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Maritime Transport Decree 2013
(DECREE NO. 20 OF 2013)

Marine (Pollution Prevention and Management) Regulations 2014

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IN exercise of the powers conferred upon me by sections 232, 233 and 234 of the Maritime Transport Decree 2013, I hereby make these Regulations—

PART 1—PRELIMINARY

Short title and commencement

1. These Regulations may be cited as the Marine (Pollution Prevention and Management) Regulations 2014 and shall come into force on a date or dates appointed by the Minister by notice in the *Gazette*.

Interpretation

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

"Administration" means the Authority of the Government of the state under whose authority a ship is operating or the flag state of whose flag the ship is entitled to fly;

"approved" means approved by the Chief Executive Officer;

"Authority" means the Maritime Safety Authority of Fiji;

"best practicable option" means the best method of preventing or minimising adverse effects on the environment including but not limited to, having regard to the—

(a) nature of the discharge and the sensitivity of the receiving environment to adverse effects;

(b) financial implications and the effects on the environment of that option when compared with other options; and

(c) current state of technical knowledge and the likelihood that the option can be successfully applied;

"cargo residue" means the remnants of any cargo remaining on the deck or in holds which are not covered by other Annexes to the Convention following loading or unloading, including loading excess or spillage whether in wet or dry conditions or entrained in water, but does not include cargo dust remaining on the deck after sweeping or dust on the external surface of the ship;

"category X, Y, Z or OS substance" means, respectively, any liquid substance—

(a) listed and categorised as a category X, Y, Z or OS substance in the IBC Code; or

(b) otherwise categorised, or provisionally assessed or categorised as a category X, Y, Z or OS substance by the—

(i) IMO; or

(ii) Chief Executive Officer under regulation 37;

"chemical carrier" means any ship engaged in carrying a cargo of noxious liquid substances in bulk and includes a "chemical tanker" and an "oil tanker" when carrying a cargo or part cargo of noxious liquid substances in bulk;

"chemical tanker" means a ship constructed or adapted for the carriage in bulk of any liquid product listed in chapter 17 of the IBC Code;

"Civil Liability Convention" or "CLC" means the International Convention on Civil Liability for Oil Pollution Damage, 1969 and includes any subsequent protocol or amendments to, or revision of these Conventions accepted or ratified by Fiji;

"CLC owner" means, in the case of—

(a) a registered CLC ship, the person registered as the owner of that ship;

(b) an unregistered CLC ship, the person who owns the ship; or

(c) a CLC ship owned by a State and operated by a person registered as the ship's operator, the person registered as its operator;

"CLC State" means any State that is a party to the Civil Liability Convention and the CLC Protocol of 1992;

"Chief Executive Officer" means the Chief Executive Officer of the Authority;

"clean ballast water" means ballast water and contaminants carried in a tank used to carry a noxious liquid substance or oil where—

(a) the tank has been thoroughly cleaned since last used to carry a noxious liquid substance and from which the residue has been discharged and the tank been emptied in accordance with these Regulations; or

(b) the tank has been thoroughly cleaned since last used to carry oil and the ballast water and contaminants, when discharged, would not contain oil exceeding 15 parts per million;

"coastal state" means the country whose land is adjacent to those areas of the sea over which it exercises, or is entitled to exercise jurisdiction for the purposes of marine environment protection, as provided for in international law;

"combination carrier" means a ship designed to carry either oil or solid cargoes in bulk;

"continental shelf" shall have the same meaning as under section 2 of the Continental Shelf Act (Cap 149);

"cooking oil" means any type of edible oil or animal fat used or intended to be used for the preparation of or cooking food;

"crude oil" means any liquid hydrocarbon mixture occurring naturally in the earth whether or not treated to render it suitable for transportation, which includes crude oil from which certain distillate fractions may have been removed and crude oil to which certain distillate fractions may have been added;

"crude oil tanker or carrier" means an oil tanker engaged in the trade of carrying crude oil;

"Decree" means the Maritime Transport Decree 2013;

"discharge" includes any release, disposal, spilling, leaking, pumping, emitting, or emptying but does not include release of harmful substances for the purposes of legitimate scientific research and "to discharge" and "discharged" shall have corresponding meanings;

"displacement water" in relation to an offshore installation means water displaced from crude oil tanks during oil transfers to or from the tank;

"domestic wastes" means all types of waste that are generated in the accommodation spaces not covered by any Annexes in the MARPOL Convention and does not include grey water;

"dunnage" includes but is not limited to wood, nails, rope, wires, matting, gratings and all other materials used to keep cargo off a floor or deck or bulkhead or to wedge cargo firmly so that it does not shift at sea;

"en route" means that a ship is under way at sea on a course or courses;

"existing oil tanker" means an oil tanker which is not a new oil tanker;

"Exclusive Economic Zone" or "EEZ" shall have the same meaning as under section 2 of the Decree;

"existing ship" means a ship which is not a new ship;

"FPSO" means floating production storage and offloading facility;

"FSU" means a floating storage unit;

"Fiji ship" means a ship that is registered under the Ship Registration Decree 2013 and includes a ship that is not registered under that Decree but is required or entitled to be registered under that Decree;

"Fiji waters" shall have the same meaning as under section 2 of the Decree;

"fishing gear" means any physical device or part thereof or combination of items that may be placed on or in the water or on the sea bed with the intended purpose of capturing, or controlling for subsequent capture or harvesting, marine or fresh water organisms;

"food waste" means any spoilt or unspoilt food substances and includes fruits, vegetables, dairy products, poultry, meat products and food scraps generated aboard ships;

"foreign ship" means any ship that is not a Fiji ship;

"from the nearest land" means from the baseline from which the territorial sea of Fiji or other coastal state is established in accordance with international law except that, for the purposes of the Convention, "from the nearest land" off the north-eastern coast of Australia shall mean from a line drawn from a point on the coast of Australia in—

latitude 11800' S, longitude 142808' E

to a point in latitude 10835' S, longitude 141855' E

thence to a point latitude 10800' S, longitude 142800' E

thence to a point latitude 9810' S, longitude 143852' E

thence to a point latitude 9800' S, longitude 144830' E

thence to a point latitude 13800' S, longitude 144800' E

thence to a point latitude 15800' S, longitude 146800' E

thence to a point latitude 18800' S, longitude 147800' E

thence to a point latitude 21800' S, longitude 153800' E

thence to a point on the coast of Australia in

latitude 24842' S, longitude 153815' E;

"from the nearest reef system" means from any reef system surrounding an island in Fiji;

"fuel oil" means heavy distillates or residues from crude oil, or blends of such material, intended for use as a fuel for the production of heat or power and of a quality equivalent to the specification acceptable to the IMO;

"garbage"—

(a) means all kinds of food waste, domestic waste, and operational waste, all plastics, cargo residue, cooking oil, fishing gear, and animal carcasses generated during the normal operation of the ship or offshore installation and liable to be discharged continuously or periodically except those substances which are defined or listed in other Annexes to the MARPOL Convention; and

(b) for the purposes of these Regulations, shall not include fresh fish and parts thereof generated as a result of fishing activities undertaken during a voyage, or as a result of aquaculture activities which involve the transportation of fish including shellfish for placement in the aquaculture facility and the transport of harvested fish including shellfish from such facilities to shore for processing;

"Grade A treated sewage" means sewage discharged from an approved sewage treatment plant that meets the operational requirements specified by the IMO Marine Environmental Protection Committee Resolution MEPC. 159(55) entitled Revised Guidelines on Implementation of Effluent Standards and Performance Tests for Sewage Treatment Plants;

"Grade B treated sewage" means sewage discharged from a treatment plant to comminute and disinfect sewage that is approved by the Chief Executive Officer for Fiji Ships and by the Administration for foreign ships which is maintained and operated in good working order;

"grey water"—

(a) means drainage from dishwasher, shower, laundry, bath and washbasin drains and shall not include drainage from toilets, urinals, hospitals, and animal spaces, as defined in regulation 1.3 of MARPOL Convention Annex IV;

(b) does not include drainage from cargo spaces; and

(c) shall not be considered garbage in the context of Annex V of the MARPOL Convention;

"harmful substance" shall have the same meaning as under section 128 of the Decree;

"heavy diesel oil" means diesel oil, other than those distillates of which more than 50 percent by volume distils at a temperature not exceeding 340°C when tested by the method acceptable to the IMO;

"heavy grade oil" means—

(a) crude oil having a density higher than 900kg/m^3 at 15°C;

(b) oil, other than crude oil, having a density higher than 900 kg/m^3 at 15°C or a kinematic viscosity higher than 180 mm^2/s at 50°C; or

(c) bitumen, tar or bitumen or tar emulsion;

"high-viscosity" means, in respect of a category X or category Y substance, a viscosity, at the unloading temperature, equal to or greater than 50 MPa;

"holding tank" means a tank used for the collection and storage of sewage;

"incident" shall have the same meaning as under section 2 of the Decree;

"International Bulk Chemical Code" or "IBC Code" means the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk, published by the IMO, as amended from time to time;

"IMO" means the International Maritime Organization;

"in bulk" means carried in the cargo or other spaces of a ship without any intermediate form of containment or packaging;

"internal waters" shall have the same meaning as under section 2 of the Decree;

"liquid substances" means substances having a vapour pressure not exceeding 2.8kp/cm^2 at a temperature of 37.8°C;

"marine operations" means any operation or operation for, or connected with, the exploration of or the exploitation or associated processing of, any mineral in the sea or the seabed;

"MARPOL Convention" means the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto and includes any subsequent protocol, amendment or revision of that Convention accepted or ratified by Fiji;

"municipality" means the city or town, including ports and marinas that are located within the municipal boundary;

"noxious liquid substance" means any substance indicated in the Pollution Category column of Chapter 17 or 18 of the International Bulk Chemical Code or those catergorised in Annex II, Chapter 2, Regulation 6 of the MARPOL Convention as amended including—

(a) any category X substance;

(b) any category Y substance;

(c) any category Z substance;

(d) any other substance, except—

(i) clean ballast;

(ii) segregated ballast; and

(iii) any category OS substance; and

(e) any mixture containing a noxious liquid substances;

"offshore installation" or "device" shall have the same meaning as under section 2 of the Decree;

"offshore processing drainage" means water from hazardous and non-hazardous deck drains, but does not include oily waste from machinery spaces of an offshore installation;

"offshore terminal" means any place in the sea where cargo is loaded or unloaded;

"oil" means petroleum in any form, including crude oil, fuel oil, sludge, oil refuse, and refined petroleum products, other than petrochemicals which are noxious liquid substances and includes the substances specified in Schedule 1 of Part 2 of these Regulations, and for the purposes of section 128 of the Decree, means "harmful substance";

"oil fuel" means any oil used as fuel in connection with the propulsion and auxiliary machinery of the ship in which such oil is carried;

"oily mixture" means a mixture with any oil content;

"oil residue (sludge)" means the residual waste oil products generated during the normal operation of a ship or an offshore installation such as those resulting from the purification of fuel or lubricating oil for main or auxiliary machinery, separated waste oil from oil filtering equipment, waste oil collected in drip trays, and waste hydraulic and lubricating oils;

"oil residue (sludge) tank" means a tank that holds oil residue (sludge) from which sludge may be disposed directly through the standard discharge connection or any other means of disposal that meets the requirements of these Regulations;

"oily bilge water" means water that may be contaminated by oil resulting from leakage or maintenance work in machinery spaces and, for the avoidance of

doubt, includes any liquid entering the bilge system, including bilge wells, bilge piping, tank top or bilge holding tanks;

"oily bilge water holding tank" means a tank collecting oily bilge water prior to its discharge, transfer or disposal;

"oily waste" means waste containing oil or oily water;

"oil spill" means any actual or probable release, discharge, or escape of oil into Fiji waters and for the purposes of these Regulations, shall have the meaning as that of "marine oil spill" under section 2 of the Decree;

"oil tanker" means a ship carrying oil in bulk in its cargo spaces and includes combination carriers and any chemical tanker when it is carrying a cargo or part cargo of oil in bulk as cargo;

"operational waste" means all solid waste, including slurries, collected onboard during normal maintenance or operation of a ship, or used for cargo stowage or handling that are not covered by other Annexes of the Convention, and also includes cleaning agents and additives contained in cargo holds and external wash waters but does not include grey water, bilge water, or other similar discharges essential to the operation of the ship;

"plastics" means all garbage that consist of or includes plastic in any form including synthetic ropes, synthetic fishing nets, plastic garbage bags, and incinerator ashes from plastic products that may contain toxic or heavy metal residues;

"platform drainage" means the drainage water from the machinery space of an offshore installation which includes all water and contaminants from generators, fuel tanks, and pumps but does not include any water or contaminant from processing, production, or displacement associated with exploration, drilling, or production activities which are undertaken by the offshore installation;

"pollution incident" means an event involving the probable discharge or escape, or discharge or escape into the sea or seabed of a harmful substance in contravention of the Decree;

"Port" shall have the same meaning as under section 2 of the Decree;

"ppm" means parts per million (ml/m^3);

"product carrier" means an oil tanker engaged in the trade of carrying oil other than crude oil;

"production water" in relation to an offshore installation means any water extracted from the reservoir;

"reception facilities" mean facilities for enabling ships using a port to discharge or deposit oil, oil mixtures, noxious liquid substances, sewage or garbage from those ships and shall be constructed accordingly;

"residue" means any harmful substance which remains for disposal;

"segregated ballast water" means ballast water and contaminants in the tank of a ship where that tank is completely separated from cargo oil and fuel oil systems and is permanently allocated to the carriage of ballast water or cargoes other than oil or noxious liquid substances;

"sewage" means, in relation to a ship or offshore installation—

(a) drainage and other wastes from any form of toilet, urinal, or toilet scupper;

(b) drainage from wash basins, wash tubs, and scuppers located in any dispensary, sick bay, or other medical premises;

(c) drainage from spaces containing living animals; or

(d) waste waters mixed with the drainage and wastes specified in paragraphs *(a)*, *(b)*, or *(c)*;

"slop tank" means a tank specifically designated for the collection of tank drainings, tank washings and other oily mixtures;

"Specifications for Oil Tankers with Dedicated Clean Ballast Tanks" means specifications adopted by the IMO by resolution A.495(XII) as amended by IMO from time to time;

"substance" means a chemical element or compound or a mixture or solution composed of two or more elements or compounds;

"territorial sea" shall have the same meaning as under section 2 the Decree;

"uncategorised liquid substance" means any liquid substance that is not—

(a) a category X substance;

(b) a category Y substance;

(c) a category Z substance;

(d) clean ballast;

(e) segregated ballast; or

(f) a category OS substance.

"unloading" includes the pumping of cargo from a ship to receiver, terminal, or port; and "unload" and "unloaded" shall have corresponding meanings;

"untreated sewage" means any sewage that has not been subject to a sewage treatment system, and for the purposes of section 128 of the Decree be included as a "harmful substance"; and

"waste" means useless, unneeded or superfluous matter which is to be discarded.

Objectives

3. The objectives of these Regulations are to—

(a) enable Fiji to be a party to MARPOL Convention; and

(b) domesticate the provisions of the MARPOL Convention for the purposes of marine protection.

PART 2 — CONTROL OF DISCHARGES

Interpretations applying to Part 2

4. In this Part, unless the context otherwise requires,—

"special areas" for the purposes of Annex I of the MARPOL Convention and this Part means the—

(a) Mediterranean Sea area comprising the Mediterranean Sea proper including the gulfs and sea therein with the boundary between the Mediterranean and the Black Sea constituted by the 41° N parallel and bounded to the west by the Straits of Gibraltar at the meridian of 5° 36' W;

(b) Baltic Sea area comprising the Baltic Sea proper with the Gulf of Bothnia, the Gulf of Finland and the entrance to the Baltic Sea bounded by the parallel of the Skaw in the Skagerrak at 57° 44.8' N;

(c) Black Sea area comprising the Black Sea proper with the boundary between the Mediterranean and the Black Sea constituted by the parallel 41° N;

(d) Red Sea area means the Red Sea proper including the Gulfs of Suez and Aqaba bounded at the south by the rhumb line between Ras si Ane (12° 28.5' N, 43° 19.6' E) and Husn Murad (12° 40.4' N, 43° 30.2' E);

(e) Gulfs area means the sea area located north-west of the rhumb line between Ras al Hadd (22° 30'N, 59° 48'E) and Ras Al Fasteh (25° 04' N, 61° 25' E);

(f) Gulf of Aden area means that part of the Gulf of Aden between the Red Sea and the Arabian Sea bounded to the west by the rhumb line between Ras si Ane (12° 28.5' N, 43° 19.6' E) and Husn Murad (12° 40.4'N, 43° 30.2'E) and to the east by the rhumb line between Ras Asir (11° 50'N, 51° 16.9'E) and Ras Fartak (15° 35' N, 52° 13.8' E);

(g) Antarctic comprising the area south of latitude 60° S;

(h) North West European Waters comprising the area bound by lines joining the following points—

(i) 48°27' N on the French coast;

(ii) 48°27' N, 06°25' W;

(iii) 49°52' N, 07°44'W;

(iv) 50°30' N, 12° W;

(v) 56°30' N, 12° W;

(vi) 62°N, 03° W;

(vii) 62°N on the Norwegian coast; and

(viii) 57°44.8' N on the Danish and Swedish coasts;

(i) Oman area of the Arabian Sea comprising the sea area enclosed by the following Coordinates—

22° 30.00' N; 059° 48.00' E 23° 47.27' N; 060° 35.73' E 22° 40.62' N; 062° 25.29' E 21° 47.40' N; 063° 22.22' E 20° 30.37' N; 062° 52.41' E 19° 45.90' N; 062° 25.97' E 18° 49.92' N; 062° 02.94' E 17° 44.36' N; 061° 05.53' E 16° 43.71' N; 060° 25.62' E 16° 03.90' N; 059° 32.24' E 15° 15.20' N; 058° 58.52' E; 14° 36.93' N; 058° 10.23' E 14° 18.93' N; 057° 27.03' E 14° 11.53' N; 056° 53.75' E 13° 53.80' N; 056° 19.24' E 13° 45.86' N; 055° 54.53' E 14° 27.38' N; 054° 51.42' E; 14° 40.10' N; 054° 27.35'E 14° 46.21' N; 054° 08.56' E 15° 20.74' N; 053° 38.33' E 15° 48.69' N; 053° 32.07' E; 16° 23.02' N; 053° 14.82' E 16° 39.06' N; 053° 06.52' E"; and

(j) Southern South African waters comprising the sea area enclosed by the following coordinates—

31° 14′ S; 017° 50′ E 31° 30′ S; 017° 12′ E 32° 00′ S; 017° 06′ E 32° 32′ S; 016° 52′ E 34° 06′ S; 017° 24′ E 36° 58′ S; 020° 54′ E 36° 00′ S; 022° 30′ E 35° 14′ S; 022° 54′ E 34° 30′ S; 026° 00′ E 33° 48′ S; 027° 25′ E 33° 27′ S; 027° 12′ E";

"special areas" for the purpose of Annex IV of the MARPOL Convention and this Part means—

(a) the Baltic Sea area comprising the Baltic Sea proper with the Gulf of Bothnia, the Gulf of Finland and the entrance to the Baltic Sea bounded by the parallel of the Skaw in the Skagerrak at 57° 44.8' N; and

(b) any other area designated by the IMO in accordance with the criteria and procedures specified for the designation of special areas with respect to the prevention of pollution by sewage from ships;

"special areas" for the purpose of Annex V of the MARPOL Convention and this Part means—

(a) the Mediterranean Sea area comprising the Mediterranean Sea proper including the gulfs and sea therein with the boundary between the Mediterranean and the Black Sea constituted by the 41° N parallel and bounded to the west by the Straits of Gibraltar at the meridian of 5° 36' W;

(b) the Baltic Sea area comprising the Baltic Sea proper with the Gulf of Bothnia, the Gulf of Finland and the entrance to the Baltic Sea bounded by the parallel of the Skaw in the Skagerrak at 57° 44.8' N;

(c) the Black Sea area comprising the Black Sea proper with the boundary between the Mediterranean and the Black Sea constituted by the parallel 41° N;

(d) for the Red Sea area, the Red Sea proper including the Gulfs of Suez and Aqaba bounded at the south by the rhumb line between Ras si Ane (12° 28.5' N, 43° 19.6' E) and Husn Murad (12° 40.4' N, 43° 30.2' E);

(e) for the Gulfs area, the sea area located north-west of the rhumb line between Ras al Hadd (22° 30'N, 59° 48'E) and Ras Al Fasteh (25° 04' N, 61° 25' E);

(f) for North Sea area, the North Sea proper including seas therein with the boundary between—

(i) the North Sea southwards of latitude 62° N and eastwards of longitude 4° W;

(ii) the Skagerrak, the southern limit of which is determined east of the Skaw by latitude 57°44.8' N; and

(iii) the English Channel and its approaches eastwards of longitude 5° W and northwards of latitude 48° 30' N;

(g) for the Antarctic, the area comprising the area south of latitude 60° S; and

(h) the Wider Caribbean Region comprising the Gulf of Mexico and Caribbean Sea proper including the bays and seas therein and that portion of the Atlantic Ocean with the boundary constituted by the 30° N parallel from Florida eastward to 77°30' W meridian, from there to a rhumb line to the intersection of 20° N parallel and 59° W meridian, from there to a rhumb line to the intersection of 7°20' N parallel and 50° W meridian, and from there to a rhumb line drawn south-westerly to the eastern boundary of French Guiana; and

"Specification for the Design, Operation and Control of Crude Oil Washing Systems" means specifications adopted by the International Maritime Organization by resolution A.446(XI) and amended by resolution A.497(XII) and further amended by resolution A.897(21).

Division 1 — Discharge Of Harmful Substances

Harmful substances not to be discharged

5. Harmful substances shall not be discharged or allowed to escape into the Fiji waters, otherwise than in accordance with the provisions of these Regulations—

(a) from any ship, offshore installation, or pipeline—

(i) into the sea within the Exclusive Economic Zone of Fiji; or

(ii) onto or into the seabed below that sea;

(b) from any ship or offshore installation involved with the exploration or exploitation of the sea or the seabed, or any pipeline—

(i) into the sea beyond the outer limits of the exclusive economic zone of Fiji but over the continental shelf of Fiji; or

(ii) onto or into the seabed below that sea;

(c) from any ship—

(i) into the sea beyond the outer limits of the exclusive economic zone of Fiji; or

(ii) onto or into the seabed below that sea; or

(d) as a result of any marine operations—

(i) into the sea within the exclusive economic zone of Fiji or beyond the outer limits of that exclusive economic zone but over the continental shelf of Fiji; or

(ii) onto or into the seabed below that sea.

Duty to report a discharge or escape or a probable discharge or escape of harmful substances

6.—(1) Report of any discharge or escape or a probable discharge or escape of a harmful substance into the sea, or onto or into the seabed, in breach of regulation 5 shall, after such discharge or escape within Fiji waters, be given to the Chief Executive Officer, the Director of Environment, the Municipal Council or the Provincial Council within whose municipality or provincial boundary the discharge or escape has occurred in accordance with the provisions of the protocol.

(2) Each of the following persons shall be under a duty to report every discharge or escape or probable discharge or escape of a harmful substance in accordance with sub-regulation (1), namely if the discharge or escape was—

(a) from a ship, the owner and the master of the ship;

(b) from a transfer site, the operator of the transfer site;

(c) from an offshore installation or device, the owner of the offshore installation or device;

(d) from a pipeline, the owner of the pipeline; and

(e) a result of any marine operations, the person in charge of and the person carrying out such operations.

(3) The report of a discharge or escape or a probable discharge or escape of a harmful substance in accordance with sub-regulation (2) by one person shall be sufficient to relieve every other person from a duty to give such a report in respect of that discharge or escape.

(4) Where a discharge or escape or a probable discharge or escape in accordance with sub-regulation (2) occurs outside Fiji waters, a report of the discharge or escape of the harmful substance shall be given to the Chief Executive Officer and the nearest coastal state authorities as soon as practicable.

(5) The master and owner of a Fiji ship or foreign ship within Fiji waters which is engaged in or requested to engage in an operation to render assistance to or to undertake salvage of another ship which is involved in a discharge or escape or a probable discharge or escape of harmful substance into the sea, and which has sustained damage resulting from a collision, grounding, fire, explosion, structural failure, flooding, and cargo shifting shall—

(a) report to the Chief Executive Officer and the nearest coastal state that may be affected by the spill, particulars of action planned or undertaken; and

(b) keep the Chief Executive Officer and the nearest coastal state authority informed of developments.

Duty to report damage, failure or breakdown of a ship

7.—(1) The master of a Fiji ship or foreign ship which has sustained damage, failure or breakdown which affects the safety of the ship, including but not limited to—

(a) collisions, grounding, fire, explosion, structural failure, flooding, and cargo shifting; or

(b) failure or breakdown of steering gear, propulsion plant, electrical generating system, and essential shipborne navigational aids which results in impairment of the safety of navigation,

shall report the damage, failure or breakdown to the Chief Executive Officer if the ship is within Fiji waters and to the nearest coastal state authorities if the ship is outside Fiji waters.

(2) The person in charge of, or the person carrying out, marine operations on ships within Fiji waters shall report to the Authority, any damage, failure or breakdown which affects the safety of the ship, including but not limited to—

(a) collisions, grounding, fire, explosion, structural failure, flooding, and cargo shifting; or

(b) failure or breakdown of steering gear, propulsion plant, electrical generating system, and essential shipborne navigational aids which results in impairment of the safety of navigation.

Discharge of substances for purpose of avoiding, remedying, or mitigating oil spill

8. Any person may, in the Fiji waters, discharge from a ship or offshore installation any substance for the purpose of avoiding, remedying, or mitigating the adverse effects of an oil spill.

Reporting procedure

9. Every report of a discharge or escape or a probable discharge or escape of a harmful substance shall—

(a) be made by the fastest telecommunications channels available and with the highest possible priority to the Chief Executive Officer, the Director of Environment, the Municipal Council and the Provincial Council or the appropriate Authority of the nearest coastal state;

(b) where a transfer site holds a site marine spill contingency plan, be made according to that plan;

(c) where an offshore installation or device carries a Discharge Management Plan, be made according to that plan;

(d) where the ship carries a shipboard marine spill contingency plan, be made according to the procedure contained in that plan; and

(e) where the ship does not carry a shipboard marine spill contingency plan, be made in accordance with the Annex and the Appendix to the IMO Assembly resolution A.851(20) as revised by the IMO from time to time, and in accordance with the following procedures—

(i) every report shall include the identity of the ships involved, the time, type and location of the incident, the quantity and type of oil or noxious liquid substance involved and any assistance and salvage measures proposed or underway;

(ii) the initial report shall be supplemented as necessary, and when possible, and information concerning further developments shall be provided; and

(iii) requests from affected States for additional information shall be complied with as fully as possible.

Division II — Discharge Of Oil Or Oily Mixture

Discharge from ships other than oil tankers – outside special areas

10.—(1) The discharge of oil and oily mixtures from any ship, other than an oil tanker, shall only be permitted where—

(a) the ship is proceeding en route;

(b) the oil content of the effluent without dilution does not exceed 15 parts per million; and

(c) the ship has the appropriate oil filtering equipment (oily water separator), for that ship, in operation.

(2) The owner and the master of any ship, other than an oil tanker, shall ensure that no discharge into the sea made from the ship as permitted under these Regulations contains chemical or other substances—

(a) in quantities or concentrations which are hazardous to the marine environment; or

(b) introduced for the purpose of circumventing the conditions of discharge as specified in sub-regulation (1).

Discharge from oil tankers – outside special areas

11.—(1) The discharge of—

(a) oil or oily mixtures from an oil tanker's cargo residues;

(b) oil or oily mixture from an oil tanker's machinery space bilges containing oil cargo residues; and

(c) effluent from an oil tanker's cargo pump-room bilges shall be permitted provided that—

(i) the oil tanker is more than 50 nautical miles from the nearest land;

(ii) the oil tanker is proceeding en route;

(iii) the instantaneous rate of discharge of oil content does not exceed 30 litres per nautical mile; and

(iv) the total quantity of oil discharged for the oil tanker if it is—

A. an existing ship does not exceed 1/15,000 of the total quantity of the particular cargo of which the residue of effluent formed a part; or

B. a new ship does not exceed 1/30,000 of the total quantity of the particular cargo of which the residue or effluent formed a part;

(v) the oil tanker has in operation an oil discharge monitoring and control system and a slop tank arrangement as required by Part 5 of these Regulations;

(vi) the oil content of the effluent without dilution does not exceed 15 parts per million; and

(vii) the oil tanker has the appropriate oil filtering equipment in operation.

(2) Clean or segregated ballast or unprocessed oily mixtures which—

(a) without dilution, have an oil content not exceeding 15 parts per million;

(b) do not originate from cargo pump-room bilges; and

(c) are not mixed with oil cargo residues,

may be discharged from an oil tanker.

(3) The owner and the master of any oil tanker shall ensure that no discharge into the sea made from the tanker contains—

(a) chemicals or other substances in quantities or concentrations which are hazardous to the marine environment; or

(b) chemicals or other substances introduced for the purpose of circumventing the conditions of discharge specified in sub-regulations (1) and (2).

Discharge from oil tankers and ships other than oil tankers — within special areas

12.—(1) Oil and oily mixtures may be discharged into the sea within any special area, except the Antarctic special area, from any oil tanker, and any ship of 400 tons gross tonnage or more other than an oil tanker, to which these Regulations apply provided that the discharge is of—

(a) clean or segregated ballast; or

(b) processed bilge water from machinery spaces, with all the following conditions satisfied—

(i) the bilge water does not originate from cargo pump-room bilges;

(ii) the bilge water is not mixed with oil cargo residues;

(iii) the ship is proceeding en route;

(iv) the oil content of the effluent without dilution does not exceed 15 parts per million;

(v) the ship has oil filtering equipment in operation as required by Part 5; and

(vi) the filtering system is equipped with a stopping device which will automatically stop the discharge when the oil content of the effluent exceeds 15 parts per million.

(2) The owner and the master of any oil tanker or any ship of 400 gross tonnage or more, other than an oil tanker to which these Regulations apply, shall ensure that no discharge into the sea made from the ship contains—

(a) chemicals or other substances in quantities or concentrations which are hazardous to the marine environment; or

(b) chemicals or other substances introduced for the purpose of circumventing the conditions of discharge specified in sub-regulation (1).

