignition
68. Safe towage distance
69. Appointment of Inspectors of Dangerous Goods
70. Handling of First Schedule dangerous goods during bunkering operations
71. Prohibition of repair work
72. Additional requirements for arms and explosives

Regulation

73. Limitation of maximum quantities of First Schedule dangerous goods

PART III**GENERAL**

74. Dangerous cargoes to be handled only in approved wharves
75. Notices, approvals, permissions, submissions and other communication
76. Port Master may permit use of vessel or port otherwise than in accordance with these Regulations
77. Responsibility of owner, agent or master
78. General penalty
79. Application to vessels belonging to Singapore Armed Forces
80. Revocation
81. Savings
The Schedules
-

In exercise of the powers conferred by section 41 of the Maritime and Port Authority of Singapore Act, the Maritime and Port Authority of Singapore, with the approval of the Minister for Transport, hereby makes the following Regulations:

Citation and commencement

1. These Regulations may be cited as the Maritime and Port Authority of Singapore (Dangerous Goods, Petroleum and Explosives) Regulations 2005 and shall come into operation on 31st January 2005.

Definitions

2.—(1) In these Regulations, unless the context otherwise requires —

“approved magazine” means any magazine constructed in accordance with the recommendations laid down by IMO;

“approved strong-room” means any strong-room or safe approved by the Authority for the safe-keeping of arms;

“approved wharf” means a wharf approved by the Authority for the purposes of these Regulations;

“arms” includes —

- (a) arms, air-guns, air-pistols, automatic guns, automatic pistols, or any other kind of gun from which —
 - (i) a shot, bullet or other missile can be discharged;
or
 - (ii) noxious fumes can be emitted,
and any component part of such arms; and
- (b) bayonets, swords, daggers, spears and spearheads;

“authorised officer” means —

- (a) an employee of the Authority authorised by the Authority for the purposes of these Regulations;
- (b) a police officer or customs officer; or
- (c) any other person authorised by the Authority in writing for the purposes of these Regulations;

“certificate” means a certificate of freedom from flammable vapour issued by an Inspector of Petroleum under regulation 18;

“Class ‘A’ petroleum” means any petroleum the flash-point of which is less than 23 degrees Celsius and includes liquefied petroleum gas;

“Class ‘B’ petroleum” means any petroleum the flash-point of which is 23 degrees Celsius or more but less than 60 degrees Celsius;

“Class ‘C’ petroleum” means any petroleum the flash-point of which is 60 degrees Celsius or more;

“dangerous cargoes” —

- (a) means any of the following cargoes, whether packaged, carried in bulk packagings or in bulk:
 - (i) oils covered by Annex I of MARPOL 73/78;

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- (ii) gases covered by the Codes for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk;
 - (iii) noxious liquid substances or chemicals, including wastes covered by the Codes for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk and Annex II of MARPOL 73/78;
 - (iv) dangerous, hazardous and harmful substances, materials and articles, including environmentally hazardous substances (marine pollutants) and wastes, covered by the IMDG Code; or
 - (v) solid bulk materials possessing chemical hazards and solid bulk materials hazardous only in bulk (MHBs) including wastes, covered by Appendix B of the Code of Safe Practice for Solid Bulk Cargoes; and
- (b) includes any empty uncleaned packagings (such as tank-containers, receptacles, intermediate bulk containers (IBCs), bulk packagings, portable tanks or tank vehicles) which previously contained dangerous cargoes unless the packagings have been —
- (i) sufficiently cleaned of residue of the dangerous cargoes, and purged of vapours, so as to nullify any hazard; or
 - (ii) filled with a non-dangerous substance;
- “dangerous goods” means dangerous cargoes in packaged form;
- “explosive” means any explosive within the meaning of the Arms and Explosives Act (Cap. 13);
- “First Schedule dangerous goods” means any substance or article specified in the First Schedule;

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- “hot work” includes any repair or alteration involving chipping, grinding, drilling, riveting, welding, burning, or other fire, spark or heat producing operation;
- “IMDG Code” means the International Maritime Dangerous Goods Code issued by IMO and such amendment thereto from time to time as may be adopted by Singapore;
- “IMO” means the International Maritime Organisation;
- “in bulk” means a homogeneous cargo stored loose in a free flowing tank and which must be handled by pumping;
- “Inspector” means an inspector appointed under the Petroleum Act (Cap. 229) or an Inspector of Petroleum;
- “Inspector of Dangerous Goods” means a person appointed as an Inspector of Dangerous Goods under regulation 69;
- “Inspector of Explosives” means a person appointed as an Inspector of Explosives under the Arms and Explosives (Explosives) Rules (Cap. 13, R 2);
- “Inspector of Petroleum” means a person appointed as an Inspector of Petroleum under regulation 27;
- “MARPOL 73/78” means the International Convention for the Prevention of Pollution from Ships (including its protocols, annexes and appendices) which constitutes attachment 1 to the final act of the International Conference on Marine Pollution signed in London on 2nd November 1973, as modified and added to by the Protocol of 1978;
- “oil terminal” means any place having permanent means of loading or discharging petroleum, whether in bulk or packaged, into or from any vessel;
- “petroleum” includes —
- (a) the liquids commonly known by the names of Rock oil, Rangoon oil, Burma oil, kerosene, paraffin oil, petrol, gasoline, benzol, benzoline, benzine or naphtha; and

(b) any like flammable liquid, which is —

- (i) a natural product;
- (ii) a product made from petroleum, coal, schist, shale or any other bituminous substance; or
- (iii) a by-product of a substance referred to in sub-paragraph (i) or (ii);

“terminal manager” means a terminal manager, any person in charge of a wharf, or a representative of the terminal manager or person in charge of the wharf.

(2) In these Regulations, a reference to any special anchorage, petroleum anchorage, quarantine anchorage, immigration anchorage, explosives anchorage or dangerous goods anchorage means an anchorage —

- (a) designated as such under the Maritime and Port Authority of Singapore (Port) Regulations (Rg 7); or
- (b) declared as such by the Port Master under section 43(d) of the Act.

PART I

CARRIAGE OF PETROLEUM

Division 1 — Preliminary provisions

Compliance with this Part

3.—(1) No person shall within the port —

- (a) handle, import, export, load, discharge, transport or otherwise deal with petroleum; or
- (b) cause or permit petroleum to be handled, imported, exported, loaded, discharged, transported or otherwise dealt with,

except in accordance with this Part and the recommendations made by IMO that are accepted by the Authority.

(2) If there is a conflict between these Regulations and the recommendations made by IMO referred to in paragraph (1), these Regulations shall prevail.

Exemption from this Part

4. This Part shall not apply to the carriage of petroleum in properly sealed containers where the aggregate quantity of the petroleum does not exceed 25 litres.

Power to board vessels

5.—(1) For the purposes of this Part, an authorised person may —

- (a) go on board any vessel within the port whenever he suspects that an offence against any provision of these Regulations has been, or is about to be, committed in or on any vessel; and
- (b) seek such assistance as may be necessary.

(2) In paragraph (1), “authorised person” means the Port Master, an Inspector of Petroleum or the authorised representative of the Port Master or of the Director of Marine.

Division 2 — Tests and licensing

Tests to determine class of petroleum

6.—(1) For the purposes of this Part —

- (a) to determine whether a sample of petroleum is Class ‘C’ petroleum, a test shall be carried out by means of the standard Pensky-Martens Closed Tester to determine its flash-point; and
- (b) to determine whether a sample of petroleum is of a class other than Class ‘C’ petroleum, a test shall be carried out by means of the standard Abel Closed Tester to determine its flash-point.

(2) Notwithstanding paragraph (1), the Authority may allow the determination of the class of petroleum to which a sample of

petroleum belongs to be carried out by means of such other test as may be acceptable to the Authority.

Restrictions on carriage of Class ‘A’ or ‘B’ petroleum

7. No person shall cause or permit Class ‘A’ petroleum or Class ‘B’ petroleum to be carried on board a vessel, other than any of the following vessels, within the port limits:

- (a) a vessel licensed under the Maritime and Port Authority of Singapore (Harbour Craft) Regulations (Rg 3);
- (b) a vessel certified by a classification society recognised for this purpose by the Director of Marine as having been constructed to carry Class ‘A’ petroleum or Class ‘B’ petroleum either in bulk or in packages; or
- (c) a vessel certified by the Director of Marine as having been constructed to carry Class ‘A’ petroleum or Class ‘B’ petroleum either in bulk or in packages.

Quantity of Class ‘A’ petroleum which may be carried on deck of vessel

8. The owner, agent or master of a vessel that is licensed to carry petroleum shall not cause or permit to be carried on the deck of the vessel a quantity of Class ‘A’ petroleum that exceeds —

- (a) 500 litres, where the vessel is within any of the following areas:
 - (i) the full extent of all rivers entering the port; or
 - (ii) the area described in the Second Schedule; or
- (b) 100,000 litres, where the vessel is in any other area of the port.

Notice of arrival

9. The owner, agent or master of a vessel carrying Class ‘A’ petroleum or Class ‘B’ petroleum on board as cargo shall give notice of the vessel’s arrival at the port to the Port Master —

- (a) before the vessel arrives at the port; or

- (b) if it is impracticable to give notice before arrival at the port, upon arrival at the port.

Notice of departure

10. The owner, agent or master of a vessel about to leave the port with Class 'A' petroleum or Class 'B' petroleum on board as cargo shall give notice to the Port Master of that fact.

Directions on entering port

11.—(1) No person shall cause or permit a vessel that is carrying Class 'A' petroleum or Class 'B' petroleum as the whole or part of the vessel's cargo or that carried such petroleum as the whole or part of the vessel's last cargo to proceed to —

- (a) any place within the port unless the following parts of the vessel have been certified free from flammable vapour by an Inspector of Petroleum:
- (i) all cargo compartments and systems connected with the carriage of Class 'A' petroleum or Class 'B' petroleum; and
 - (ii) such other parts of the vessel as an Inspector thinks necessary; or
- (b) any local shipyard or repair facility, unless an Inspector has inspected the fuel oil tanks of the vessel and is satisfied that the petroleum vapour in the tanks is 50% of the lower explosive limit or below 50% of the lower explosive limit.

(2) Paragraph (1)(a) shall not apply to a vessel proceeding to a petroleum anchorage, a special anchorage or an oil terminal.

Loading and discharging and other operations

12.—(1) No person shall load or discharge petroleum within the port except at such place or places as the Authority may allow.

(2) A person who wishes to ballast or gas-free any vessel within the port after the carriage of petroleum in the vessel shall notify the Port Master who may —

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- (a) direct where the ballasting or gas-freeing operations are to be carried out; and
 - (b) impose such conditions in respect of the ballasting or gas-freeing operations as the Port Master thinks fit.

Restrictions on cleaning or gas-freeing of tanks

13.—(1) No person shall cause or permit the cleaning or gas-freeing of a vessel's tanks unless he has applied for and obtained the written permission of the Port Master.

(2) An application for permission under paragraph (1) shall be accompanied by full details of the arrangements proposed for the disposal of sludge, residue or waste material.

(3) The owner of the vessel, the person-in-charge of the vessel and the person-in-charge of the tank-cleaning or gas-freeing operations shall ensure that no person employed in the cleaning or gas-freeing of the tanks —

- (a) smokes; or
- (b) carries or takes into the tank any matches or other substance that produces, or is capable of producing, a fire or spark.

Compliance with acceptable standards of safety

14. The owner or operator of a wharf at which a vessel loads or discharges Class 'A' petroleum or Class 'B' petroleum shall ensure that all loading, discharging or ballasting operations are carried out in accordance with safety standards acceptable to the Authority, including the safety guidelines set out in the International Safety Guide for Oil Tankers and Terminals, as amended from time to time.

Compliance with specific safety measures

15. The owner, agent or master of a vessel shall provide —

- (a) a competent member of the engine room staff to be available to operate fire pumps or other fire extinguishing apparatus on the vessel;
- (b) a sufficient number of crew members to adequately assist the person referred to in paragraph (a) and the engineer;

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- (c) in the case of a vessel on which petroleum is loaded or discharged or on which ballasting, tank-cleaning or gas-freeing operations are carried out, a sufficient number of officers and men to carry out the loading, discharging or operations efficiently at all times and, if necessary, to move the vessel; and
 - (d) a watchman to be stationed at each gangway leading to the vessel —
 - (i) to prevent smoking by any person on or near the vessel;
 - (ii) to prevent access onto the vessel by any unauthorised person; and
 - (iii) to warn all persons on or near the vessel that flammable goods are being handled on the vessel.

Restrictions on hot work, high speed drilling and other similar operations

16. No person shall cause or permit any hot work, high speed drilling or other similar operation to be carried out on any waterfront facility or vessel within the port limits during the handling, storing, stowing, loading, discharging or transporting of petroleum on the waterfront facility or vessel.

Carrying out of hot work, high speed drilling or other similar operations or ship-breaking or dismantling operations

17.—(1) The owner of a shipyard or his employee or agent who has control over any works to be carried out in a shipyard shall ensure that the following works shall not be carried out in the shipyard or in any compartment or pipeline of a vessel which contains, or had contained, petroleum unless a certificate is issued in respect of the work to be carried out:

- (a) hot work or high speed drilling; and
- (b) other fire, spark or heat producing operation.

(2) The owner, agent or master of a vessel shall ensure that no hot work, high speed drilling or any other fire, spark or heat producing

operation is carried out on or in any vessel at any petroleum anchorage or dangerous goods anchorage.

(3) The owner, agent or master of a vessel that is within the port shall ensure that no hot work, high speed drilling or any other fire, spark or heat producing operation is carried out —

(a) on or in the vessel if the vessel carried petroleum as the whole or part of her last cargo; or

(b) on or in any compartment or pipeline of the vessel that contained petroleum,

unless a certificate is issued in respect of the work to be carried out.