Discharge from ships of less than 400 tons gross tonnage, other than oil tankers — within special areas

13.—(1) Oil or oily mixtures may be discharged into the sea within any special area, except the Antarctic special area, from any ship of less than 400 tons gross tonnage other than an oil tanker, to which this regulation applies, provided that the oil content of the discharge without dilution does not exceed 15 parts per million.

(2) The owner and the master of any ship of less than 400 tons gross tonnage, other than an oil tanker, shall ensure that no discharge into the sea made from the ship contains—

(a) chemicals or other substances in quantities or concentrations which are hazardous to the marine environment; or

(b) chemicals or other substances introduced for the purpose of circumventing the conditions of discharge specified in sub-regulation (1).

Discharge of ballast water and oil contaminated water from cargo tanks

14.—(1) The owner and the master of a Fiji ship or a foreign ship, in Fiji's waters, which is an oil tanker shall ensure that any discharge into the sea of ballast water or oil contaminated water from cargo tanks, shall be permitted under regulation 11 or regulation 12 if the discharge takes place—

(a) above the waterline; and

(b) by way of the pipelines required by regulation 128*(b)*,

provided however that such discharge may take place below the waterline where there is compliance with sub-regulation (2) to sub-regulation (6).

(2) Segregated ballast and clean ballast may be discharged into the sea below the waterline at sea by gravity provided that the surface of the ballast water has been examined immediately before the discharge to ensure that no contamination with oil has taken place.

(3) An existing oil tanker to which this regulation applies which without modification, is not capable of discharging segregated ballast above the waterline may discharge segregated ballast below the waterline at sea, provided that the surface of the ballast water has been examined immediately before the discharge to ensure that no contamination with oil has taken place.

(4) An existing oil tanker to which this regulation applies, operating with dedicated clean ballast tanks which, without modification, is not capable of discharging ballast water from dedicated clean ballast tanks above the waterline may discharge this clean ballast below the waterline, provided that the discharge of the ballast water is supervised using an oil content meter of the type required by regulation 134.

(5) On any oil tanker en route to which this regulation applies, dirty ballast water or oil contaminated water from tanks in the cargo area, other than slop tanks, may be discharged into the sea by gravity below the waterline, provided that—

(a) sufficient time has elapsed in order to allow oil/water separation to have taken place; and

(b) the ballast water has been examined immediately before the discharge with an oil/water interface detector of a type approved by the Chief Executive Officer under regulation 136 in order to ensure that the height of the interface is such that the discharge does not involve any increased risk of harm to the marine environment.

(6) Where part flow arrangements described in regulation 131 are fitted in an existing oil tanker to which this regulation applies, dirty ballast water or oil contaminated water from cargo tank areas may be discharged into the sea below the waterline subsequent to or instead of discharge by the method referred to in sub-regulation (5).

Discharge of residues from tank cleaning operations

15.—(1) Subject to sub-regulations (2) and (3), the owner and the master of every Fiji ship or foreign ship which is an oil tanker shall ensure that every oil cargo tank or fuel tank which has been unloaded or emptied for inspection is washed and that all contaminated washings, cargo residues and any solvents, are discharged to reception facilities at the port or terminal of unloading.

(2) At the request of the master of a ship, which has unloaded oil or emptied a fuel oil tank for inspection at a place in Fiji or offshore installations, the Chief Executive Officer may exempt the ship from the requirements of sub-regulation (1), provided he or she is satisfied that the—

(a) tank unloaded or emptied is to be reloaded with the same substance or another compatible with the previous one and that the tank will not be washed or ballasted prior to loading;

(b) tank unloaded or emptied is neither washed or ballasted at sea if the ship is to proceed to another port unless it has been confirmed in writing that

reception facility at that port is available and adequate for the purpose of receiving the residues and solvents necessary for the cleaning operation; and

(c) ship is engaged in a voyage to either—

(i) a port, or to an offshore terminal or offshore installation within Fiji waters; or

(ii) a port, or to an offshore terminal or offshore installation within the waters of a state other than Fiji which is party to MARPOL Convention.

(3) The master of a Fiji ship which has unloaded oil at a place under the jurisdiction of a state outside Fiji which is party to MARPOL may apply to the port state authority to exempt the ship from the requirements of sub-regulation (1).

Retention of oil and oily mixtures on board or discharge to reception facilities

16. The owner and the master of every ship to which these Regulations apply shall ensure that oil residues from the ship that cannot be discharged into the sea in compliance with the conditions specified in these Regulations are retained on board or discharged to reception facilities.

Division III—Oil Record Book

Requirement to carry an Oil Record Book

17. The requirement to carry an oil record book applies to the following ships—

(a) every Fiji ship that is an oil tanker of 150 tons gross tonnage or more;

(b) every Fiji ship that is an oil tanker of less than 150 tons gross tonnage which discharges oil or oily mixtures into the sea or that retains all oil on board and discharges all contaminated washings to reception facilities;

(c) every Fiji ship, other than an oil tanker of 150 tons gross tonnage or more, fitted with cargo spaces which are constructed and utilised to carry oil in bulk of an aggregate capacity of 200 cubic metres or more;

(d) every Fiji ship of 400 tons gross tonnage or more;

(e) every foreign ship that is an oil tanker of 150 tons gross tonnage or more that is within Fiji waters;

(f) every foreign ship, other than an oil tanker of 150 tons gross tonnage or more, fitted with cargo spaces which are constructed and utilised to carry oil in bulk of an aggregate capacity of 200 cubic metres or more that is within Fiji's waters;

(g) every foreign ship that is an oil tanker of less than 150 tons gross tonnage that is within Fiji's waters which discharges oil or oily mixtures into the sea or that retains all oil on board and discharges all contaminated washings to reception facilities; and

(h) every foreign ship of 400 tons gross tonnage or more that is within Fiji's waters.

Types of Oil Record Book

18.—(1) For every Fiji ship or foreign ships that are not oil tankers, the Oil Record Book Part I, "Machinery Space Operations" prescribed in the MARPOL Convention Annex I Appendix III shall be carried onboard.

(2) For every Fiji Ship and foreign ships, that is an oil tanker, the Oil Record Book, Part II, "Cargo/ballast operations" prescribed in the MARPOL Convention Annex I Appendix III shall be carried onboard.

Entries in Oil Record Books

19.—(1) The owner and the master of a ship shall ensure that the appropriate Oil Record Book is completed in accordance with sub-regulation (2), whenever any of the following operations take place in the ship—

(a) for machinery space operations, all ships—

(i) ballasting or cleaning of oil fuel tanks;

(ii) discharge of dirty ballast or cleaning water from tanks;

(iii) disposal of oil residue (sludge);

(iv) discharge overboard or disposal otherwise of bilge water which has accumulated in machinery spaces;

(v) bunker operations; and

(vi) any internal transfer of oil or sludge; or

(b) for cargo or ballast operations for oil tankers and ships, other than oil tankers, fitted with cargo spaces which are constructed and utilised to carry oil in bulk of an aggregate capacity of 200 cubic meters or more—

(i) loading of oil cargo;

(ii) internal transfer of oil cargo during voyage;

(iii) unloading of oil cargo;

(iv) ballasting of cargo tanks and dedicated clean ballast tanks;

(v) cleaning of cargo tanks including crude oil washing;

(vi) discharge of ballast except from segregated ballast tanks

(vii) discharge of water from slop tanks;

(viii) closing of all applicable valves or similar devices after slop tank discharge operations;

(ix) closing of valves necessary to isolate dedicated clean ballast tanks from cargo and stripping lines after slop tank discharge operations; and

(x) disposal of oil residues (sludge).

(2) For each operation described in sub-regulation (1)—

(a) a full record shall be entered in the Oil Record Book without delay; and

(b) the completed entry in the Oil Record Book shall be signed by the officer or officers in charge of the operation.

(3) The master of any ship to which these Regulations apply shall sign each page of the Oil Record Book of the ship once that page is complete.

(4) The owner and the master of any ship to which these Regulations apply shall ensure that a statement is made in the appropriate Oil Record Book of the circumstances of, and the reasons for—

(a) any discharge into the sea, of oil for the purpose of securing the safety of a ship or saving life at sea;

(b) any escape into the sea, of oil resulting from damage to the ship or its equipment or resulting from any accidental or other exceptional occurrence;

(c) any discharge into the sea, of substances containing oil when being used for the purpose of combating specific pollution incidents; and

(d) any other accidental or exceptional discharge.

Inspection of Oil Record Book

20. The owner and the master of a ship shall ensure that the Oil Record Book is—

(a) available for inspection by the Chief Executive Officer and by authorised persons acting on behalf of a state party to MARPOL Convention at all reasonable times; and

(b) kept on board the ship, except in the case of unmanned ships under tow.

Certified true copy of an extract of Oil Record Book

21. Where the Chief Executive Officer or an authorised person acting on behalf of a State party to MARPOL makes a copy of any entry in the Oil Record Book of a ship, the master of that ship shall, when requested to do so, certify that the copy is a true copy of such entry where this is the case.

Preservation of records

22. The Oil Record Books shall be preserved by the owner of the ship for three years after the last entry has been made.

Language used in the Oil Record Book

23.—(1) For ships engaged in international trade, the owner and the master of that ship shall ensure that the entries in the Oil Record Book are in the national language of the state the ship is registered in and in English or French.

(2) For ships engaged in coastal waters, the owner and the master of that ship shall ensure that the entry in the Oil Record Book is in English.

Division IV—Operations And Equipment Manual

Requirement to carry an Operations and Equipment Manual

24. The requirement to carry an Operations and Equipment Manual applies to the following ships—

(a) every Fiji ship that is an oil tanker permitted to operate with dedicated clean ballast tanks;

(b) every Fiji ship that is an oil tanker required to be fitted with a crude oil washing system;

(c) every Fiji ship that is an oil tanker required to be fitted with an Oil Discharge Monitoring and Control System;

(d) every Fiji ship, other than an oil tanker, fitted with cargo spaces which are constructed and utilised to carry oil in bulk of an aggregate capacity of 200 cubic metres or more required to be fitted with an oil discharge monitoring and control system;

(e) any foreign ship that is an oil tanker operating with dedicated clean ballast tanks and that is within Fiji waters;

(f) any foreign ship that is an oil tanker that has a crude oil washing system and that is within Fiji waters; and

(g) any foreign ship that is an oil tanker, or a ship, other than an oil tanker, with cargo spaces constructed and utilised to carry oil in bulk of an aggregate capacity of 200 cubic meters or more within Fiji waters and fitted with an oil discharge monitoring and control system.

Dedicated Clean Ballast Tank Operation Manual – Fiji ships

25.—(1) The owner and the master of any Fiji ship to which regulation 24*(a)* applies shall ensure that there is a Dedicated Clean Ballast Tank Operation Manual detailing the system and specifying operational procedures for the ship which—

(a) contains all the information and meets all the requirements as set out in the revised Specification for Oil Tankers with Dedicated Clean Ballast Tanks;

(b) is approved in accordance with sub-regulations (2) to (5); and

(c) is carried on board the ship at all times.

(2) The owner of a ship shall make an application to the Chief Executive Officer for approval of the Dedicated Clean Ballast Tank Operation Manual of the ship.

(3) Subject to sub-regulation (4), the Chief Executive Officer shall approve in writing a Dedicated Clean Ballast Tank Operation Manual which—

(a) in the opinion of the Chief Executive Officer, is appropriate for that ship; and

(b) contains all the information and meets all requirements as set out in the revised Specifications for Oil Tankers with Dedicated Clean Ballast Tanks.

(4) The Chief Executive Officer may require the owner of a ship, to include or omit from the Dedicated Clean Ballast Tank Operation Manual submitted for approval such information as the Chief Executive Officer may reasonably specify.

(5) The Dedicated Clean Ballast Tank Operation Manual must be revised and re-submitted to the Chief Executive Officer by the owner of the ship for a new approval whenever an alteration affecting the dedicated clean ballast tank system is made to the ship.

(6) Whenever a Dedicated Clean Ballast Tank Operation Manual is re-submitted to the Chief Executive Officer, sub-regulation (2) to (4) shall apply.

(7) The issue of a new Dedicated Clean Ballast Tank Operation Manual approval by the Chief Executive Officer automatically replaces the former Dedicated Clean Ballast Tank Operation Manual approval of the ship.

Operations and Equipment Manual Fiji ships – crude oil washing

26.—(1) The owner and the master of any Fiji ship to which regulation 24*(b)* applies shall ensure that there is an Operations and Equipment Manual detailing the system and equipment and specifying operational procedures for the ship which—

(a) contains all the information and meets all the requirements as set out in the revised Specification for the Design, Operation and Control of Crude Oil Washing Systems of an Operations and Equipment Manual;

(b) is approved in accordance with sub-regulations (2) to (5); and

(c) is carried on board the ship at all times.

(2) The owner of a ship shall make an application to the Chief Executive Officer for approval of the Operations and Equipment Manual of the ship.

(3) Subject to sub-regulation (4), the Chief Executive Officer shall give approval in writing to the Operations and Equipment Manual of the ship which—

(a) in the opinion of the Chief Executive Officer, shall be appropriate for that ship; and

(b) contains all the information and meets all the requirements as set out in the revised Specification for the Design, Operation and Control of Crude Oil Washing Systems.

(4) The Chief Executive Officer may require the owner of a ship to include or omit from the Operations and Equipment Manual submitted for approval, such information as the Chief Executive Officer may reasonably specify.

(5) The Operations and Equipment Manual shall be revised and re-submitted to the Chief Executive Officer by the owner of the ship for a new approval whenever an alteration affecting the crude oil washing system is made to the ship.

(6) Whenever an Operations and Equipment Manual is re-submitted to the Chief Executive Officer, the provisions of sub-regulation (2) to (4) shall apply.

(7) The issue of a new Operations and Equipment Manual approval by the Chief Executive Officer automatically replaces the former Operations and Equipment Manual approvals of the ship.

Operations Manual Fiji ships — oil discharge and monitoring

27.—(1) The owner and the master of any Fiji ship to which regulation 24*(c)* and *(d)* applies, shall ensure that there is an Operations Manual for the operation of the oil discharge monitoring and control system for the ship which—

(a) contains all the information set out in the Guidelines and Specifications for Oil Discharge Monitoring and Control Systems for Oil Tankers adopted by the IMO in resolution A.586(14), or the Revised Guidelines and Specifications for Oil Discharge and Monitoring and Control Systems for Oil Tankers, adopted by the Organisation by resolution MEPC.108(49) as applicable;

(b) contains instructions covering both manual and automatic operations intended to ensure that at all times the oil discharged does not exceed 15 parts per million;

(c) is approved in accordance with sub-regulations (2) to (5); and

(d) is carried on board the ship at all times.

(2) The owner of a ship shall apply to the Chief Executive Officer for the approval of the Operations Manual of the ship.

(3) Subject to sub-regulation (4), the Chief Executive Officer shall give approval in writing to the Operations Manual which—

(a) in the opinion of the Chief Executive Officer, is appropriate for that ship;

(b) contains all the information set out in the Guidelines and Specifications for Oil Discharge Monitoring and Control Systems for Oil Tankers adopted by the International Maritime Organization in resolution A.586(14), or the Revised Guidelines and Specifications for Oil Discharge and Monitoring and Control Systems for Oil Tankers adopted by the Organization by resolution MEPC.108(49) as applicable; and

(c) contains instructions covering both manual and automatic operations intended to ensure that at all times the oil discharged does not exceed 15 parts per million.

(4) The Chief Executive Officer may require the owner of a ship to include or omit from the Operations Manual submitted for approval, such information as the Chief Executive Officer may reasonably specify.

(5) The Operations Manual shall be revised and re-submitted to the Chief Executive Officer by the owner of the ship for a new approval whenever an alteration affecting the oil discharge monitoring and control system is made to the ship.

(6) Whenever an Operations Manual is re-submitted to the Chief Executive Officer, the provisions of sub-regulations (2) to (4) shall apply.

(7) The issue of a new Operations Manual approved by the Chief Executive Officer automatically replaces the former Operations Manual approval(s) of the ship.

Operation Manual foreign ships–dedicated clean ballast tanks

28. The owner and the master of any foreign ship that is an oil tanker operating with dedicated clean ballast tanks and that is within Fiji waters shall ensure that—

(a) if the ship is registered in a state party to MARPOL Convention, there shall be carried on board the ship a Dedicated Clean Ballast Tank Operation Manual for the ship approved by the Administration of the state the ship is registered in; or

(b) if the ship is registered in a state which is not a party to MARPOL Convention, there shall be carried on board the ship, a manual for the ship containing all the information set out in the revised Specification for Oil Tankers with Dedicated Clean Ballast Tanks and meets all the requirements for the form and content of an Operations and Equipment Manual adopted by IMO resolution A.495(XII), as amended by IMO from time to time.

Operations and Equipment Manual foreign ships–crude oil washing

29. The owner and the master of any foreign ship that is an oil tanker that has a crude oil washing system and that is within Fiji waters shall ensure that if the ship is registered in a—

(a) state party to MARPOL, there shall be carried on board the ship an Operations and Equipment Manual for the ship approved by the Administration of the state the ship is registered in; or

(b) state which is not party to MARPOL, there is carried on board the ship, a manual for the ship containing all the information set out in the revised Specification for the Design, operation and control of crude oil washing systems and meeting all the requirements for the form and content of an Operations and Equipment Manual adopted by IMO resolution A.446(XI), amended by resolution A.497(XII), and further amended by resolution A.897(21).

Operations Manual for foreign ships —oil discharge and monitoring

30. The owner and the master of any foreign ship to which regulation 24*(g)* applies shall ensure that—

(a) if the ship is registered in a State party to MARPOL Convention, there is carried on board the ship a manual, for the operation of the oil discharge monitoring and control system of the ship, approved by the Administration of the state the ship is registered in; or

(b) if the ship is registered in a State which is not party to MARPOL Convention, there is carried on board the ship a manual for the ship—

(i) containing all the information set out in the Guidelines and Specifications for Oil Discharge Monitoring and Control Systems for Oil Tankers adopted by the International Maritime Organisation in resolution A.586(14), or the Revised Guidelines and Specifications for Oil Discharge and Monitoring and Control Systems for Oil Tankers adopted by the IMO by resolution MEPC.108(49) as applicable; and

(ii) containing instructions covering both manual and automatic operations and all other matters required to ensure that at no time oil or oily mixtures are discharged into the sea except in compliance with the conditions specified in Annex I of MARPOL Convention.

Division V—Discharge Of Noxious Liquid Substances

Application

31.—(1) This Division applies to every Fiji ship that carries noxious liquid substances in bulk as cargo and every foreign ship in Fiji waters that carries noxious liquid substances in bulk as cargo.

(2) Nothing in these Regulations applies to the discharge into the sea of an approved substance, to contain or clean up an oil spill, in accordance with Part 7 of these Regulations.

Discharge of Noxious Liquid Substances

32. Noxious liquid substances shall be discharged into any special area by any Fiji ship to which these Regulations apply.

Discharge of category X substances

33.—(1) The owner and the master of any Fiji ship or foreign ship within Fiji waters shall ensure that every tank on the ship from which a category X substance has been unloaded is washed in accordance with sub-regulations (2) or (4) before the ship leaves the port or terminal or offshore installation of unloading.

(2) If a category X substance has been unloaded from a tank—

(a) the tank shall be prewashed before the ship leaves the port of unloading in accordance with the procedure in the Procedures and Arrangements Manual for that tank of that ship and that substance;

(b) the effluent from the tank washing operation shall be discharged to a reception facility at least until the concentration of the substance in the discharge, as indicated by analyses of samples of the effluent taken in the presence of the Chief Executive Officer or, in the case of a Fiji ship, outside Fiji, the port state authority, is at or below 0.1 percent by weight; and

(c) when the required concentration has been achieved, the remaining tank washings shall be discharged to the reception facility until the tank is empty.

(3) The owner and the master of any ship shall ensure that appropriate records of the operations undertaken under sub-regulation (2) are entered into the Cargo Record Book.

(4) If the Chief Executive Officer is satisfied that it is impracticable to measure the concentration of the substance in the effluent without causing undue delay to the ship, the Chief Executive Officer may accept an alternative procedure as being equivalent to those prescribed in sub-regulation (2) provided that—

(a) the tank, its pump and piping system have been emptied;

(b) the tank is prewashed in accordance with the procedure in the Procedures and Arrangements Manual for that tank and that substance of that ship;

(c) the tank washings resulting from such prewash have been discharged to a reception facility and the tank is empty; and

(d) the appropriate entries are entered into the Cargo Record Book.

(5) Any water subsequently introduced into a tank, from which tank washings have been discharged in accordance with this regulation, may be discharged into the sea outside the special area, provided—

(a) the ship is proceeding en route at a speed of at least—

(i) 7 knots, in the case of a self-propelled ship; or

(ii) 4 knots, in the case of a ship that is not self-propelled;

(b) the discharge is made below the waterline through the underwater discharge outlet; and

(c) the discharge is made at a distance of not less than 12 nautical miles from the nearest land and in a depth of water of not less than 25 meters.

(6) If the cargo residues have been removed from a tank that contained noxious liquid substances using the ventilation procedures prescribed by the Procedures and Arrangements Manual of the ship, any water subsequently introduced into that tank may be discharged without reference to the discharge controls in this regulation.

Discharge of Category Y and Z substances

34.—(1) If a category Y or Z substance is unloaded from a Fiji ship or Foreign ship within Fiji waters in accordance with the pumping conditions for that tank set out in the Procedures and Arrangements Manual of the ship, the cargo residue and tank washings may be discharged to the sea outside the special area, provided—

(a) the ship is proceeding en route at a speed of at least—

(i) 7 knots, in the case of a self-propelled ship; or

(ii) 4 knots, in the case of a ship that is not self-propelled;

(b) the discharge is made below the waterline through the underwater discharge outlet; and

(c) the discharge is made at a distance of not less than 12 nautical miles from the nearest land and in a depth of water of not less than 25 meters.

(2) If a category Y or Z substance is unloaded from a ship but it is not unloaded in accordance with the pumping conditions for that tank set out in the Procedures and Arrangements Manual of that ship, the owner and the master of the ship shall ensure that—

(a) the tank is washed before the ship leaves the port, terminal or offshore installation in accordance with the pre-wash procedure set out in the Procedures and Arrangement Manual of that ship for that tank and that substance; or

(b) alternative measures are taken to the satisfaction of the Chief Executive Officer or, in the case of a Fiji ship outside Fiji, the port state authority,

to remove the cargo residues from the ship provided the quantities of the residue does not exceed those specified in regulation 176; and

(c) the tank washings are discharged to a reception facility at—

(i) the port or terminal at which the substance was unloaded; or

(ii) another port or terminal with a suitable reception facility if the owner or the master has received confirmation in writing from that facility operator that the facility is available and is adequate for such a purpose.

(3) Notwithstanding sub-regulations (1) and (2), if a high viscosity or solidifying category Y substance is unloaded from a ship, the owner and the master shall ensure that—

(a) the tank is pre-washed in accordance with the procedure specified in Schedule 6 to Annex II of MARPOL Convention; and

(b) the tank washings are discharged to a reception facility until the tank is empty.

(4) Any water subsequently introduced into a tank, from which tank washings have been discharged in accordance with these Regulations, may be discharged into the sea outside the special area in accordance with the conditions specified in sub-regulation (1) *(a)*, *(b)*, and *(c)*, except that a ship constructed before 1 January 2007 need not comply with the condition in sub-regulation (1)*(b)* in the case of residues of a category Z substance.

(5) Any ballast water subsequently introduced into a tank, from which tank washings have been discharged to the extent that the ballast contains less than 1 ppm of the substance previously carried may be discharged into the sea without regard to the discharge rate, ship's speed and discharge outlet location, provided that the ship is not less than 12 nautical miles from the nearest land and in a depth of water of not less than 25 meters.

(6) If cargo residues have been removed from a tank that contained noxious liquid substances using the ventilation procedures prescribed by the ship's Procedures and Arrangements Manual, any water subsequently introduced into that tank may be discharged without reference to the discharge controls in this regulation.

Controls on discharge of washing agents or additives

35.—(1) The discharge of any cleaning agent containing a noxious liquid substance or a mineral oil used as a medium to wash a cargo tank shall be made in accordance with the Regulations applicable to that substance as if that medium was carried as a cargo.

(2) Small amounts of cleaning additives added to water to wash a cargo tank may be discharged under the requirements applicable to that tank and the previous cargo carried provided that in the case of additives containing category X substance components, those components are readily biodegradable and present in a total concentration of less than 10 percent of the cleaning additive.

Carriage of uncategorised liquid substances in bulk

36. The owner and the master of a ship to which these Regulations apply shall—

(a) notify the Chief Executive Officer of any proposal to carry any uncategorised liquid substance in bulk from a Fiji port, offshore terminal, or offshore installation under Fiji's waters; and

(b) ensure that no such substance is carried until the owner or master receives notification of a provisional assessment of the liquid substance from the Chief Executive Officer.

Provisional assessment and categorisation of liquid substances

37. The Chief Executive Officer may provisionally assess and categorise any liquid substance that is not already categorised as a noxious liquid substance or a category OS substance by the IMO, as a noxious liquid substance or a category OS substance for the purposes of any regulation.

Cargo Record Book — requirement to carry
Cargo Record Book for ships carrying noxious liquid substances in bulk

38.—(1) The requirement to carry a Cargo Record Book for noxious liquid substances applies to the following ships—

(a) every Fiji ship carrying noxious liquid substances in bulk; and

(b) every foreign ship carrying noxious liquid substances in bulk that is within Fiji waters.

(2) The owner and the master of any ship to which these Regulations apply shall ensure that there is carried on board the ship a Cargo Record Book in the form shown in Schedule 2 of Part 2 of these Regulations.

Entries in Cargo Record Book

39.—(1) The owner and the master of any ship shall ensure that the Cargo Record Book is completed in accordance with sub-regulation (2), whenever any of the following operations take place in the ship—

(a) loading of cargo;

(b) internal transfer of cargo;

(c) unloading of cargo;

(d) cleaning of cargo tanks;

(e) ballasting of cargo tanks;

(f) discharge of ballast from cargo tanks;

(g) disposal of residues to reception facilities; or

(h) discharge into the sea or removal by ventilation of residues in accordance with these Regulations.

(2) For each operation described in sub-regulation (1), a full record shall be entered in the Cargo Record Book without delay and the completed entry in the Cargo Record Book shall be signed by the officers in charge of the operation.

(3) The master of a ship shall sign each page of the Cargo Record Book of the ship once that page is complete.

(4) The owner and the master of a ship shall ensure that a statement is made in the Cargo Record Book of the circumstances of, and the reasons for—

(a) any discharge into the sea of a noxious liquid substance for the purpose of securing the safety of a ship or saving life at sea;

(b) any escape into the sea of a noxious liquid substance resulting from damage to the ship or its equipment or resulting from any accidental or other exceptional occurrence;

(c) any discharge into the sea of a noxious liquid substance being used for the purpose of combating specific pollution incidents; and

(d) any other accidental or exceptional discharge.

Inspection of Cargo Record Book

40. The owner and the master of a ship shall ensure that the Cargo Record Book is—

(a) available for inspection by the Chief Executive Officer or an authorised person acting on behalf of a State party to MARPOL Convention at all reasonable times; and

(b) kept on board the ship.

Copy of an extract of the Cargo Record Book to be certified by the Master

41. Where the Chief Executive Officer or an authorised person acting on behalf of a State party to MARPOL Convention makes a copy of any entry in the Cargo Record Book, the master of that ship shall, when requested to do so, certify that the copy is a true copy of such entry.

Preservation of a Cargo Record Book

42. The Cargo Record Book carried onboard Fiji ships to which these Regulations apply shall be preserved by the owner and master of the ship for three years after the last entry has been made.

Language used in the Cargo Record Book

43. Ships engaged in international trade, the owner and the master of that ship shall ensure that the entries in the Cargo Record Book are in the national language of the State the ship is registered in and in English, French or Spanish.

Requirement to carry Procedures and Arrangements
Manual for Fiji ships carrying noxious liquid substances in bulk

44.—(1) The owner and the master of any ship shall ensure that there is a Procedures and Arrangements Manual for the ship that—

(a) complies with the standards for the procedures and arrangements for the discharge of noxious liquid substances developed by the IMO, as amended by the IMO from time to time;

(b) is approved in accordance with sub-regulation(2); and

(c) is carried on board the ship at all times.

(2) The owner of a ship shall make an application to the Chief Executive Officer for approval of the Procedures and Arrangements Manual of the ship.

(3) Subject to sub-regulation (4), the Chief Executive Officer shall give approval in writing to the Procedures and Arrangements Manual which in the opinion of the Chief Executive Officer, shall be appropriate for that ship and comply with the standards for the procedures and arrangements for the discharge of noxious liquid substances developed by the IMO, as amended by the IMO from time to time.

(4) The Chief Executive Officer may require the owner of a ship to include or omit from the Procedures and Arrangements Manual, submitted for approval, such information as the Chief Executive Officer may reasonably specify.

(5) The Procedures and Arrangements Manual shall be revised and resubmitted to the Chief Executive Officer by the owner of the ship for a new approval whenever alterations to the ship affect any of the procedures and arrangements covered by that Manual.

(6) Whenever a Procedures and Arrangements Manual is resubmitted to the Chief Executive Officer, the provisions of sub-regulations (2) to (4) shall apply.

(7) The issue of a new Procedures and Arrangements Manual approval by the Chief Executive Officer automatically replaces the former Procedures and Arrangements Manual approval of the ship.

Requirement to carry Procedures and Arrangements Manual for foreign ships carrying noxious liquid substances in bulk

45. The owner and the master of any foreign ship carrying noxious liquid substances in bulk that is within Fiji waters shall ensure that—

(a) if the ship is registered in a state party to MARPOL Convention, there is carried on board the ship a Procedures and Arrangements Manual for the ship approved by the Administration the ship is registered in; or

(b) if the ship is registered in a state which is not party to MARPOL Convention, there is carried on board the ship a manual for the ship which complies with the standards for the procedures and arrangements for the discharge of noxious liquid substances developed by the IMO, as amended by the IMO from time to time.

Division VI — Discharge Of Sewage In Fiji Waters

Discharge of sewage in Fiji waters

46.—(1) Untreated sewage may only be discharged from a Fiji ship of 15 meters or more in length engaged on domestic voyage if—

(a) the ship is outside 12 nautical miles from the nearest reef system; and

(b) where the discharge is from holding tanks, the discharge is performed—

(i) at a moderate rate; and

(ii) where practicable, while the ship is en-route at a speed of not less than 4 knots.

(2) Untreated sewage may only be discharged from a Fiji ship of less than 15 meters in length engaged on domestic voyage if—

(a) the ship is outside 3 nautical miles from the nearest reef system; and

(b) where the discharge is from holding tanks, the discharge is performed—

(i) at a moderate rate; and

(ii) where practicable, while the ship is en-route at a speed of not less than 4 knots.

(3) Grade A treated sewage may be discharge from any Fiji ship engaged on domestic voyage, or offshore installation or device in any part of the Fiji waters provided that—

(a) the effluent from the approved treatment plant shall not produce visible floating solids nor cause discolouration of the surrounding waters;

(b) the ship is enroute; and

(c) the discharge is at a moderate rate.

(4) Treated sewage of Grade B may be discharged from any Fiji ship engaged on domestic voyage, or offshore installation outside the nearest reef system.

(5) Untreated sewage may only be discharged from any foreign ship of—

(a) 200 tons gross tonnage or more;

(b) ships of less than 200 tons gross tonnage that are carrying more than 10 persons; and

(c) ships which do not have a measured gross tonnage that are carrying more than 10 persons,

provided that—

(i) the ship is outside 12 nautical miles from the nearest land;

(ii) discharge from holding tanks is at a moderate rate; and

(iii) where practicable, while the ship is en-route at a speed of not less than 4 knots.

(6) Grade B treated sewage may be discharged from any foreign ship of—

(a) 200 gross tonnage or more;

(b) ships of less than 200 gross tonnage that are carrying more than 10 persons; and

(c) ships which do not have a measured gross tonnage that are carrying more than 10 persons,

provided that—

(i) the ship is outside 3 nautical miles of the nearest land;

(ii) discharge from approved treatment plant to comminute and disinfect sewage is at a moderate rate; and

(iii) where practicable, while the ship is en-route at a speed of not less than 4 knots.

(7) Grade A treated sewage may be discharged into the Fiji waters from any foreign ship of—

(a) 200 tons gross tonnage or more;

(b) ships of less than 200 tons gross tonnage that are carrying more than 10 persons; and

(c) ships which do not have a measured gross tonnage that are carrying more than 10 persons,

provided that—

(i) the discharge is within 3 nautical miles of the nearest land;

(ii) the discharged effluent from the approved sewage treatment plant shall not produce visible floating solids nor cause discoloration of the surrounding waters; and

(iii) discharge is at a moderate rate.

Retention of sewage on board and discharge to reception facilities

47. The owner and the master of every ship shall ensure that sewage from the ship that cannot be discharged into the sea in compliance with the conditions specified in these Regulations is retained on board and discharged to shore reception facilities.

Sewage Record book

48.—(1) The master of a ship to which these Regulations apply shall maintain a Sewage Record Book containing the following information—

(a) the total capacity of sewage holding tanks;

(b) the level of the holding tanks when entering the Antarctic Treaty area;

(c) the level of the holding tanks when leaving the Antarctic Treaty area;

(d) daily recordings of—

(i) the level of the holding tanks;

(ii) the number of people on board;

(iii) the position of the ship; and

(iv) the operation of the ship;

(e) for any sewage tank pumping operation—

(i) the position, course, and speed of ship at the time pumping is

commenced and ended, and at 4-hourly intervals from the time of commencement; and

(ii) the rate of pumping; and

(f) the total amount of sewage discharged each time the sewage tanks are pumped; and

(g) the reason for any discharges not permitted by regulation 46.

(2) Each record in the Sewage Record Book shall—

(a) be made without delay;

(b) be signed by the master and the person responsible for sewage operations; and

(c) include the date and time of entry, using Universal Coordinated Time, or local time provided the logbook gives a clear indication of the local time's relation to Universal Coordinated Time.

(3) The information required by the Sewage Record Book may be contained in the Official Logbook required by the Maritime (Logbook) Regulations 2014.

Availability and retention of the sewage record book

49.—(1) The owner and the master of any ship shall ensure that the Sewage Record Book is—

(a) kept on board the ship, except in the case of unmanned ships under tow; and

(b) available for inspection at all reasonable times by the Chief Executive Officer, any authorized officer and the port state authority at a port, offshore terminal or offshore installation under the waters of a State other than Fiji.

(2) The Sewage Record Book shall be preserved by the owner of the ship for 3 years after the last entry was made.

Discharge connections of the ship

50.—(1) The owner of a ship shall ensure that the discharge pipeline for connection with a reception facility of the ship, is fitted with a standard discharge connection that complies with the dimensions and requirements in Table 1—

Table 1— Standard Dimensions of Flanges for Discharge Connection

Description	Dimension
Outside diameter	210 mm
Inner diameter	According to pipe outside diameter
Bolt circle diameter	170 mm

Slots in flange	4 holes 18 mm in diameter equidistantly placed on a bolt circle of 170 mm diameter, slotted to the flange periphery. The slot width must be 18 mm
Flange thickness	16 mm
Bolts and nuts: quantity and diameter	4, each of 16 mm in diameter and of suitable length
The flange is designed to accept pipes up to a maximum internal diameter of 100 mm and must be of steel or other equivalent material having a flat face. This flange, together with a suitable gasket, must be suitable for a service pressure of 6 kg/cm	

(2) A ship which has a moulded depth of 5 meters or less, the inner diameter of the discharge connection shall be 38 millimetres.

Division VII — Discharge Of Garbage

Garbage

51. The discharge of all garbage except for those provided for in these Regulations from any ship or offshore installations or device into Fiji waters, shall be prohibited.

Discharge of garbage within Fiji waters

52.—(1) Any Foreign ship whilst en route in the Fiji waters may discharge the following garbage—

(a) food wastes, if—

(i) the food waste has been grounded to a particle size of 25 millimetres or less, the discharge occurs at least 3 nautical miles from the nearest land; or

(ii) when the food wastes have not been grounded, the discharge occurs at least 12 nautical miles from the nearest land;

(b) animal carcasses as far away from the nearest land as possible taking into account the guidelines specified in the IMO resolution MEPC.219 (63);

(c) cleaning agents or additives contained in cargo hold, deck and external surfaces wash water may be discharged into the sea, but these substances shall not be harmful to the marine environment, taking into account the guidelines specified in the IMO resolution MEPC.219 (63); or

(d) when the above garbage is mixed with or contaminated by other substances prohibited from discharge or having different discharge requirements, the more stringent requirements shall apply.

(2) Any Fiji ship whilst en route in the Fiji waters may discharge from the ship the following garbage—

(a) food wastes, if—

(i) the food wastes has been grounded to a particle size of 25 millimeters or less, and the discharge occurs at least 3 nautical miles from the nearest reef system; or

(ii) when the food wastes have not been grounded, the discharge occurs at least 12 nautical miles from the nearest reef system.

(b) animal carcasses as far away from the nearest reef system as possible taking into account the guidelines specified in the IMO resolution MEPC.219 (63);

(c) cleaning agents or additives contained in cargo hold, deck and external surfaces wash water may be discharged into the sea, but these substances shall not be harmful to the marine environment, taking into account the guidelines specified in the IMO resolution MEPC.219 (63);

(d) when the above garbage is mixed with or contaminated by other substances prohibited from discharge or having different discharge requirements, the more stringent requirements shall apply.

(3) Any ship when alongside offshore installations or within 500 meters of such installations may discharge food wastes, if the food waste has been grounded to a particle size of 25 millimetres or less.

Discharge of garbage from ships into the sea within special areas

53.—(1) Any ship may discharge within any special area the following garbage—

(a) food wastes if—

(i) it has passed through a grinder and has been ground to a particle size of 25 millimetres or less;

(ii) the discharge occurs more than 12 nautical miles from the nearest land or nearest ice shelf;

(iii) the food wastes shall not be contaminated by any other garbage type; and

(iv) discharge of introduced avian products, including poultry and poultry parts, is not permitted in the Antarctic area unless it has been treated to be made sterile.

(b) cargo residue that cannot be recovered using common available methods by unloading if—

(i) cargo residue, cleaning agents or additives contained in hold washing water do not include any substance classified as harmful to the marine environment taking into account guidelines developed by the IMO;

(ii) both the port of departure and the next port of destination are within the special area and the ship will not transit outside the special area between those ports;

(iii) no adequate reception facilities are available at those ports taking into account guidelines developed by the IMO; and

(iv) the discharge of cargo hold washing water containing residues occur more than 12 nautical miles from the nearest land or nearest ice shelf;

(c) cleaning agents or additives contained in deck and external surfaces wash water may be discharged into the sea only if these substance are not harmful to the marine environment, taking into account guidelines specified in the IMO resolution MEPC.219 (63); or

(d) when garbage is mixed with or contaminated by other harmful substances prohibited from discharge or having different discharge requirements, the more stringent requirements shall apply.

Retention of Garbage on board and discharge to reception facilities

54. The owner and the master of every ship shall ensure that garbage from the ship that cannot be discharged into the sea in compliance with the conditions specified in these Regulations as well as plastics, oily rags which are prohibited to be discharged are retained on board and discharged to shore reception facilities.

Placards – requirement to carry and display placards onboard ships

55.—(1) Every Fiji ship, Fiji navy warship and foreign ship within Fiji waters that is 15 meters or more shall carry and display onboard the ship a placard.

(2) The owner and the master of any ship to which sub-regulation (1) applies shall ensure that—

(a) placards are displayed on board to notify all persons of the discharge requirements set out in these Regulations;

(b) the placards are written in English for Fiji ships and Fiji navy warships; and

(c) the placards are written in the working language of the crew and in English or French or Spanish for foreign ships.

Garbage Record Books – requirement to carry Garbage Record Books onboard ships

56.—(1) Every Fiji ship, Fiji Navy warship and foreign ship within Fiji's waters that is of 400 gross tonnage or more, or carrying 15 or more persons shall have onboard a Garbage Record Book in the form shown in Schedule 3 of Part 2 of these Regulations.

(2) The owner and the master of any ship shall ensure that the Garbage Record Book is—

(a) carried on board the ship at all times; and

(b) made available for inspection by the Chief Executive Officer or by an authorised person acting on behalf of a State party to Annex 5 of MARPOL at all reasonable times.

(3) The owner and the master of any ship shall ensure that for each garbage discharge operation and completed incineration of garbage generated during the normal operation of the ship at sea, an entry is made in the Garbage Record Book of the ship, which includes—

(a) the date and time of the operation or incineration;

(b) the position of the ship at the time of the operation or incineration;

(c) a description of the garbage discharged or incinerated;

(d) the estimated amount of garbage discharged or incinerated; and

(e) the signature of the officer in charge of the discharge or incineration.

(4) The owner and the master of any ship shall ensure that, in the event of any discharge, escape of garbage resulting from damage to a ship or its equipment or accidental loss of fishing nets or lines, an entry is made in the Garbage Record Book of the circumstances of, and the reasons for, the discharge, escape or loss.

(5) Entries in the Garbage Record Book shall be—

(a) in English for a Fiji ship and Fiji navy warship;

(b) in English, French or Spanish for foreign ships and may also be in the official language of the State whose flag the ship is entitled to fly.

(6) Every completed page of the Garbage Record Book for a ship to which these Regulations apply shall be signed by the master of the ship.

(7) The Garbage Record Book shall be preserved by the owner of the ship for 3 years after the last entry has been made.

Garbage management plans—Requirement to carry Garbage management plans onboard ships

57.—(1) Every Fiji ship, Fiji navy warship and foreign ship within Fiji waters that is of 400 gross tonnage or more, or carrying 15 or more persons shall have onboard a Garbage Management Plan.

(2) The Garbage Management Plan shall—

(a) provide written procedures for collecting garbage, storing garbage, processing garbage, disposing of garbage and the use of garbage related equipment on board; and

(b) designate the person in charge of carrying out the plan; and

(c) be written in English for Fiji ships; and

(d) be written in English and the working language of the crew for foreign ships; and

(e) be in accordance with the 2012 Guidelines for the Development of Garbage Management Plans adopted by the Marine Environment Protection Committee of the IMO by resolution MEPC.220(63), as amended by the IMO from time to time.

(3) The owner and the master of any ship shall ensure that a Garbage Management Plan is carried on board the ship at all times and that all persons on board comply with the Garbage Management Plan.

(4) Any person on board the ship who does not comply with the Garbage Management Plan, commits an infringement offence in accordance with Section 262 of the Decree and shall be liable to a fine not exceeding $5,000.

(5) The owner and the master of any ship shall hold an up-to-date copy of the Garbage Management Plan of the Ship.

Division VIII — Discharge Of Ballast Water And Offshore Installations Discharge

Discharge of ballast water

58.—(1) Ballast water exchange with marine water may be carried out by a foreign ship within Fiji waters or Fiji ship engaged in international voyage or mobile offshore installation, at least 200 nautical miles from the nearest land and in water at least 200 metres in depth or where this is not possible, then at least 50 nautical miles from shore in water at least 200 meters in depth.

(2) All ships shall comply with the provisions of the Marine (Ballast Water Management) Regulations 2014 for discharge of ballast water.

Discharge of harmful substances other than oil

59. The owner of an offshore installation or device shall ensure that no harmful substance, nor the degradation or transformation product of any harmful substance, is discharged from any offshore installation, unless that harmful substance is—

(a) specified in the approved Discharge Management Plan for that installation; and

(b) discharged in accordance with that plan.

Permitted discharges of production water, displacement water and offshore processing drainage

60.—(1) The owner of an offshore installation shall ensure that the oil content of production water, displacement water, or offshore processing drainage discharged from a controlled offshore installation is measured continuously before dilution by a method in the approved Discharge Management Plan.

(2) The owner of a controlled offshore installation must, by use of the best practicable option, ensure that the oil content of production water, displacement water or offshore processing drainage discharged before dilution from a controlled offshore installation—

(a) does not exceed 50 parts per million; and

(b) averages less than 30 parts per million every calendar month.

(3) If the owner is unable to comply with sub-regulation (2) by use of the best practicable option, the Chief Executive Officer may authorise the discharge and require the owner to adopt additional measures to prevent possible pollution of the marine environment.

(4) For the purposes of sub-regulation (2)*(a)*, the Chief Executive Officer may allow a limit greater than 50 parts per million if the Chief Executive Officer considers it necessary for geological, technical or safety reasons.

(5) If the oil content of production water, displacement water or offshore processing drainage exceeds—

(a) 50 parts per million but does not exceed 100 parts per million, the owner shall report the excess to the Chief Executive Officer as soon as practicable;

(b) 100 parts per million, the owner shall report the excess as a marine oil spill in accordance with regulation 67.

(6) The owner of an offshore installation shall ensure there is a means of detecting and immediately stopping all discharges from the offshore installation where the oil content of the discharge exceeds 100 parts per million.

(7) The Chief Executive Officer may, at any time, require that the oil content before dilution of an installation's production water, displacement water, or offshore processing drainage be measured and reported to the Chief Executive Officer without delay.

(8) The owner of an offshore installation shall ensure that a record is maintained of all oil content before dilution of an installation's production water, displacement water or offshore processing drainage discharged from the installation and supply this information to the Chief Executive Officer on request.

Permitted discharge of garbage from controlled offshore installations

61. A person shall not discharge garbage from an offshore installation except food waste that—

(a) is uncontaminated by other waste;

(b) has passed through a grinder;

(c) has been ground to a particle size of 25 millimeters or less; and

(d) the discharge occurs not less than 12 nautical miles from the nearest reef system.

Use of drilling fluids

62.—(1) Except as provided in sub-regulation (2), the owner of an offshore installation shall ensure that no drilling fluid is used on an offshore installation unless that fluid is—

(a) water-based or synthetic-based;

(b) specified in the installation's approved Discharge Management Plan; and

(c) discharged in accordance with that plan.

(2) The Chief Executive Officer may allow the use of a drilling fluid that is not water-based or synthetic-based if its use is reasonably necessary for geological, technical or safety reasons.

Permitted discharges of oil and oily mixtures

63. Oil and oily mixtures that drain from the machinery spaces and other parts of the installation, or from ballasting or cleaning of oil fuel tanks, may be discharged from an offshore installation, if—

(a) the oil content of the discharge without dilution does not exceed 15 parts per million; and

(b) the installation has in operation the oil filtering equipment required by regulation 103.

Oil and oily mixtures that cannot be discharged

64.—(1) The owner shall ensure that any oil and oily mixtures that cannot be discharged into the sea in compliance with regulation 63 is—

(a) retained on board the installation;

(b) offloaded as produced oil; or

(c) discharged to a reception facility.

(2) The owner of an offshore installation shall ensure that a record is maintained of the quantities of all oil and oily mixtures retained, offloaded, or discharged in accordance with sub-regulation (1).

Offshore installation Oil Record Book

65.—(1) The owner of an offshore installation shall ensure that the offshore installation is provided with an oil record book in a form approved by the Chief Executive Officer or the Administration of a State party to MARPOL Convention.

(2) The owner shall ensure that an entry is made in the appropriate part of the offshore installation's Oil Record Book in accordance with the provisions of the MARPOL Convention Annex I Appendix III on every occasion on which any of the following operations takes place on the installation—

(a) ballasting or cleaning of oil fuel tanks;

(b) discharge of dirty ballast or cleaning water from oil fuel tanks;

(c) discharge overboard or other disposal of oily water that has accumulated in machinery spaces or other parts of the installation;

(d) loading of oil;

(e) internal transfer of oil;

(f) unloading of oil;

(g) ballasting of produced oil storage tanks;

(h) cleaning of produced oil storage tanks;

(i) discharge of dirty ballast or cleaning water from produced oil storage tanks;

(j) measurement of the discharge of production water, displacement water or offshore processing drainage, in accordance with regulation 60(1) and, if the oil content exceeds 100 parts per million, measurement of—

(i) the volume of oil discharged during the incident; or

(ii) for continuing incidents, the volume of oil discharged in every 12 hour period that the discharge continues; and

(k) disposal of oily residues (sludge).

(3) The owner shall ensure that a statement is made in the appropriate part of the installation's oil record book of the circumstances of, and the reasons for—

(a) any discharge into the sea of oil or oily mixture for the purpose of securing the safety of the offshore installation or saving life at sea;

(b) any escape into the sea of oil or oily mixture resulting from damage to the offshore installation or its equipment or resulting from any other accidental or exceptional occurrence; and

(c) any discharge into the sea of substances containing oil when being used for the purpose of combating specific pollution incidents.

(4) Every entry or statement, required to be made in the Oil Record Book of the installation, shall be fully recorded without delay, signed by the person or persons in charge of the operation or operations concerned and are in English.

(5) Every completed page of the Oil Record Book shall be signed by the person on board the offshore installation who has overall responsibility for its operations.

(6) The owner shall ensure that the Oil Record Book of the installation is kept on board the installation, except in the case of an unmanned offshore installation under tow and in such a place as to be readily available for inspection by the Chief Executive Officer at all reasonable times.

(7) The owner shall ensure that a true copy of every completed page of the Oil Record Book of the installation is forwarded to the Chief Executive Officer within 15 working days of the end of the month in which it was completed.

(8) Every Oil Record Book shall be kept by the owner of the installation for a period of 3 years after the last date of entry.

Production water records

66.—(1) In respect of production water, displacement water, or offshore processing drainage that is discharged, the owner of an installation shall record, in a form approved by the Chief Executive Officer—

(a) at least twice in every 24 hour period, as close to 12 hours apart as possible, the concentration of oil-in-water;

(b) the total volume of production water, displacement water, or offshore processing drainage discharged every 24 hours;

(c) the total volume of oil discharged in production water, displacement water, or offshore processing drainage every 24 hours, based on continuous monitoring of oil-in-water concentrations;

(d) a list of incidents where oil-in-water exceeded 50 parts per million; and

(e) the monthly total volume of oil discharged in production water, displacement water, or offshore processing drainage.

(2) Every completed page of the production water records shall be signed by the person on board the offshore installation who has overall responsibility for its operation.

(3) The owner of an offshore installation shall ensure that the installation's production water records are kept—

(a) on board the installation, except in the case of an unmanned offshore installation under tow; and

(b) in such a place as to be readily available for inspection by the Chief Executive Officer at all reasonable times.

(4) The owner of an offshore installation shall ensure that a true copy of every completed page of the installation's production water records is forwarded to the Chief Executive Officer within 15 working days of the end of the month in which it was completed.

(5) The production water records shall be kept by the owner of the installation for a period of 3 years after the last entry is made in it.

Reporting of spills

67.—(1) Immediately after any marine spill involving oil, noxious liquid substance or other harmful substance, the owner of an offshore installation or device shall report the spill by the fastest means of communication available and with the highest possible priority in accordance with regulations 6 and 9.

(2) If the person responsible for implementing the emergency spill response procedures considers that any marine spill cannot be contained or cleaned up using the resources available to that person, he or she shall report that fact by the fastest means of communication available and with the highest possible priority in accordance with regulations 6 and 9.

Event reporting

68.—(1) The owner of an offshore installation shall report any event that occurs to the offshore installation or any defect that is discovered, which substantially affects the integrity of the installation or the efficiency or completeness of the equipment covered by these Regulations.

(2) The owner shall ensure that every report required under sub-regulation (1) is made as soon as possible to the Chief Executive Officer and the authorised organisation that issued the installation's International Oil Pollution Prevention Certificate.

(3) After a report has been made by the owner, the Chief Executive Officer or the authorised organisation that issued the installation's International Oil Pollution Prevention Certificate may require that the installation be surveyed to ensure compliance with the requirements of these Regulations and the installation's International Oil Pollution Prevention Certificate.

Environmental monitoring and reporting

69.—(1) The owner of an offshore installation shall conduct environmental monitoring programme appropriate to the operation of that installation to detect marine environmental impacts resulting from discharges from the installation, using methods approved by the Chief Executive Officer in the Discharge Management Plan.

(2) The results of environmental monitoring undertaken in accordance with sub-regulation (1) shall be reported to the Chief Executive Officer at the earliest opportunity.

Discharges made as part of normal operations of ship and offshore installation or device

70. Any person may discharge, in the Fiji waters, a contaminant that is incidental to, or derived from, or generated during, the operations listed in Schedule 4 of Part 2 of these Regulations as the normal operations of a ship or offshore installation as long as the discharge complies with the requirement of this part.

Division IX—Facilities For The Reception Of Oil

Requirements for ports, wharfs, and marinas

71.—(1) A person, operator or port management company shall ensure that, if the port, wharf, or marina handling ships with oily mixtures and oily wastes cannot be discharged in accordance with this Part, that there are reception facilities available at the port, wharf, and marina with sufficient capacity to receive, oily bilge water and other residues from such ships.

(2) A person, operator or port, management company shall ensure that if the port, wharf, or marina handles ships of 400 gross tonnage or more there are reception facilities available at the port with sufficient capacity to receive, all oil residue (sludge) from oil residue (sludge) tanks from all such ships that may reasonably be expected to call at that port, wharf, or marina.

Requirements for oil cargo loading ports

72.—(1) A person, operator or port management company shall ensure that, if crude oil is loaded into oil tankers at the port where such tankers have, immediately prior to arrival, completed a ballast voyage of not more than 72 hours or not more than 1,200 nautical miles, there are reception facilities available at the port with sufficient capacity to receive oil and oily mixtures which cannot be discharged in accordance with the provisions of this Part, from oil tankers on such voyages.

(2) A person, operator or port management company shall ensure that if oil, other than crude oil in bulk, is loaded at the port at an average quantity of more than 1,000 metric tons per day there are reception facilities available at the port with sufficient capacity to receive oil and oily mixtures which cannot be discharged in accordance with the provisions of this Part from oil tankers loading such oil.

Requirements for ports unloading high density oils

73. A person, operator or port management company shall ensure that if oil tankers unload asphalt or other oil products which through their physical properties inhibit effective oil/water separation and monitoring, there are reception facilities available at the port with sufficient capacity to receive, cargo residues and solvents arising from any cleaning of tanks carrying such products undertaken at that port.

Requirements for ports with ship repair yards and tank cleaning facilities

74. A person, operator or port management company shall ensure that if the port has ship repair yards or tank cleaning facilities there are reception facilities available at the port with sufficient capacity to receive, oily residues and oily mixtures which remain on board for disposal from ships prior to entering such yards or facilities.

Requirements for dry bulk cargo terminals used by combination carriers

75. A person, operator or port management company shall ensure that if dry bulk cargoes are loaded at the port there are reception facilities available at the port with sufficient

capacity to receive oil residues from combination carriers which cannot be discharged in accordance with this part and that those facilities take account, as appropriate, of the fact that combination carriers may carry either oil or dry bulk cargoes.

Division X—Facilities For The Reception Of Noxious Liquid Substances, Sewage And Garbage

Requirement for ports

76.—(1) A person, operator or port management company shall ensure that if ships carrying noxious liquid substances in bulk load and unload cargo at the port, there are reception facilities available at the port with sufficient capacity to receive, all residues and mixtures of noxious liquid substances that remain for disposal from such ships.

(2) A person, operator or port management company shall ensure that if repairs to chemical carrier are undertaken at the port there are reception facilities available at the port or wharf with sufficient capacity to receive residues and mixtures containing noxious liquid substances from those chemical carriers being repaired at the port or wharf.

Unloading port arrangements for noxious liquid substances

77.—(1) A person, operator or port management company who operates a port in Fiji, the internal waters of Fiji, or Fiji's continental waters at which noxious liquid substances are unloaded, shall ensure that there are arrangements provided at the port to facilitate stripping of cargo tanks of ships unloading noxious liquid substances at that port.

(2) A person, operator or port management company who operates a port in Fiji, the internal waters of Fiji, or Fiji's continental waters at which noxious liquid substances are unloaded shall ensure that cargo hoses and piping systems of the port terminal containing noxious liquid substances received from ships unloading these substances are not drained back to the ships.

Facilities for the reception of sewage

78. A person, operator or port management company to whom this regulation applies shall ensure that if the port, wharf, or marina handles ships with sewage which cannot be discharged in accordance with this Part, that there are reception facilities available at the port with sufficient capacity to receive the sewage from such ships.

Facilities for the reception of garbage

79. A person, operator or port management company to whom this regulation applies shall ensure that if the port, wharf, or marina handles ships with garbage which cannot be discharged in accordance with this Part, that there are reception facilities available at the port with sufficient capacity to receive the garbage from such ships.

Power to require reception facilities

80. The Chief Executive Officer may from time to time, by notice in writing, require any person who operates a port, wharf, jetty, marina, slipway or repair yard in Fiji to provide at that port, marina, slipway or repair yard a reception facility for the reception of harmful substances from ships.

Offences and defences

81. Offences in respect of discharge or escape or probable discharge and escape of harmful substances into sea or seabed and defences against these offences shall be as prescribed in Part 10 of the Decree.

PART 3—NOTIFICATION OF TRANSFER OF OIL AND NOXIOUS LIQUID SUBSTANCES

Interpretations applying to Part 3

82. In this Part, unless the context otherwise requires,—

"FPSO" in relation to a STS operation, means a floating production, storage and offloading facility;

"FSU" in relation to a STS operation, means a floating storage unit;

"Ship-to-ship operations" or "STS operations" means operations involving the transfer of oil cargo between oil tankers at sea, but does not include—

(a) oil transfer operations associated with fixed or floating platforms including drilling rigs; FPSOs used for the offshore production and storage of oil; and FSUs used for the offshore storage of produced oil: and

(b) bunkering operations;

"transfer" in relation to oil or any other harmful substance, means transfer to or from a cargo or fuel tank.

Application of this part

83. This part applies to Fiji ships and foreign ships within Fiji waters or calling at any port in Fiji.

Notification of transfers

84. Notice of the transfer of oil or of any noxious liquid substances to and from any ship in Fiji waters, except in the case of —

(a) a transfer of oil in the form of diesel from a self-service pump for the purposes of bunkering;

(b) a transfer of oil carried out under the authority of an on-scene commander exercising powers under the Decree or the National Plan; or

(c) STS operations to which regulation 86 applies,

shall—

(i) be given, by facsimile or by another means of telecommunication, to—

(aa) the Chief Executive Officer; or

(bb) the Municipal or Provincial Council within whose Municipal or Provincial boundary the transfer is intended to be carried out;

(ii) be given, in the case of an operational transfer, not less than 3 hours but not more than 96 hours before the transfer is due to begin;

(iii) be given, in the event of an emergency transfer, prior to the transfer beginning;

(iv) state where the transfer of oil or noxious liquid substances is to take place;

(v) state when the transfer is scheduled to begin and when it is scheduled to end;

(vi) state the type of oil or noxious liquid substances to be transferred, giving the correct technical name, UN number (if applicable), flashpoint (as appropriate) and quantity or quantities;

(vii) provide details of the distribution of any oil or noxious liquid substances carried on board in bulk as cargo, including that which is to be transferred and that which is to remain on board; and

(viii) provide details of any defect of hull, machinery or equipment which could constitute a risk to the marine environment, including any defect affecting the safe manoeuverability of the ship.

Notification of arrivals

85. Notice of the arrival at a port in Fiji of any ship carrying oil, or any noxious liquid substances, in bulk as cargo shall—

(a) be given, by facsimile or other means of telecommunication not later than 12 hours before arrival of the ship at that port—

(i) to the Chief Executive Officer;

(ii) to the municipal or Provincial Council within whose municipal or provincial boundary the port lies;

(b) state the type of oil or noxious liquid substances carried, giving the correct technical name, UN number (if applicable), flashpoint (as appropriate) and quantity or quantities;

(c) provide details of the distribution of oil or noxious liquid substances on board; and

(d) provide details of any defect of hull, machinery or equipment which could constitute a risk to the marine environment, including any defect affecting the safe manoeuverability of the ship.

Notification of STS operations

86.—(1) This regulation applies to owners and masters of a—

(a) Fiji oil tanker of 150 gross tonnage and above; and

(b) foreign oil tankers of 150 gross tonnage and above within Fiji waters.

(2) Except as provided in sub-regulation (3), each owner and master shall ensure that, when planning an STS operation, notification of the intended STS operation is provided, containing the information required by sub regulation (4), to the Chief Executive Officer and relevant on-scene commander within 48 hours before the operation.