(4) The owner, agent or master of a vessel shall ensure that no ship-breaking or dismantling operation is carried out on the vessel unless a certificate is issued in respect of the work to be carried out.

(5) This regulation shall not apply to the carrying out of any hot work for which a hot-work permit has been issued under regulation 40 of the Factories (Shipbuilding and Ship-repairing) Regulations (Cap. 104, Rg 11).

Issue of certificate of freedom from flammable vapour

18.—(1) The certificate that is required for the purposes referred to in regulation 17(1), (3) and (4) shall be a certificate of freedom from flammable vapour.

(2) An application for a certificate for a purpose referred to in regulation 17(1), (3) or (4) shall be made by the master of the vessel concerned or by a person who is in charge of the works proposed to be carried out to or on the vessel.

(3) In considering whether to issue a certificate, an Inspector of Petroleum may, if he considers it necessary —

(a) require the applicant to provide any information; and

(b) examine the vessel or any part thereof.

(4) In issuing a certificate under this regulation, the Inspector of Petroleum may impose such conditions as he thinks fit.

(5) A certificate shall not be valid if, after the certificate has been issued —

- (a) any pipeline, valve, heating coil or pump on the vessel is altered;
- (b) the scale or sediment is removed from a compartment of the vessel; or
- (c) the ballast conditions of the vessel have been changed.

Display of certificate of freedom from flammable vapour

19.—(1) Subject to paragraph (2), where a certificate has been issued, the master of the vessel shall —

- (a) display a copy of the certificate prominently at the main gangway to the vessel or, if this is not practicable, at the main access to the vessel at all times; and
- (b) produce the certificate on the request of any authorised officer or any person who is empowered or authorised under any written law to request the production of such a certificate.

(2) No person shall display any certificate that is forged or altered, or is invalid by virtue of regulation 18(5).

Pump-room sea-suction valves

20.—(1) The owner, agent or master of a vessel carrying petroleum in bulk shall ensure that —

- (a) all pump-room sea-suction valves on the vessel are chain locked and sealed;
- (b) a record of the locking and sealing is made in an appropriate log book; and
- (c) no such seal is broken except in an emergency.

(2) Where there is an emergency, the pump-room sea-suction valve may be opened on the authority of the master of the vessel who shall cause that fact and the nature of the emergency to be recorded in the log book referred to in paragraph (1)(b).

Loading and discharging of petroleum in port

21. The owner, agent or master of a vessel onto or from which petroleum of any description is being loaded or discharged anywhere in the port shall —

- (a) ensure that all scuppers and overside deck openings are plugged so as to prevent the escape of any petroleum into the sea; and
- (b) ensure that towing-off wires are secured forward and aft and that such wires are —
 - (i) capable of bearing any strain which may be necessary to be imposed upon them in towing-off the vessel;
 - (ii) suspended such that the eyes shall not be more than 2 metres above the level of the sea; and
 - (iii) of such length as to provide an effective towing length of not less than 50 metres.

Use of specific anchorages and terminals

22. Subject to section 43 of the Act, the owner, agent or master of a vessel loaded with Class ‘A’ petroleum or Class ‘B’ petroleum shall not cause or permit the vessel to anchor or berth within the port limits except —

- (a) within a petroleum anchorage or a special anchorage, or at an oil terminal; or
- (b) with the permission of the Port Master.

Limit to time within which petroleum may remain in wharf, etc.

23. No person shall cause or permit petroleum to be placed on a wharf, the foreshore or other similar place for a period of time longer than is reasonably necessary for the loading or discharging of the petroleum or for the petroleum to be transported.

Limit to time within which vessels may remain in port

24. The owner, agent or master of a vessel, which has on board as cargo any Class ‘A’ petroleum or Class ‘B’ petroleum, whether for transport or storage, shall ensure that —

- (a) the vessel does not remain within the port limits except in a petroleum anchorage or at an oil terminal; and
- (b) the vessel does not remain within the port limits for a period of time longer than is reasonably necessary for the loading or discharging, or ballasting after discharge, of such petroleum.

Prohibition on handling by night

25.—(1) No person shall cause or permit Class ‘A’ petroleum to be loaded or discharged onto or from any vessel or otherwise handled on any vessel between 7 p.m. and 7 a.m., except for the loading or discharging of such petroleum in bulk onto or from any vessel constructed for the carriage of petroleum in bulk.

(2) No person shall cause or permit general cargo to be handled between 7 p.m. and 7 a.m. on any vessel on which there is Class ‘A’ petroleum in bulk unless he has obtained the written permission of the Port Master.

Conditions of discharge

26.—(1) No person shall cause or permit Class ‘A’ petroleum or Class ‘B’ petroleum to be discharged within the port from any vessel unless the owner, agent or master of the vessel has applied for and obtained —

- (a) the permission of the Port Master; and
- (b) in the case of a vessel berthed or moored at a wharf, the permission of the terminal manager.

(2) The Port Master and the terminal manager may each, in granting his permission, impose such conditions as he thinks fit.

Appointment of Inspectors of Petroleum

27.—(1) The Authority may appoint Inspectors of Petroleum who may each —

- (a) board any vessel that is carrying petroleum on board, or that is being prepared to carry petroleum, for the purpose of —
 - (i) examining the vessel and its cargo; or
 - (ii) taking and testing samples of the petroleum being carried; and
- (b) board any vessel that has carried Class ‘A’ petroleum or Class ‘B’ petroleum as the whole or part of the vessel’s last cargo for the purpose of certifying that the vessel, or such part of the vessel that is accessible, is in the opinion of the Inspector of Petroleum free from flammable vapour.

(2) The taking and testing of samples under paragraph (1) shall be carried out in accordance with such procedures and standards as the Authority may determine.

Division 3 — Packed cargo

Carriage of packaged petroleum

28. When packaged petroleum is carried on board a vessel, the owner, agent or master of the vessel shall ensure that the carriage of packaged petroleum complies with the provisions in the IMDG Code.

Restrictions on handling of Class ‘A’ petroleum

29. No person shall cause or permit any packaged petroleum product or dangerous goods of any description to be handled on a vessel while the vessel is engaged in —

- (a) loading or discharging Class ‘A’ petroleum in bulk; or
- (b) ballasting after discharging of Class ‘A’ petroleum in bulk.

Division 4 — Safety (General)

Leaking or damaged receptacle

30.—(1) No person shall cause or permit a leaking receptacle containing petroleum to be placed on board any vessel.

(2) The owner, agent or master of a vessel in which there is a leaking or damaged receptacle containing petroleum shall —

- (a) ensure that all loading and discharging operations cease immediately on discovery of the leak or damage;
- (b) inform the Port Master and, if the vessel is berthed at a wharf or terminal, the terminal manager, of the leaking or damaged receptacle as soon as possible; and
- (c) comply with all directions of —
 - (i) the Port Master or his authorised representative; and
 - (ii) if the vessel is berthed at a wharf or terminal, the terminal manager,

relating to the handling and storage of the leaking or damaged receptacle.

Safety measures

31.—(1) The owner, agent or master of a vessel shall ensure that no person is permitted to enter or remain in a compartment of a vessel that contained petroleum unless he has taken or caused to be taken all precautions to guard against the ignition of flammable vapour and the toxic effect of the flammable vapour.

(2) The owner, agent or master of a vessel shall ensure that no person is permitted to work in a compartment of a vessel that contained petroleum unless —

- (a) the compartment is efficiently ventilated by spark free equipment;
- (b) all tools and equipment used are of a non-sparking type;

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- (c) the person working in the compartment does not —
 - (i) carry on his person matches or other means of ignition; or
 - (ii) wear any footwear in the compartment which is liable to cause any spark;
 - (d) not less than one set of efficient breathing apparatus and 2 efficient life lines are placed near to the access to the compartment and are ready for immediate use;
 - (e) the lighting provided is adequate for the purpose of the work to be done and is of an intrinsically safe type; and
 - (f) any work to be carried out is done so under the personal supervision of a responsible person who is —
 - (i) fully conversant with these Regulations and the relevant provisions of the Factories Act (Cap. 104) and of any other written law; and
 - (ii) approved by the master of the vessel.

(3) No person shall cause or permit naked or artificial light, other than an intrinsically safe self-contained light, to be used in the hold of any vessel on which petroleum is or was carried.

(4) No person shall cause or permit radio receiving sets, including transistor sets, to be brought or kept in any hold or compartment containing petroleum.

(5) The owner, agent or master of a vessel shall ensure that no fire alarm point or emergency call box is located at any part of the vessel where it is likely to be rendered inactive by an explosion.

Precautions to prevent accident

32.—(1) The owner, agent or master of a vessel on which petroleum is loaded or discharged, or on which ballasting, tank-cleaning or gas-freeing operations are carried out, shall ensure that the vessel is equipped and managed such that every reasonable precaution is taken to prevent fire, explosion, implosion or accident.

(2) No owner, agent or master of a vessel shall cause or permit any ship-to-ship transfer of petroleum other than normal bunkering within the port unless he has obtained the permission of the Port Master.

(3) The Port Master may, in granting his permission, impose such conditions as he thinks fit.

Unsafe equipment

33. The owner, agent or master of a vessel engaged in the transport or storage of petroleum shall ensure that the vessel is equipped, managed and handled such that —

- (a) all reasonable precautions are taken against the incidence of mishap or accident of any kind; and
- (b) all equipment and fittings on the vessel are reasonably safe.

Exhibition of warning notices

34. The owner, agent or master of a vessel on which petroleum is loaded or discharged, or on which ballasting, tank-cleaning or gas-freeing operations are carried out, shall ensure that —

- (a) notices in the appropriate language prohibiting smoking, naked lights and unauthorised visitors are prominently exhibited at the gangways and every part of the vessel from which a person may gain access to the vessel; and
- (b) notices in the appropriate language prohibiting any unauthorised craft from approaching within a distance of 200 metres of the vessel are prominently exhibited on —
 - (i) the off-shore side of the vessel, where the vessel is alongside a wharf; and
 - (ii) on both sides of the vessel, in any other case.

PART II**CARRIAGE OF DANGEROUS CARGOES, DANGEROUS
GOODS, ARMS AND EXPLOSIVES***Division 1 — Preliminary provisions***Coverage of dangerous goods**

35. In this Part, “dangerous goods” —

- (a) means any goods to which the IMDG Code applies and that are in packaged form; and
- (b) includes empty receptacles which were previously used for the carriage of such goods unless the receptacles have been rendered safe.

Application of IMDG Code to these Regulations

36. The IMDG Code shall apply in the interpretation and construction of these Regulations except in so far as the Code may be expressly varied by anything contained in these Regulations.

Exemption from this Part

37. This Part shall not apply to —

- (a) dangerous goods forming part of the equipment or stores of vessels in which they are carried if the quantity of such goods is considered reasonable by the Authority;
- (b) small quantities of dangerous goods taken as samples for the purposes of these Regulations; or
- (c) any person or vessel exempted by the Authority under section 118 of the Act.

Compliance with this Part

38.—(1) No person shall within the port —

- (a) handle, import, export, load, discharge, transport or otherwise deal with dangerous goods; or

- (b) cause or permit dangerous goods to be handled, imported, exported, loaded, discharged, transported or otherwise dealt with,

except in accordance with these Regulations, the IMDG Code and any other written law.

(2) In the event of any conflict between these Regulations and the IMDG Code, these Regulations shall prevail.

(3) If a vessel is carrying on board any goods of a dangerous nature to which the IMDG Code does not apply, the owner, agent or master of the vessel shall —

- (a) inform the Port Master that the goods are not expressly referred to in the IMDG Code; and
- (b) comply with all the directions of the Port Master relating to the goods.

Powers of entry and search

39. The Port Master, an authorised officer or any public officer authorised by the Authority may —

- (a) enter any place, vessel or vehicle and search such place, vessel or vehicle or any person —
 - (i) for the purpose of ensuring that the provisions of these Regulations are complied with; or
 - (ii) if he has reasonable grounds for believing that an offence is being or was committed under these Regulations; and
- (b) seize any evidence of the commission of an offence under these Regulations.

Division 2 — Description, loading, discharge and movement of dangerous goods

Notice of arrival

40.—(1) The owner, agent or master of a vessel arriving in the port and carrying dangerous cargoes shall —

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- (a) not less than 24 hours before the arrival of the vessel, give notice of its arrival to the Port Master;
 - (b) furnish a list of the dangerous goods on the vessel to the Port Master stipulating the technical names, the quantity and the class of the goods according to the IMDG Code; and
 - (c) provide such information relating to the dangerous cargoes on the vessel, whether in bulk or packaged form, as may be required by the Port Master from time to time.
- (2) Notwithstanding paragraph (1), the Port Master may require such shorter notice as he may determine.
- (3) In the case of a vessel that is to be berthed at a wharf, the notice shall also be given to the terminal manager.
- (4) Where it is impracticable to give notice 24 hours before the arrival of the vessel in the port as required under paragraph (1), notice of the arrival of the vessel in the port shall be given immediately upon its arrival.

Master to carry special list, manifest or detailed stowage plan

41.—(1) The master of a vessel shall cause to be carried on the vessel —

- (a) a special list or manifest setting out the classification and location of all dangerous cargoes on board the vessel; or
 - (b) a detailed stowage plan which identifies by class all dangerous cargoes on board the vessel and sets out the location of such dangerous cargoes.
- (2) A copy of these documents shall be made available to the Port Master, if so required by him.

Packing, labelling and marking of dangerous goods

42. The owner, agent or master of a vessel shall ensure that the packing, labelling and marking of dangerous goods on board the vessel is in accordance with the recommendations set out in the IMDG Code and the specific requirements of the Authority.