(3) Where, due to exceptional circumstances, all the information specified in sub-regulation (4) is not available to be provided in the notification within the time required

by sub-regulation (2)—

(a) each owner and master of an oil tanker that is to receive the cargo in the STS operation—

(i) is not required to provide the notification within 48 hours before the operation; and

(ii) must provide the notification required by sub regulation (2) as soon as practicable before the STS operation; and

(b) the owner and master of an oil tanker that is to discharge the oil cargo in the STS operation shall ensure that notification is provided—

(i) within 48 hours that the STS operation will occur;

(ii) that all the information specified in sub-regulation (4) is not available;

(iii) outlining the exceptional circumstances why all the information is not available; and

(iv) as soon as practicable prior to the STS operation, notify all the information specified in sub-regulation (4).

(4) The notification required by sub-regulation (2) shall contain the following information—

(a) the name, flag, call sign, IMO number, and estimated time of arrival of the oil tankers involved in the STS operation at the location of the operation;

(b) the date, time, and geographical location at the commencement of the STS operation;

(c) whether the STS operation is to be conducted at anchor or underway;

(d) the oil type and quantity;

(e) the planned duration of the STS operation;

(f) the person nominated under regulation 87(1)*(d)* who has overall advisory control of STS;

(g) operations applicable to the oil tanker; and

(h) confirmation that the applicable STS operations plan, required by regulation 87, is onboard the oil tanker.

(5) If, after notification is given under sub regulation (2), the estimated time of arrival of the oil tanker to the location of the STS operation changes by more than 6 hours, the owner and master of the oil tanker must ensure that a revised estimated time of arrival at the location is communicated to the Chief Executive Officer and the relevant on scene commander.

STS operations plan

87.—(1) The owner and master of a Fiji oil tanker and foreign oil tanker of 150 gross tonnage and above shall ensure that an STS operations plan is carried on board the ship that—

(a) prescribes how to conduct STS operations;

(b) has been developed taking into account the information contained in the best practice guidelines for STS operations;

(c) is written in the working language of that ship;

(d) nominates the person who has overall advisory control of STS operations;

(e) for Fiji oil tankers of 150 gross tonnage and above the STS operations plan has been approved by the Chief Executive Officer; and

(f) for a foreign oil tanker of 150 gross tonnage and above the STS operations plan has been approved by the maritime administration of the flag State of the ship.

(2) The owner and master of a Fiji oil tanker and foreign oil tanker of 150 gross tonnage and above shall ensure that the person nominated under sub regulation (1)*(d)*, who has overall advisory control of STS operations, is qualified to perform all relevant duties, taking into account the qualifications contained in the best practice guidelines for STS operations.

(3) The owner and master of a Fiji oil tanker and foreign oil tanker of 150 gross tonnage and above shall comply with the applicable STS operations plan.

PART 4 — SURVEYS AND MARINE PROTECTION DOCUMENTS

Interpretations Applying to Part 4

88. In this Part, unless the context otherwise requires,—

"Anniversary date" means the day and the month of each year which will correspond to the date of expiry of the International Oil Pollution Prevention Certificate and the International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk;

"recognised organisation" means an organisation which has entered into a memorandum of agreement with the Authority in compliance with the IMO Assembly Resolution A.739(18) and the Annexes as amended by Resolution MSC 208(81) thereto entitled "Adoption of Amendments to the Guidelines for the Authorisation of Organisations Acting on behalf of the Administration, governing the undertaking of particular survey, audit and certification functions by the organisation's employees under the Decree and the maritime and marine protection Regulations;

"authorised person" means a person employed by a recognised organisation and authorised by the Chief Executive Officer of the Authority to carry out such inspections and such audits as the Authority considers necessary for the purposes of these Regulations;

"Form A" means the "Supplement to the International Oil Pollution Prevention Certificate – Record of Construction and Equipment for Ships Other Than Oil Tankers" that is contained in MARPOL Annex I Appendix II Appendix Form A;

"Form B" means the "Supplement to the International Oil Pollution Prevention Certificate – Record of Construction and Equipment for Oil Tankers" that is contained in MARPOL Annex I Appendix II Appendix Form B;

"International Oil Pollution Prevention Certificate" or "IOPP Certificate" means —

(a) in respect of a Fiji ship, the marine protection document contained in MARPOL Annex I Appendix II, that is required under regulation 90 and issued pursuant to section 215 of the Decree;

(b) in respect of a foreign ship registered in a state party to MARPOL, the certificate contained in MARPOL Annex I Appendix II that is required under regulation 100 and accepted as a marine protection document pursuant to section 216 of the Decree;

(c) in respect of an offshore installation within Fiji waters, the marine protection document contained in MARPOL Annex I Appendix II, and the appended Form A, or if an FPSO or an FSU supplement, either in that form or in the form specified in resolution MEPC.139(53) "Guidelines for application of the revised MARPOL Annex I requirements to FPSOs and FSUs" as amended by Resolution MEPC. 142(54);

"International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk" means—

(i) the International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk issued pursuant to section 215 of the Decree and regulation 112; or

(ii) in respect of a foreign ship registered in a state party to MARPOL, the certificate shown in Schedule 1 of Part 3 of these Regulations that is required under regulation 114 and accepted as a marine protection document pursuant to section 216 of the Decree;

"International Sewage Pollution Prevention Document of Compliance" means the marine protection document shown in the Schedule 2 of Part 3 to these Regulations that is required under regulation 118 and issued pursuant to section 215 of the Decree;

"International Sewage Pollution Prevention Certificate" means the certificate in the form prescribed in regulation 6 of Annex IV to MARPOL and accepted as a marine protection document pursuant to section 216 of the Decree;

"Noxious Liquid Substance Pollution Prevention Document" means the document required under regulation 115 certifying that a ship registered

in a state not party to MARPOL Convention complies with the applicable noxious liquid substance pollution prevention requirements of Annex II of MARPOL;

"oil pollution prevention document" means the document required under regulation 88 certifying that a foreign ship registered in a state not party to MARPOL complies with the applicable oil pollution prevention requirements of Annex I of MARPOL Convention;

"put in service" means, in relation to a ship, put into operation as a commercial ship;

"Surveyor" means a surveyor of the Authority appointed by the Chief Executive Officer or employed by an authorised organisation and recognised by the Chief Executive Officer.

Requirement for a ship to be surveyed and carry on board the relevant marine protection documents

89.—(1) Requirement for a ship to be surveyed and carry on board the relevant marine protection documents applies—

(a) for the purpose of prevention of oil pollution from ships, to—

(i) every Fiji ship that is an oil tanker of 150 tons gross tonnage or more;

(ii) every Fiji ship of 400 tons gross tonnage or more; and

(iii) every Fiji navy ship of 400 tons gross tonnage or more;

(b) for the purpose of prevention of pollution from noxious liquid substances carried in bulk, to—

(i) every Fiji ship carrying noxious liquid substances in bulk as cargo;

(ii) every Fiji Navy ship carrying noxious liquid substances in bulk as cargo; and

(iii) every foreign ship carrying noxious liquid substances in bulk within Fiji waters; and

(c) for the purpose of prevention of pollution from sewage, to—

(i) every Fiji ship;

(ii) every Fiji navy ship; and

(iii) every foreign ship within Fiji waters.

(2) For oil tankers of less than 500 gross tonnage and every other ship less than 400 gross tonnage, no survey is required and therefore no International Oil Pollution Certificate shall be issued for these ships, but the ship shall comply with appropriate measures established by the Authority to ensure that the requirements of these Regulations and the Convention are met and the condition of the ship and its equipment are maintained.

Requirement for an offshore installation to be surveyed and carry onboard the relevant marine protection documents

90. Every offshore installation operating within Fiji waters is required to be surveyed and carry an International Oil Pollution Prevention Certificate.

Division I—Ship's Survey And Inspections—Oil

Surveys prior to the issue, renewal or endorsement of an International Oil Pollution Prevention Certificate

91.—(1) The owner of any ship shall ensure that the ship undergoes the following surveys carried out by a surveyor—

(a) an initial survey before the ship is put in service or before the International Oil Pollution Prevention Certificate is issued for the first time;

(b) a renewal survey at five-yearly intervals, or any lesser period specified by the Chief Executive Officer, except where regulation 97(3) is applicable;

(c) an intermediate survey within three months before or after the second anniversary date or within 3 months before or after the third anniversary date of the International Oil Pollution Prevention Certificate, which must take the place of one of the annual surveys specified in paragraph *(d)* below;

(d) an annual survey within three months before or after each anniversary date of the International Oil Pollution Prevention Certificate; and

(e) an additional survey either general or partial according to the circumstances, after any important repair or renewal.

(2) The surveys referred to in sub-regulation (1) shall be carried out by the Surveyor in the following manner—

(a) the initial survey before the ship is put in service must include approval of the calculations required by regulations 157 and 160, and a complete survey of the ship's structure, equipment, systems, fittings, arrangements, material, and documentation to ensure that the ship complies with the applicable requirements of these Regulations;

(b) the renewal surveys shall ensure that the ship's structure, equipment, systems, fittings, arrangements, material and documentation fully comply with the applicable requirements of these Regulations;

(c) the intermediate survey shall ensure that the ship's equipment and associated pump and piping systems, including oil discharge monitoring and control systems, crude oil washing systems, oily-water separating equipment and oil filtering systems, fully comply with the applicable requirements of these Regulations and are in good working order;

(d) the annual surveys shall ensure that the ship, its equipment, and its documentation are being properly maintained, and confirm that no unapproved modifications have been made to the ship, its equipment, or its documentation.

(3) When upon completion of an initial survey as referred to in sub-regulation (2) *(a)*, the surveyor is satisfied that the ship meets the requirements of this sub-regulation, an International Oil Pollution Prevention Certificate shall be issued to that ship in accordance to regulation 97.

(4) When upon completion of a renewal survey as referred to in sub-regulation (2) *(b)*, the surveyor is satisfied that the ship meets the requirements of that sub-regulation, the ship's International Oil Pollution Prevention Certificate shall be renewed in accordance with regulation 97.

(5) When upon completion of—

(a) an intermediate survey as referred to in sub-regulation (2)*(c)*; or

(b) an annual survey as referred to in sub-regulation (2)*(d)*,

the surveyor is satisfied that the ship meets the requirements of the applicable regulations, the surveyor shall endorse the ship's International Oil Pollution Prevention Certificate to this effect.

Failure to meet standards required

92.—(1) When a surveyor who has carried out a survey on a ship to which these Regulations apply determines that—

(a) the condition of the ship or the ship's equipment does not correspond with the particulars of the ship's International Oil Pollution Prevention Certificate; or

(b) the condition of the ship or the ship's equipment is such that the ship is not fit to proceed to sea without presenting an unreasonable threat of harm to the marine environment;

the surveyor shall—

(i) immediately instruct the owner or the master of the ship to take corrective action;

(ii) notify the Chief Executive Officer of the corrective action; and

(iii) not endorse the ship's International Oil Pollution Prevention Certificate.

(2) If the corrective action is not taken, the ship's International Oil Pollution Prevention Certificate may be suspended or made subject to conditions in accordance with section 218 of the Decree.

Condition after survey

93.—(1) The owner and the master of any ship shall ensure that—

(a) the ship and its equipment are maintained to conform with the provisions of the marine environment protection Regulations; and

(b) the ship, including its equipment, remains fit to proceed to sea without presenting an unreasonable threat of harm to the marine environment.

(2) After any survey of a ship under regulation 91 has been completed, the owner and the master of that ship shall ensure that no change is made to the ship's structure, equipment, systems, fittings, arrangements, or material covered by the survey, without the approval of a surveyor, except the direct replacement of such equipment and fittings.

(3) The surveyor's approval required under sub-regulation (2) may be given by the surveyor unconditionally or subject to such conditions as the surveyor sees fit in the interest of maritime safety and the protection of the marine environment.

(4) The owner and the master of any ship shall report any accident which occurs to the ship or any defect that is discovered which substantially affects the integrity of the ship or the efficiency or completeness of its marine protection equipment.

(5) The owner and the master of any ship shall ensure that every report required under sub-regulation (4) is made—

(a) as soon as possible to the Chief Executive Officer, and to the authorised organisation whose surveyor issued the ship's International Oil Pollution Prevention Certificate where the certificate was not issued by the Chief Executive Officer; and

(b) immediately to the appropriate authorities of the port state, where the ship is in a port of another party to MARPOL.

(6) After a report has been made as required by sub-regulation (5) the Chief Executive Officer or, where applicable, the authorised organisation whose surveyor issued the ship's International Oil Pollution Prevention Certificate, may require the owner of the ship to have the ship surveyed to ensure compliance with the relevant prescribed requirement in respect of that ship's International Oil Pollution Prevention Certificate.

Enhanced surveys for oil tankers

94.—(1) This regulation applies to those oil tankers to which regulation 149 applies.

(2) The owner of any oil tanker shall ensure that the oil tanker is subject to an enhanced programme of inspections during renewal, intermediate and annual surveys, the scope and frequency of which shall at least comply with the IMO's Guidelines for Enhanced Inspections as amended by the IMO from time to time.

(3) The owner and the master of any oil tanker shall ensure that the oil tanker has on board, available to the Administration of a State party to MARPOL, a complete file of the survey reports, including the results of all scantling measurement required, as well as the statement of the structural work carried out.

(4) The owner and the master of any oil tanker shall ensure that—

(a) the file required under sub-regulation (3) is accompanied by a condition evaluation report, containing conclusions on the structural condition of the ship and its residual scantlings, endorsed to indicate that it has been accepted by or on behalf of the Chief Executive Officer; and

(b) the file and condition evaluation report are prepared in a standard format as contained in the IMO's Guidelines for Enhanced Inspection as amended by the IMO from time to time.

Recognition as a Flag State Surveyor

95.—(1) The Chief Executive Officer shall in accordance with section 101 of the Decree, appoint or recognise any suitably qualified person as a surveyor.

(2) The recognition under sub-regulation (1) is conditional on the Chief Executive Officer being satisfied that the person has the appropriate technical qualifications and experience to undertake the surveys prescribed on the marine protection document.

(3) Any recognition under sub-regulation (1) shall be for a period not exceeding 5 years.

(4) A surveyor shall not demand or receive directly or indirectly, a fee or remuneration for or in respect of the survey carried out by him or her of a ship.

(5) Any surveyor who contravenes sub-regulation (4) commits an offence and shall be liable to a fine not exceeding $2000 or to imprisonment for a term not exceeding 3 months or to both.

Division II—Ship's Marine Protection Documents—Oil

Requirement for a Fiji ship to have an International Oil Pollution Prevention Certificate

96. The owner and the master of any ship shall ensure that a valid International Oil Pollution Prevention Certificate is held in respect of the ship, carried on board the ship at all times, and made readily available for inspection by the Chief Executive Officer.

Issue, duration and renewal of an International Oil Pollution Prevention Certificate for a Fiji ship

97.—(1) If the owner of a ship makes an application for an International Oil Pollution Prevention Certificate in respect of the ship, and the Chief Executive Officer (if the application is made to the Chief Executive Officer) or an authorised person (if application is made to that person) is satisfied that—

(a) the ship has undergone an initial or renewal survey in accordance with regulation 91 to the satisfaction of the surveyor; and

(b) the ship meets the applicable requirements of these Regulations;

the Chief Executive Officer or the authorised person shall issue or renew an International Oil Pollution Prevention Certificate for that ship.

(2) An International Oil Pollution Prevention Certificate issued to a Fiji ship shall be in the form shown in MARPOL Convention, Annex I Appendix II.

(3) An International Oil Pollution Prevention Certificate shall be valid for a period specified by the Chief Executive Officer where the certificate is issued by the Chief Executive Officer, or valid for a period specified by an authorised person where the certificate is issued by that person, up to, in either case, a maximum period of five years from the date of issue, provided that—

(a) if a renewal survey is completed—

(i) within 3 months before the expiry date of the existing International Oil Pollution Prevention Certificate, the new International Oil Pollution Prevention Certificate will be valid from the date of completion of the renewal survey to a date not exceeding five years from the date of expiry of the existing International Oil Pollution Prevention Certificate;

(ii) after the expiry date of the existing International Oil Pollution Prevention Certificate, the new International Oil Pollution Prevention Certificate will be valid from the date of completion of the renewal survey to a date not exceeding five years from the date of expiry of the existing International Oil Pollution Prevention Certificate; and

(iii) more than 3 months before the expiry date of the existing International Oil Pollution Prevention Certificate, the new International Oil Pollution Prevention Certificate shall be valid from the date of completion of the renewal survey to a date not exceeding five years from the date of completion of the renewal survey;

(b) if an International Oil Pollution Prevention Certificate is issued to a Fiji ship for a period of less than 5 years, the Chief Executive Officer or an authorised person may extend the validity of the International Oil Pollution Prevention Certificate beyond the expiry date to the maximum 5 year period, provided that the surveys referred to in regulation 91 are carried out as appropriate;

(c) if a renewal survey has been completed and a new International Oil Pollution Certificate cannot be issued or placed on board a Fiji ship before the expiry date of the existing International Oil Pollution Prevention Certificate, the Chief Executive Officer or authorised person may endorse the existing International Oil Pollution Prevention Certificate and that certificate shall be accepted as valid for a further period which must not exceed 5 months from the expiry date;

(d) If a Fiji ship, at the time when an International Oil Pollution Prevention Certificate issued under sub-regulation (1) expires, is not in a port in which it is to be surveyed, the Chief Executive Officer, or an authorised person, may extend the period of validity of that Certificate, provided that the extension—

(i) be only granted for the purpose of allowing the ship to complete its voyage to the port in which it is to be surveyed, and then only in cases where it appears proper and reasonable to do so;

(ii) not be granted for a period exceeding 3 months; and

(iii) shall not entitle a ship, on its arrival in the port in which it is to be surveyed, to be entitled by virtue of such extension to leave the port without having a new International Oil Pollution Prevention Certificate;

(e) when the renewal survey is completed, the new International Oil Pollution Prevention Certificate shall be valid to a date not exceeding five years from the date of expiry of the existing International Oil Pollution Prevention Certificate before the extension was granted;

(f) if an annual or intermediate survey is completed before the period specified in regulation 91(1), then—

(i) the anniversary date shown on the International Oil Pollution Prevention Certificate shall be amended by endorsement to a date which shall not be more than 3 months later than the date on which the survey was completed;

(ii) the subsequent annual or intermediate survey required by regulation 91(1), shall be completed at the intervals prescribed by that sub-regulation using the new anniversary date; and

(iii) the expiry date may remain unchanged provided that one or more annual or intermediate surveys, as appropriate, are carried out so that the maximum intervals between the surveys prescribed by regulation 91(1) are not exceeded.

(4) An International Oil Pollution Prevention Certificate is subject to the following conditions—

(a) no significant alterations may be made to the construction, equipment, systems, fittings, arrangements or material, without the approval of a surveyor in accordance with regulation 93(2), except the direct replacement of such equipment and fittings;

(b) satisfactory completion of annual and intermediate surveys required by regulation 91(1) takes place within the periods specified;

(c) the certificate is endorsed in accordance with regulation 91(5);

(d) the ship carries on board the oil record books and applicable approved manuals required to be carried by in Part 2 of these Regulations;

(e) the ship carries on board a Fiji shipboard marine oil spill contingency plan in compliance with the requirements of Part 5 of these Regulations;

(f) the International Oil Pollution Prevention Certificate has permanently attached to it a Record of Construction and Equipment as required by, and in the form prescribed by regulation 98; and

(g) the ship operates in compliance with any limitations on trades and voyages specified in its Record of Construction and Equipment.

Requirement of a Fiji ship to carry a supplement to International Oil Pollution Prevention Certificate — Record of Construction and Equipment

98.—(1) Where the Chief Executive Officer or an authorised person decides to issue an International Oil Pollution Prevention Certificate for a Fiji ship, the Chief Executive Officer or the authorised person shall also issue for that ship a Record of Construction and

Equipment in—

(a) Form A, in the case of a ship other than oil tankers; or

(b) Form B, in the case of an oil tanker, or a ship other than oil tanker carrying oil as cargo in bulk, as defined in Part 4 of these Regulations.

(2) The owner and the master of any ship shall ensure that the ship's Record of Construction and Equipment are—

(a) carried on board the ship at all times; and

(b) made readily available for inspection by the Chief Executive Officer.

Requirement for a foreign ship within Fiji waters that is an oil tanker of 150 tons gross tonnage or more and other than an oil tanker of 400 tons gross tonnage or more registered in a state party to MARPOL to have an International Oil Pollution Prevention Certificate

99.—(1) The owner and the master of any foreign ship shall ensure that a valid International Oil Pollution Prevention Certificate issued by or on behalf of the state the ship is registered in is held in respect of the ship and if the language of the ship's International Oil Pollution Prevention Certificate is neither English nor French, the text includes a translation into one of these languages.

(2) The owner and the master of any foreign ship shall ensure that the ship's International Oil Pollution Prevention Certificate is carried on board the ship at all times and made readily available for inspection by the Chief Executive Officer.

Requirement for a foreign ship to carry supplement to the International Oil Pollution Prevention Certificate— Record of Construction and Equipment

100.—(1) The owner and the master of any foreign ship to which regulation 98 applies shall ensure that—

(a) a Record of Construction and Equipment issued by or on behalf of the Administration is permanently attached to the ship's International Oil Pollution Prevention Certificate;

(b) the Record of Construction and Equipment is in the form identified as—

(i) Form A, in the case of a ship other than an oil tankers; or

(ii) Form B, in the case of an oil tanker, or a ship other than an oil tanker carrying oil as cargo in bulk, as defined in Part 4 of these Regulations; and

(c) if the language of the Record of Construction and Equipment is neither English nor French, the text includes a translation into one of these languages.

(2) The owner and the master of any foreign ship shall ensure that the ship's Record of Construction and Equipment is carried on board the ship at all times and made readily available for inspection by the Chief Executive Officer.

Requirement for a foreign ship within Fiji waters that is an oil tanker of 150 tons gross tonnage or more and ships other than an oil tanker of 400 tons gross tonnage or more registered in a state not party to MARPOL to carry an oil pollution prevention document equivalent to an International Oil Pollution Prevention Certificate

101.—(1) The owner and the master of any ship shall ensure that—

(a) a valid oil pollution prevention document that has been recognised as a marine protection document under section 216 of the Decree is held in respect of the ship; and

(b) if the language of the oil pollution prevention document is neither English nor French, the text includes a translation into one of these languages.

(2) The owner and the master of any foreign ship shall ensure that the ship's oil pollution prevention document is carried on board the ship at all times and made readily available for inspection by the Chief Executive Officer.

Requirement for a foreign ship to carry supplement to the oil pollution prevention document — Record of Construction and Equipment

102.—(1) The owner and the master of any foreign ship shall ensure that—

(a) a record of construction and equipment containing all the construction and equipment information required to be recorded by Annex I of MARPOL is permanently attached to the ship's oil pollution prevention document; and

(b) if the language of the record of construction and equipment is neither English nor French, the text includes a translation into one of these languages.

(2) The owner and the master of any foreign ship shall ensure that the ship's record of construction and equipment is carried on board the ship at all times and made readily available for inspection by the Chief Executive Officer.

Division III—Offshore Installations Survey And Inspection—Oil

Surveys and inspections prior to the issue, renewal or endorsement of an International Oil Pollution Prevention Certificate

103.—(1) The owner of an offshore installation shall ensure that the installation undergoes the following surveys carried out by a surveyor—

(a) an initial survey before the International Oil Pollution Prevention Certificate is issued for the first time;

(b) renewal surveys at five yearly intervals or any such lesser period specified by the Chief Executive Officer;

(c) an annual survey within three months before or after every anniversary date of the International Oil Pollution Prevention Certificate; and

(d) an intermediate survey within 3 months before or after either the second or third anniversary date of the International Oil Pollution Prevention Certificate, in place of the respective annual survey.

(2) Initial and renewal surveys shall be carried out to ensure that the structure, equipment, systems, piping, fittings, arrangements, record books, emergency spill response procedures and material fully comply with the requirements of this Part.

(3) Annual surveys shall be carried out to ensure that the structure, equipment, systems, piping, fittings, arrangements, record books, emergency spill response procedures and material have been properly maintained, have not been altered without the approval of the Chief Executive Officer or a Surveyor as required, and remain satisfactory for service.

(4) Intermediate surveys shall be carried out to ensure that—

(a) the equipment and associated pump and piping systems, including oil discharge monitoring and control systems, oily water separating equipment and oil filtering systems are in good working order and fully comply with the requirements of this Part; and

(b) the structure, equipment, systems, piping, fittings, arrangements, record books, emergency spill response procedures and material have not been altered without the approval of the Chief Executive Officer or a surveyor.

(5) The owner of an offshore installation shall ensure that a copy of the report of any survey carried out in accordance with sub-regulations (1)*(c)* or (1)*(d)* are forwarded to the Chief Executive Officer as soon as possible following the completion of the survey.

Failure to meet the survey standards required for renewal or endorsement of an International Oil Pollution Prevention Certificate

104.—(1) If, as a result of an annual or renewal survey the surveyor determines that the condition of the offshore installation does not correspond substantially with the particulars of the installation's International Oil Pollution Prevention Certificate or the equipment presents a reasonable threat of harm to the marine environment, the Surveyor shall—

(a) immediately instruct the owner of the offshore installation to take corrective action;

(b) notify the Chief Executive Officer of the corrective action required; and

(c) not renew or endorse the installation's International Oil Pollution Prevention Certificate.

(2) If the corrective action required under sub-regulation (1) is not taken, the Chief Executive Officer may, in accordance with section 218 of the Decree, suspend or impose conditions on the installation's International Oil Pollution Prevention Certificate.

Condition after survey

105.—(1) The owner of an offshore installation shall ensure that the installation's equipment is maintained in a condition that complies with the provisions of this Division and corresponds substantially with its International Oil Pollution Prevention Certificate and does not present an unreasonable threat of harm to the marine environment.

(2) The owner shall ensure that no change is made to an installation's structure, equipment, systems, fittings, arrangements or material covered by a survey, without the approval of a surveyor, except the direct replacement of such equipment and fittings.

Division IV—Offshore Installations
Marine Protection Documents—Oil

Requirement for an offshore installation to have an International Oil Pollution Prevention Certificate

106.—(1) The owner of an offshore installation shall ensure that there is held, in respect of the installation, a valid International Oil Pollution Prevention Certificate issued or renewed in accordance with regulation 100 or issued by or on behalf of a State party to MARPOL Convention other than Fiji, and recognised as a marine protection document under section 215 of the Decree.

(2) The owner shall ensure that the International Oil Pollution Prevention Certificate held in respect of the installation is in the case of manned installations, kept on board the installation at all times and made readily available for inspection by the Chief Executive Officer.

Issue, duration and renewal of an International Oil Pollution Prevention Certificate for an offshore installation

107.—(1) The owner of an installation shall apply to the Chief Executive Officer for the issue, renewal or endorsement of an International Oil Pollution Prevention Certificate in respect of the installation in accordance with section 215 of the Decree.

(2) The Chief Executive Officer shall, as appropriate, issue, renew, or endorse the International Oil Pollution Prevention Certificate in accordance with section 215 of the Decree, if satisfied that the offshore installation meets the requirements of this Part and has undergone an initial survey, a renewal survey, an annual survey or an intermediate survey as appropriate in accordance with regulation 103 and to the satisfaction of the surveyor.

(3) An International Oil Pollution Prevention Certificate, including a supplement—

(a) shall be in the form contained in MARPOL Annex I Appendix II and the appended Form A, or if an FPSO or an FSU supplement, either in that form or in the form specified in resolution MEPC. 139(53) "Guidelines for application of the revised MARPOL Annex I requirements to FPSOs and FSUs" as may be amended by IMO from time to time;

(b) may be issued for a period not exceeding 5 years; and

(c) is subject to the following conditions—

(i) no significant alterations shall be made in the installation's structure, equipment, systems, fittings, arrangements and material without the approval of a surveyor, except the direct replacement of such equipment and fittings;

(ii) the surveys required under regulation 103 must be completed;

(iii) the installation shall have on board the oil record book or books required to be kept by regulation 65; and

(iv) if a manned installation, the installation shall have on board an approved Discharge Management Plan.

Conditions of the International Oil Pollution Prevention Certificate

108. A surveyor may give approval to the issue, renewal or endorsement of an International Oil Pollution Prevention Certificate unconditionally or subject to such conditions as the surveyor deems fit in the interests of maritime safety and marine environment protection.

Division V—Ships Surveys And Inspections— Noxious Liquid Substances Carried In Bulk

Surveys prior to the issue, renewal or endorsement of an International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk

109.—(1) The owner of any ship shall ensure that the ship undergoes the following surveys carried out by a surveyor—

(a) an initial survey before the ship is put in service;

(b) renewal surveys at five-yearly intervals, or any lesser period specified by the Chief Executive Officer;

(c) one intermediate survey within three months before or after the second anniversary date or within three months before or after the third anniversary date of the International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk, which will take the place of one of the annual surveys specified in regulation 91(1)*(d)*;

(d) an annual survey carried out within three months before or after each anniversary date of the International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk; and

(e) an additional survey either general or partial according to the circumstances, after a repair resulting from investigations prescribed in regulation 91, or whenever any important repairs or renewals are made.

(2) The surveys referred to in sub-regulation (1) shall be carried out by the surveyor in the following manner—

(a) the initial survey before the ship is put in service shall include a complete survey of the ship's structure, equipment, systems, fittings, arrangements, material, and documentation to ensure that the ship complies with the applicable requirements of Part 2 and Part 3 of these Regulations;

(b) the renewal surveys shall ensure that the ship's structure, equipment, systems, fittings, arrangements, material, and documentation fully comply with the applicable requirements of Part 2 and Part 3 of these Regulations;

(c) the intermediate survey shall ensure that the ship's equipment and associated pump and piping systems fully comply with the applicable requirements of Part 2 and Part 4 of these Regulations and are in good working order; and

(d) the annual surveys shall include a general examination to ensure that the ship's structure, fittings, arrangements, and material remain in all respects satisfactory for the service for which the ship is intended.

(3) Where upon completion of an initial survey as referred to in sub-regulation (2) *(a)*, the surveyor is satisfied that the ship meets the requirements of that sub-regulation, an International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk shall be issued to that ship in accordance with regulation 113.

(4) When upon completion of a renewal survey as referred to in sub-regulation (2) *(b)*, the surveyor is satisfied that the ship meets the requirements of that sub-regulation, the ship's International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk shall be renewed in accordance with regulation 113.

(5) When upon completion of—

(a) an intermediate survey referred to in sub-regulation (2)*(c)*; and

(b) an annual survey as referred to in sub-regulation (2)*(d)*,

the surveyor is satisfied that the ship meets the requirements of the applicable sub-regulation, the surveyor shall endorse the ship's International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk to this effect.