Notice and permission required for discharging of dangerous goods

43.—(1) The owner, agent or master of a vessel from which dangerous goods are intended to be removed or discharged in the port shall give notice of such intention and the nature and character of the goods to —

(a) the Port Master; and

(b) the terminal manager or (where there is no terminal manager) the occupier of the wharf, if it is intended to remove or discharge dangerous goods at a wharf.

(2) No owner, agent or master of a vessel shall remove or discharge dangerous goods in the port unless he has obtained the permission of the Port Master and terminal manager or (where there is no terminal manager) the occupier of the wharf.

(3) The Port Master and the terminal manager or occupier of the wharf may each, in granting his permission under paragraph (2), impose such conditions as he thinks fit.

(4) The owner, agent or master of a vessel who discharges goods of a flammable, explosive or dangerous nature onto a wharf shall, if required by notice by the Port Master, remove, destroy or render innocuous the whole or any part of the goods if the goods were discharged without complying with paragraph (1) or (2).

(5) Any person who fails to comply with the notice referred to in paragraph (4) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$10,000 and, in the case of a continuing offence, to a further fine not exceeding \$2,000 for every day or part thereof during which the notice is not complied with.

(6) Notwithstanding paragraphs (4) and (5), if the goods are not removed, destroyed or rendered innocuous within the time given in the notice under paragraph (4) —

(a) the terminal manager or (where there is no terminal manager) the occupier of the wharf may cause the goods to be disposed of or render the goods innocuous, without paying compensation; and

- (b) the owner, agent or master of the vessel discharging the goods shall, in addition to any liability for damages, be liable to the terminal manager or occupier of the wharf for all expenses incurred under sub-paragraph (a).

Loading of dangerous cargoes and goods

44.—(1) No owner, agent or master of a vessel shall permit any dangerous goods to be taken on board for carriage in the vessel unless the shipper of the dangerous goods furnishes the owner, agent or master of the vessel with a declaration that the shipment offered for carriage is properly packaged and marked, labelled or placarded —

- (a) in accordance with these Regulations; and
- (b) in such manner that the goods are in a fit and proper condition for carriage in accordance with the recommendations set out in the IMDG Code.
- (2) The declaration shall indicate —
- (a) the identity of the dangerous goods with the correct technical name; and
- (b) the class to which the dangerous goods belong according to the IMDG Code.
- (3) Dangerous cargoes in bulk shall not be loaded onto a vessel for carriage in that vessel if the owner, agent or master of the vessel —
- (a) knows or ought to know that the dangerous cargoes cannot be carried safely in bulk to the destination to which they are consigned; or
- (b) fails to comply with any provision of these Regulations and the relevant provisions of the IMO's codes for ships carrying dangerous cargoes in bulk.
- (4) The owner, agent or master of a vessel onto which dangerous goods are intended to be loaded —
- (a) shall, not less than 24 hours before the loading of the dangerous goods, give notice of that intention to the Port Master; and

(b) shall not load the dangerous goods until he has obtained the Port Master's permission.

(5) Notwithstanding paragraph (4), the Port Master may, in his discretion, allow a shorter period of notice.

(6) If the owner, agent or master intends to load dangerous goods onto a vessel at a wharf, the permission of the terminal manager shall also be obtained.

Passage through prohibited area

45. No person shall cause or permit a vessel carrying First Schedule dangerous goods to proceed into or through a prohibited area of the port set out under regulation 45 of the Maritime and Port Authority of Singapore (Port) Regulations (Rg 7) unless he has obtained the written permission of the Port Master.

Restrictions on night movements of vessels carrying First Schedule dangerous goods

46.—(1) No person shall, without the permission of the Port Master, cause or permit a vessel carrying First Schedule dangerous goods to be under way within the port limits between 7 p.m. and 7 a.m.

(2) Nothing in this regulation shall —

(a) prevent a vessel —

- (i) from entering the port to proceed to any quarantine anchorage or immigration anchorage; or
- (ii) from leaving the port directly from any explosives wharf, dangerous goods wharf, explosives anchorage or dangerous goods anchorage; or

(b) apply to a vessel (other than a harbour craft) —

- (i) unberthing from any explosives anchorage or dangerous goods anchorage; or
- (ii) proceeding from any explosives wharf or dangerous goods wharf to —
 - (A) any explosives anchorage or dangerous goods anchorage; or

(B) direct to sea.

(3) In this regulation —

“dangerous goods wharf” means a wharf approved by the Authority for the purposes of loading or unloading dangerous goods;

“explosives wharf” means a wharf approved by the Authority for the purposes of loading or unloading explosives.

First Schedule dangerous goods prohibited alongside wharf

47.—(1) No person shall cause or permit a vessel carrying First Schedule dangerous goods to be berthed alongside any wharf unless he has obtained the permission of the Port Master and the terminal manager.

(2) The Port Master and the terminal manager may each, in granting his permission, impose such conditions as he thinks fit.

Anchoring and mooring

48.—(1) Except for the purpose of obtaining quarantine or immigration clearance, no person shall cause or permit a vessel carrying First Schedule dangerous goods to moor or anchor at any place other than an explosives anchorage or a dangerous goods anchorage unless he has obtained the permission of the Port Master.

(2) No person shall cause or permit a vessel to anchor or moor within any explosives anchorage, or dangerous goods anchorage unless —

(a) the vessel is being used for loading, discharging or carrying explosives or dangerous goods, as the case may be; or

(b) it is intended that the vessel be used for loading or discharging explosives or dangerous goods, as the case may be.

Permission required for harbour craft to enter designated anchorages

49.—(1) No person shall cause or permit a harbour craft to enter such places as are designated as petroleum anchorages, explosives

anchorages or dangerous goods anchorages unless he has obtained the permission of the Port Master.

(2) The Port Master may, in granting his permission, impose such conditions as he thinks fit.

First Schedule dangerous goods to be conveyed to harbour craft at anchorage or landing place

50.—(1) No person shall cause or permit a harbour craft to carry First Schedule dangerous goods within the limits of the port unless the harbour craft is —

- (a) licensed under the Maritime and Port Authority of Singapore (Harbour Craft) Regulations (Rg 3); and
- (b) permitted by the Port Master to carry First Schedule dangerous goods.

(2) Subject to regulation 49 —

- (a) First Schedule dangerous goods shall only be conveyed directly to a harbour craft referred to in paragraph (1) from any other vessel or to any other vessel from such harbour craft; and
- (b) such conveyance shall only be permitted in an anchorage or at a landing place designated from time to time by the Port Master for the loading or discharging of First Schedule dangerous goods and explosives.

(3) No person shall cause or permit a harbour craft containing dangerous goods to be loaded in such a manner as to cause any portion of the band specified in item 35 in the First Schedule to the Maritime and Port Authority of Singapore (Port) Regulations (Rg 7) to be submerged.

Handling of dangerous goods at wharf

51.—(1) The owner or person in control of dangerous goods shall ensure that any dangerous goods that are discharged onto any wharf are removed from the wharf with all convenient speed.

(2) The owner or person in control of the dangerous goods may deposit or store those goods on a wharf during transit only if —

- (a) he has obtained the permission of the Port Master and the terminal manager; and
- (b) he has complied with the requirements of any other relevant authority and any other applicable written law.

Landing or loading at authorised places

52. Subject to regulation 47, no person shall cause or permit First Schedule dangerous goods to be loaded or discharged from a vessel at any place other than —

- (a) a landing place designated by the Port Master under regulation 50(2); or
- (b) a petroleum anchorage, an explosives anchorage or a dangerous goods anchorage.

Restrictions on loading or discharging of First Schedule dangerous goods at night

53.—(1) No person shall cause or permit any First Schedule dangerous goods to be loaded or discharged within the limits of the port between 7 p.m. and 7 a.m. unless he has obtained the permission of the Port Master.

(2) No person shall cause or permit any First Schedule dangerous goods to be loaded or discharged alongside any wharf between 7 p.m. and 7 a.m. unless he has obtained the permission of the Port Master.

(3) Paragraph (2) shall not apply to any First Schedule dangerous goods contained in containers or portable tanks that are 6.1 metres in length or more and equipped with corner castings to facilitate handling by mechanical equipment.

(4) Notwithstanding paragraph (3), the Port Master may prohibit the loading or discharging of the goods referred to in that paragraph if he is of the opinion that it is not safe for the goods to be loaded or discharged.

Division 3 — Safety (General)

Precautionary measures for carriage of spontaneously combustible substances

54. No person shall cause or permit a substance capable of spontaneous combustion to be taken on board any vessel for carriage as cargo unless such precautionary measures, as may be appropriate in the circumstances of each case, are taken to prevent the spontaneous combustion of the substance.

General safety precautions on vessels

55. Where a vessel is engaged in the loading, discharging or carrying of dangerous goods, the owner, agent or master of the vessel shall ensure that —

- (a) the vessel is ready to shift berth at full power at immediate notice if necessary;
- (b) a ship's officer is present who —
 - (i) shall be responsible for ensuring that the prescribed safety measures are taken; and
 - (ii) shall remain on duty until relieved by an equally competent person;
- (c) an efficient ship's fire-fighting party is ready for duty instantly when required;
- (d) a regular and efficient fire patrol is maintained on board the vessel;
- (e) an adequate pressure of water for fire-fighting is available at all times;
- (f) at least 2 efficient fire extinguishers appropriate in the circumstances are at all times ready for use in the immediate vicinity of the place in which the dangerous goods are being transported or handled;
- (g) a competent watchman is stationed at each gangway, and every other part of the vessel from which a person may gain

access to the vessel, to prevent the boarding of the vessel by any unauthorised person;

- (h) adequate notices in the appropriate languages with pictorial representations are posted prominently at the following places to prohibit smoking, and the use of naked lights, except in places authorised by the master of the vessel:
 - (i) on both sides of the deck of the vessel; and
 - (ii) at the forward and after end of each hold or compartment containing dangerous goods;
- (i) an efficient anchor and cable is at all times ready to be released or cast away and, in the case of an anchor, power is available to weigh anchor immediately if required;
- (j) no radio communication device or electronic equipment is permitted in any hold or compartment containing First Schedule dangerous goods;
- (k) no fire alarm point or emergency call box is located where it is likely to be rendered inactive by an explosion;
- (l) any gear required to be used in any operation involved in the loading or discharging of dangerous goods is —
 - (i) in good order and condition;
 - (ii) of sufficient strength; and
 - (iii) suitable in all other respects for the operation;
- (m) all reasonable precautions are taken to prevent damage occurring to any package or freight container containing dangerous goods;
- (n) the dangerous goods are not handled in weather conditions which may seriously increase the hazards presented by such goods; and
- (o) no person, who is under the influence of alcohol or drugs to such an extent that his judgment or actions are impaired, is allowed to participate in any operation involving the handling of dangerous goods or be present in the

immediate areas where the dangerous goods are being transported or handled.

Carriage of dangerous goods in passenger vessels

56. No person shall cause or permit dangerous goods to be taken on board a passenger vessel for carriage in that vessel if the dangerous goods are of a kind not recommended for such carriage by IMO.

Dangerous goods to be removed from landing place without delay

57. The Port Master and the terminal manager may each, in his discretion —

- (a) take such steps to guard, remove, destroy or otherwise dispose of any dangerous goods that are not removed from, or not loaded onto, a vessel as are provided for in these Regulations; and
- (b) recover the expenses of so doing from the owner, agent or master of the vessel as a debt.

Priority for loading and discharging First Schedule dangerous goods other than explosives

58. The owner, agent or master of a vessel shall ensure that First Schedule dangerous goods —

- (a) are discharged from a vessel before any other goods on board the vessel, except explosives, are discharged; and
- (b) are loaded on board the vessel after the completion of all other loading operations except for the loading of explosives.

Dangerous goods not permitted in wharf unless properly described

59. No person shall cause or permit dangerous goods to pass over the premises of a wharf unless the contents of each package are packed and labelled in accordance with the recommendations of IMO.

Vessel with leaking or damaged receptacle containing dangerous goods on board

60.—(1) No person shall cause or permit a vessel which has on board a leaking or damaged receptacle containing dangerous goods to enter the port unless he has obtained the permission of the Port Master.

(2) The Port Master may, in granting his permission, impose such conditions as he thinks fit.

Defective or damaged receptacles

61.—(1) No person shall cause or permit defective or damaged receptacles containing dangerous goods to be placed on any vessel or wharf unless he has obtained the permission of the Port Master.

(2) The Port Master may, in granting his permission, impose such conditions as he thinks fit.

Procedure upon discovery of leaking or damaged receptacle on vessel

62. The owner, agent or master of any vessel in which there is a leaking or damaged receptacle containing dangerous goods shall —

- (a) ensure that all loading and discharging operations cease immediately on discovery of the leak or damage;
- (b) inform the Port Master of the leaking or damaged receptacle as soon as possible; and
- (c) comply with all directions of the Port Master and the terminal manager relating to the handling and storage of the leaking or damaged receptacle.

Inspection of packages of dangerous goods

63. Where an authorised officer requires a package of dangerous goods to be opened for inspection, the owner, agent or master of the vessel shall take the package on deck for the inspection and thereafter refasten the package and restow it without delay after the examination.

Powers to stop operations

64. The Port Master, a terminal manager, a police officer, an Inspector of Explosives or an Inspector of Dangerous Goods may —

- (a) order a complete stoppage of all movement of dangerous goods on board a vessel if, in his opinion, any action is being taken that is hazardous or in any way contrary to any provision of this Part; and
- (b) seek such assistance as is necessary to enforce the order.