Failure to meet standards required

110.—(1) Where a surveyor has carried out a survey on a ship and determines that—

(a) the condition of the ship or the ship's equipment does not correspond substantially with the particulars of the ship's International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk; or

(b) the condition of the ship or the ship's equipment is such that the ship is not fit to proceed to sea without presenting an unreasonable threat of harm to the marine environment;

the surveyor shall—

(i) immediately instruct the owner or the master of the ship to take corrective action;

(ii) notify the Chief Executive Officer of the corrective action required; and

(iii) not endorse the ship's International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk.

(2) If the corrective action required under sub-regulation (1)*(b)*(i) is not taken, the ship's International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk may be suspended or maybe subject to conditions in accordance with section 218 of the Decree.

Conditions after survey

111.—(1) The owner and the master of any ship shall ensure that—

(a) the ship and its equipment is maintained to conform with the provisions of these Regulations; and

(b) the ship, including its equipment, remain fit to proceed to sea without presenting an unreasonable threat of harm to the marine environment.

(2) After any survey of a ship under regulation 109 has been completed, the owner and the master of that ship shall ensure that no change is made to the ship's structure, equipment, systems, fittings, arrangements, or material covered by the survey, without the approval of a surveyor, except the direct replacement of such equipment and fittings.

(3) The surveyor's approval required under sub-regulation (2) may be given by the surveyor unconditionally or subject to such conditions as the surveyor sees fit in the interest of maritime safety and marine environment protection.

(4) The owner and the master of any ship shall report any accident which occurs to the ship or any defect that is discovered which substantially affects the integrity of the ship or the efficiency or completeness of its equipment.

(5) The owner and the master of any ship shall ensure that every report required under sub-regulation (4) is made—

(a) as soon as possible to the Chief Executive Officer, and to the authorised organisation whose surveyor issued the ship's International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk where the Certificate was not issued by the Chief Executive Officer; and

(b) immediately to the appropriate authorities of the port state, where the ship is in a port of another party to MARPOL Convention.

(6) After a report has been made as required by sub-regulation (5), the Chief Executive Officer or, where applicable, the recognised organisation whose surveyor issued the ship's International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk, may require the owner of the ship to have the ship surveyed to ensure compliance with the relevant prescribed requirements in respect of that ship's International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk.

Division VI—Ships Marine Protection Documents—Noxious Liquid Substances

Requirement of Fiji ship carrying noxious liquid in bulk to have certificate

112.—(1) The owner and the master of any Fiji ship shall ensure that a valid International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk is held in respect of the ship.

(2) The owner and the master of any ship shall ensure that the International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk is carried on board the ship at all times and made readily available for inspection by the Chief Executive Officer.

Issue, duration and renewal of a certificate

113.—(1) If the owner of a ship makes an application under section 215 of the Decree for an International Pollution Prevention Certificate for the Carriage of Noxious Liquid

Substances in Bulk in respect of the ship, and the Chief Executive Officer or an authorised person is satisfied that—

(a) the ship has undergone an initial or periodical survey in accordance with regulation 109 to the satisfaction of the surveyor; and

(b) the ship meets the applicable requirements of this Part and Part 4 of these Regulations,

the Chief Executive Officer or the authorised person shall issue or renew for that ship an International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk.

(2) An International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk issued to a Fiji ship shall be in the form shown in the Schedule 1 of Part 3.

(3) An International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk shall be valid for a period specified by the Chief Executive Officer where the certificate is issued by the Chief Executive Officer, or valid for a period specified by an authorised person where the certificate is issued by that person, up to, in either case, a maximum period of five years from the date of issue, provided that—

(a) if a renewal survey is completed—

(i) within 3 months before the expiry date of the existing certificate, the new certificate shall be valid from the date of completion of the renewal survey to a date not exceeding five years from the date of expiry of the existing certificate;

(ii) after the expiry date of the existing certificate, the new certificate shall be valid from the date of completion of the renewal survey to a date not exceeding 5 years from the date of expiry of the existing certificate; and

(iii) more than three months before the expiry date of the existing certificate, the new certificate will be valid from the date of completion of the renewal survey to a date not exceeding five years from the date of completion of the renewal survey.

(b) if an International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk is issued to a Fiji ship for a period of less than five years, the Chief Executive Officer or an authorised person may extend the validity of the certificate beyond the expiry date to the maximum five year period, provided that the surveys referred to in regulation 109 are carried out as appropriate;

(c) if a renewal survey has been completed and a new International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk cannot be issued or placed on board a Fiji ship before the expiry date of the existing certificate, the Chief Executive Officer or authorised person may endorse the existing certificate, and that certificate shall be accepted

as valid for a further period which shall not exceed five months from the expiry date;

(d) If a Fiji ship, at the time when an International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk issued under sub-regulation (1) expires, is not in a port in which it is to be surveyed, the Chief Executive Officer, or an authorised person, may extend the period of validity of that certificate, provided that the extension—

(i) is only granted for the purpose of allowing the ship to complete its voyage to the port in which it is to be surveyed, and then only in cases where it appears proper and reasonable to do so;

(ii) is not granted for a period exceeding three months; and

(iii) shall not entitle a ship, on its arrival in the port in which it is to be surveyed, to be entitled by virtue of such extension to leave the port without having a new certificate.

(e) When the renewal survey is completed, the new International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk shall be valid to a date not exceeding 5 years from the date of expiry of the existing certificate before the extension was granted.

(f) If an annual or intermediate survey is completed before the period specified in regulation 109 (1), then—

(i) the anniversary date shown on the International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk shall be amended by endorsement to a date which shall not be more than 3 months later than the date on which the survey was completed; and

(ii) the subsequent annual or intermediate survey required by regulation 109(1) shall be completed at the intervals prescribed by that regulation using the new anniversary date; and

(iii) the expiry date may remain unchanged provided one or more annual or intermediate surveys, as appropriate, are carried out so that the maximum intervals between the surveys prescribed by regulation 109(1) are not exceeded.

(4) An International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk is subject to the following conditions—

(a) no significant alterations may be made to the construction, equipment, systems, fittings, arrangements or material required in the ship under Part 4 of these Regulations without the approval of a surveyor in accordance with regulation 111(2), except the direct replacement of such equipment and fittings;

(b) satisfactory completion of annual and intermediate surveys required in respect of the ship by regulation 109; and

(c) the ship carries on board the Cargo Record Book and approved Procedures and Arrangements Manual required in Part 2 of these Regulations.

Requirement for every foreign ship carrying noxious liquid substances in bulk that is within Fiji waters and registered in a state party to MARPOL to have a certificate

114.—(1) Subject to sub-regulation (2), the owner and the master of any ship to which these Regulations apply shall ensure that—

(a) a valid International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk issued by or on behalf of the Administration is held in respect of the ship; and

(b) if the language of the ship's International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk is neither English, French, nor Spanish, the text includes a translation into one of these languages.

(2) The requirements of sub-regulation (1) do not apply to any chemical tanker which has been surveyed and issued with a Certificate of Fitness under the provisions of the International Bulk Chemical Code or the Bulk Chemical Code, as applicable.

(3) The owner and the master of any chemical tanker referred to in sub-regulation (2), shall ensure that if the language of the tanker's Certificate of Fitness is neither English, French, nor Spanish, the text includes a translation into one of these languages.

(4) The owner and the master of any ship shall ensure that the ship's International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk or Certificate of Fitness, as applicable, is—

(a) carried on board the ship at all times; and

(b) made readily available for inspection by the Chief Executive Officer.

Requirement for every foreign ship carrying noxious liquid substances in bulk that is within Fiji waters and registered in a state not party to MARPOL to carry a noxious liquid substance pollution prevention document or fitness document

115.—(1) Subject to sub-regulation (2), the owner and the master of any ship shall ensure that—

(a) a valid noxious liquid substances pollution prevention document that has been recognised as a marine protection document under section 215 of the Decree is held in respect of the ship; and

(b) if the language of the noxious liquid substances pollution prevention document is neither English, French, nor Spanish the text includes a translation into one of these languages.

(2) The requirements of sub-regulation (1) do not apply to any chemical tanker which has been surveyed and issued with a document of fitness of a standard equivalent to that contained in the International Bulk Chemical Code or the Bulk Chemical Code, as applicable.

(3) The owner and the master of any chemical tanker referred to in sub-regulation (2), shall ensure that if the language of the tanker's document of fitness is neither English, French, nor Spanish the text includes a translation into one of these languages.

(4) The owner and the master of any ship shall ensure that the ship's noxious liquid substances pollution prevention document or document of fitness, as applicable, is carried on board the ship at all times and made readily available for inspection by the Chief Executive Officer.

DIVISION VII—SHIP'S SURVEYS AND INSPECTIONS—SEWAGE

Requirement for Fiji ships to be surveyed

116.—(1) The owner of a ship shall ensure that a Surveyor has carried out the following surveys on that ship—

(a) an initial survey before the ship was put into service or before the certificate required by regulation 118 was issued for the first time; and

(b) a renewal survey at five yearly intervals, or any lesser period specified by the Chief Executive Officer.

(2) The Chief Executive Officer may allow the renewal survey to be delayed by—

(a) a maximum of three months if the ship is not in a port in Fiji when the certificate expires, to allow the ship to complete its voyage to a port in Fiji or to the place where it is to be surveyed; or

(b) up to one month where the period of extension under sub-regulation 2*(a)* is not granted.

(3) A surveyor performing an initial survey required by sub-regulation (1)*(a)* shall—

(a) if the ship is fitted with a sewage treatment plant, be satisfied that the plant meets the operational requirements specified by the International Maritime Organisation Marine Environmental Protection Committee Resolution MEPC. 159(55) entitled Revised Guidelines on implementation of Effluent Standards and Performance Tests for Sewage Treatment Plants;

(b) if the ship is fitted with a system to comminute and disinfect the sewage, be satisfied that the system is of a type approved by the Chief Executive Officer;

(c) if the ship is equipped with a holding tank, be satisfied that—

(i) the capacity of the holding tank is satisfactory for the retention of all sewage having regard to the operation of the ship, the number of persons on board and other relevant factors; and

(ii) the holding tank has a means to indicate visually the contents of the tank;

(d) be satisfied that the ship is equipped with a pipeline—

(i) leading to the exterior convenient for the discharge of sewage to a reception facility; and

(ii) that is fitted with a standard shore connection in compliance with regulation 50; and

(e) be satisfied that the equipment, fittings, arrangements, and material on board the ship fully comply with the requirements of these regulations.

(4) A surveyor performing a renewal survey required by sub-regulation (1)*(b)* shall be satisfied that the equipment, fittings, arrangements, and material on board the ship continues to comply with the requirements of these Regulations.

Condition after survey

117. The owner and the master of a Fiji ship shall ensure that after a survey of the ship required by regulation 116 has been completed—

(a) the ship and its equipment is maintained to conform with the provisions of these Regulations; and

(b) no significant change, other than the direct replacement of equipment or fittings is made in the equipment, fittings, arrangements or material covered by the survey without the prior approval of a surveyor.

Division VIII—Ship's Marine Protection Documents— Sewage

Requirement of a Fiji Ship to have an International Sewage Pollution Prevention Document of Compliance

118.—(1) The owner and the master of any Fiji ship shall ensure that a valid International Sewage Pollution Prevention Document of Compliance is held in respect of the ship.

(2) The owner and the master of any Fiji ship shall ensure that the International Sewage Pollution Prevention Document of Compliance held in respect of the ship is carried on board the ship at all times and made readily available for inspection by the Chief Executive Officer.

Issue and duration of an International Sewage Pollution Prevention Document of Compliance for a Fiji ship

119.—(1) Where the owner of a ship makes an application under section 215 of the Decree for an International Sewage Pollution Prevention Document of Compliance in respect of the ship, and the Chief Executive Officer or an authorised person is satisfied that—

(a) the ship has undergone an initial or renewal survey in accordance with regulation 116 to the satisfaction of the surveyor; and

(b) regulation 117 has been complied with;

the Chief Executive Officer or the authorised person shall issue or renew an International Sewage Pollution Prevention Document of Compliance for that ship.

(2) An International Sewage Pollution Prevention Document of Compliance issued to a Fiji ship—

(a) shall be in the form shown in the Schedule 2 of Part 3 of these Regulations;

(b) except as provided in sub-regulation (3), shall be valid for a period specified by the Chief Executive Officer where the certificate is issued by the Chief Executive Officer, or valid for a period specified by an authorised person where the certificate is issued by that person, up to, in either case, a maximum period of 5 years from the date of issue; and

(c) is subject to the following conditions—

(i) no significant alterations may be made to the construction, equipment, systems, fittings, arrangements or material required in the ship under these Regulations without the approval of a surveyor in accordance with sub-regulation 117*(b)*, except the direct replacement of such equipment and fittings; and

(ii) the ship carries on board and maintains the sewage record book in accordance with regulation 48.

(3) The Chief Executive Officer may extend the duration of an International Sewage Pollution Prevention Document of Compliance by—

(a) a maximum of 3 months if the ship is not in a port in Fiji when the certificate expires, to allow the ship to complete its voyage to a port in Fiji or to the place where it is to be surveyed for the renewal of its document; or

(b) a maximum of 1 month where the period of extension under sub-regulation (3)*(a)* is not granted.

Foreign Ships registered in a state party to Annex IV of MARPOL

120.—(1) The owner of a foreign ship within Fiji waters that is registered in a State party to Annex IV of MARPOL shall ensure that—

(a) a valid International Sewage Pollution Prevention Certificate issued by or on behalf of the Administration; and

(b) if the language of the ship's International Sewage Pollution Prevention Certificate is in neither English nor French, the text includes a translation into one of these languages.

(2) The owner and the master of any foreign ship shall ensure that the ship's International Sewage Pollution Prevention Certificate is carried on board the ship at all times and made readily available for inspection by the Chief Executive Officer.

Foreign ships registered in a state not party to Annex IV of MARPOL

121.—(1) The owner of a foreign ship within Fiji waters that is registered in a state not party to Annex IV of MARPOL Convention shall ensure that—

(a) a valid certificate equivalent to the International Sewage Pollution Prevention Certificate issued by or on behalf of the state the ship is registered in is held in respect of the ship; and

(b) if the language of the ship's certificate equivalent to the International

Sewage Pollution Prevention Certificate is neither English nor French, the text includes a translation into one of these languages.

(2) The owner and the master of any foreign ship shall ensure that the ship's certificate equivalent to the International Sewage Pollution Prevention Certificate is carried on board the ship at all times and made readily available for inspection by the Chief Executive Officer or the authorised person.

PART 5—SHIP'S EQUIPMENT, DESIGN AND CONSTRUCTION

Interpretations applying to Part 5

122. In this Part, unless the context otherwise requires,—

"amidships' means the middle of the Length (L);

"breadth" or "B" means the maximum breadth of the ship, measured amidships to the moulded line of the frame in a ship with a metal shell and to the outer surface of the hull in a ship with a shell of any other material, measured in meters;

"CAS" means the Condition Assessment Scheme adopted by the Marine Environment Protection Committee of the International Maritime Organisation by resolution MEPC. 94(46) as amended by Resolutions MEPC.99(48) and MEPC. 155(55) from time to time;

"category 1 oil tanker" means an existing oil tanker of—

(a) 20,000 tonnes deadweight or more carrying crude oil, fuel oil, heavy diesel oil, or lubricating oil as cargo; or

(b) 30,000 tonnes deadweight or more carrying oil as cargo;

"category 2 oil tanker" means a new oil tanker of—

(a) 20,000 tonnes deadweight or more carrying crude oil, fuel oil, heavy diesel oil or lubricating oil as cargo; or

(b) 30,000 tonnes deadweight or more carrying oil as cargo;

"category 3 oil tanker" means an oil tanker of 5,000 tonnes deadweight or more that is not category 1 or 2 oil tanker;

"centre tank" means any tank inboard of a longitudinal bulkhead;

"clean ballast tank" or "CBT" is a tank in which clean ballast is carried;

"deadweight" or "DW" means the difference in tonnes between the displacement of the ship in water of specific gravity of 1.025 at the load waterline corresponding to the assigned summer freeboard and the lightweight of the ship;

"dedicated clean ballast tank" means a tank which can be used for the carriage of either ballast or cargo but which, for the time being, is dedicated solely to the carriage of clean ballast, and is fitted with an approved washing system;

"depth" or "DS" is the moulded depth, in meters, measured at mid-length to the

upper deck at side and for the purpose of the application, "upper deck" means the highest deck to which the watertight transverse bulkheads except aft peak bulkheads extend;

"forward and after perpendiculars" shall be taken at the forward and after ends of the length (L) and the forward perpendicular shall coincide with the foreside of the stem on the waterline on which the length is measured;

"length (L)", measured in metres, means 96 per cent of the total length on a waterline at 85 per cent of the least moulded depth measured from the top of the keel, or the length from the foreside of the stem to the axis of the rudder stock on that waterline, if that be greater and in ships designed with a rake of keel the waterline on which this length is measured shall be parallel to the designed waterline;

"lightweight" means the displacement of a ship in tonnes without cargo, fuel, lubricating oil, ballast water, fresh water and feed water in tanks, consumable stores, and passengers and crew and their effects;

"major conversion" means a conversion of an existing ship—

(a) which substantially alters the dimensions or carrying capacity of the ship;

(b) which changes the type of the ship;

(c) the intent of which in the opinion of the Chief Executive Officer is substantially to prolong its life; or

(d) which otherwise so alters the ship that, if it were a new ship, it would become subject to relevant provisions of this Part;

"new oil tanker" notwithstanding the definition of new ship in these Regulations, for the purposes of regulations 143, 147, and 150, means an oil tanker—

(a) for which the building contract was placed after 1 June 1979;

(b) in the absence of a building contract, the keel of which was laid or which was at a similar stage of construction after 1 January 1980;

(c) the delivery of which was after 1 June 1982; or

(d) which has undergone a major conversion—

(i) for which the contract was placed after 1 June 1979;

(ii) in the absence of a contract, the construction work of which was begun after 1 January 1980; or

(iii) which was completed after 1 June 1982;

"new ship" means a ship—

(a) for which the building contract was placed after 31 December 1975;

(b) in the absence of a building contract, the keel of which was laid or was at a similar stage of construction after 30 June 1976;

(c) the delivery of which was after 31 December 1979; or

(d) which has undergone a major conversion—

(i) for which the contract was placed after 31 December 1975;

(ii) in the absence of a contract, the construction work of which was begun after 30 June 1976; or

(iii) which was completed after 31 December 1979;

"Resolution A.393(X)" means the Recommendation on International Performance and Test Specifications for Oily-water Separating Equipment and Oil Content Meters adopted by the IMO Assembly in Resolution A.393(X), as amended by the IMO from time to time;

"Resolution A.586(14)" means the Revised Guidelines and Specifications for Oil Discharge Monitoring and Control Systems for Oil Tankers adopted by the IMO Assembly in Resolution A.586(14), as amended by the IMO from time to time;

"Resolution A.851(20)" means the General Principles for Ship Reporting Systems and Ship Reporting Requirements, including Guidelines for Reporting Incidents involving Dangerous Goods, Harmful Substances and/or Marine Pollutants adopted by the IMO Assembly in IMO Resolution A.851(20) as amended by the IMO from time to time;

"Resolution MEPC.60 (33)" means the Guidelines and Specifications for Pollution Prevention Equipment for Machinery Space Bilges of Ships adopted by the Marine Environment Protection Committee of the IMO in Resolution MEPC.60(33), as amended by the IMO from time to time;

"Resolution MEPC.107 (49)" means the Revised Guidelines and Specifications for Pollution Prevention Equipment for Machinery Space Bilges of Ships adopted by the Marine Environment Protection Committee of the IMO in Resolution MEPC.107(49), as amended by the IMO from time to time;

"Resolution MEPC.108 (49)" means the Revised Guidelines and Specifications for Oil Discharge Monitoring and Control Systems for Oil Tankers adopted by the Marine Environment Protection Committee of the IMO in Resolution MEPC.108(49), as amended by the IMO from time to time;

"stationary ship" means a ship that is permanently anchored or moored and includes a ship that only undertakes voyages of relocation on which cargo is not carried;

"Segregated ballast tank" or "SBT" means a tank in which segregated ballast is carried;

"ship constructed" means a ship the keel of which was laid or which is at a similar stage of construction and for the purposes of these Regulations, a ship converted to a chemical tanker, irrespective of the date of construction, shall be treated as a chemical tanker constructed on the date on which such conversion commenced and this conversion provision shall not apply

to the modification of a ship which complies with all of the following conditions—

(a) the ship is constructed before 1 July 1986; and

(b) the ship is certified under the IBC Code to carry only those products identified by the IBC Code as substances with pollution hazards only;

"ship other than a chemical tanker" means a ship constructed or adapted to carry a cargo of noxious liquid substances in bulk and includes an oil tanker as defined in Annex I of MARPOL Convention when certified to carry a cargo or part cargo of noxious liquid substances in bulk;

"similar stage of construction" means the stage at which construction identifiable with a specific ship begins and assembly of that ship has commenced comprising at least 50 tons or one per cent of the estimated mass of all structural material, whichever is less;

"tank" means an enclosed space which is formed by the permanent structure of a ship and which is designed for the carriage of liquid in bulk;

"type AA oil tanker" means an oil tanker that complies with sub-regulations 148(3)*(a)* and *(b)* and 148(4) and (5) , except—

(a) that the requirements for minimum distances between the cargo tank boundaries and the ship side and bottom plating need not be met in all respects;

(b) whose side protection distances are not less than those specified in the IBC Code for type 2 cargo tank location; and

(c) whose bottom protection distances comply with regulation 147(4) *(b)*; and

"wing tank" means any tank adjacent to the side shell plating.

Division I—Oil Discharge Monitoring And Control System And Oil Filtering Equipment

Oil filtering equipment

123.—(1) These Regulations apply to all ships of 400 gross tonnage or more.

(2) Except as provided in regulation 124, the owner shall ensure that every ship is fitted with oil filtering equipment that is—

(a) approved by the Chief Executive Officer; and

(b) designed so as to ensure that any oily mixture, which is discharged into the sea after passing through the system, has an oil content not exceeding 15 parts per million.

(3) If a ship is of 10,000 gross tonnage and more or remains at sea for extended periods and empty oil fuel tanks are filled with water ballast in order to maintain sufficient stability and safe navigation conditions, the owner shall ensure that the ship's oil filtering

equipment is provided with—

(a) an alarm to indicate; and

(b) arrangements to ensure that any discharge of oily mixtures is stopped automatically, when the oil content of the outflow exceeds 15 parts per million.

(4) The Chief Executive Officer may, for the purposes of sub-regulation (2), approve oil filtering equipment having regard to the guidelines and specifications, for pollution prevention equipment for machinery space bilges of ships, adopted by the IMO in—

(a) Resolution MEPC. 60(33), for equipment installed on board before 1 January 2005; and

(b) Resolution MEPC. 107(49), for equipment installed on board on or after 1 January 2005.

(5) The Chief Executive Officer may for ships of less than 400 gross tonnage approve the following arrangement—

(a) an oil filtering equipment required in sub regulation (2); or

(b) a holding tank with sufficient capacity to retain onboard oily mixtures and oil residues for the ship's operational needs or other practical arrangements that will allow ships to retain onboard oily mixtures and oil residues that is to be pumped ashore to reception facilities.

Ships that do not have to carry oil filtering equipment

124.—(1) The owner of a stationary ship is not required to comply with regulation 123 if the ship is fitted with an oily bilge water holding tank, which the Chief Executive Officer is satisfied is large enough to hold all of the ship's oily bilge water and all oily bilge water is stored on board or discharged to reception facilities.

(2) The owner is not required to comply with regulation 123 if the ship is—

(a) engaged exclusively on voyages within special areas; or

(b) a high speed craft engaged on—

(i) a scheduled service with a turn-around time not exceeding 24 hours; or

(ii) relocation voyages on which no passengers or cargo is carried on condition that—

(A) the ship is fitted with an oily bilge water holding tank, which the Chief Executive Officer is satisfied is, large enough to hold all of the ship's oily bilge water;

(B) all oily bilge water is stored on board or discharged to reception facilities;

(C) adequate reception facilities, as determined by the Chief Executive Officer, are available to receive such oily bilge water

in a sufficient number of ports or terminals the ship calls at;

(D) the ship's IOPP Certificate, is endorsed to the effect that the ship is a high-speed craft; and

(E) when oil is discharged, the quantity of oil and the time and port of discharge are recorded in Part I of the ship's Oil Record Book.

Division II—Oil Residue (Sludge) Tanks

Oil Residue (Sludge) Tanks

125.—(1) The owner of a ship shall ensure that the ship is fitted with an oil residue (sludge) tank or tanks large enough to hold all oil residue (sludge) that cannot be dealt with otherwise in accordance with the requirements of the marine environment protection Regulations.

(2) The owner of every new ship shall ensure that the oil residue (sludge) tanks are designed and constructed to allow them to be cleaned and emptied at a reception facility.

(3) The owner of every existing ship shall ensure that the oil residue (sludge) tanks are designed and constructed to allow their cleaning and the discharge of residues to reception facilities.

(4) Oil residue (sludge) may be disposed of directly from the oil residue (sludge) tank through the standard discharge connection referred to in regulation 139, or any other means of disposal that meets the requirements of the marine environment protection regulations.

(5) The owner of a ship shall ensure that the oil residue (sludge) tank—

(a) is provided with a designated pump for disposal that is capable of taking suction from the tank; and

(b) has no discharge connections to the bilge system, oily bilge water holding tank, tank top, or oily water separators except that the tank may be fitted with drains, with manually operated self-closing valves and arrangements for subsequent visual monitoring of the settled water, that lead to a bilge water holding tank or bilge well, or an alternative arrangement, provided such arrangement does not connect directly to the bilge piping system.

Oil residue (sludge) tank piping

126. The owner of a ship shall ensure that the piping to and from oil residue (sludge) oil tanks has no direct connection overboard, other than the standard discharge connection specified in regulation 139.

Division III—Pumping, Piping And Discharge Arrangements

Deck discharge manifold

127. The owner of an oil tanker and ships other than oil tankers fitted with cargo spaces which are constructed and used to carry oil in bulk of total capacity of 200 cubic metres

or more shall ensure that the ship has a discharge manifold, located on the open deck on both sides of the ship, for connecting to reception facilities for the discharge of dirty ballast water or oil contaminated water.

Location of overboard discharge

128. The owner of an oil tanker and ships other than oil tankers fitted with cargo spaces which are constructed and used to carry oil in bulk of total capacity of 200 cubic metres or more shall ensure that—

(a) the ship has pipelines for the discharge to the sea of ballast water or oil contaminated water from cargo tank areas, which may be permitted under Part 2 of these Regulations; and

(b) the pipelines are either—

(i) led to the open deck or to the ship's side above the waterline in the deepest ballast condition; or

(ii) fitted in a manner to permit operation in accordance with the provisions of regulation 131.

Means of stopping discharge in new oil tankers

129.—(1) The owner of a new oil tanker and ships other than oil tankers fitted with cargo spaces which are constructed and used to carry oil in bulk of total capacity of 200 cubic metres or more to which this regulation applies shall ensure that means are provided for stopping the discharge of ballast water or oil contaminated water from cargo tank areas into the sea, other than those discharges below the waterline permitted under regulation 131.

(2) The owner of a new oil tanker to which this regulation applies shall ensure that the discharge control position is on the upper deck or above and located so that the manifold in use, required by regulation 127 and the discharge to the sea from the pipelines required by regulation 128, may be visually observed.

(3) Means for stopping the discharge need not be provided at the observation position if a communication system such as telephone or radio is provided between the observation position and the discharge control position.

Segregated ballast and crude oil washing arrangements

130.—(1) The owner of a new oil tanker, which is a crude oil carrier provided with segregated ballast tanks, or fitted with a crude oil washing system, shall ensure that the ship meets the following requirements—

(a) it shall be equipped with oil piping designed and installed so that oil retention in the lines is minimised;

(b) means shall be provided to drain all cargo pumps and all oil lines at the completion of cargo discharge, where necessary by connection to a stripping device;

(c) the line and pump drainings shall be capable of being discharged both ashore and to a cargo tank or a slop tank; and

(d) for discharge ashore a special small diameter line is to be provided and connected outboard of the ship's manifold valves.

(2) The owner of an existing oil tanker, which is a crude oil carrier which—

(a) is provided with segregated ballast tanks;

(b) is fitted with a crude oil washing system; or

(c) operates with dedicated clean ballast tanks;

shall ensure the ship meets the requirements of sub-regulation (1)*(b)*, *(c)* and *(d)*.

Discharge of ballast or oil contaminated water from cargo tank areas

131. The owner of an existing oil tanker, which may discharge dirty ballast water or oil contaminated water from cargo tank areas below the waterline at sea shall ensure that—

(a) a part of the flow of such water is led through permanent piping to a readily accessible location on the upper deck or above where the outflow may be visually observed during the discharge operation; and

(b) such part flow arrangements comply with the provisions of the "Specifications for the design, installation and operation of a part flow system for control of overboard discharges" contained in Appendix 5 of Annex I of MARPOL 73/78, as revised by the International Maritime Organization from time to time.

Piping serving suction wells

132. The owner of every oil tanker, fitted with suction wells in cargo tanks above double bottom tanks as referred to in regulation 158(3)*(c)*, shall ensure that piping serving such wells, if installed in the double bottom, is—

(a) fitted with valves or other closing arrangements located at the point of connection to the tank to prevent oil outflow in the event of damage to the piping; and

(b) installed as high from the bottom shell as possible.

Division IV—Crude Oil Washing Requirements

Requirement for crude oil washing and inert gas systems

133.—(1) The owner of a new oil tanker, which is a crude oil carrier of 20,000 tons deadweight and above, shall ensure the ship is fitted with a cargo tank cleaning system using crude oil washing.

(2) The owner of a new oil tanker, which is a crude oil carrier of 20,000 tons deadweight and above shall ensure that the ship's crude oil washing installation, associated equipment and arrangements comply with the "Revised specifications for the Design, Operation and Control of Crude Oil Washing Systems" adopted by the IMO in resolutions A. 446(XI) and amendment A.497 (XII), as amended by the IMO from time to time.