Continuous supervision of harbour craft

65.—(1) The owner, agent or master of a harbour craft that is carrying, loading or discharging dangerous goods shall ensure that the harbour craft is, at all material times, continuously under the control of a person appointed by the owner, agent or master of the harbour craft and who is fully conversant with these Regulations.

(2) The person appointed by the owner, agent or master shall ensure that all persons concerned with the carriage, loading or discharging of dangerous goods into or from a harbour craft comply with these Regulations in so far as these Regulations apply to those operations.

Unauthorised person prohibited on board harbour craft

66. Where dangerous goods are carried on a harbour craft, the person controlling, or in charge of, the harbour craft shall not permit any person, other than a representative of the Authority, if any, or a crew member authorised by the owner of the harbour craft to remain on board the harbour craft.

Prohibition on possession of means of ignition

67. No person shall have in his possession any of the following items in any harbour craft carrying, or being prepared to carry, dangerous goods of a flammable nature:

- (a) any matches, cigarette lighter or material that may be used for smoking;
- (b) any other means of ignition.

Safe towage distance

68. Where a harbour craft is carrying First Schedule dangerous goods and is under tow astern by another vessel, the person controlling, or in charge of, the towing vessel shall ensure that the harbour craft is towed at a safe distance from the towing vessel.

Appointment of Inspectors of Dangerous Goods

69. The Authority may appoint Inspectors of Dangerous Goods who may board any vessel having dangerous goods on board, or being prepared to carry dangerous goods, for the purpose of —

- (a) examining the vessel, or the vessel's cargo; or
- (b) taking samples of the dangerous goods.

Handling of First Schedule dangerous goods during bunkering operations

70.—(1) No person shall cause or permit First Schedule dangerous goods to be loaded or discharged while bunkering is in progress.

(2) No person shall cause or permit bunkering operations to be carried out while First Schedule dangerous goods are handled unless adequate precautions are taken to prevent petroleum vapour from reaching the place in which dangerous goods are stowed.

Prohibition of repair work

71.—(1) No person shall cause or permit repair work of any kind to be carried out in a hold of a vessel if the hold contains dangerous goods, unless he has obtained the permission of the Port Master.

(2) No person shall cause or permit —

- (a) repair work which involves welding, burning or riveting; or
- (b) any other operation creating a risk of fire,

to be carried out on board any vessel when dangerous goods are on board the vessel unless he has obtained the permission of the Port Master.

(3) The Port Master may, in granting his permission under paragraph (1) or (2), impose such conditions as he thinks fit.

Additional requirements for arms and explosives

72.—(1) The provisions of this regulation shall apply where any arms or explosives are carried on board a vessel or are being loaded onto or discharged from a vessel.

(2) The owner, agent or master of a vessel, and any person engaged in the carrying or loading of any arms or explosives onto the vessel (other than safety ammunition) which he knows or ought to know present a serious risk when carried on board the vessel as cargo shall ensure that the arms or explosives are not taken on board the vessel unless the arms or explosives are —

- (a) stowed in an approved magazine that is kept securely closed while the vessel is at sea;
 - (b) effectively separated from detonators; and
 - (c) stowed in a compartment in which all electrical apparatus and cables that are present in the compartment are of such design and used in such manner as to minimise the risk of fire or explosion.
- (3) The owner, agent or master of a vessel entering the port shall —
- (a) require every person on board who possesses arms or explosives to deposit the arms or explosives with the owner, agent or master of the vessel, as the case may be;
 - (b) in the case of arms or explosives belonging to a person disembarking in Singapore, as soon as possible after arrival, deliver the arms or explosives to a police officer not below the rank of sergeant who shall deposit the arms or explosives immediately with the Licensing Officer appointed under section 4 of the Arms and Explosives Act (Cap. 13); and
 - (c) in the case of arms or explosives belonging to a person not disembarking in Singapore, deposit or place the arms or explosives in an approved strong-room or safe on board the vessel and keep the arms or explosives there until the vessel leaves the port.

(4) The owner, agent or master of a harbour craft on which explosives are carried and any person engaged in the carrying or loading of arms or explosives onto the harbour craft shall ensure that the following substances and articles are not carried on board the harbour craft:

- (a) bi-sulphide of carbon, petroleum, paraffin, naphtha or other mineral oil;
- (b) spirit or any liquid or substance liable to give off flammable vapour;
- (c) any substance liable to spontaneous ignition;
- (d) any article which in the opinion of the Port Master, an authorised officer or an Inspector of Explosives as conveyed to the owner, agent or master or the person engaged in the carrying or loading of explosives, is liable to cause fire or explosion; or
- (e) any other goods or articles except —
 - (i) such articles as may be necessary for ensuring the safety of the goods and the harbour craft;
 - (ii) food which does not require cooking; and
 - (iii) clothing required by a person on board the vessel for his personal use.

(5) The owner, agent or master of a harbour craft and any person engaged in the carrying or loading of arms or explosives onto the harbour craft shall ensure that no fulminate, ammunition (which contains its own means of ignition) or fireworks shall be carried on board the harbour craft unless —

- (a) the fulminate, ammunition or fireworks are separated from any explosives that are not of the same class so as to prevent a fire or explosion occurring in one explosive from spreading to the other substances; and
- (b) the separation is made to the satisfaction of the Port Master, an authorised officer or an Inspector of Explosives.

(6) The owner, agent or master of a harbour craft onto or from which explosives are loaded, discharged or conveyed and any person engaged in the carrying or loading of arms or explosives onto the harbour craft shall ensure that, except with the written permission of the Port Master, no goods other than explosives shall be carried on board the harbour craft.

(7) The owner, agent or master of a vessel and any person engaged in the carrying, loading or discharging of arms and explosives onto or from the vessel shall ensure that no radio communication device or any electronic equipment is operated when —

- (a) explosives are handled; or
- (b) compartments containing explosives are uncovered.

(8) The owner, agent or master of a vessel and any person engaged in the carrying or loading of arms or explosives onto the vessel shall ensure that the explosives under various hazard divisions and the maximum quantity of such explosives that are carried on board the vessel at an explosives anchorage or at a wharf shall be as specified by the Port Master by notification in the *Gazette*.

(9) If, through accident or in case of emergency, an explosive is dropped into the sea, the master of the vessel from which the explosive was dropped shall —

- (a) take immediate steps to recover the explosive by the safest possible means; and
- (b) inform the Port Master of the explosive dropping into the sea immediately by the most direct means.

(10) The owner, agent or master of any vessel carrying explosives shall ensure that —

- (a) efficient lightning conductors shall be fitted to all wooden and steel masts on the vessel where the electrical conductivity of the rigging is defective; and
- (b) in the case of steel ships, steel masts shall be bonded to the hull or be provided with efficient lightning conductors.

Limitation of maximum quantities of First Schedule dangerous goods

73. Notwithstanding any of the provisions of this Part —
- (a) First Schedule dangerous goods in such quantity as may be specified by the Port Master by notification in the *Gazette* may remain on board a vessel within the port limits; and
 - (b) such goods may, whenever it is necessary, be loaded, discharged or otherwise handled at any approved wharf.

PART III**GENERAL****Dangerous cargoes to be handled only in approved wharves**

74. No person shall undertake, cause or permit any activity relating to dangerous cargoes at any wharf unless such wharf is an approved wharf.

Notices, approvals, permissions, submissions and other communication

75. In these Regulations, unless the context otherwise requires, any notice, approval, permission, submission or any other communication may be given, made or conveyed in such manner and by such means, including electronic means, as the Port Master may determine.

Port Master may permit use of vessel or port otherwise than in accordance with these Regulations

- 76.—(1) The Port Master may, in his discretion, permit —
- (a) a person to use a vessel or the port; or
 - (b) a vessel to be used within the port,

otherwise than in accordance with these Regulations.

(2) The Port Master may, in granting his permission under paragraph (1), impose such terms and conditions as he thinks fit.

(3) Notwithstanding anything in these Regulations, the Port Master may impose any additional conditions for the loading, discharging,

transportation, storage, deposit or handling of dangerous goods as he thinks fit in the circumstances of each case.

Responsibility of owner, agent or master

77. Notwithstanding anything in these Regulations, the owner, agent or master of a vessel shall be responsible for the observance of, and compliance with, these Regulations in so far as they relate to the vessel.

General penalty

78. Any person who —

- (a) without lawful excuse fails to comply with the requirements of any notice served on him; or
- (b) contravenes any of the provisions of these Regulations, or any condition or direction issued thereunder,

shall be guilty of an offence and shall be liable on conviction, where no penalty is expressly provided, to a fine not exceeding \$5,000 and, in the case of a continuing offence, to a further fine not exceeding \$1,000 for every day or part thereof during which the offence continues after conviction.

Application to vessels belonging to Singapore Armed Forces

79. Regulations 48 and 52 shall apply to a vessel belonging to the Singapore Armed Forces and the officer in command of such a vessel shall ensure that the requirements of those regulations are complied with.

Revocation

80. The Maritime and Port Authority of Singapore (Dangerous Goods, Petroleum and Explosives) Regulations (Rg 2) are revoked.

Savings

81.—(1) Any notice, order, permission, approval or certificate given, issued or made under the revoked Maritime and Port Authority of Singapore (Dangerous Goods, Petroleum and Explosives) Regulations (Rg 2) that is in force immediately before 31st January

2005 and that could have been given, issued or made under a corresponding provision of these Regulations shall be deemed to have been given, issued or made under the corresponding provision of these Regulations.

(2) Any appointment or authorisation of a person under the revoked Maritime and Port Authority of Singapore (Dangerous Goods, Petroleum and Explosives) Regulations that is in force immediately before 31st January 2005 and that could have been made or given under a corresponding provision of these Regulations shall be deemed to have been made or given under the corresponding provision of these Regulations.

FIRST SCHEDULE

Regulation 2(1)

DANGEROUS GOODS

In this Schedule, “N.O.S.” means “not otherwise specified”.

<i>S/No.</i>	<i>IMO Class</i>	<i>UN No.</i>	<i>Substance/Article</i>
1	1	0190	SAMPLES, EXPLOSIVE other than initiating explosive
2	1.1A	0074	DIAZODINITROPHENOL, WETTED with not less than 40% water or mixture of alcohol and water, by mass
3	1.1A	0113	GUANYL NITROSAMINO GUANYLIDENEHYDRAZINE, WETTED with not less than 30% water, by mass
4	1.1A	0114	GUANYL NITROSAMINO GUANYLTETRAZENE (TETRAZENE), WETTED with not less than 30% water, or mixture of alcohol and water, by mass
5	1.1A	0129	LEAD AZIDE, WETTED with not less than 20% water, or mixture of alcohol and water, by mass
6	1.1A	0130	LEAD STYPHNATE (LEAD TRINITRORESORCINATE), WETTED with not less than 20% water, or mixture of alcohol and water, by mass
7	1.1A	0135	MERCURY FULMINATE, WETTED with not less than 20% water, or mixture of alcohol and water, by mass
8	1.1A	0224	BARIUM AZIDE, dry or wetted with less than 50% water, by mass
9	1.1A	0473	SUBSTANCES, EXPLOSIVE, N.O.S.
10	1.1B	0029	DETONATORS, NON-ELECTRIC for blasting

FIRST SCHEDULE — *continued*

<i>S/No.</i>	<i>IMO Class</i>	<i>UN No.</i>	<i>Substance/Article</i>
11	1.1B	0030	DETONATORS, ELECTRIC for blasting
12	1.1B	0073	DETONATORS FOR AMMUNITION
13	1.1B	0106	FUZES, DETONATING
14	1.1B	0225	BOOSTERS WITH DETONATOR
15	1.1B	0360	DETONATOR ASSEMBLIES, NON-ELECTRIC for blasting
16	1.1B	0377	PRIMERS, CAP TYPE
17	1.1B	0461	COMPONENTS, EXPLOSIVE TRAIN, N.O.S.
18	1.1C	0160	POWDER, SMOKELESS
19	1.1C	0271	CHARGES, PROPELLING
20	1.1C	0279	CHARGES, PROPELLING, FOR CANNON
21	1.1C	0280	ROCKET MOTORS
22	1.1C	0326	CARTRIDGES FOR WEAPONS, BLANK
23	1.1C	0433	POWDER CAKE (POWDER PASTE), WETTED with not less than 17% alcohol, by mass
24	1.1C	0462	ARTICLES, EXPLOSIVE, N.O.S.
25	1.1C	0474	SUBSTANCES, EXPLOSIVE, N.O.S.
26	1.1C	0497	PROPELLANT, LIQUID
27	1.1C	0498	PROPELLANT, SOLID
28	1.1D	0004	AMMONIUM PICRATE dry or wetted with less than 10% water, by mass
29	1.1D	0027	BLACK POWDER (GUNPOWDER) granular, or as a meal
30	1.1D	0028	BLACK POWDER (GUNPOWDER), COMPRESSED or BLACK POWDER (GUNPOWDER) IN PELLETS
31	1.1D	0034	BOMBS with bursting charge
32	1.1D	0038	BOMBS, PHOTO-FLASH
33	1.1D	0042	BOOSTERS without detonator
34	1.1D	0043	BURSTERS explosive
35	1.1D	0048	CHARGES, DEMOLITION
36	1.1D	0056	CHARGES, DEPTH
37	1.1D	0059	CHARGES, SHAPED without detonator
38	1.1D	0060	CHARGES, SUPPLEMENTARY, EXPLOSIVE