(3) The owner of every oil tanker, fitted with a cargo tank cleaning system using crude oil washing, shall ensure that an inert gas system is provided in every cargo tank and slop tank in accordance with the appropriate regulations of chapter II-2 of the International Convention for Safety of Life at Sea, 1974, as modified and added to by the Protocol of 1978 relating to the International Convention for the Safety of Life at Sea, 1974 and as may be further amended.

Division V—Oil Tankers With Dedicated Clean Ballast Tanks Requirements

Requirements for oil tankers with dedicated clean ballast tanks to be fitted with an oil content meter

134. The owner of every oil tanker, operating with dedicated clean ballast tanks in accordance with regulation 137, shall ensure that the ship is equipped with an oil content meter—

(a) to enable supervision of the oil content in ballast water being discharged; and

(b) of a type approved by the Chief Executive Officer on the basis of recommended specifications adopted in—

(i) Resolution A.393(X), amended by MEPC. 24(22)—for meters installed on oil tankers built before 2 October 1986;

(ii) Resolution A.586 (14), for meters installed on oil tankers built on or after 2 October 1986 but before 1 January 2005; and

(iii) Resolution MEPC.108 (49), for meters installed on oil tankers built on or after 1 January 2005.

Division VI—Retention Of Oil On Board For Oil Tankers Of 150 Tons Gross Tonnage Or More

Oil discharge monitoring and control system

135.—(1) An oil discharge monitoring and control system approved by the Chief Executive Officer shall be fitted to the oil tanker of 150 gross tonnage and above.

(2) The Chief Executive Officer may approve an oil discharge monitoring and control system for the purpose of sub-regulation (1) if the system—

(a) is fitted with a recording device to provide a continuous record of the discharge in litres per nautical mile and total quantity discharged, or the oil content and rate of discharge and the record is identifiable as to time and date;

(b) comes into operation when there is any discharge of any oily mixture into the sea;

(c) ensures that any discharge of oily mixtures is automatically stopped when the rate of oil discharge exceeds that permitted by Part 2 of these Regulations;

(d) is designed so that any failure of the system stops the discharge and a manually operated alternative method is to be provided for use in the event of such failure; and

(e) is designed and installed in compliance with the Revised Guidelines and Specifications for Oil Discharge Monitoring and Control Systems for Oil Tankers adopted by the IMO in—

(i) Resolution A.586 (14), in the case of an oil tanker built on or after 2 October 1986; and

(ii) Resolution MEPC.108 (49), in the case of an oil tanker built on or after 1 January 2005.

(3) The master and owner of an oil tanker of 150 tons gross tonnage and above shall keep the record produced by the recording device required by sub-regulation (2)*(a)* for at least three years and in the event of a failure referred to in sub-regulation (2)*(c)*, ensure the failure is noted in the Oil Record Book.

(4) This regulation also applies to ships other than oil tankers fitted with cargo spaces which are constructed and used to carry oil in bulk of total capacity of 200 cubic meters or more.

Oil/water interface detectors

136.—(1) The owner of a ship fitted with slop tanks or other tanks for separating oil and water and from which it is intended to discharge any oily mixture to the sea, shall ensure that oil/water interface detectors approved by the Chief Executive Officer are provided, for a rapid and accurate determination of the oil/water interface in these tanks.

(2) The Chief Executive Officer may approve an oil/water interface detector if the detector meets the specifications for oil/water interface detectors adopted by the Marine Environment Protection Committee of the IMO in resolution MEPC.5 (XIII), as amended by the IMO from time to time.

(3) These Regulations also apply to ships other than oil tankers fitted with cargo spaces which are constructed and used to carry oil in bulk of total capacity of 200 cubic meters or more.

Discharge to reception facilities

137.—(1) The requirements of regulation 135 and 136 shall not apply to an oil tanker if—

(a) the tanker is engaged exclusively on voyages of 72 hours or less in duration;

(b) the tanker is within 50 miles from the nearest land;

(c) the oil tanker is engaged exclusively in trades between ports or terminals within Fiji or a State Party to MARPOL; and

(d) all oily mixtures are kept on board for later discharge to reception facilities.

(2) The requirements of regulations 135 and 136 shall not apply to oil tankers that these Regulations apply to other than those referred to in sub-regulation (1) in cases where—

(a) the tanker is an existing oil tanker of 40,000 tons deadweight or above, as referred to in regulation 145, engaged solely in trade between ports, or to offshore terminals or offshore installations within Fiji waters, and the conditions specified in regulation 145 are complied with; or

(b) the tanker is engaged exclusively in voyages within special areas or voyages within 50 miles from the nearest land outside special areas where the tanker

is engaged in—

(i) trades between ports or terminals of a State Party to MARPOL Convention; or

(ii) restricted voyages as determined by the Chief Executive Officer, and of 72 hours or less in duration,

provided that the following conditions are complied with—

A. all oily mixtures are kept on board for later discharge to reception facilities; and

B. the International Oil Pollution Prevention Certificate, required by Part 3 of these Regulations, is endorsed to the effect that the ship is exclusively engaged in one or more of the categories of voyages specified in sub-regulations (i) and (ii).

(3) The requirements of regulation 135 and 136 do not apply to oil tankers carrying asphalt or other products subject to the provisions of Part 2 of these Regulations, which through their physical properties inhibit effective product/water separation and monitoring.

Oil tankers of less than 150 tons gross tonnage and other ships of less than 400 tons gross tonnage

138. The owner of an oil tanker of less than 150 gross tonnage and every other ship of less than 400 tons gross tonnage, shall ensure the ship—

(a) is provided with a holding tank of adequate capacity for the ship's operational needs to keep on board oily mixtures and oil residues, and also provided with means for transferring the contents of the tank to shore reception facilities; or

(b) meets the full requirements of this part—

(i) for oil tankers of 150 gross tonnage or more, if the ship is an oil tanker; and

(ii) for other ships of 400 gross tonnage or more, if the ship is not an oil tanker; or

(c) where the alternatives in sub-regulation *(a)* and *(b)* are not reasonable and practicable; has arrangements approved by the Chief Executive Officer for preventing the discharge of oily water and oil residues.

Division VII—Standard Deck Discharge Connection

Standard deck discharge connection

139. The owner of every ship to which regulation 125 and regulation 127 applies shall ensure that the discharge pipeline for residues is fitted with a standard discharge connection in accordance with Table 2 below—

Table 2 — Standard dimensions of flanges for discharge connections

Description	Dimension
Outside diameter	215 mm
Inner diameter	According to pipe outside diameter
Bolt circle diameter	183 mm
Slots in flange	6 holes 22 mm in diameter equidistantly placed on a bolt circle of the above diameter, slotted to the flange periphery. The slot width to be 22 mm
Flange thickness	20 mm
Bolts and nuts: quantity, diameter	6, each of 20 mm in diameter and of suitable length
The flange is designed to accept pipes up to a maximum internal diameter of 125 mm and shall be of steel or other equivalent material having a flat face. This flange, together with a gasket of oil proof material, shall be suitable for a service pressure of 6kg/cm .	

Division VIII—Offshore Installation Equipment

Oil filtering equipment

140.—(1) The owner of an offshore installation shall ensure that it is fitted with oil filtering equipment—

(a) of a design approved by the Chief Executive Officer or the Administration of a State party to the MARPOL Convention; and

(b) to ensure that any oily mixture discharged into the sea from the offshore installation, has an oil content not exceeding 15 parts per million, after passing through the oil filtering equipment.

(2) In the case of an offshore installation of 10,000 gross tons or more, the oil filtering equipment specified in sub-regulation (1) shall be fitted with—

(a) an alarm to indicate when the oil content of the effluent exceeds 15 parts per million; and

(b) arrangements to ensure that any discharge of oily mixture is automatically stopped when the alarm is activated.

(3) The requirements in sub-regulations (1) and (2) do not apply if the Chief Executive Officer is satisfied that oily mixtures can be adequately stored on board the offshore installation and subsequently discharged to reception facilities ashore or otherwise satisfactorily disposed of without being discharged into the sea.

Oil Residue (Sludge) Tanks

141.—(1) The owner of an offshore installation that is not a fixed offshore installation shall ensure that it is fitted with an oil residue (sludge) tank—

(a) that is large enough to hold all oil and oily mixtures that cannot otherwise be dealt with in accordance with these Regulations;

(b) that is designed and constructed so as to allow it to be cleaned and emptied and the contents transported to shore or discharged to a reception facility;

(c) that has a designated pump for disposal that is capable of taking suction from the tank; and

(d) that has no discharge connections to the bilge system, tank top, or oily water separators.

(2) The oil residue (sludge) tank of an offshore installation that is not a fixed offshore installation may be connected to the bilge water holding tank by drains, with manually operated self-closing valves and arrangements for subsequent visual monitoring of the settled water, or connected to that tank by an alternative arrangement, provided that the arrangement has no connection directly to the bilge piping system.

(3) The owner of a fixed offshore installation shall ensure that it is fitted with an oil residue (sludge) tank—

(a) that is large enough to hold all oil and oily mixtures that cannot otherwise be dealt with in accordance with these Regualtions; and

(b) that is designed and constructed so as to allow it to be cleaned and emptied and the contents transported to shore; and

that has a designated pump for disposal that is capable of taking suction from the tank.

(4) Any arrangement connecting an oil residue (sludge) tank of a fixed offshore installation to the installation's drainage systems shall be approved by the Chief Executive Officer.

DIVISION IX—APPLICATION AND REQUIREMENTS FOR DESIGN AND CONSTRUCTION OF OIL TANKERS

Application

142.—(1) Regulations 136 to 153 inclusive and regulations 155 to 157 inclusive apply to every Fiji ship that is an oil tanker of 150 tons gross tonnage or more.

(2) Regulations 136(6), 147(2), 148(2), 149(6), 149, 151, 152(4) and 153 also apply to every Fiji ship that is an oil tanker of less than 150 tons gross tonnage.

Segregated ballast tanks

143.—(1) Subject to regulations 144 and 145 the owner of any oil tanker shall ensure that if the tanker is—

(a) a new oil tanker which is either a crude oil tanker of 20,000 tonnes deadweight or more, or a product carrier of 30,000 tonnes deadweight or more; or

(b) a new ship which is an oil tanker of 70,000 tonnes deadweight or more,

segregated ballast tanks are provided which comply with sub-regulation (2) or sub-regulation (3).

(2) The capacity of the segregated ballast tanks shall—

(a) allow the ship to operate safely on ballast voyage without needing to use its cargo tanks for water ballast, except as provided for in Part 2 of these Regulations; and

(b) allow the ship's draughts and trim to meet each of the following requirements, in any ballast condition at any part of the voyage, including the conditions consisting of lightweight plus segregated ballast only—

(i) the moulded draught amidships (dm) in meters (without taking into account any ship's deformation) is not to be less than—

$$dm = 2.0 + 0.02L;$$

(ii) the draughts at the forward and after perpendiculars correspond to those determined by the draught amidships (dm) as specified in sub-regulation (i), in association with the trim by the stern of not greater than 0.015 L;

(iii) the draught at the after perpendicular is enough to keep the propeller(s) fully immersed.

(3) If the oil tanker is less than 150 metres in length, in lieu of sub-regulation (2), the segregated ballast draught and trim conditions for the tanker shall be to the satisfaction of the surveyor, such as to allow the ship to operate safely on ballast voyages without the use of its cargo tanks for water ballast.

(4) Subject to sub-regulation (5), the owner of any oil tanker shall ensure that if the tanker is an existing oil tanker which is a crude oil tanker of 40,000 tonnes deadweight or more, segregated ballast tanks are provided which comply with the requirements of sub-regulation (2).

(5) An existing oil tanker which is a crude oil tanker of 40,000 tonnes deadweight or more carrying only crude oil which is suitable for crude oil washing, may, in lieu of being provided with segregated ballast tanks, operate with a cargo tank cleaning procedure using crude oil washing in accordance with regulation 133(2).

(6) The owner of any existing oil tanker and which is a product carrier of 40,000 tonnes deadweight or more shall ensure that either—

(a) the tanker is provided with segregated ballast tanks and complies with the requirements of sub-regulation (2); or

(b) the tanker operates with dedicated clean ballast tanks in accordance with the provisions of regulation 144.

(7) Any oil tanker which is not required to have segregated ballast tanks in accordance with sub-regulations (2), (4), and (6) may be qualified as a segregated ballast tanker, provided that it complies with the requirements of sub-regulation (2) or sub-regulation (3).

Dedicated clean ballast tanks

144.—(1) The owner of any oil tanker operating with dedicated clean ballast tanks in accordance with regulation 143(6)(b) shall ensure that it has adequate tank capacity dedicated solely to the carriage of clean ballast, to meet the requirements of regulations 143(2).

(2) For the purposes of sub-regulation (1), the arrangements for dedicated clean ballast tanks shall comply with the requirements of the IMO Assembly Resolution A.495 (XII) Revised Specification for Oil Tankers with Dedicated Clean Ballast Tanks, as amended by the IMO from time to time.

Existing oil tankers engaged only in Fiji coastal trade

145. Regulations 143(4) to 143(6) inclusive do not apply to existing oil tankers solely engaged in trade—

(a) between ports;

(b) to or from offshore terminals; or

(c) to or from offshore installations,

within Fiji waters, so long as the port or offshore terminal or offshore installation where cargo is loaded for the particular voyage has reception facilities which in the opinion of the Chief Executive Officer are adequate for the reception and treatment of all the ballast and tank washing water from tankers using that port, terminal, or offshore installation.

Existing oil tankers having special ballast arrangements

146. An existing oil tanker complies with the segregated ballast tank requirements referred to in regulation 143(4), if it is constructed or operates in a manner that complies with the draught and trim requirements in regulation 143(2) without using ballast water, provided that—

(a) operational procedures and ballast arrangements are approved by the Chief Executive Officer;

(b) agreement is reached between the Chief Executive Officer and the Governments of the port states which are parties to MARPOL and which may be concerned when the draught and trim requirements are achieved through an operational procedure; and

(c) the International Oil Pollution Certificate is endorsed to the effect that the oil tanker is operating with special ballast arrangements.

Protective location of segregated ballast tanks

147.—(1) The owner of any new oil tanker which is—

(a) a crude oil tanker of 20,000 tonnes deadweight or more; or

(b) a product carrier of 30,000 tonnes deadweight or more; shall ensure that the segregated ballast tanks required to provide the capacity to comply with regulation 134 which are located within the cargo tank length, are arranged in accordance with sub-regulations (2) to (4) to provide a measure of protection against oil outflow in the event of grounding or collision.

(2) Segregated ballast tanks and spaces other than oil tanks within the cargo tank length (Lt) shall be so arranged as to comply with the following requirement—

$$\sum PAc + \sum PAs \geq J\,[Lt\,(B + 2D)]$$

Where—

PAc = the side shell area in square meters for each segregated ballast tank or space other than an oil tank based on projected moulded dimensions;

PAs = the bottom shell area in square meters for each such tank or space based on projected moulded dimensions;

Lt = length in metres between the forward and after extremities of the cargo tanks;

B = maximum breadth of the ship in metres as defined in regulation 122;

D = moulded depth in metres measured vertically from the top of the keel to the top of the freeboard deck beam at side amidships. In ships having rounded gunwales, the moulded depth is measured to the point of intersection of the moulded lines of the deck and side shell plating, the lines extending as though the gunwale were of angular design; and

J = 0.45 for oil tankers of 20,000 tonnes deadweight, 0.30 for oil tankers of 200,000 tonnes deadweight or more, subject to the provisions of sub-regulation 140(3).

For intermediate values of deadweight the value of J shall be determined by linear interpolation.

Whenever symbols given in these Regulations appear in this part, they have the meaning as defined in these Regulations.

(3) For tankers of 200,000 tonnes deadweight and above the value of J may be reduced as follows—

$$J \text{ reduce} = \{J - (a - \frac{Oc + Os}{4\bar{O}A})\} \text{ or } 0.2 \text{ whichever is greater}$$

Where –

a = 0.25 for oil tankers of 200,000 tonnes deadweight;
= 0.40 for oil tankers of 300,000 tonnes deadweight; and
= 0.50 for oil tankers of 420,000 tonnes deadweight or more.

For intermediate values of deadweight the value of a is determined by linear interpolation—

Oc = as defined in regulation 158;
Os = as defined in regulation 158;
OA = the allowable oil outflow as required by regulation 158(2).

(4) In the determination of PAc and PAs for segregated ballast tanker and spaces other than oil tanks the following applies—

(a) the minimum width of each wing tank or space either of which extends for the full depth of the ship's side or from the deck to the top of the double bottom shall not be less than 2 meters and the width shall be measured inboard from the ship's side at right angles to the centreline and where a lesser width is provided the wing tank or space shall not be taken into account when calculating the protecting area PAc; and

(b) the minimum vertical depth of each double bottom tank or space shall be B/15 or 2 meters, whichever is the lesser. Where a lesser depth is provided the bottom tank or space shall not be taken into account when calculating the protecting area PAs.

(5) The minimum width and depth of wing tanks and double bottom tanks shall be measured clear of the bilge area and, in the case of minimum width, measured clear of any rounded gunwale area.

Division X—Prevention Of Pollution In The Event Of Collision Or Stranding Of Oil Tankers

Protection of cargo tank length

148.—(1) This Regulation applies to oil tankers of 600 tonnes deadweight or more—

(a) for which the building contract was placed on or after 6 July 1993;

(b) in the absence of a building contract, the keels of which were laid or which were at a similar stage of construction on or after 6 January 1994;

(c) the delivery of which was on or after 6 July 1996; or

(d) which have undergone a major conversion—

(i) for which the contract was placed after 6 July 1993;

(ii) in the absence of a contract, the construction work of which was begun after 6 January 1994; or

(iii) which was completed after 6 July 1996.

(2) The owner of any tanker of 5,000 tonnes deadweight or more shall ensure that the tanker complies—

(a) in lieu of regulation 147, with the requirements of sub regulation (3) unless it is subject to sub-regulations (4) and (5); and

(b) if applicable, with the requirements of sub-regulation (6).

(3) The owner shall ensure that the entire cargo tank length is protected by ballast tanks or spaces other than cargo and fuel oil tanks as follows—

(a) wing tanks or spaces

Wing tanks or spaces shall extend either for the full depth of the ship's side or from the top of the double bottom to the uppermost deck, disregarding a rounded gunwale where fitted. They shall be arranged so that the cargo tanks are located inboard of the moulded line of the side shell plating, nowhere less than the distance w (shown in Figure 1) which is measured at

any cross-section at right angles to the side shell, as specified below:

$$w = 0.5 + \frac{DW \text{ (metres)}}{20{,}000}, \text{ or } 20{,}000$$

w = 2.0 meters, whichever is the lesser. The minimum value of w = 1.0 meter.

(b) double bottom tanks or spaces—

At any cross-section the depth of each double bottom tank or space shall be such that the distance h between the bottom of the cargo tanks and the moulded line of the bottom shell plating measured at right angles to the bottom shell plating as shown in Figure 1 is not less than specified below—

h = B/15 meters, or

h = 2.0 meters, whichever is lesser. The minimum value of h = 1.0 meter.

(c) turn of bilge area—

When the distances h and w are different, the distance w shall have preference at levels exceeding 1.5h above the baseline, as shown in Figure 1.

(d) the aggregate capacity of ballast tanks—

On crude oil tankers of 20,000 tonnes deadweight or more and product carriers of 30,000 tonnes deadweight or more, the aggregate capacity of wing tanks, double bottom tanks, forepeak tanks and afterpeak tanks shall not be less than the capacity of segregated ballast tanks necessary to meet the requirements of regulation 116. Wing tanks or spaces and double bottom tanks used to meet the requirements of regulation 116, shall be located as uniformly as practicable along the cargo tank length. Additional segregated ballast capacity, provided for purposes such as reducing longitudinal hull girder bending stress or trim may be located anywhere within the ship.

(e) suction wells in cargo tanks—

Suction wells in cargo tanks may protrude into the double bottom below the boundary line defined by the distance h, provided that such wells are as small as practicable and the distance between the well bottom and bottom shell plating is not less than 0.5h.

(f) ballast and cargo piping—

Ballast piping and other piping, such as sounding and vent piping to ballast tanks, shall not pass through cargo tanks. Cargo piping and similar piping to cargo tanks shall not pass through ballast tanks.

(4) The owner is not required to fit double bottom tanks or spaces as required by sub-regulation (3)*(b)* where—

(a) the design of the tanker is such that the cargo and vapour pressure exerted on the bottom shell plating forming a single boundary between the cargo and the sea does not exceed the external hydrostatic water pressure, as expressed by the following formula—

$$f \times hc \times pc \times g + 100\Delta p \geq dn \times ps \times g$$

where –

hc = height of cargo in contact with the bottom shell plating in metres

pc = maximum cargo density in tonnes per cubic metre

dn = minimum operating draught under any expected loading condition in metres

ps = density of seawater in tonnes per cubic metre

Δp = maximum set pressure of pressure/vacuum valve provided for the cargo tank in bars

f = safety factor = 1.1

g = standard acceleration of gravity (9.81 metre/second^2);

(b) any horizontal partition necessary to fulfil the requirements set out in paragraph *(a)* is located at a height of not less than B/6 or 6 metres, (whichever is the lesser) but not more than 0.6D, above the baseline, where D is the moulded depth amidships; and

(c) the location of wing tanks or spaces is as defined in sub-regulation (3)*(a)* except that, below a level 1.5h above the baseline, where h is as defined in sub-regulation (3)*(b)*, the cargo tank boundary line may be vertical down to the bottom plating, as shown in Figure 2.

(5) The Chief Executive Officer may by, exemption granted in accordance with section 33 of the Decree, approve other methods of design and construction of oil tankers as alternative to the requirements prescribed in sub-regulation (3), provided that such methods ensure at least the same level of protection against oil pollution in the event of collision or stranding and are approved in principle by the Marine Environmental Protection Committee based on guidelines developed by the IMO.

(6) The owner of any oil tanker of 20,000 tonnes deadweight or more shall ensure that the damage assumptions prescribed in regulation 160(2)*(b)* are supplemented by the following assumed bottom raking damage—

(a) longitudinal extent—

(i) ships of 75,000 tonnes deadweight or more: 0.6L measured from the forward perpendicular; and

(ii) ships of less than 75,000 tonnes deadweight: 0.4L measured from the forward perpendicular;

(b) transverse extent: B/3 anywhere in the bottom; and

(c) vertical extent: breach of the outer hull.

(7) The owner of any oil tanker of less than 5,000 tonnes deadweight shall ensure that it is—

(a) at least fitted with double bottom tanks or spaces having such a depth that the distance h, specified in sub-regulation (3)*(b)*, complies with the following:

$$h = B/15 \text{ (metres)}$$

with a minimum value of h = 0.76 metres;

in the turn of the bilge area and at locations without a clearly defined turn of the bilge, the cargo tank boundary line shall run parallel to the line of the midship flat bottom, as shown in Figure 3; and

(b) provided with cargo tanks arranged so that the capacity of each cargo tank does not exceed 700 cubic metres, unless wing tanks or spaces are arranged in accordance with sub-regulation (3)*(a)* complying with the following:

$$w = 0.4 + \frac{2.4DW}{20{,}000} \text{ (metres)}$$

with a minimum value of w = 0.76 meters.

(8) The owner shall ensure that the design and construction of the oil tanker does not—

(a) provide for oil to be carried in any space extending forward of a collision bulkhead; and

(b) where there is no collision bulkhead, provide for oil to be carried in any space extending forward of the transverse plane perpendicular to the centerline that is located as if it were a collision bulkhead.

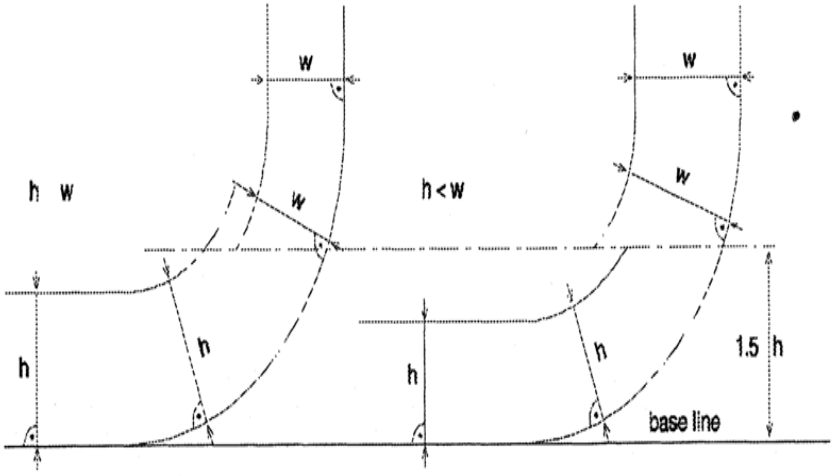


Figure 1 – Cargo tank boundary lines for the purpose of regulation 148(3)

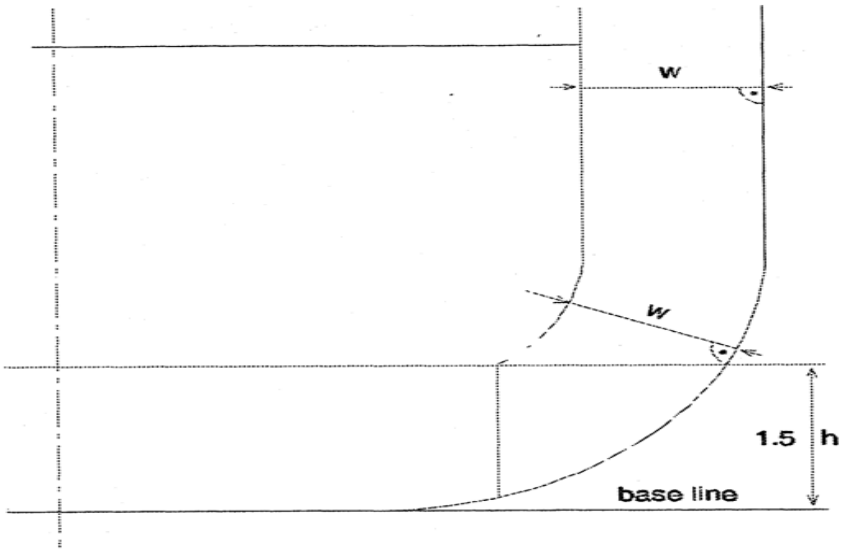


Figure 2 – Cargo tank boundary lines for the purpose of regulation 148(4)

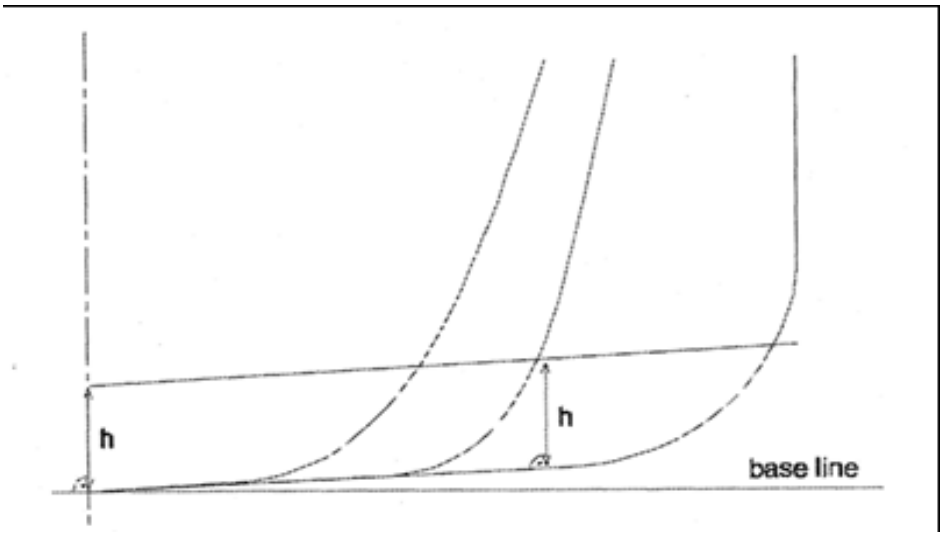


Figure 3 – Cargo tank boundary lines for the purpose of sub-regulation (7)

Oil tankers built before the dates specified in regulation 148

149.—(1) This regulation applies to oil tankers of 5,000 tons deadweight or more, but does not apply to type AA oil tankers and tankers to which regulation 148(1) applies.

(2) The owner of a category 1 oil tanker shall ensure that the tanker complies with regulation 148.

(3) The owner of a category 2 or 3 oil tanker delivered on or before 14 December 1978 shall ensure that the tanker complies with regulation 148.

(4) The owner of a category 2 or 3 oil tanker delivered after 14 December 1978 shall ensure that the tanker complies with regulation 148 no later than the anniversary date of the delivery of the ship in—

(a) 2006, for ships delivered in 1978 and 1979;

(b) 2007, for ships delivered in 1980 and 1981;

(c) 2008, for ships delivered in 1982;

(d) 2009, for ships delivered in 1983; or

(e) 2010, for ships delivered in 1984 or later.

(5) The continued operation of a category 2 or category 3 oil tanker beyond the 15th anniversary date of the delivery of the ship is subject to that tanker complying with CAS.

(6) The Chief Executive Officer may exempt a tanker that complies with CAS from the requirements of sub-regulations (3) or (4) until the 25th anniversary date of the delivery of the ship or the anniversary date of the ship in 2015 whichever is the earlier date.

(7) The Chief Executive Officer may exempt a tanker from the requirements of sub-regulations (3) or (4) until the 25th anniversary date of the delivery of the ship if the tanker was in service on 1 July 2001 and is fitted with double bottoms or double sides that extend to the entire cargo tank length and are not used for carrying oil.

(8) The Chief Executive Officer may ease the requirements of sub-regulations (2) or (3) until the 25th anniversary date of the delivery of the ship if the tanker—

(a) is a category 2 or category 3 oil tanker;

(b) was in service on 1 July 2001; and

(c) is fitted with wing tanks or spaces and double bottom tanks or spaces that extend to the entire cargo tank length and are not used for carrying oil but do not comply with of sub-regulations (2) or (3) in all respects.

Oil Tankers of 5000 Tonnes Deadweight or More that Carry Heavy Grade Oil as Cargo

150.—(1) This Regulation applies to oil tankers of 5,000 tonnes deadweight or more that carry heavy grade oil as cargo in addition to any applicable requirements of regulation 149, but does not apply to type AA oil tankers.

(2) The owner of any oil tanker to which this regulation applies shall ensure that the tanker complies with regulation 148.

(3) The Chief Executive Officer may exempt a tanker from the requirements of sub-regulation (2)—

(a) was in service on 4 December 2003 and is fitted with double bottoms or double sides that extend to the entire cargo tank length and are not used for carrying oil; or

(b) carries crude oil having a density at 15°C higher than 900kg/m^3 but lower than 945kg/m^3 and complies with CAS.

(4) The Chief Executive Officer may reduce the requirements of regulations 148(2) or 148(3) until the 25th anniversary date of the delivery of the ship if a tanker—

(a) was in service on 4 December 2003; and

(b) is fitted with wing tanks or spaces and double bottom tanks or spaces that do not comply with regulations 148(2) or 148(3) in all respects.

Oil Tankers of 600 to 5000 Tonnes Deadweight that Carry Heavy Grade Oil as Cargo

151.—(1) This Regulation applies to oil tankers of 600 tonnes deadweight or more but less than 5,000 tonnes deadweight that carries heavy grade oil as cargo, but does not apply to type AA oil tankers.

(2) The owner of any oil tanker shall ensure that before the anniversary date, of the delivery of the tanker, in 2008, the tanker is fitted with double bottom tanks or spaces that comply with regulation 148(7)*(a)* and wing tanks or spaces that are arranged in accordance with regulation 148(3)*(a)*, and comply with the distance requirement for w in regulation 148(7)*(b)*.

(3) The Chief Executive Officer may exempt a tanker from the requirements of sub-regulation (2)—

(a) if it operates as a floating storage unit or undertakes voyages entirely within Fiji waters or an area in the waters of another state party to MARPOL

Convention provided the Administration of that state party also allows such operation;

(b) until the 25th anniversary date of the delivery of the ship, if the Chief Executive Officer is satisfied that the ship is fit to continue operation having regard to its size, age, area(s) of operation and structural conditions.

Pump-room bottom protection

152.—(1) This regulation applies to oil tankers of 5,000 tonnes deadweight or more the keel of which was laid or which was at a similar stage of construction on or after 1 January 2007.

(2) Except as provided in sub-regulation (4), the owner shall ensure that the distance between the bottom of the pump-room and the ship's base line, measured at right angles to the ship's base line, is not less than—

(a) 2m, if B/15 is more than 2 m;

(b) 1 m, if B/15 is less than 1 m; or

(c) B/15 (where B/15 is between 1 m and 2 m).

(3) Compliance with sub-regulation (2) may be met by fitting double bottom tanks or spaces.

(4) A pump-room need not comply with sub-regulation (2), if the flooding of the pump room would not render the ballast or cargo pumping system inoperative.

(5) The owner shall ensure that ballast pumps are provided with suitable arrangements to ensure efficient suction from pump-room double bottom tanks.

Accidental oil outflow performance

153.–(1) Regulation 153 applies to oil tankers of 5,000 tonnes deadweight or more—

(a) delivered on or after 1 January 2010;

(b) for which the building contact is placed on or after 1 January 2007;

(c) in the absence of a building contract, the keel of which was laid or which was at a similar stage of construction on or after 1 July 2007; or

(d) which undergoes a major conversion—

(i) for which the contract was placed on or after 1 January 2007;

(ii) in the absence of a contract, the conversion of which began on or after 1 July 2007; or

(iii) that was completed on or after 1 January 2010.

(2) To provide adequate protection against oil pollution in the event of collision or stranding, the owner shall—

(a) ensure that the ship's mean oil outflow parameter is—

(i) $OM \leq 0.015$;

(ii) OM ≤ 0.021 for C ≤ 100,000 m^3; and

(iii) OM ≤ 0.015 + (0.006/100,000) (200,000-C) for 100,000 m< C ≤ 200,000 m^3;

(b) if the ship is a combination carrier of less than 200,000m^3 capacity, submit calculations to the Chief Executive Officer demonstrating, to the Chief Executive Officer's satisfaction, that, after accounting for its increased structural strength, the carrier has at least the equivalent oil outflow performance of a standard double hull tanker, of the same size, having a mean oil outflow parameter of—

(i) OM ≤ 0.015;

(ii) OM ≤ 0.021 for C ≤ 100,000 m^3;

(iii) OM ≤ 0.015 + (0.006/100,000) (200,000-C) for 100,000 m< C ≤ 200,000 m^3;

(c) ensure that no cargo tank exceeds 10 metres or one of the following values, whichever is the greater—

(i) if no longitudinal bulkhead is provided inside the cargo tanks—

$$(0.5- +0.1)L \text{ if less than } 0.2L, \text{ or } 0.2L$$

$$B$$

(ii) if a center line longitudinal bulkhead is provided inside the cargo tanks—

$$\frac{b_1}{B}$$

$$(0.25- +0.15)L$$

(iii) 0.2L, if two or more longitudinal bulkheads are provided inside—

A. a wing cargo tank; or

B. a centre cargo tank, and $\frac{b_1}{B} \geq 0.2L$

(iv) b1

$$(0.5- +0.1)L \text{ if } -$$

$$B$$

A. $\frac{b_1}{B} < 0.2$;and

B. two or more longitudinal bulkheads are provided inside a center cargo tank; and

C. no center line longitudinal bulkhead is provided.

(v) $(0.25 - + 0.15)\frac{b1}{B}L$ if

A. $\frac{b_1}{B} < 0.2$;

B. two or more longitudinal bulkheads are provided inside a center cargo tank; and

C. a center line longitudinal bulkhead is provided

(3) Mean oil outflow parameter shall be calculated in accordance with the provisions of Schedule 1 of Part 4 of these Regulations.

(4) The owner shall ensure that—

(a) the lines of piping that run through cargo tanks in a position less than 0.30Bs from the ship's side or less than 0.30Ds from the ship's bottom, and are fitted with valves, or similar closing devices, at the point(s) at which the valves or devices open into any cargo tank; and

(b) such valves are kept closed at all times when the ship is at sea;

(c) the tanks contain cargo oil, except that valves may be opened for cargo transfers needed for essential cargo operations.

Bs means the greatest moulded breadth of the ship, in meters, at or below the distance ds

ds means the vertical distance, in meters, from the moulded baseline at mid- length to the waterline corresponding to the summer freeboard to be assigned to the ship; and

Ds means the moulded depth, in metres, measured at mid-length to the upper deck at side.

Division XI—Carriage Of Oil Fuel And Water Ballast In Oil Tankers

Segregation of oil fuel and water ballast

154.—(1) The owner of any new ship defined in regulation 122 which is an oil tanker of 150 gross tonnage or more, shall ensure that the ship's design and construction does not provide for the carriage of water ballast in any oil fuel tank.

(2) The owner of any new ship defined in regulation 122 which is an oil tanker of less than 150 tons gross tonnage, and the owner of any existing ship defined in regulation 122 which is an oil tanker, shall comply with sub-regulation (1) unless an exemption is granted under section 33 of the Decree.

Carriage of oil in the forepeak

155.—(1) The owner of any oil tanker of 400 tons gross tonnage or more, for which the building contract was placed after 1 January 1982 or, in the absence of a building contract, the keel of which was laid or which was at a similar stage of construction after 1 July 1982, shall ensure that the design and construction of the tanker does not provide for the carriage of oil in any—

(a) forepeak tank; or

(b) tank forward of the collision bulkhead.

(2) The owner of any oil tanker, other than one required to comply with sub-regulation (1), shall comply with sub-regulation (1) unless an exemption is granted under section 33 of the Decree.

Division XII—Retention Of Oil Onboard Oil Tankers

Slop tanks

156.—(1) Subject to sub-regulation (7), the owner of any oil tanker of 150 gross tonnage or more shall ensure that it is provided with arrangements in accordance with sub-regulations (2) to (5).

(2) Adequate means shall be provided for cleaning the cargo tanks and transferring the dirty ballast residue and tank washing from the cargo tanks into a slop tank approved by the Chief Executive Officer and any cargo tank may be designated as a slop tank in an existing oil tanker.

(3) The slop tanks shall have—

(a) a capacity necessary to retain the slop generated by tank washings, oil residues and dirty ballast residues; and

(b) a total capacity of not less than 3 per cent of the oil carrying capacity of the ship, unless otherwise accepted by the Chief Executive Officer.

(4) Any new ship defined in regulation 122 which is an oil tanker of 70,000 tonnes deadweight or more shall be provided with at least two slop tanks.

(5) Slop tanks shall be such as to avoid excessive turbulence and entrainment of oil or emulsion with the water, particularly in respect of the position of inlets, outlets, baffles, or weirs.

(6) Sub-regulations (1) to (5) do not apply to any oil tanker of less than 150 gross tonnage, for which the control of oil discharge under regulation 16 shall be effected by the retention of oil on board with subsequent discharge of all contaminated washings to reception facilities.

(7) The Chief Executive Officer may waive the requirements of sub-regulations (1) to (5) for any oil tanker which engages exclusively in voyages which are –

(a) of 72 hours or less in duration; and

(b) within 50 nautical miles from the nearest land,

subject to two conditions –

(a) the tanker shall be engaged in trade between ports or to offshore terminals or offshore installations within Fiji waters, or within a State party to MARPOL Convention; and

(b) the tanker shall retain on board all oily mixtures for discharge to the reception facilities approved by the Chief Executive Officer.

(8) Sub-regulations (1) to (5) do not apply to any oil tanker subject to the provisions of regulation 130(3) carrying asphalt or other products which through their physical properties inhibit effective product/water separation and monitoring.

(9) For the oil tankers under sub-regulation (8), the owner shall ensure that the control of discharge is effected by the retention of residues on board with discharge of all contaminated washings to reception facilities.

Division XIII—Minimising Oil Pollution From Oil Tankers Due To Side And Bottom Damage

Damage assumptions

157.—(1) For the purpose of calculating hypothetical oil outflow from an oil tanker, three dimensions of the extent of damage of a parallel piped on the side and bottom of the ship are to be assumed as follows. If the bottom of the oil tanker is damaged, two conditions shall be applied individually to the stated portions of the oil tanker –

(a) side damage

(i)	Longitudinal extent (lc) meters, whichever is less	$1/3L^{2/3}$ or 14.5
(ii)	Transverse extent (tc) (inboard from the ship's side whichever is less at right angle to the centreline at the level corresponding to the assigned summer freeboard)	B/5 or 11.5 meters,
(iii)	Vertical extent (vc)	From the base line upwards without limit

(b) bottom damage

	For 0.3L from the forward perpendicular of the ship	Any other part of the ship
(i)	L/10	L/10 or 5 meters, whichever is less
(ii)	B/6 or 10 meters which ever is less but not less than 5 meters	5 meters

(iii)	B/15 or 6 meters, whichever is less	B/15 or 6 meters, whichever is less

(2) Wherever the symbols given in this regulation appear in regulations 158, 159, and 160, they have the meaning as defined in this regulation.

Hypothetical outflow of oil

158.—(1) The hypothetical outflow of oil in the case of side damage (Oc) and bottom damage (Os) is to be calculated by the following formulae with respect to compartments breached by damage to all conceivable locations along the length of the ship to the extent as defined in regulation 157—

(a) for side damages—
$Oc = \sum Wi + \sum KiCi$ (I)

(b) for bottom damages—
$Os = 1/3(\sum ZiWi + \sum ZiCi)$ (II)

Where—

Wi = volume of a wing tank in cubic metres assumed to be breached by the damage as specified in regulation 157;

Wi for a segregated ballast tank may be taken equal to zero;

Ci = volume of a centre tank in cubic metres assumed to be breached by the damage as specified in regulation 157; Ci for a segregated ballast tank may be taken equal to zero;

Ki = 1 – *bi*/*tc* when bi is equal to or greater than *tc*, Ki will be equal to zero.

Zi = 1 – *hi*/*vs* when hi is equal to or great than *vs*, Zi will be taken equal to zero.

bi = width of wing tank in metres under consideration measure inboard from the ship's side at right angles to the centreline at the level corresponding to the assigned summer freeboard.

hi = minimum depth of the double bottom in metres under consideration; where no double bottom is fitted hi will be taken equal to zero.

Whenever symbols given in this regulation appear in this Part, they have the meaning as defined in this regulation.

(2) If a void space or segregated ballast tank of a length less than lc is located between wing oil tanks, Oc in formula (I) may be calculated on the basis of volume Wi being the actual volume of one such tank (where they are of equal capacity) or the smaller of the two tanks (if they differ in capacity) adjacent to such space, multiplied by Si (as defined below) and taking for all other wing tanks involved in such a collision the value of the actual full volume.

Si = 1 – li/lc

Where li = length in meters of void space or segregated ballast tank under consideration.

(3) Credit is only to be given for double bottom tanks which are either empty or carrying clean water when cargo is carried in the tanks above.

(4) Where the double bottom does not extend for the full length and width of the tank involved, the double bottom is considered non-existent.

(5) The volume of the tanks above the area of the bottom damage are included in formula (II) even if the tank is not considered breached because of the installation of a partial double bottom.

(6) Suction wells may be excluded in the determination of the value hi provided they are not excessive in area and do not extend below the tank for more than half the height of the double bottom.

(7) Where the depth of a well exceeds half the height of the double bottom, hi will be taken equal to the double bottom height minus the well height.

(8) In the case where bottom damage simultaneously involves four center tanks, the value of Os may be calculated according to the formula—

$$Os = 1/4\ (\sum ZiWi + \sum ZiCi)\ (III)$$

Limitation of size and arrangement of cargo tanks

159.—(1) The owner of any new oil tanker or any existing oil tanker shall ensure that the tanker complies with this regulation.

(2) Cargo tanks of the oil tanker shall be of such size and arrangement that the hypothetical outflow Oc or Os, calculated in accordance with regulation 132 anywhere in the length of the ship, does not exceed 30,000 cubic meters or $400(DW)^{1/3}$, whichever is the greater, but subject to a maximum of 40,000 cubic meters.

(3) The volume of any one wing cargo oil tank of an oil tanker shall not exceed 75 per cent of the limits of the hypothetical oil outflow referred to in sub-regulation (2) and the volume of any on centre cargo oil tank shall not exceed 50,000 cubic meters, however, in an oil tanker having segregated ballast tanks as required by regulation 143, the permitted volume of a wing cargo oil tank situated between two segregated ballast tanks, each exceeding lc in length, may be increased to the maximum limit of hypothetical oil outflow provided that the width of the wing tanks exceeds tc.

(4) The length of each cargo tank shall not exceed 10 meters or one of the following values, whichever is greater—

(a) where no longitudinal bulkhead is provided inside the cargo tanks—

(0.5bi / B + 0.1)L,
but not to exceed 0.2L;

(b) where a centreline longitudinal bulkhead is provided inside the cargo tanks—

(0.25bi / B + 0.15)L; and

(c) where two or more longitudinal bulkheads are provided inside the cargo tanks—

(i) for wing tanks – 0.2L;

(ii) for centre tanks—

A. if bi/B is equal to or greater than 1/5: 0.2L; and

B. if bi/B is less than 1/5–

—where no centerline longitudinal bulkhead is provided—
(0.5 bi/B + 0.1)L
—where a centerline longitudinal bulkhead is provided—
(0.25 bi/B + 0.15)L; and

(d) bi is the minimum distance from the ship's side to the outer longitudinal bulkhead of the tank in question measured inboard at right angles to the centerline at the level corresponding to the assigned summer freeboard.

(5) In order not to exceed the volume limits established by sub-regulations (2), (3), and (4) and irrespective of the accepted type of cargo transfer system installed, when such system interconnects two or more cargo tanks, valves or other similar closing devices shall be provided for separating the tanks from each other.

(6) Lines of piping which run through cargo tanks in a position less than tc from the ship's side of less than vc from the ship's bottom shall be fitted with valves or similar closing devices at the point at which they open into any cargo tank.

Subdivision and stability

160.—(1) The owner of any new ship which is an oil tanker shall ensure that it complies with—

(a) the subdivision and damage stability criteria specified in sub-regulation (3); and

(b) the assumed side or bottom damage specified in sub-regulation (2), at any operating draught reflecting actual, partial or full load conditions consistent with the trim and strength of the ship as well as the specific gravities of the cargo and such damage shall be applied to all conceivable locations along the length of the ships as follows –

(i) in any tanker of more than 225 metres in length, anywhere in the ship's length;

(ii) in any tanker of more than 150 metres, but not exceeding 225 metres in length, anywhere in the ship's length except involving either after or forward bulkhead bounding the machinery space located aft and the machinery space is treated as a single floodable compartment; and

(iii) in any tanker not exceeding 150 metres in length, anywhere in the ship's length between adjacent transverse bulkheads with the

exception of the machinery space. Ballast conditions where the tanker is not carrying oil in cargo tanks, excluding any oil residues, shall not be taken into account.

(2) The following provisions, regarding the extent and the character of the assumed damage shall be applied—

(a) side damage

(i)	longitudinal extent:	$1/3(L^{2/3})$ or 14.5 metres, whichever is less
(ii)	transverse extent (inboard from the ship's side at right angles to the centre-line at the level of the summer load line)	B/5 or 11.5 metres, whichever is less
(iii)	vertical extent	From the moulded line of the bottom shell plating at centreline, upward without limit

(b) bottom damage

		For 0.3L from the forward perpendicular of the ship	Any other part of the ship
(i)	longitudinal extent:	$1/3(L^{2/3})$ or 14.5 meters, whichever is less	$1/3(L^{2/3})$ or 5 meters, whichever is less
(ii)	transverse extent:	B/6 or 10 meters whichever is less	B/6 or 5 meters whichever is less
(iii)	vertical extent:	B/15 or 6 meters, whichever is less, measured from the moulded line of the bottom shell plating at centerline	B/15 or 6 meters, whichever is less, measured from the moulded line of the bottom shell plating at centerline

(c) if any damage of a lesser extent than the maximum extent specified in sub-regulations (2)*(a)* and (2)*(b)* would result in a more severe condition, such damage is to be taken in account;

(d) where the damage involving transverse bulkheads is envisaged as specified in sub-regulations (1)*(a)* and (1)*(b)*, transverse watertight bulkheads shall be spaced at least at a distance equal to the longitudinal extent of assumed damage specified in sub-regulations (2)*(a)*(i) in order to be considered effective and where transverse bulkheads are spaced at lesser distance, one or more of these bulkheads within such extent of damage shall be assumed non-existent for the purpose of determining flooded compartments;

(e) where the damage between adjacent transverse watertight bulkheads is envisaged as specified in sub-regulations (1)*(c)*, no main transverse

bulkhead or a transverse bulkhead bounding side tanks or double bottom tanks is assumed to be damaged, unless—

(i) the spacing of the adjacent bulkheads is less than the longitudinal extent of assumed damage specified in sub-regulations (2)*(a)*(i); or

(ii) there is a step or recess in a transverse bulkhead or more than 3.05 meters in length, located within the extent or penetration of assumed damage. The step formed by the after peak bulkhead and after peak tank top shall not be regarded as a step for the purpose of this Division; and

(f) if pipes, duct or tunnels are situated within the assumed extent of damage, arrangements shall be made so that progressive flooding cannot extend to compartments other than those assumed to be floodable for each case of damage.

(3) Subject to sub-regulation (4), an oil tanker shall be regarded as complying with the damage stability criteria if the following requirements are met—

(a) the final waterlines, taking into account sinkage, heel and trim, is below the lower edge of any opening through which progressive flooding can take place where such openings include air pipes and those which are closed by means of weathertight doors or hatch covers and excludes those openings closed by means of watertight manhole covers and flush scuttles, small watertight cargo tank hatch covers which maintain the high integrity of the deck, remotely operated watertight sliding doors, and side scuttles of the non-opening type;

(a) in the final stage of flooding, the angle of heel due to unsymmetrical flooding does not exceed 25 degrees and this angle may be increased up to 30 degrees if deck edge immersion does not occur;

(b) in the final stage of flooding the righting lever curve has at least a range of 20 degrees beyond the position of equilibrium in association with a maximum residual righting lever of at least 0.1 meter within the 20 degrees range and the area under curve within this range is not less than 0.0175 meter radians. Unprotected opening shall not be immersed within this range unless the space concerned is assumed to be flooded. The immersion of any of the openings listed in paragraph *(a)* and other openings capable of being closed weathertight may be permitted within this range; and

(c) the surveyor before approving the stability calculations for the ship for the purposes of the initial survey as required by regulations 91(2)*(a)* is satisfied that the stability is sufficient during intermediate stages of flooding.

(4) Equalisation arrangements requiring mechanical aids such as valves or cross levelling pipes, if fitted, shall not be considered for the purpose of reducing an angle of heel or attaining the minimum range of residual stability to meet the requirements of sub-regulations (3)*(a)*, (3)*(b)* and (3)*(c)*, and sufficient residual stability shall be maintained during all stages where equalisation is used. Spaces which are linked by ducts of a large

cross- sectional area may be considered to be common.

(5) For tankers of 100 meters or less in length where all the requirements of sub-regulation (3) cannot be fulfilled without impairing the operation of the ship, an exemption may be granted in accordance with section 33 of the Decree.

(6) The surveyor undertaking the initial survey required by regulation 91(2)*(a)* shall be satisfied that the requirements of sub-regulation (1) have been complied with by means of calculations which take into consideration the design characteristics of the ship, the arrangements, configuration and contents of the damaged compartments; and the distribution, specific gravities and the free surface effect of liquids. The calculations shall be based on the following—

(a) account shall be taken of any empty or partially filled tank, the specific gravity of cargoes carried, as well as any outflow of liquids from damaged compartments;

(b) the permeability assumed for spaces flooded as a result of damage shall be as follows—

Spaces	**Permeability**
Appropriated to stores	0.60
Occupied by accommodation	0.95
Occupied by machinery	0.85
Voids	0.95
Intended for consumable liquids	0 to 0.95*
Intended for other liquids	0 to 0.95*

* The permeability of partially filled compartments shall be consistent with the amount of liquid carried in the compartment. Whenever damage penetrates a tank containing liquids, it shall be assumed that the contents are completely lost from that compartment and replaced by salt water up to the level of the final plane of equilibrium;

(c) the buoyancy of any superstructure directly above the side damaged shall be disregarded. The unflooded parts of superstructures beyond the extent of damage, however, may be taken into consideration provided that they are separated from the damaged space by watertight bulkheads and the requirements of sub-regulations (3)*(a)* in respect of these intact spaces are complied with. Hinged watertight doors may be acceptable in watertight bulkheads in the superstructure;

(d) the free surface effect is calculated at an angle of heel of 5 degrees for each individual compartment. The Chief Executive Officer may require or allow the free surface corrections to be calculated at an angle of heel greater than 5 degrees for partially filled tanks; and

(e) in calculating the effect of free surfaces of consumable liquids it is assumed that, for each type of liquid at least one transverse pair or a single centreline tank has a free surface and the tank or combination of tanks to be taken into account are those where the effect of free surfaces is the greatest.

(7) The owner of any new oil tanker or any new non-self-propelled oil tanker to which this part applies, shall supply, in an approved form, to the master or to the person in charge of that tanker—

(a) information relating to loading and distribution of cargo necessary to ensure compliance with the provisions of regulation 160; and

(b) data on the ability of the ship to comply with damage stability criteria as determined by regulation 160, including the effect of reductions that may have been allowed under sub-regulation (2)*(c)*.

Intact stability

161.—(1) Regulation 161 applies to any oil tanker of 5,000 tonnes deadweight or more—

(a) for which the building contract was placed on or after 1 February 1999;

(b) in the absence of a building contract, the keel of which was laid or which was at a similar stage of construction on or after 1 August 1999;

(c) the delivery of which was on or after 1 February 2002; or

(d) that has undergone a major conversion—

(i) for which the contract was placed after 1 February 1999; or

(ii) in the absence of a contract, the construction work which began after 1 August 1999; or

(iii) which was completed after 1 February 2002.

(2) The owner and the master of any oil tanker shall ensure that the tanker complies with the following intact stability criteria, calculated for all conditions as if the ballast tanks are slack—

(a) in port, the initial metacentric height GMO, corrected for free surface effect measured at 0 degrees heel, shall be not less than 0.15 meters; and

(b) at sea –

(i) the area under the righting lever curve ("GZ" curve) shall be not less than 0.055 metre radians up to Ø = 30 degrees angle of heel and not less than 0.09 meter radians up to Ø = 40 degrees or other angle of flooding Øf if this angle is less than 40 degrees. Additionally, the area under the righting lever curve between the angles of heel of 30 degrees and 40 degrees or between 30 degrees and Øf, if this angle is less than 40 degrees, shall not be less than 0.03 meter radians;

(ii) the righting lever GZ shall be at least 20 meters at an angle of heel equal to or greater than 30 degrees;

(iii) the maximum righting arm shall occur at an angle of heel preferably exceeding 30 degrees but not less than 25 degrees; and

(iv) the initial metacentric height GMO, corrected for free surface effect measured at 0 degrees heels, shall be not less than 0.15 meters.

(3) The requirements of sub-regulation (2) shall be met through design measures except, in the case of any combination carrier, the requirements may be met through simple written supplementary operational procedures for liquid transfers operations.

(4) The operational procedures referred to in sub-regulation (3) shall—

(a) be approved by the Chief Executive Officer;

(b) indicate those cargo and ballast tanks that may, under any specific condition of liquid transfer and possible range of cargo densities, be slack and still allow the stability criteria to be met;

(c) be readily understandable to the officer in charge of liquid transfer operations;

(d) provide for planned sequences of cargo and ballast transfer operations;

(e) allow comparisons of attained and required stability using stability performance criteria in graphical or tabular form;

(f) not require extensive mathematical calculations by the officer in charge of liquid transfer operations;

(g) provide for corrective actions to be taken by the officer in charge of liquid transfer operations in case of departure from recommended values and in case of emergency situations; and

(h) be appropriately displayed—

(i) in approved trim and stability booklet;

(ii) at the cargo and ballast transfer control station; and

(iii) in any computer software by which stability calculations are performed.

(5) For the purposes of these Regulations—

"Øf" is the angle of heel at which openings in the hull, superstructures or deck-houses, which cannot be closed weathertight, immerse and in applying this criterion, small openings through which progressive flooding cannot take place need not be considered as open; and

"slack tanks" may vary during the liquid transfer operations and be of any combination provided they satisfy the criteria.

Division XIV—Oil Fuel Tank Protection For Oil Tankers

Application of oil fuel tank protection requirements

162.—(1) This Division applies to every oil tanker with an aggregate oil fuel capacity of 600 m^3 and above—

(a) for which the building contract is placed on or after 1 August 2007;

(b) in the absence of a building contract, the keels which are laid or which are at a similar stage of construction on or after 1 February 2008;

(c) the delivery of which is on or after 1 August 2010; or

(d) which has undergone a major conversion –

(i) for which the contract is placed on or after 1 August 2007;

(ii) in the absence of contract, the construction work which began on or after 1 February 2008; or

(iii) which is completed on or after 1 August 2010.

(2) The application of this Division in determining the design, location and construction of tanks used to carry oil fuel does not affect the requirements of regulation 148 which deals with cargo tank protection.

Interpretation for oil fuel protection requirements

163. For the purposes of regulations 162 to 164, the following definitions and definitions in regulation 122 shall apply—

"Breadth" (BS)" is the greatest moulded breadth of the ship, in meters, at or below the deepest load line draught (dS);

"Breadth (BB)" is the greatest moulded breadth of the ship, in meters, at or below the waterline (dB);

"C" is the ship's total volume of oil fuel, including that of the small oil fuel tanks, in m^3, at 98% tank filling;

"load line draught (ds)" is the vertical distance, in metres, from the moulded baseline at mid-length to the waterline corresponding to the summer freeboard draught to be assigned to the ship;

"light ship draught" is the moulded draught amidships corresponding to the Lightweight;

"Oil fuel capacity" means the volume of a tank in m^3, at 98% filling;

"Oil fuel tank" means a tank in which oil fuel is carried, but excludes those tanks which would not contain oil fuel in normal operation, such as overflow tanks;

"Partial load line draught (dp)" is the light ship draught plus 60% of the difference between the light ship draught and the load line draught ds. The partial load line draught (dp) shall be measured in meters;

"Waterline (dB)" is the vertical distance, in meters, from the moulded baseline at mid-length to the waterline corresponding to 30% of the depth DS;

"Small oil fuel tank" is an oil fuel tank with a maximum individual capacity not greater than 30 m^3.

Oil fuel tank protection

164.—(1) Oil fuel tanks shall be located above the moulded line of the bottom shell plating nowhere less than the distance h as specified below—

h = B/20 m or,

h = 2.0 m, whichever is the lesser.

The minimum value of h = 0.76 m.

(2) In the turn of the bilge area and at locations without a clearly defined turn of the bilge, the oil fuel tank boundary line shall run parallel to the line of the midship flat bottom as shown in Figure 4.

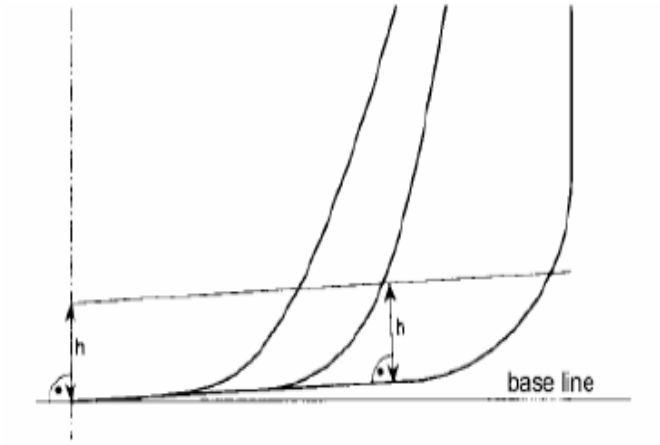


Figure 4 – Oil fuel tank boundary lines for oil tankers with oil fuel capacity of 600 m³ or more but less than 5,000 m³

(3) For ships having an aggregate oil fuel capacity of 600 m³ or more but less than 5,000 m³, oil fuel tanks shall be located inboard of the moulded line of the side shell plating, nowhere less than the distance w which, as shown in Figure 5, is measured at any cross-section at right angles to the side shell, as specified below—

$$w = 0.4 + 2.4\ C/20{,}000\ m$$

The minimum value of w = 1.0 m, however for individual tanks with an oil fuel capacity of less than 500 m³ the minimum value is 0.76 m.

(4) For ships having an aggregate oil fuel capacity of 5,000 m³ or more, oil fuel tanks shall be located inboard of the moulded line of the side shell plating, nowhere less than the distance w which, as shown in Figure 5, is measured at any cross-section at right angles to the side shell, as specified below—

w = 0.5 + C/20,000 m or

w = 2.0 m, whichever is the lesser.