FIRST SCHEDULE — *continued*

<i>S/No.</i>	<i>IMO Class</i>	<i>UN No.</i>	<i>Substance/Article</i>
39	1.1D	0065	CORD, DETONATING flexible
40	1.1D	0072	CYCLOTRIMETHYLENETRINITRAMINE (CYCLONITE), (RDX), (HEXOGEN), WETTED with not less than 15% water, by mass
41	1.1D	0075	DIETHYLENEGLYCOL DINITRATE, DESENSITIZED with not less than 25% non-volatile water-insoluble phlegmatizer, by mass
42	1.1D	0076	DINITROPHENOL dry or wetted with less than 15% water, by mass
43	1.1D	0078	DINITRORESORCINOL dry or wetted with less than 15% water, by mass
44	1.1D	0079	HEXANITRODIPHENYLAMINE (DIPICRYLAMINE), (HEXYL)
45	1.1D	0081	EXPLOSIVE, BLASTING, TYPE A
46	1.1D	0082	EXPLOSIVE, BLASTING, TYPE B
47	1.1D	0083	EXPLOSIVE, BLASTING, TYPE C
48	1.1D	0084	EXPLOSIVE, BLASTING, TYPE D
49	1.1D	0099	FRACTURING DEVICES, EXPLOSIVE for oil wells, without detonator
50	1.1D	0118	HEXOLITE (HEXOTOL) dry or wetted with less than 15% water, by mass
51	1.1D	0124	JET PERFORATING GUNS, CHARGED oil well, without detonator
52	1.1D	0133	MANNITOL HEXANITRATE (NITROMANNITE), WETTED with not less than 40% water, or mixture of alcohol and water, by mass
53	1.1D	0137	MINES with bursting charge
54	1.1D	0143	NITROGLYCERIN, DESENSITIZED with not less than 40% non-volatile water-insoluble phlegmatizer, by mass
55	1.1D	0144	NITROGLYCERIN SOLUTION IN ALCOHOL with more than 1% but not more than 10% nitroglycerin
56	1.1D	0146	NITROSTARCH dry or wetted, with less than 20% water, by mass
57	1.1D	0147	NITRO UREA
58	1.1D	0150	PENTAERYTHRITE TETRANITRATE (PENTAERYTHRITOL TETRANITRATE; PETN), WETTED with not less than 25% water, by mass or PENTAERYTHRITE

FIRST SCHEDULE — *continued*

<i>S/No.</i>	<i>IMO Class</i>	<i>UN No.</i>	<i>Substance/Article</i>
			TETRANITRATE (PENTAERYTHRITOL TETRANITRATE; PETN), DESENSITIZED with not less than 15% phlegmatizer, by mass
59	1.1D	0151	PENTOLITE dry or wetted with less than 15% water, by mass
60	1.1D	0153	TRINITROANILINE (PICRAMIDE)
61	1.1D	0154	TRINITROPHENOL (PICRIC ACID) dry or wetted with less than 30% water, by mass
62	1.1D	0155	TRINITROCHLOROBENZENE (PICRYL CHLORIDE)
63	1.1D	0168	PROJECTILES with bursting charge
64	1.1D	0207	TETRANITROANILINE
65	1.1D	0208	TRINITROPHENYLMETHYLNITRAMINE (TETRYL)
66	1.1D	0209	TRINITROTOLUENE (TNT) dry or wetted with less than 30% water, by mass
67	1.1D	0213	TRINITROANISOLE
68	1.1D	0214	TRINITROBENZENE dry or wetted with less than 30% water, by mass
69	1.1D	0215	TRINITROBENZOIC ACID dry or wetted with less than 30% water, by mass
70	1.1D	0216	TRINITRO- <i>m</i> -CRESOL
71	1.1D	0217	TRINITRONAPHTHALENE
72	1.1D	0218	TRINITROPHENETOLE
73	1.1D	0219	TRINITRORESORCINOL (STYPHNIC ACID) dry or wetted with less than 20% water, or mixture of alcohol and water, by mass
74	1.1D	0220	UREA NITRATE dry or wetted with less than 20% water, by mass
75	1.1D	0221	WARHEADS, TORPEDO with bursting charge
76	1.1D	0222	AMMONIUM NITRATE
77	1.1D	0226	CYCLOTETRAMETHYLENETETRANITRAMINE (HMX; OCTOGEN), WETTED with not less than 15% water, by mass
78	1.1D	0241	EXPLOSIVE, BLASTING, TYPE E
79	1.1D	0266	OCTOLITE (OCTOL) dry or wetted with less than 15% water, by mass
80	1.1D	0282	NITROGUANIDINE (PICRITE) dry or wetted with less than 20% water, by mass

FIRST SCHEDULE — *continued*

<i>S/No.</i>	<i>IMO Class</i>	<i>UN No.</i>	<i>Substance/Article</i>
81	1.1D	0284	GRENADES hand or rifle, with bursting charge
82	1.1D	0286	WARHEADS, ROCKET with bursting charge
83	1.1D	0288	CHARGES, SHAPED, FLEXIBLE, LINEAR
84	1.1D	0290	CORD (FUSE), DETONATING metal-clad
85	1.1D	0340	NITROCELLULOSE dry or wetted with less than 25% water (or alcohol), by mass
86	1.1D	0341	NITROCELLULOSE unmodified or plasticized with less than 18% plasticizing substance, by mass
87	1.1D	0374	SOUNDING DEVICES, EXPLOSIVE
88	1.1D	0385	5-NITROBENZOTRIAZOL
89	1.1D	0386	TRINITROBENZENE-SULPHONIC ACID
90	1.1D	0387	TRINITROFLUORENONE
91	1.1D	0388	TRINITROTOLUENE (TNT) AND TRINITROBENZENE MIXTURE or TRINITROTOLUENE (TNT) AND HEXANITROSTILBENE MIXTURE
92	1.1D	0389	TRINITROTOLUENE (TNT) MIXTURE CONTAINING TRINITROBENZENE AND HEXANITROSTILBENE
93	1.1D	0390	TRITONAL
94	1.1D	0391	CYCLOTRIMETHYLENETRINITRAMINE (CYCLONITE; HEXOGEN; RDX) AND CYCLOTETRAMETHYLENETETRANITRAMINE (HMX; OCTOGEN) MIXTURE, WETTED with not less than 15% water, by mass or CYCLOTRIMETHYLENETRINITRAMINE (CYCLONITE; HEXOGEN; RDX) AND CYCLOTETRAMETHYLENETETRANITRAMINE (HMX; OCTOGEN) MIXTURE, DESENSITIZED with not less than 10% phlegmatizer, by mass
95	1.1D	0392	HEXANITROSTILBENE
96	1.1D	0393	HEXOTONAL
97	1.1D	0394	TRINITRORESORCINOL (STYPHNIC ACID), WETTED with not less than 20% water, or mixture of alcohol and water, by mass
98	1.1D	0401	DIPICRYL SULPHIDE dry or wetted with less than 10% water, by mass
99	1.1D	0402	AMMONIUM PERCHLORATE
100	1.1D	0408	FUZES, DETONATING with protective features

FIRST SCHEDULE — *continued*

<i>S/No.</i>	<i>IMO Class</i>	<i>UN No.</i>	<i>Substance/Article</i>
101	1.1D	0411	PENTAERYTHRITE TETRANITRATE (PENTAERYTHRITOL TETRANITRATE; PETN) with not less than 7% wax, by mass
102	1.1D	0442	CHARGES, EXPLOSIVE, COMMERCIAL without detonator
103	1.1D	0451	TORPEDOES with bursting charge
104	1.1D	0457	CHARGES, BURSTING, PLASTICS BONDED
105	1.1D	0463	ARTICLES, EXPLOSIVE, N.O.S.
106	1.1D	0475	SUBSTANCES, EXPLOSIVE, N.O.S.
107	1.1D	0483	CYCLOTRIMETHYLENETRINITRAMINE (CYCLONITE; HEXOGEN; RDX), DESENSITIZED
108	1.1D	0484	CYCLOTETRAMETHYLENETETRANITRAMINE (OCTOGEN; HMX), DESENSITIZED
109	1.1D	0489	DINITROGLYCOLURIL (DINGU)
110	1.1D	0490	NITROTRIAZOLONE (NTO)
111	1.1D	0496	OCTONAL
112	1.1D	0504	1H-TETRAZOLE
113	1.1E	0006	CARTRIDGES FOR WEAPONS with bursting charge
114	1.1E	0181	ROCKETS with bursting charge
115	1.1E	0329	TORPEDOES with bursting charge
116	1.1E	0464	ARTICLES, EXPLOSIVE, N.O.S.
117	1.1F	0005	CARTRIDGES FOR WEAPONS with bursting charge
118	1.1F	0033	BOMBS with bursting charge
119	1.1F	0037	BOMBS, PHOTO-FLASH
120	1.1F	0136	MINES with bursting charge
121	1.1F	0167	PROJECTILES with bursting charge
122	1.1F	0180	ROCKETS with bursting charge
123	1.1F	0292	GRENADES hand or rifle, with bursting charge
124	1.1F	0296	SOUNDING DEVICES, EXPLOSIVE
125	1.1F	0330	TORPEDOES with bursting charge
126	1.1F	0369	WARHEADS, ROCKET with bursting charge
127	1.1F	0465	ARTICLES, EXPLOSIVE, N.O.S.
128	1.1G	0049	CARTRIDGES, FLASH

FIRST SCHEDULE — *continued*

<i>S/No.</i>	<i>IMO Class</i>	<i>UN No.</i>	<i>Substance/Article</i>
129	1.1G	0094	FLASH POWDER
130	1.1G	0121	IGNITERS
131	1.1G	0192	SIGNALS, RAILWAY TRACK, EXPLOSIVE
132	1.1G	0194	SIGNALS, DISTRESS, ship
133	1.1G	0196	SIGNALS, SMOKE
134	1.1G	0333	FIREWORKS
135	1.1G	0418	FLARES, SURFACE
136	1.1G	0420	FLARES, AERIAL
137	1.1G	0428	ARTICLES, PYROTECHNIC for technical purposes
138	1.1G	0476	SUBSTANCES, EXPLOSIVE, N.O.S.
139	1.1J	0397	ROCKETS, LIQUID FUELLED with bursting charge
140	1.1J	0399	BOMBS WITH FLAMMABLE LIQUID with bursting charge
141	1.1J	0449	TORPEDOES, LIQUID-FUELLED with or without bursting charge
142	1.1L	0354	ARTICLES, EXPLOSIVE, N.O.S.
143	1.1L	0357	SUBSTANCES, EXPLOSIVE, N.O.S.
144	1.2B	0107	FUZES, DETONATING
145	1.2B	0268	BOOSTERS WITH DETONATOR
146	1.2B	0364	DETONATORS FOR AMMUNITION
147	1.2B	0382	COMPONENTS, EXPLOSIVE TRAIN, N.O.S.
148	1.2C	0281	ROCKET MOTORS
149	1.2C	0328	CARTRIDGES FOR WEAPONS, INERT PROJECTILE
150	1.2C	0381	CARTRIDGES, POWER DEVICE
151	1.2C	0413	CARTRIDGES FOR WEAPONS, BLANK
152	1.2C	0414	CHARGES, PROPELLING, FOR CANNON
153	1.2C	0415	CHARGES, PROPELLING
154	1.2C	0436	ROCKETS with expelling charge
155	1.2C	0466	ARTICLES, EXPLOSIVE, N.O.S.
156	1.2C	0502	ROCKETS with inert head
157	1.2D	0035	BOMBS with bursting charge
158	1.2D	0102	CORD (FUSE), DETONATING metal-clad

FIRST SCHEDULE — *continued*

<i>S/No.</i>	<i>IMO Class</i>	<i>UN No.</i>	<i>Substance/Article</i>
159	1.2D	0138	MINES with bursting charge
160	1.2D	0169	PROJECTILES with bursting charge
161	1.2D	0283	BOOSTERS without detonator
162	1.2D	0285	GRENADES hand or rifle, with bursting charge
163	1.2D	0287	WARHEADS, ROCKET with bursting charge
164	1.2D	0346	PROJECTILES with burster or expelling charge
165	1.2D	0375	SOUNDING DEVICES, EXPLOSIVE
166	1.2D	0409	FUZES, DETONATING with protective features
167	1.2D	0439	CHARGES, SHAPED without detonator
168	1.2D	0443	CHARGES, EXPLOSIVE, COMMERCIAL without detonator
169	1.2D	0458	CHARGES, BURSTING, PLASTICS BONDED
170	1.2D	0467	ARTICLES, EXPLOSIVE, N.O.S.
171	1.2E	0182	ROCKETS with bursting charge
172	1.2E	0321	CARTRIDGES FOR WEAPONS with bursting charge
173	1.2E	0468	ARTICLES, EXPLOSIVE, N.O.S.
174	1.2F	0007	CARTRIDGES FOR WEAPONS with bursting charge
175	1.2F	0204	SOUNDING DEVICES, EXPLOSIVE
176	1.2F	0291	BOMBS with bursting charge
177	1.2F	0293	GRENADES hand or rifle, with bursting charge
178	1.2F	0294	MINES with bursting charge
179	1.2F	0295	ROCKETS with bursting charge
180	1.2F	0324	PROJECTILES with bursting charge
181	1.2F	0426	PROJECTILES with burster or expelling charge
182	1.2F	0469	ARTICLES, EXPLOSIVE, N.O.S.
183	1.2G	0009	AMMUNITION, INCENDIARY with or without burster, expelling charge or propelling charge
184	1.2G	0015	AMMUNITION, SMOKE with or without burster, expelling charge or propelling charge
185	1.2G	0018	AMMUNITION, TEAR-PRODUCING with burster, expelling charge or propelling charge
186	1.2G	0039	BOMBS, PHOTO-FLASH

FIRST SCHEDULE — *continued*

<i>S/No.</i>	<i>IMO Class</i>	<i>UN No.</i>	<i>Substance/Article</i>
187	1.2G	0171	AMMUNITION, ILLUMINATING with or without burster, expelling charge or propelling charge
188	1.2G	0238	ROCKETS, LINE-THROWING
189	1.2G	0313	SIGNALS, SMOKE
190	1.2G	0314	IGNITERS
191	1.2G	0334	FIREWORKS
192	1.2G	0372	GRENADES, PRACTICE hand or rifle
193	1.2G	0419	FLARES, SURFACE
194	1.2G	0421	FLARES, AERIAL
195	1.2G	0429	ARTICLES, PYROTECHNIC for technical purposes
196	1.2G	0434	PROJECTILES with burster or expelling charge
197	1.2H	0243	AMMUNITION, INCENDIARY, WHITE PHOSPHORUS with burster, expelling charge or propelling charge
198	1.2H	0245	AMMUNITION, SMOKE, WHITE PHOSPHORUS with burster, expelling charge or propelling charge
199	1.2J	0395	ROCKET MOTORS, LIQUID FUELLED
200	1.2J	0398	ROCKETS, LIQUID FUELLED with bursting charge
201	1.2J	0400	BOMBS WITH FLAMMABLE LIQUID with bursting charge
202	1.2K	0020	AMMUNITION, TOXIC with burster, expelling charge or propelling charge
203	1.2L	0248	CONTRIVANCES, WATER-ACTIVATED with burster, expelling charge or propelling charge
204	1.2L	0322	ROCKET MOTORS WITH HYPERGOLIC LIQUIDS with or without expelling charge
205	1.2L	0355	ARTICLES, EXPLOSIVE, N.O.S.
206	1.2L	0358	SUBSTANCES, EXPLOSIVE, N.O.S.
207	1.2L	0380	ARTICLES, PYROPHORIC
208	1.3C	0077	DINITROPHENOLATES alkali metals, dry or wetted with less than 15% water, by mass
209	1.3C	0132	DEFLAGRATING METAL SALTS OF AROMATIC NITRODERIVATIVES, N.O.S.
210	1.3C	0159	POWDER CAKE (POWDER PASTE), WETTED with not less than 25% water, by mass
211	1.3C	0161	POWDER, SMOKELESS

FIRST SCHEDULE — *continued*

<i>S/No.</i>	<i>IMO Class</i>	<i>UN No.</i>	<i>Substance/Article</i>
212	1.3C	0183	ROCKETS with inert head
213	1.3C	0186	ROCKET MOTORS
214	1.3C	0234	SODIUM DINITRO- <i>o</i> -CRESOLATE dry or wetted with less than 15% water, by mass
215	1.3C	0235	SODIUM PICRAMATE dry or wetted with less than 20% water, by mass
216	1.3C	0236	ZIRCONIUM PICRAMATE dry or wetted with less than 20% water, by mass
217	1.3C	0242	CHARGES, PROPELLING, FOR CANNON
218	1.3C	0272	CHARGES, PROPELLING
219	1.3C	0275	CARTRIDGES, POWER DEVICE
220	1.3C	0277	CARTRIDGES, OIL WELL
221	1.3C	0327	CARTRIDGES FOR WEAPONS, BLANK or CARTRIDGES, SMALL ARMS, BLANK
222	1.3C	0342	NITROCELLULOSE, WETTED with not less than 25% alcohol, by mass
223	1.3C	0343	NITROCELLULOSE, PLASTICIZED with not less than 18% plasticizing substance, by mass
224	1.3C	0406	DINITROSOBENZENE
225	1.3C	0417	CARTRIDGES FOR WEAPONS, INERT PROJECTILE or CARTRIDGES, SMALL ARMS
226	1.3C	0437	ROCKETS with expelling charge
227	1.3C	0447	CASES, COMBUSTIBLE, EMPTY, WITHOUT PRIMER
228	1.3C	0470	ARTICLES, EXPLOSIVE, N.O.S.
229	1.3C	0477	SUBSTANCES, EXPLOSIVE, N.O.S.
230	1.3C	0495	PROPELLANT, LIQUID
231	1.3C	0499	PROPELLANT, SOLID
232	1.3C	0508	1-HYDROXYBENZOTRIAZOLE, ANHYDROUS, dry or wetted with less than 20% water, by mass
233	1.3G	0010	AMMUNITION, INCENDIARY with or without burster, expelling charge or propelling charge
234	1.3G	0016	AMMUNITION, SMOKE with or without burster, expelling charge or propelling charge

FIRST SCHEDULE — *continued*

<i>S/No.</i>	<i>IMO Class</i>	<i>UN No.</i>	<i>Substance/Article</i>
235	1.3G	0019	AMMUNITION, TEAR-PRODUCING with burster, expelling charge or propelling charge
236	1.3G	0050	CARTRIDGES, FLASH
237	1.3G	0054	CARTRIDGES, SIGNAL
238	1.3G	0092	FLARES, SURFACE
239	1.3G	0093	FLARES, AERIAL
240	1.3G	0101	FUSE, NON-DETONATING
241	1.3G	0195	SIGNALS, DISTRESS, ship
242	1.3G	0212	TRACERS FOR AMMUNITION
243	1.3G	0240	ROCKETS, LINE-THROWING
244	1.3G	0254	AMMUNITION, ILLUMINATING with or without burster, expelling charge or propelling charge
245	1.3G	0299	BOMBS, PHOTO-FLASH
246	1.3G	0305	FLASH POWDER
247	1.3G	0315	IGNITERS
248	1.3G	0316	FUZES, IGNITING
249	1.3G	0318	GRENADES, PRACTICE hand or rifle
250	1.3G	0319	PRIMERS, TUBULAR
251	1.3G	0335	FIREWORKS
252	1.3G	0424	PROJECTILES inert, with tracer
253	1.3G	0430	ARTICLES, PYROTECHNIC for technical purposes
254	1.3G	0478	SUBSTANCES, EXPLOSIVE, N.O.S.
255	1.3G	0487	SIGNALS, SMOKE
256	1.3G	0488	AMMUNITION, PRACTICE
257	1.3G	0492	SIGNALS, RAILWAY TRACK, EXPLOSIVE
258	1.3H	0244	AMMUNITION, INCENDIARY, WHITE PHOSPHORUS with burster, expelling charge or propelling charge
259	1.3H	0246	AMMUNITION, SMOKE, WHITE PHOSPHORUS with burster, expelling charge or propelling charge
260	1.3J	0247	AMMUNITION, INCENDIARY liquid or gel, with burster, expelling charge or propelling charge
261	1.3J	0396	ROCKET MOTORS, LIQUID FUELLED

FIRST SCHEDULE — *continued*

<i>S/No.</i>	<i>IMO Class</i>	<i>UN No.</i>	<i>Substance/Article</i>
262	1.3J	0450	TORPEDOES, LIQUID-FUELLED with inert head
263	1.3K	0021	AMMUNITION, TOXIC with burster, expelling charge or propelling charge
264	1.3L	0249	CONTRIVANCES, WATER-ACTIVATED with burster, expelling charge or propelling charge
265	1.3L	0250	ROCKET MOTORS WITH HYPERGOLIC LIQUIDS with or without expelling charge
266	1.3L	0356	ARTICLES, EXPLOSIVE, N.O.S.
267	1.3L	0359	SUBSTANCES, EXPLOSIVE, N.O.S.
268	1.4B	0255	DETONATORS, ELECTRIC for blasting
269	1.4B	0257	FUZES, DETONATING
270	1.4B	0267	DETONATORS, NON-ELECTRIC for blasting
271	1.4B	0350	ARTICLES, EXPLOSIVE, N.O.S.
272	1.4B	0361	DETONATOR ASSEMBLIES, NON-ELECTRIC for blasting
273	1.4B	0365	DETONATORS FOR AMMUNITION
274	1.4B	0378	PRIMERS, CAP TYPE
275	1.4B	0383	COMPONENTS, EXPLOSIVE TRAIN, N.O.S.
276	1.4C	0276	CARTRIDGES, POWER DEVICE
277	1.4C	0278	CARTRIDGES, OIL WELL
278	1.4C	0338	CARTRIDGES FOR WEAPONS, BLANK or CARTRIDGES, SMALL ARMS, BLANK
279	1.4C	0339	CARTRIDGES FOR WEAPONS, INERT PROJECTILE or CARTRIDGES, SMALL ARMS
280	1.4C	0351	ARTICLES, EXPLOSIVE, N.O.S.
281	1.4C	0379	CASES, CARTRIDGE, EMPTY, WITH PRIMER
282	1.4C	0407	TETRAZOL-1-ACETIC ACID
283	1.4C	0438	ROCKETS with expelling charge
284	1.4C	0446	CASES, COMBUSTIBLE, EMPTY, WITHOUT PRIMER
285	1.4C	0448	5-MERCAPTOTETRAZOL-1-ACETIC ACID
286	1.4C	0479	SUBSTANCES, EXPLOSIVE, N.O.S.
287	1.4C	0491	CHARGES, PROPELLING
288	1.4C	0501	PROPELLANT, SOLID

FIRST SCHEDULE — *continued*

<i>S/No.</i>	<i>IMO Class</i>	<i>UN No.</i>	<i>Substance/Article</i>
289	1.4C	0509	POWDER, SMOKELESS
290	1.4D	0104	CORD (FUSE), DETONATING, MILD EFFECT metal-clad
291	1.4D	0237	CHARGES, SHAPED, FLEXIBLE, LINEAR
292	1.4D	0289	CORD, DETONATING flexible
293	1.4D	0344	PROJECTILES with bursting charge
294	1.4D	0347	PROJECTILES with burster or expelling charge
295	1.4D	0352	ARTICLES, EXPLOSIVE, N.O.S.
296	1.4D	0370	WARHEADS, ROCKET with burster or expelling charge
297	1.4D	0410	FUZES, DETONATING with protective features
298	1.4D	0440	CHARGES, SHAPED without detonator
299	1.4D	0444	CHARGES, EXPLOSIVE, COMMERCIAL without detonator
300	1.4D	0459	CHARGES, BURSTING, PLASTICS BONDED
301	1.4D	0480	SUBSTANCES, EXPLOSIVE, N.O.S.
302	1.4D	0494	JET PERFORATING GUNS, CHARGED oil well, without detonator
303	1.4E	0412	CARTRIDGES FOR WEAPONS with bursting charge
304	1.4E	0471	ARTICLES, EXPLOSIVE, N.O.S.
305	1.4F	0348	CARTRIDGES FOR WEAPONS with bursting charge
306	1.4F	0371	WARHEADS, ROCKET with burster or expelling charge
307	1.4F	0427	PROJECTILES with burster or expelling charge
308	1.4F	0472	ARTICLES, EXPLOSIVE, N.O.S.
309	1.4G	0066	CORD, IGNITER
310	1.4G	0103	FUSE, IGNITER tubular, metal-clad
311	1.4G	0191	SIGNAL DEVICES, HAND
312	1.4G	0197	SIGNALS, SMOKE
313	1.4G	0297	AMMUNITION, ILLUMINATING with or without burster, expelling charge or propelling charge
314	1.4G	0300	AMMUNITION, INCENDIARY with or without burster, expelling charge or propelling charge
315	1.4G	0301	AMMUNITION, TEAR-PRODUCING with burster, expelling charge or propelling charge

FIRST SCHEDULE — *continued*

<i>S/No.</i>	<i>IMO Class</i>	<i>UN No.</i>	<i>Substance/Article</i>
316	1.4G	0303	AMMUNITION, SMOKE with or without burster, expelling charge or propelling charge
317	1.4G	0306	TRACERS FOR AMMUNITION
318	1.4G	0312	CARTRIDGES, SIGNAL
319	1.4G	0317	FUZES, IGNITING
320	1.4G	0320	PRIMERS, TUBULAR
321	1.4G	0325	IGNITERS
322	1.4G	0336	FIREWORKS
323	1.4G	0353	ARTICLES, EXPLOSIVE, N.O.S.
324	1.4G	0362	AMMUNITION, PRACTICE
325	1.4G	0363	AMMUNITION, PROOF
326	1.4G	0403	FLARES, AERIAL
327	1.4G	0425	PROJECTILES inert, with tracer
328	1.4G	0431	ARTICLES, PYROTECHNIC for technical purposes
329	1.4G	0435	PROJECTILES with burster or expelling charge
330	1.4G	0452	GRENADES, PRACTICE hand or rifle
331	1.4G	0453	ROCKETS, LINE-THROWING
332	1.4G	0485	SUBSTANCES, EXPLOSIVE, N.O.S.
333	1.4G	0493	SIGNALS, RAILWAY TRACK, EXPLOSIVE
334	1.4G	0503	SAFETY DEVICES, PYROTECHNIC
335	1.4G	0505	SIGNALS, DISTRESS, ship
336	1.4S	0012	CARTRIDGES FOR WEAPONS, INERT PROJECTILE or CARTRIDGES, SMALL ARMS
337	1.4S	0014	CARTRIDGES FOR WEAPONS, BLANK or CARTRIDGES, SMALL ARMS, BLANK or CARTRIDGES FOR TOOLS, BLANK
338	1.4S	0044	PRIMERS, CAP TYPE
339	1.4S	0055	CASES, CARTRIDGE, EMPTY, WITH PRIMER
340	1.4S	0070	CUTTERS, CABLE, EXPLOSIVE
341	1.4S	0105	FUSE, SAFETY
342	1.4S	0110	GRENADES, PRACTICE hand or rifle
343	1.4S	0131	LIGHTERS, FUSE

FIRST SCHEDULE — *continued*

<i>S/No.</i>	<i>IMO Class</i>	<i>UN No.</i>	<i>Substance/Article</i>
344	1.4S	0173	RELEASE DEVICES, EXPLOSIVE
345	1.4S	0174	RIVETS, EXPLOSIVE
346	1.4S	0193	SIGNALS, RAILWAY TRACK, EXPLOSIVE
347	1.4S	0323	CARTRIDGES, POWER DEVICE
348	1.4S	0337	FIREWORKS
349	1.4S	0345	PROJECTILES inert, with tracer
350	1.4S	0349	ARTICLES, EXPLOSIVE, N.O.S.
351	1.4S	0366	DETONATORS FOR AMMUNITION
352	1.4S	0367	FUZES, DETONATING
353	1.4S	0368	FUZES, IGNITING
354	1.4S	0373	SIGNAL DEVICES, HAND
355	1.4S	0376	PRIMERS, TUBULAR
356	1.4S	0384	COMPONENTS, EXPLOSIVE TRAIN, N.O.S.
357	1.4S	0404	FLARES, AERIAL
358	1.4S	0405	CARTRIDGES, SIGNAL
359	1.4S	0432	ARTICLES, PYROTECHNIC for technical purposes
360	1.4S	0441	CHARGES, SHAPED without detonator
361	1.4S	0445	CHARGES, EXPLOSIVE, COMMERCIAL without detonator
362	1.4S	0454	IGNITERS
363	1.4S	0455	DETONATORS, NON-ELECTRIC for blasting
364	1.4S	0456	DETONATORS, ELECTRIC for blasting
365	1.4S	0460	CHARGES, BURSTING, PLASTICS BONDED
366	1.4S	0481	SUBSTANCES, EXPLOSIVE, N.O.S.
367	1.4S	0500	DETONATOR ASSEMBLIES, NON-ELECTRIC for blasting
368	1.4S	0506	SIGNALS, DISTRESS, ship
369	1.4S	0507	SIGNALS, SMOKE
370	1.5D	0331	EXPLOSIVE, BLASTING, TYPE B (AGENT, BLASTING, TYPE B)
371	1.5D	0332	EXPLOSIVE, BLASTING, TYPE E (AGENT, BLASTING, TYPE E)

FIRST SCHEDULE — *continued*

<i>S/No.</i>	<i>IMO Class</i>	<i>UN No.</i>	<i>Substance/Article</i>
372	1.5D	0482	SUBSTANCES, EXPLOSIVE, VERY INSENSITIVE (SUBSTANCES, EVI), N.O.S.
373	1.6N	0486	ARTICLES, EXPLOSIVE, EXTREMELY INSENSITIVE (ARTICLES, EEI)
374	2.1	1001	ACETYLENE, DISSOLVED
375	2.1	1010	BUTADIENES, STABILIZED or BUTADIENES AND HYDROCARBON MIXTURE, STABILIZED, containing more than 40% butadienes
376	2.1	1011	BUTANE
377	2.1	1012	BUTYLENE
378	2.1	1027	CYCLOPROPANE
379	2.1	1030	1,1-DIFLUOROETHANE (REFRIGERANT GAS R 152a)
380	2.1	1032	DIMETHYLAMINE, ANHYDROUS
381	2.1	1033	DIMETHYL ETHER
382	2.1	1035	ETHANE
383	2.1	1036	ETHYLAMINE
384	2.1	1037	ETHYL CHLORIDE
385	2.1	1038	ETHYLENE, REFRIGERATED LIQUID
386	2.1	1039	ETHYL METHYL ETHER
387	2.1	1041	ETHYLENE OXIDE AND CARBON DIOXIDE MIXTURE with more than 9% but not more than 87% ethylene oxide
388	2.1	1049	HYDROGEN, COMPRESSED
389	2.1	1055	ISOBUTYLENE
390	2.1	1060	METHYLACETYLENE AND PROPADIENE MIXTURE, STABILIZED
391	2.1	1061	METHYLAMINE, ANHYDROUS
392	2.1	1063	METHYL CHLORIDE (REFRIGERANT GAS R 40)
393	2.1	1075	PETROLEUM GASES, LIQUEFIED
394	2.1	1077	PROPYLENE
395	2.1	1081	TETRAFLUOROETHYLENE, STABILIZED
396	2.1	1083	TRIMETHYLAMINE, ANHYDROUS
397	2.1	1085	VINYL BROMIDE, STABILIZED
398	2.1	1086	VINYL CHLORIDE, STABILIZED

FIRST SCHEDULE — *continued*

<i>S/No.</i>	<i>IMO Class</i>	<i>UN No.</i>	<i>Substance/Article</i>
399	2.1	1087	VINYL METHYL ETHER, STABILIZED
400	2.1	1860	VINYL FLUORIDE, STABILIZED
401	2.1	1912	METHYL CHLORIDE AND METHYLENE CHLORIDE MIXTURE
402	2.1	1954	COMPRESSED GAS, FLAMMABLE, N.O.S.
403	2.1	1957	DEUTERIUM, COMPRESSED
404	2.1	1959	1,1-DIFLUOROETHYLENE (REFRIGERANT GAS R 1132a)
405	2.1	1961	ETHANE, REFRIGERATED LIQUID
406	2.1	1962	ETHYLENE
407	2.1	1964	HYDROCARBON GAS MIXTURE, COMPRESSED, N.O.S.
408	2.1	1965	HYDROCARBON GAS MIXTURE, LIQUEFIED, N.O.S.
409	2.1	1966	HYDROGEN, REFRIGERATED LIQUID
410	2.1	1969	ISOBUTANE
411	2.1	1971	METHANE, COMPRESSED or NATURAL GAS, COMPRESSED with high methane content
412	2.1	1972	METHANE, REFRIGERATED LIQUID or NATURAL GAS, REFRIGERATED LIQUID with high methane content
413	2.1	1978	PROPANE
414	2.1	2034	HYDROGEN AND METHANE MIXTURE, COMPRESSED
415	2.1	2035	1,1,1-TRIFLUOROETHANE (REFRIGERANT GAS R 143a)
416	2.1	2044	2,2-DIMETHYLPROPANE
417	2.1	2200	PROPADIENE, STABILIZED
418	2.1	2203	SILANE
419	2.1	2419	BROMOTRIFLUOROETHYLENE
420	2.1	2452	ETHYLACETYLENE, STABILIZED
421	2.1	2453	ETHYL FLUORIDE (REFRIGERANT GAS R 161)
422	2.1	2454	METHYL FLUORIDE (REFRIGERANT GAS R 41)
423	2.1	2517	1-CHLORO-1,1-DIFLUOROETHANE (REFRIGERANT GAS R 142b)
424	2.1	2601	CYCLOBUTANE
425	2.1	3138	ETHYLENE, ACETYLENE AND PROPYLENE MIXTURE, REFRIGERATED LIQUID containing at least 71.5% ethylene,

FIRST SCHEDULE — *continued*

<i>S/No.</i>	<i>IMO Class</i>	<i>UN No.</i>	<i>Substance/Article</i>
			with not more than 22.5% acetylene and not more than 6% propylene
426	2.1	3150	DEVICES, SMALL, HYDROCARBON GAS POWERED or HYDROCARBON GAS REFILLS FOR SMALL DEVICES with release device
427	2.1	3153	PERFLUORO(METHYL VINYL ETHER)
428	2.1	3154	PERFLUORO(ETHYL VINYL ETHER)
429	2.1	3161	LIQUEFIED GAS, FLAMMABLE, N.O.S.
430	2.1	3167	GAS SAMPLE, NON-PRESSURIZED, FLAMMABLE, N.O.S., not refrigerated liquid
431	2.1	3252	DIFLUOROMETHANE (REFRIGERANT GAS R 32)
432	2.1	3312	GAS, REFRIGERATED LIQUID, FLAMMABLE, N.O.S.
433	2.1	3354	INSECTICIDE GAS, FLAMMABLE, N.O.S.
434	2.1	3358	REFRIGERATING MACHINES containing flammable, non-toxic, liquefied gas
435	2.1	3374	ACETYLENE, SOLVENT FREE
436	2.1	3468	HYDROGEN IN A METAL HYDRIDE STORAGE SYSTEM or HYDROGEN IN A METAL HYDRIDE STORAGE SYSTEM CONTAINED IN EQUIPMENT or HYDROGEN IN A METAL HYDRIDE STORAGE SYSTEM PACKED WITH EQUIPMENT
437	2.1	3478	FUEL CELL CARTRIDGES or FUEL CELL CARTRIDGES CONTAINED IN EQUIPMENT or FUEL CELL CARTRIDGES PACKED WITH EQUIPMENT, containing liquefied flammable gas
438	2.1	3479	FUEL CELL CARTRIDGES or FUEL CELL CARTRIDGES CONTAINED IN EQUIPMENT or FUEL CELL CARTRIDGES PACKED WITH EQUIPMENT, containing hydrogen in metal hydride
439	2.1	3501	CHEMICAL UNDER PRESSURE, FLAMMABLE, N.O.S.
440	2.1	3504	CHEMICAL UNDER PRESSURE, FLAMMABLE, TOXIC, N.O.S.
441	2.1	3505	CHEMICAL UNDER PRESSURE, FLAMMABLE, CORROSIVE, N.O.S.
442	2.1	3510	ADSORBED GAS, FLAMMABLE, N.O.S.
443	2.3	1023	COAL GAS, COMPRESSED
444	2.3	1071	OIL GAS, COMPRESSED

FIRST SCHEDULE — *continued*

<i>S/No.</i>	<i>IMO Class</i>	<i>UN No.</i>	<i>Substance/Article</i>
445	2.3	1911	DIBORANE
446	2.3	1953	COMPRESSED GAS, TOXIC, FLAMMABLE, N.O.S.
447	2.3	1955	COMPRESSED GAS, TOXIC, N.O.S.
448	2.3	1967	INSECTICIDE GAS, TOXIC, N.O.S.
449	2.3	3160	LIQUEFIED GAS, TOXIC, FLAMMABLE, N.O.S.
450	2.3	3162	LIQUEFIED GAS, TOXIC, N.O.S.
451	2.3	3168	GAS SAMPLE, NON-PRESSURIZED, TOXIC, FLAMMABLE, N.O.S., not refrigerated liquid
452	2.3	3169	GAS SAMPLE, NON-PRESSURIZED, TOXIC, N.O.S., not refrigerated liquid
453	2.3	3303	COMPRESSED GAS, TOXIC, OXIDIZING, N.O.S.
454	2.3	3304	COMPRESSED GAS, TOXIC, CORROSIVE, N.O.S.
455	2.3	3305	COMPRESSED GAS, TOXIC, FLAMMABLE, CORROSIVE, N.O.S.
456	2.3	3306	COMPRESSED GAS, TOXIC, OXIDIZING, CORROSIVE, N.O.S.
457	2.3	3307	LIQUEFIED GAS, TOXIC, OXIDIZING, N.O.S.
458	2.3	3308	LIQUEFIED GAS, TOXIC, CORROSIVE, N.O.S.
459	2.3	3309	LIQUEFIED GAS, TOXIC, FLAMMABLE, CORROSIVE, N.O.S.
460	2.3	3310	LIQUEFIED GAS, TOXIC, OXIDIZING, CORROSIVE, N.O.S.
461	2.3	3355	INSECTICIDE GAS, TOXIC, FLAMMABLE, N.O.S.
462	2.3	3512	ADSORBED GAS, TOXIC, N.O.S.
463	2.3	3514	ADSORBED GAS, TOXIC, FLAMMABLE, N.O.S.
464	2.3	3515	ADSORBED GAS, TOXIC, OXIDIZING, N.O.S.
465	2.3	3516	ADSORBED GAS, TOXIC, CORROSIVE, N.O.S.
466	2.3	3517	ADSORBED GAS, TOXIC, FLAMMABLE, CORROSIVE, N.O.S.
467	2.3	3518	ADSORBED GAS, TOXIC, OXIDIZING, CORROSIVE, N.O.S.
468	3	-	FLAMMABLE LIQUIDS with flashpoint below -26°C
469	3	2478	ISOCYANATES, FLAMMABLE, TOXIC, N.O.S. or ISOCYANATE SOLUTION, FLAMMABLE, TOXIC, N.O.S.

FIRST SCHEDULE — *continued*

<i>S/No.</i>	<i>IMO Class</i>	<i>UN No.</i>	<i>Substance/Article</i>
470	4.2	1380	PENTABORANE
471	4.2	2845	PYROPHORIC LIQUID, ORGANIC, N.O.S.
472	4.2	2846	PYROPHORIC SOLID, ORGANIC, N.O.S.
473	4.2	2870	ALUMINIUM BOROHYDRIDE
474	4.2	2870	ALUMINIUM BOROHYDRIDE IN DEVICES
475	4.2	3194	PYROPHORIC LIQUID, INORGANIC, N.O.S.
476	4.2	3200	PYROPHORIC SOLID, INORGANIC, N.O.S.
477	4.2	3255	<i>tert</i> -BUTYL HYPOCHLORITE
478	4.2	3391	ORGANOMETALLIC SUBSTANCE, SOLID, PYROPHORIC
479	4.2	3392	ORGANOMETALLIC SUBSTANCE, LIQUID, PYROPHORIC
480	4.2	3393	ORGANOMETALLIC SUBSTANCE, SOLID, PYROPHORIC, WATER-REACTIVE
481	4.2	3394	ORGANOMETALLIC SUBSTANCE, LIQUID, PYROPHORIC, WATER-REACTIVE
482	4.3	1295	TRICHLOROSILANE
483	4.3	1391	ALKALI METAL DISPERSION or ALKALINE EARTH METAL DISPERSION
484	4.3	1411	LITHIUM ALUMINIUM HYDRIDE, ETHEREAL
485	4.3	1928	METHYLMAGNESIUM BROMIDE IN ETHYL ETHER
486	4.3	2813	WATER-REACTIVE SOLID, N.O.S.
487	4.3	2988	CHLOROSILANES, WATER-REACTIVE, FLAMMABLE, CORROSIVE, N.O.S.
488	4.3	3129	WATER-REACTIVE LIQUID, CORROSIVE, N.O.S.
489	4.3	3130	WATER-REACTIVE LIQUID, TOXIC, N.O.S.
490	4.3	3131	WATER-REACTIVE SOLID, CORROSIVE, N.O.S.
491	4.3	3132	WATER-REACTIVE SOLID, FLAMMABLE, N.O.S.
492	4.3	3133	WATER-REACTIVE SOLID, OXIDIZING, N.O.S.
493	4.3	3134	WATER-REACTIVE SOLID, TOXIC, N.O.S.
494	4.3	3135	WATER-REACTIVE SOLID, SELF-HEATING, N.O.S.
495	4.3	3148	WATER-REACTIVE LIQUID, N.O.S.
496	4.3	3208	METALLIC SUBSTANCE, WATER-REACTIVE, N.O.S.

FIRST SCHEDULE — *continued*

<i>S/No.</i>	<i>IMO Class</i>	<i>UN No.</i>	<i>Substance/Article</i>
497	4.3	3209	METALLIC SUBSTANCE, WATER-REACTIVE, SELF-HEATING, N.O.S.
498	4.3	3395	ORGANOMETALLIC SUBSTANCE, SOLID, WATER-REACTIVE
499	4.3	3396	ORGANOMETALLIC SUBSTANCE, SOLID, WATER-REACTIVE, FLAMMABLE
500	4.3	3397	ORGANOMETALLIC SUBSTANCE, SOLID, WATER-REACTIVE, SELF-HEATING
501	4.3	3398	ORGANOMETALLIC SUBSTANCE, LIQUID, WATER-REACTIVE
502	4.3	3399	ORGANOMETALLIC SUBSTANCE, LIQUID, WATER-REACTIVE, FLAMMABLE
503	4.3	3476	FUEL CELL CARTRIDGES or FUEL CELL CARTRIDGES CONTAINED IN EQUIPMENT or FUEL CELL CARTRIDGES PACKED WITH EQUIPMENT, containing water-reactive substances
504	4.3	3482	ALKALI METAL DISPERSION, FLAMMABLE or ALKALINE EARTH METAL DISPERSION, FLAMMABLE
505	5.1	1442	AMMONIUM PERCHLORATE
506	5.1	1458	CHLORATE AND BORATE MIXTURE
507	5.1	1459	CHLORATE AND MAGNESIUM CHLORIDE MIXTURE, SOLID
508	5.1	1461	CHLORATES, INORGANIC, N.O.S.
509	5.1	1462	CHLORITES, INORGANIC, N.O.S.
510	5.1	1477	NITRATES, INORGANIC, N.O.S.
511	5.1	1479	OXIDIZING SOLID, N.O.S.
512	5.1	1481	PERCHLORATES, INORGANIC, N.O.S.
513	5.1	1482	PERMANGANATES, INORGANIC, N.O.S.
514	5.1	1483	PEROXIDES, INORGANIC, N.O.S.
515	5.1	1485	POTASSIUM CHLORATE
516	5.1	1495	SODIUM CHLORATE
517	5.1	1942	AMMONIUM NITRATE with not more than 0.2% total combustible substances, including any organic substance calculated as carbon, to the exclusion of any other added substance

FIRST SCHEDULE — *continued*

<i>S/No.</i>	<i>IMO Class</i>	<i>UN No.</i>	<i>Substance/Article</i>
518	5.1	2067	AMMONIUM NITRATE BASED FERTILIZER
519	5.1	2426	AMMONIUM NITRATE, LIQUID (hot concentrated solution)
520	5.1	2627	NITRITES, INORGANIC, N.O.S.
521	5.1	3085	OXIDIZING SOLID, CORROSIVE, N.O.S.
522	5.1	3087	OXIDIZING SOLID, TOXIC, N.O.S.
523	5.1	3098	OXIDIZING LIQUID, CORROSIVE, N.O.S.
524	5.1	3099	OXIDIZING LIQUID, TOXIC, N.O.S.
525	5.1	3100	OXIDIZING SOLID, SELF-HEATING, N.O.S.
526	5.1	3121	OXIDIZING SOLID, WATER-REACTIVE, N.O.S.
527	5.1	3137	OXIDIZING SOLID, FLAMMABLE, N.O.S.
528	5.1	3139	OXIDIZING LIQUID, N.O.S.
529	5.1	3210	CHLORATES, INORGANIC, AQUEOUS SOLUTION, N.O.S.
530	5.1	3211	PERCHLORATES, INORGANIC, AQUEOUS SOLUTION, N.O.S.
531	5.1	3214	PERMANGANATES, INORGANIC, AQUEOUS SOLUTION, N.O.S.
532	5.1	3218	NITRATES, INORGANIC, AQUEOUS SOLUTION, N.O.S.
533	5.1	3219	NITRITES, INORGANIC, AQUEOUS SOLUTION, N.O.S.
534	5.1	3375	AMMONIUM NITRATE EMULSION or SUSPENSION or GEL intermediate for blasting explosives
535	5.1	3407	CHLORATE AND MAGNESIUM CHLORIDE MIXTURE SOLUTION
536	5.2	3101	ORGANIC PEROXIDE TYPE B, LIQUID
537	5.2	3102	ORGANIC PEROXIDE TYPE B, SOLID
538	5.2	3111	ORGANIC PEROXIDE TYPE B, LIQUID, TEMPERATURE CONTROLLED
539	5.2	3112	ORGANIC PEROXIDE TYPE B, SOLID, TEMPERATURE CONTROLLED
540	6.1	1239	METHYL CHLOROMETHYL ETHER
541	6.1	1259	NICKEL CARBONYL
542	6.1	1510	TETRANITROMETHANE
543	6.1	2334	ALLYLAMINE

FIRST SCHEDULE — *continued*

<i>S/No.</i>	<i>IMO Class</i>	<i>UN No.</i>	<i>Substance/Article</i>
544	6.1	2480	METHYL ISOCYANATE
545	6.1	2481	ETHYL ISOCYANATE
546	6.1	2929	TOXIC LIQUID, FLAMMABLE, ORGANIC, N.O.S.
547	6.1	3071	MERCAPTANS, LIQUID, TOXIC, FLAMMABLE, N.O.S. or MERCAPTAN MIXTURE, LIQUID, TOXIC, FLAMMABLE, N.O.S.
548	6.1	3080	ISOCYANATES, TOXIC, FLAMMABLE, N.O.S. or ISOCYANATE SOLUTION, TOXIC, FLAMMABLE, N.O.S.
549	6.1	3275	NITRILES, TOXIC, FLAMMABLE, N.O.S.
550	6.1	3279	ORGANOPHOSPHORUS COMPOUND, TOXIC, FLAMMABLE, N.O.S.
551	6.1	3294	HYDROGEN CYANIDE, SOLUTION IN ALCOHOL with not more than 45% hydrogen cyanide
552	6.1	3362	CHLOROSILANES, TOXIC, CORROSIVE, FLAMMABLE, N.O.S.
553	6.1	3383	TOXIC BY INHALATION LIQUID, FLAMMABLE, N.O.S. with an LC ₅₀ lower than or equal to 200 mL/m ³ and saturated vapour concentration greater than or equal to 500LC ₅₀
554	6.1	3384	TOXIC BY INHALATION LIQUID, FLAMMABLE, N.O.S. with an LC ₅₀ lower than or equal to 1000 mL/m ³ and saturated vapour concentration greater than or equal to 10LC ₅₀
555	6.1	3483	MOTOR FUEL ANTI-KNOCK MIXTURE, FLAMMABLE
556	6.1	3488	TOXIC BY INHALATION LIQUID, FLAMMABLE, CORROSIVE, N.O.S. with an LC ₅₀ lower than or equal to 200 mL/m ³ and saturated vapour concentration greater than or equal to 500 LC ₅₀
557	6.1	3489	TOXIC BY INHALATION LIQUID, FLAMMABLE, CORROSIVE, N.O.S. with an LC ₅₀ lower than or equal to 1000 mL/m ³ and saturated vapour concentration greater than or equal to 10 LC ₅₀
558	6.1	3490	TOXIC BY INHALATION LIQUID, WATER-REACTIVE, FLAMMABLE, N.O.S. with an LC ₅₀ lower than or equal to 200 mL/m ³ and saturated vapour concentration greater than or equal to 500 LC ₅₀
559	6.1	3491	TOXIC BY INHALATION LIQUID, WATER-REACTIVE, FLAMMABLE, N.O.S. with an LC ₅₀ lower than or equal to 1000 mL/m ³ and saturated vapour concentration greater than or equal to 10 LC ₅₀

FIRST SCHEDULE — *continued*

<i>S/No.</i>	<i>IMO Class</i>	<i>UN No.</i>	<i>Substance/Article</i>
560	7	2908	RADIOACTIVE MATERIAL, EXCEPTED PACKAGE - EMPTY PACKAGING
561	7	2909	RADIOACTIVE MATERIAL, EXCEPTED PACKAGE - ARTICLES MANUFACTURED FROM NATURAL URANIUM or DEPLETED URANIUM or NATURAL THORIUM
562	7	2910	RADIOACTIVE MATERIAL, EXCEPTED PACKAGE - LIMITED QUANTITY OF MATERIAL
563	7	2911	RADIOACTIVE MATERIAL, EXCEPTED PACKAGE - INSTRUMENTS or ARTICLES
564	7	2912	RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-I), non fissile or fissile-excepted
565	7	2913	RADIOACTIVE MATERIAL, SURFACE CONTAMINATED OBJECTS (SCO-I or SCO-II), non fissile or fissile-excepted
566	7	2915	RADIOACTIVE MATERIAL, TYPE A PACKAGE, non-special form, non fissile or fissile-excepted
567	7	2916	RADIOACTIVE MATERIAL, TYPE B(U) PACKAGE, non fissile or fissile-excepted
568	7	2917	RADIOACTIVE MATERIAL, TYPE B(M) PACKAGE, non fissile or fissile-excepted
569	7	2919	RADIOACTIVE MATERIAL TRANSPORTED UNDER SPECIAL ARRANGEMENT, non fissile or fissile-excepted
570	7	2977	RADIOACTIVE MATERIAL, URANIUM HEXAFLUORIDE, FISSILE
571	7	2978	RADIOACTIVE MATERIAL, URANIUM HEXAFLUORIDE non fissile or fissile-excepted
572	7	3321	RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-II), non fissile or fissile-excepted
573	7	3322	RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-III), non fissile or fissile-excepted
574	7	3323	RADIOACTIVE MATERIAL, TYPE C PACKAGE, non fissile or fissile-excepted
575	7	3324	RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-II), FISSILE
576	7	3325	RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-III), FISSILE
577	7	3326	RADIOACTIVE MATERIAL, SURFACE CONTAMINATED OBJECTS (SCO-I or SCO-II), FISSILE

FIRST SCHEDULE — *continued*

<i>S/No.</i>	<i>IMO Class</i>	<i>UN No.</i>	<i>Substance/Article</i>
578	7	3327	RADIOACTIVE MATERIAL, TYPE A PACKAGE, FISSILE, non-special form
579	7	3328	RADIOACTIVE MATERIAL, TYPE B(U) PACKAGE, FISSILE
580	7	3329	RADIOACTIVE MATERIAL, TYPE B(M) PACKAGE, FISSILE
581	7	3330	RADIOACTIVE MATERIAL, TYPE C PACKAGE, FISSILE
582	7	3331	RADIOACTIVE MATERIAL, TRANSPORTED UNDER SPECIAL ARRANGEMENT, FISSILE
583	7	3332	RADIOACTIVE MATERIAL, TYPE A PACKAGE, SPECIAL FORM, non fissile or fissile-excepted
584	7	3333	RADIOACTIVE MATERIAL, TYPE A PACKAGE, SPECIAL FORM, FISSILE
585	8	2734	AMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S.
586	8	2920	CORROSIVE LIQUID, FLAMMABLE, N.O.S.
587	8	2986	CHLOROSILANES, CORROSIVE, FLAMMABLE, N.O.S.
588	8	3470	PAINT, CORROSIVE, FLAMMABLE (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL, CORROSIVE, FLAMMABLE (including paint thinning or reducing compound)
589	8	3484	HYDRAZINE AQUEOUS SOLUTION, FLAMMABLE with more than 37% hydrazine, by mass
590	8	3507	URANIUM HEXAFLUORIDE, RADIOACTIVE MATERIAL, EXCEPTED PACKAGE, less than 0.1 kg per package, non-fissile or fissile-excepted

[S 795/2015 wef 01/01/2016]

SECOND SCHEDULE

Regulation 8(a)

DESCRIPTION OF AREA

The area enclosed by the coastline of Singapore Island contained between Berlayar Light Beacon at the western entrance of Keppel Harbour and the eastern end of the Merdeka Bridge; thence along the northern coastline of Sungei Geylang; thence

SECOND SCHEDULE — *continued*

along the northern coastline of Tanjong Rhu to its north-west extremity; thence along the western coastline of Tanjong Rhu, thence along the western and south-western coastline of the eastern reclaimed land to position Lat 01 degrees 17 minutes 00 seconds N, Long 103 degrees 52 minutes 48 seconds E; thence in a straight line to position Lat 01 degrees 16 minutes 00 seconds N, Long 103 degrees 51 minutes 59 seconds E; thence in a straight line to Buran Light Beacon; thence due west to meet the coastline of Sentosa; thence along the northern coastline of Sentosa to Tanjong Rimau; thence by a straight line to the point of origin.

Made this 4th day of January 2005.

PETER ONG
Chairman,
Maritime and Port Authority
of Singapore.

[MPA 46/01.C09.V13/SS; AG/LEG/SL/170A/2003/2 Vol. 2]