The minimum value of w = 1.0 m

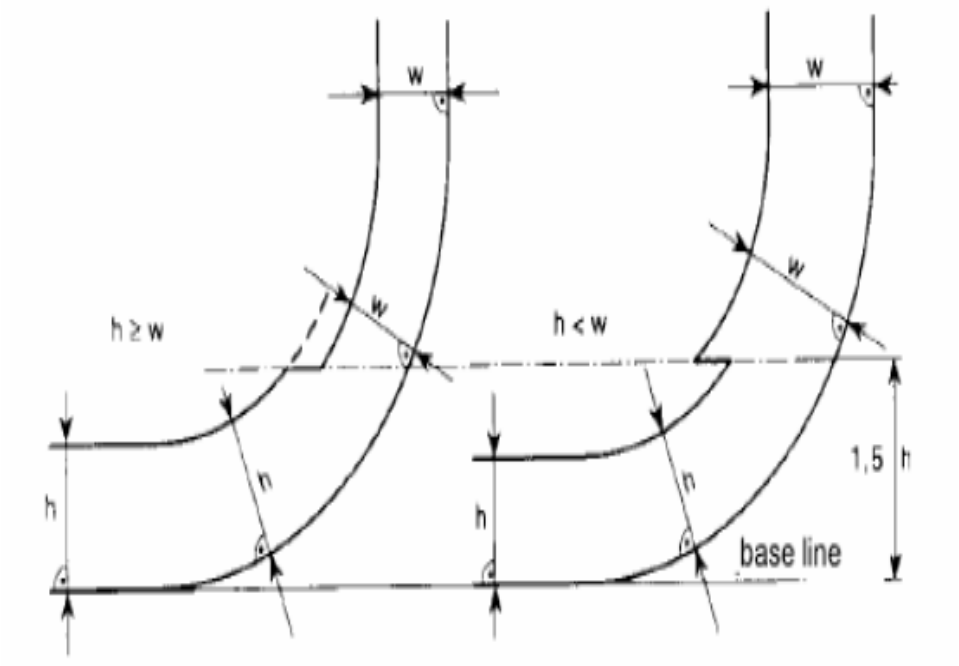


Figure 5 – Oil fuel tank boundary lines for the purposes of sub-regulations (3) and (4)

(5) Lines of oil fuel piping located at a distance from the ship's bottom of less than h, as defined in sub-regulations (1), or from the ship's side less than w, as defined in sub-regulations (3) and (4) shall be fitted with valves or similar closing devices within or immediately adjacent to the oil fuel tank. These valves shall be capable of being brought into operation from a readily accessible enclosed space the location of which is accessible from the navigation bridge or propulsion machinery control position without traversing exposed freeboard or superstructure decks. The valves shall close in case of remote control system failure (fail in a closed position) and shall be kept closed at sea at any time when the tank contains oil fuel except that they may be opened during oil fuel transfer operations.

(6) Suction wells in oil fuel tanks may protrude into the double bottom below the boundary line defined by the distance h provided that such wells are as small as practicable and the distance between the well bottom and the bottom shell plating is not less than 0.5 h.

(7) Alternatively to sub-regulations (1) and either (3) or (4), ships shall comply with the accidental oil fuel outflow performance standard specified below—

(a) the level of protection against oil fuel pollution in the event of collision or grounding shall be assessed on the basis of the mean oil outflow parameter as follows—

$OM < 0.0157\text{-}1.14E\text{-}6\ C$	$600\ m^3 \leq C < 5{,}000\ m^3$
$OM < 0.010$	$C \geq 5{,}000\ m^3$

Where –

OM = mean oil outflow parameter;
C = total oil fuel volume.

(b) the following general assumption shall apply when calculating the mean oil outflow parameter—

(i) the ship shall be assumed loaded to the partial load line draught dP without trim or heel;

(ii) all oil fuel tanks shall be assumed loaded to 98% of their volumetric capacity;

(iii) the nominal density of the oil fuel (Pn) shall generally be taken as 1,000 kg/m^3. If the density of the oil fuel is specifically restricted to a lesser value, the lesser value may be applied; and

(iv) for the purpose of these outflow calculations, the permeability of each oil fuel tank shall be taken as 0.99, unless proven otherwise;

(c) the following assumptions shall be used when combining the oil outflow parameters—

(i) the mean oil outflow shall be calculated independently for side damage and for bottom damage and then combined into a non-dimensional oil outflow parameter OM, as follows—

$$OM = (0.4\ OMS + 0.6\ OMB) / C$$

where –

OMS = mean outflow for side damage, in m^3

OMB = mean outflow for bottom damage, in m^3

C = total oil fuel volume.

(ii) for bottom damage, independent calculations for mean outflow shall be done for 0 m and 2.5 m tide conditions, and then combined as follows—

$$OMB = 0.7\ OMB(0) + 0.3\ OMB(2.5)$$

where –

OMB(0) = mean outflow for 0m tide condition, and

OMB(2.5)= mean outflow for minus 2.5m tide condition, in m^3.

(d) the mean outflow for side damage OMS shall be calculated as follows—

$$O_{MS} = \sum_{i}^{n} P_{S(i)}\ O_{S(i)}\ [m^3]$$

where –

i = represents each oil fuel tank under consideration;

n = total number of oil fuel tanks;

PS(i) = the probability of penetrating oil fuel tank i from side damage, calculated in accordance with sub-regulation (7)*(f)*;

OS(i) = the outflow, in m^3, from side damage to oil fuel tank i, which is assumed equal to the total volume in oil fuel tank i at 98% filling.

(e) the mean outflow for bottom damage shall be calculated for each tidal condition as follows—

(i) $O_{MB}(0)= \sum_{i}^{n} P_B(i)\, O_B(i)\, C_{DB}(i)\ [m^3]$

where –

i = represents each oil fuel tank under consideration;

n = total number of oil fuel tanks;

PB(i) = the probability of penetrating oil fuel tank i from bottom damage, calculated in accordance with sub-regulation(7)*(g)*

OB(i) = the outflow from oil fuel tank i, in m^3, calculated in accordance with sub-regulation (7)*(e)(iii)*; and

CDB(i)= factor to account for oil capture as defined in sub-regulations (7)*(e)(iii)*.

(ii) $O_{MB}(2.5)= \sum_{i}^{n} P_B(i)\, O_B(i)\, C_{DB}(i)\ [m^3]$

where –

i, n, PB(i) and CDB(i) = as defined in this sub-regulation

OB(i) = the outflow from oil fuel tank i, in m^3, after tidal change.

(iii) The oil outflow OB(i) for each oil fuel tank shall be calculated based on pressure balance principles, in accordance with the following assumptions—

(aa) The ship shall be assumed stranded with zero trim and heel, with the stranded draught prior to tidal change equal to the partial load line draught dP.

(bb) The oil fuel level after damage shall be calculated as follows—

$hF= \{(d_p + tC - Zl)(\ pS)\}/pn$

where –

hF = the height of the oil fuel surface above Zl, in m;

tC = the tidal change, in m. Reductions in tide shall be expressed as negative values;
Zl = the height of the lowest point in the oil fuel tank above the baseline, in m;
pS = density of seawater, to be taken as 1,025 kg/ m^3; and,
pn = nominal density of the oil fuel, as defined in sub-regulation (7)(b)(iii).

(cc) The oil outflow OB(i) for any tank bounding the bottom shell plating shall be taken to be not less than the sum of the following formula, but no more than the tank capacity—

$$OB(i) = Hw \quad A$$

where –

Hw = 1.0 m, when YB = 0

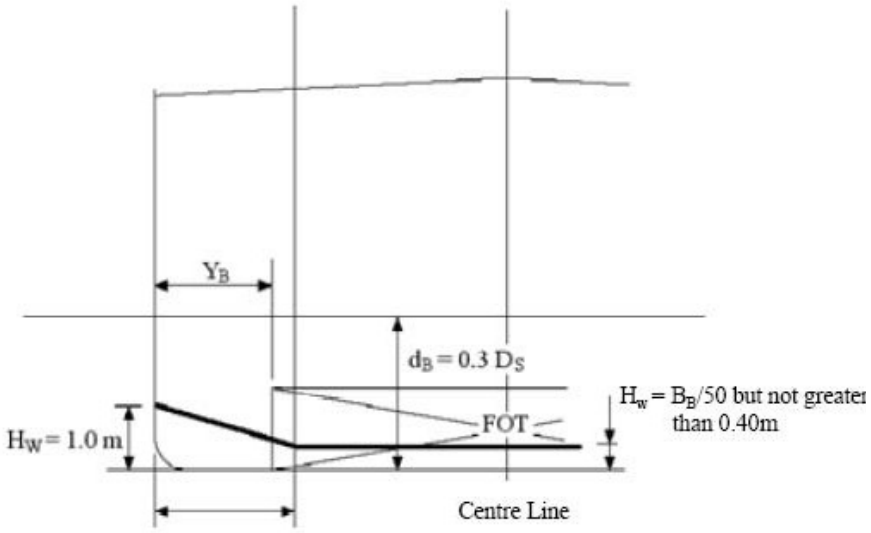
Hw = BB/50 but not greater than 0.4 m, when YB is greater than BB/5 or 11.5 m, whichever is less and "Hw" is to be measured upwards from the midship flat bottom line. In the turn of the bilge area and at locations without a clearly defined turn of the bilge, Hw is to be measured from a line parallel to the midship flat bottom, as shown for distance "h" in Figure 6.

For YB values outboard BB/5 or 11.5 m, whichever is less, Hw is to be calculated by linear interpolation.

YB = the minimum value of YB over the length of the oil fuel tank, where at any given location, YB is the transverse distance between the side shell at waterline dB and the tank at or below waterline dB.

A = the maximum horizontal projected area of the oil fuel tank up to the level of Hw from the bottom of the tank.

Figure 6 – Dimensions for calculation of the minimum oil outflow for the purpose of sub-regulation (7)(e)(iii)(cc)



(dd) In the case of bottom damage, a portion from the outflow from an oil fuel tank may be captured by non-oil compartments. This effect is approximated by application of the factor CDB(i) for each tank, which shall be taken as follows—

CDB(i) = 0.6 for oil fuel tanks bounded from below by non-oil compartments;

CDB(i) = 1 otherwise

(f) The probability PS of breaching a compartment from side damage shall be calculated as follows—

(i) PS = PSL . PSV . PST

where –

PSL = (1 – PSf – PSa) = probability the damage will extend into the longitudinal zone bounded by Xa and Xf;

PSV = (1 – PSu – PSl) = probability the damage will extend into the vertical zone bounded by Zl and Zu;

PST = (1 – PSy) = probability the damage will extend transversely beyond the boundary defined by y;

(ii) PSa, PSf, PSu and PSl shall be determined by linear interpolation from the table of probabilities for side damage provided in sub-

regulation (7)*(f)*(iii), and PSy shall be calculated from the formulas provided in that sub-regulation,

where—

PSa = the probability the damage will lie entirely aft of location Xa/L;

PSf = the probability the damage will lie entirely forward of location Xf/L;

PSl = probability the damage will lie entirely below the tank;

PSu = probability the damage will lie entirely above the tank; and

PSy = probability the damage will lie entirely outboard the tank.

Compartment boundaries Xa, Xf, Zl, Zu and y shall be developed as follows—

Xa = the longitudinal distance from aft terminal of L to the aft most point on the compartment being considered, in m;

Xf =the longitudinal distance from aft terminal of L to the foremost point on the compartment being considered, in m;

Zl = the vertical distance from the moulded baseline to the lowest point on the compartment being considered, in m. Where Zl is greater than DS, Zl shall be taken as DS;

Zu = the vertical distance from the moulded baseline to the highest point on the compartment being considered, in m. Where Zu is greater than DS, Zu shall be taken as DS; and,

y = the minimum horizontal distance measured at right angles to the centreline between the compartment under consideration and the side shell, in m.[1]

In way of the turn of the bilge, y need not to be considered below distance h above baseline, where h is lesser of B/10, 3 m or the top of the tank.

(iii) Table of probabilities for side damage

[1]For symmetrical tank arrangements, damages are considered for one side of the ship only, in which case all "y" dimensions are to be measured from that side. For asymmetrical arrangements reference is made to the explanatory notes on matters related to the accidental oil outflow performance, adopted by the Organization by resolution MEPC.122(52).

X_a/L	P_{sa}
0.00	0.000
0.05	0.023
0.10	0.068
0.15	0.117
0.20	0.167
0.25	0.217
0.30	0.267
0.35	0.317
0.40	0.367
0.45	0.417
0.50	0.467
0.55	0.517
0.60	0.567
0.65	0.617
0.70	0.667
0.75	0.717
0.80	0.767
0.85	0.817
0.90	0.867
0.95	0.917
1.00	0.967

X_f/L	P_{sf}
0.00	0.967
0.05	0.917
0.10	0.867
0.15	0.817
0.20	0.767
0.25	0.717
0.30	0.667
0.35	0.617
0.40	0.567
0.45	0.517
0.50	0.467
0.55	0.417
0.60	0.367
0.65	0.317
0.70	0.267
0.75	0.217
0.80	0.167
0.85	0.117
0.90	0.068
0.95	0.023
1.00	0.000

Z_l/D_S	P_{SI}
0.00	0.000
0.05	0.000
0.10	0.001
0.15	0.003
0.20	0.007
0.25	0.013
0.30	0.021
0.35	0.034
0.40	0.055
0.45	0.085
0.50	0.123
0.55	0.172
0.60	0.226
0.65	0.285
0.70	0.347
0.75	0.413
0.80	0.482
0.85	0.553
0.90	0.626
0.95	0.700
1.00	0.775

Z_U/D_S	P_{SU}
0.00	0.968
0.05	0.952
0.10	0.931
0.15	0.905
0.20	0.873
0.25	0.836
0.30	0.789
0.35	0.733
0.40	0.670
0.45	0.599
0.50	0.525
0.55	0.452
0.60	0.383
0.65	0.317
0.70	0.255
0.75	0.197
0.80	0.143
0.85	0.092
0.90	0.046
0.95	0.013
1.00	0.000

PSy shall be calculated as follows—

PSy = (24.96 – 199.6 y/BS) (y/BS) for y/BS ≤ 0.05

PSy = 0.749 + □5 – 44.4 (y/BS – 0.05)□ (y/ BS) – 0.05□ for 0.05 < y/ BS < 0.1

PSy = 0.888 + 0.56 (y/BS -0.1) for y/ BS ≥ 0.1

PSy is not to be taken greater than 1.

(g) The probability PB of breaching a compartment from bottom damage shall be calculated as follows:

(i) PB = PBL . PBT . PBV where-

PBL = (1 – PBf – PBa) = probability the damage will extend into the longitudinal zone bounded by Xa and Xf;

PBT = (1 – PBp – PBS) = probability the damage will extend into transverse zone bounded by Yp and Ys; and

PBV = (1 – PBz) = probability the damage will extend vertically above the boundary defined by z;

(ii) PBa, PBf, PBp and PBS shall be determined by linear interpolation from the table of probabilities for bottom damage provided in sub-regulation (7)*(g)*(iii), and PBz shall be calculated from the formulas provided in that sub-regulation, where—

PBa = the probability the damage will lie entirely aft of location Xa/L;

PBf = the probability the damage will lie entirely forward of location Xf/L;

PBp = probability the damage will lie entirely to port of the tank;

PBs = probability the damage will lie entirely to starboard the tank; and

PBz = probability the damage will lie entirely below the tank.

Compartment boundaries Xa, Xf, Yp, Ys and z shall be developed as follows—

Xa and Xf as defined in sub-regulation (7)*(f)*(ii);

Yp = the transverse distance from the port-most point on the compartment located at or below the waterline dB, to a vertical plane located BB/2 to starboard of the ship's centreline;

Ys = the transverse distance from the starboard-most point on the compartment located at or below the waterline dB, to a vertical plane located BB/2 to starboard of the ship's centreline; and

z = the minimum value of z over the length of the compartment, where, at any given longitudinal location, z is the vertical distance from the lower point of the bottom shell at that longitudinal location to the lower point of the compartment at that longitudinal location.

(iii) Table of probabilities for bottom damage

X_a/L	P_{Ba}	X_f/L	P_{Bf}	$Y_p B_B$	P_{Bp}	Y_s/B_B	P_{Bs}
0.00	0.000	0.00	0.969	0.00	0.844	0.00	0.000
0.05	0.002	0.05	0.953	0.05	0.794	0.05	0.009
0.10	0.008	0.10	0.936	0.10	0.744	0.10	0.032
0.15	0.017	0.15	0.916	0.15	0.694	0.15	0.063
0.20	0.029	0.20	0.894	0.20	0.644	0.20	0.097
0.25	0.042	0.25	0.870	0.25	0.594	0.25	0.133
0.30	0.058	0.30	0.842	0.30	0.544	0.30	0.171
0.35	0.076	0.35	0.810	0.35	0.494	0.35	0.211
0.40	0.096	0.40	0.775	0.40	0.444	0.40	0.253
0.45	0.119	0.45	0.734	0.45	0.394	0.45	0.297
0.50	0.143	0.50	0.687	0.50	0.344	0.50	0.344
0.55	0.171	0.55	0.630	0.55	0.297	0.55	0.394
0.60	0.203	0.60	0.563	0.60	0.253	0.60	0.444
0.65	0.242	0.65	0.489	0.65	0.211	0.65	0.494
0.70	0.289	0.70	0.413	0.70	0.171	0.70	0.544
0.75	0.344	0.75	0.333	0.75	0.133	0.75	0.594
0.80	0.409	0.80	0.252	0.80	0.097	0.80	0.644
0.85	0.482	0.85	0.170	0.85	0.063	0.85	0.694
0.90	0.565	0.90	0.089	0.90	0.032	0.90	0.744
0.95	0.658	0.95	0.026	0.95	0.009	0.95	0.794
1.00	0.761	1.00	0.000	1.00	0.000	1.00	0.844

PBz shall be calculated as follows –

$PBz = (14.5 – 67\ z/DS)\ (z/DS)$ for $z/DS \leq 0.1$

$PBz = 0.78 + 1.1$ í(z/DS -0.1)ý for $z/DS > 0.1$

PBz is not to be taken greater than 1.

(h) For the purpose of maintenance and inspection, any oil fuel tanks that do not border the outer shell plating shall be located no closer to the bottom shell plating than 0.76 m and no closer to the side shell plating than the applicable value of w in sub-regulation (3) or (4).

(8) Individual oil fuel tanks shall not have a capacity of over 2,500m^3.

(9) Before approving the design and construction of ships to be built in accordance with this regulation, the Chief executive officer shall be satisfied that the design—

(a) has due regard to the need for maintenance and inspection of wing and double bottom tanks or spaces; and

(b) is such to ensure that the ship is seaworthy in all respects.

Division XV—Application For ships Other Than Oil Tankers

Application

165. Regulations 166 to 168 apply to every Fiji ship that is not an oil tanker the keel of which is laid or which is at a similar stage of construction, or which has undergone a major conversion, on or after the date of coming into force of these Regulations.

Division XVI—Design And Construction Requirements For Ships Other Than Oil Tankers

Segregation of oil fuel and water ballast

166.—(1) Except as provided for in sub-regulation (2), the owner of any ship which is—

(a) a ship of 4000 tons gross tonnage or more; or

(b) a ship of 150 tons gross tonnage or more which is fitted with cargo spaces designed and constructed to carry oil in bulk of an aggregate capacity of 200 cubic meters or more;

shall ensure that the ship's design and construction does not provide for the carriage of ballast water in any oil fuel tank.

(2) Where abnormal conditions or the need to carry large quantities of oil fuel make it necessary for the ship's design and construction to provide for the carriage of ballast water, which is not clean ballast, in any oil fuel tanks, the owner of the ship shall ensure that means are provided so that such ballast water can be discharged to reception facilities or into the sea in compliance with the requirements of Part 2 of these Regulations, using equipment which complies with the requirements of this part of the regulations.

(3) The owner of any ship, other than a ship subject to sub-regulation (1), shall ensure that the design and construction of the ship does not provide for the carriage of ballast water in any oil fuel tank, unless an exemption from sub-regulation (3) is granted under section 33 of the Decree.

Carriage of oil in the forepeak

167.—(1) The owner of any ship of 400 tons gross tonnage or more, shall ensure that the design and construction of the ship does not provide for the carriage of oil in any forepeak tank or any tank forward of the collision bulkhead.

(2) The owner of any ship, other than one required to comply with sub-regulation (1), shall comply with sub-regulation (1) unless an exemption is granted under section 33 of the Decree.

Slop tanks

168.—(1) Subject to sub-regulation (2), the owner of any ship which is fitted with cargo spaces designed and constructed to carry oil in bulk of an aggregate capacity of 200 cubic meters or more shall ensure that the ship is provided with adequate means of cleaning the cargo tanks and transferring the dirty ballast residue and tank washings from the cargo tanks into a slop tank which meets the requirements of sub-regulation (3).

(2) No slop tank is required to be fitted to a ship where—

(a) the cargo spaces for the carriage of oil in bulk have an aggregate capacity of less than 1000 cubic meters; and

(b) the control of discharge of oil under Part 2 of these Regulations is to be effected by the retention of oil on board with subsequent discharge of all contaminated washings to reception facilities.

(3) The owner of any ship, which is not a ship referred to in sub-regulation (2), shall ensure that the slop tank or combination of slop tanks have a capacity necessary to retain the slop generated by tank washings, oil residues and dirty ballast residues. The total capacity of the slop tank or tanks shall not be less than 3 per cent of the oil carrying capacity of the ship. The Chief Executive Officer may accept a capacity of 2 per cent of the carrying capacity of the ship where the tank washing arrangements are to be such that once the slop tank or tanks are charged with washing water, this water is sufficient for tank washing and, where applicable, for providing the driving fluid for educators, without the introduction of additional water into the system.

Limitation of size of oil cargo tanks

169.—(1) The owner of any ship which is to be fitted with cargo spaces designed and constructed to carry oil in bulk of an aggregate capacity of 200 cubic meters or more, shall ensure that the length of each cargo tank does not exceed 10 meters or one of the following values, whichever is greater—

(a) where no longitudinal bulkhead is provided inside the cargo tanks—

$$(0.5\ b_{i/B} + 0.1)L$$

but not to exceed 0.2L;

(b) where a centreline longitudinal bulkhead is provided inside the cargo tanks—

$(0.25\ b_{i/B} + 0.15)L$; or

(c) where two or more longitudinal bulkheads are provided—

(i) for wing cargo tanks: 0.2L

(ii) for center cargo tanks—

(aa) if $b_{i/B}$ is equal to or greater than one fifth: 0.2L

(bb) if $b_{i/B}$ is less than one fifth—

—where no centerline longitudinal bulkhead is provided—

$$(0.5\ b_{i/B} + 0.1)L$$

—where a centerline longitudinal bulkhead is provided—

$$(0.25\ b_{i/B} + 0.15)L$$

(2) The following definitions apply to this regulation—

(a) b_i is the minimum distance from the ship's side to the outer longitudinal bulkhead of the tank in question measured inboard at right angles to the centerline at the level corresponding to the assigned summer freeboard;

(b) B means the maximum breadth as defined in regulation 122; and

(b) L means the length as defined in regulation 122.

Division XVII—Oil Fuel Tank Protection
For Ships Other Than Oil Tankers

Application of oil fuel tank protection requirements

170.—(1) This Regulation applies to every ship that is not an oil tanker with an aggregate oil fuel capacity of 600 cubic meters or more—

(a) for which the building contract is placed on or after 1 August 2007;

(b) in the absence of a building contract, the keels of which are laid or which are at a similar stage of construction on or after 1 February 2008 of which is on or after 1 August 2010;

(c) the delivery of which is on or after 1 August 2010; or

(d) which has undergone a major conversion —

(i) for which the contract is placed on or after 1 August 2007;

(ii) in the absence of contract, the construction work of which is begun on or after 1 February 2008; or

(iii) which is completed on or after 1 August 2010.

(2) These Regulations apply to the design, location and construction of all oil fuel tanks except small oil fuel tanks provided that the aggregate capacity of such excluded tanks is not greater than 600 m^3.

Interpretation for oil fuel protection requirements

171. The provisions of regulation 163 shall apply to this regulation.

Oil fuel tank protection

172. The provisions of regulation 164 shall apply to this regulation.

Division XVIII—Ship Design And Construction For
Ships Carrying Noxious Liquid Substances In Bulk

Application

173.—(1) Regulations 174 to 176 apply to every Fiji ship that carries noxious liquid substances in bulk as cargo.

(2) Regulations 177 and 178 apply to every foreign ship carrying noxious liquid substances in bulk as cargo while operating under Fiji waters.

Chemical tankers

174.—(1) The owner of every chemical tanker which is carrying noxious liquid substances in bulk as cargo shall ensure that the design, construction, and equipment of the ship is such as to minimise the uncontrolled discharge into the sea of such substances.

(2) The owner of every chemical tanker, constructed on or after 1 July 1986, shall ensure its design, construction, and equipment complies with the requirements of the IBC Code.

(3) The owner of every chemical tanker —

(a) constructed before 1 July 1986 and for which the building contract is placed on or after 2 November 1973 and which is engaged on voyages to ports or offshore terminals or offshore installations under the waters of other States parties to MARPOL; or

(b) constructed before 1 July 1986 but on or after 1 July 1983 and which is engaged solely on voyages between ports or offshore terminals or offshore installations in Fiji waters;

shall ensure that the tanker's design, construction, and equipment complies with the requirements of the BCH Code as applicable to ships referred to in sub-paragraph 1.7.2 of that Code.

(4) The owner of every chemical tanker—

(a) constructed before 1 July 1986 and for which the building contract is placed before 2 November 1973 and which is engaged on voyages to ports or offshore terminals or offshore installations in the waters of other States parties to MARPOL; or

(b) constructed before 1 July 1983 which is solely engaged on voyages between ports or to offshore terminals or offshore installations in Fiji waters shall ensure that the tanker's design, construction, and equipment complies with the requirements of the BCH Code as applicable to ships referred to in sub-paragraph 1.7.3 of that Code.

Ships other than chemical tankers

175.—(1) The owner of a ship, which is carrying noxious liquid substances in bulk, but which is not a chemical tanker, shall ensure that the design, construction, and equipment of the ship is such as to minimise the uncontrolled discharge into the sea of such substances.

(2) In order to ensure that the provisions of sub-regulation (1) are complied with, the owner of a ship which is carrying noxious liquid substances in bulk, but which is not a chemical tanker, shall ensure that the design, construction, and equipment of the ship is in accordance with the applicable requirements of the IBC Code or BCH Code or if the ship is an offshore support vessel or a general dry cargo ship, the guidelines developed by the IMO for such ships as amended from time to time.[2]

Pumping, piping and unloading arrangements

176.—(1) Except as provided in sub-regulations (2) and (11), the owner of every ship to which this regulation applies that carries any category X, Y, or Z substance in bulk as

[2] IMO Assembly Resolution A. 673(16) Guidelines for the Transport and Handling of Limited Amounts of Hazardous and Noxious Liquid Substances in Bulk on Offshore Support Vessels; and Marine Environment Protection Committee resolution as amended by MEPC.158(55), MSC.184(79), MSC 236(82). MEPC.148(54) Revised Guidelines for the Transport of Vegetable Oils in Deep Tanks or Independent Tanks Specially Designed for the Carriage of Such Vegetable Oils in General Dry Cargo Ships.

cargo shall ensure that the ship is provided with pumping and piping arrangements that ensure that every tank that is designated for the carriage of the substance, and its associated piping, does not contain any residue in excess of the quantities specified in Table 3.

Table 3	category X	category Y	category Z
Ship constructed before 1 July 1986	300 litres	300 litres	900 litres
Ship constructed on or after 1 July 1986 but before 1 January 2007	100 litres	100 litres	300 litres
Ship constructed on or after 1 January 2007	75 litres	75 litres	75 litres

(2) If the owner of a ship, other than a chemical tanker, constructed before 1 January 2007 cannot comply with sub-regulation (1) in respect of a category Z substance, the owner shall be deemed to have complied with that sub-regulation if the tank is emptied as far as is practicable.

(3) The owner of a ship shall ensure that before the ship carries a category X, Y or Z substance, a test of the performance of the pumping and piping arrangements is carried out using a test procedure approved by the Chief Executive Officer and which complies with the procedure for the assessment of residue quantities in cargo tanks, pumps and associated piping, prescribed in Appendix 5 of Annex II of MARPOL.

(4) Except as provided for in sub-regulation (5), the owner of a ship certified to carry substances of category X, Y or Z, shall ensure that the ship has an underwater discharge outlet (or outlets) complying with sub-regulations (6) to (8) inclusive.

(5) For ships constructed before 1 January 2007 and certified to carry substances in category Z, an underwater discharge outlet is not required.

(6) The underwater discharge outlet (or outlets) shall be located within the cargo area in the vicinity of the turn of the bilge and shall be so arranged as to avoid the re-intake of residue/water mixtures by the ship's seawater intakes.

(7) The underwater discharge outlet arrangement shall be such that the residue/water mixture discharged into the sea will not pass through the ship's boundary layer. To this end, when the discharge is made normal to the ship's shell plating, the minimum diameter of the discharge outlet is governed by the following equation—

$$d = \frac{Qd}{5Ld}$$

Where—

d = minimum diameter of the discharge outlet (m)

Ld = distance from the forward perpendicular to the discharge outlet (m)

Qd= the maximum rate selected at which the ship may discharge a residue/water mixture through the outlet (m^3/h).

(8) When the discharge is directed at an angle to the ship's shell plating, the above relationship shall be modified by substituting for Qd the component of Qd which is normal to the ship's shell plating.

(9) Subject to sub-regulation (10), the provisions of sub-regulation (1) do not apply to a ship constructed before 1 July 1986 which is engaged only in voyages within Fiji waters if—

(a) each time a tank containing category X, Y or Z substances or mixtures is to be washed or ballasted, the tank is washed in accordance with a prewash procedure approved by the Chief Executive Officer in compliance with Appendix 6 to Annex II of MARPOL and the tank washings are discharged to a reception facility;

(b) subsequent washings or ballast water are discharged to a reception facility or at sea in accordance with the provisions of Part 2 of these Regulations;

(c) the adequacy of any reception facilities to be used for the purpose of this paragraph is approved by the Chief Executive Officer; and

(d) the certificate required by Part 3 of these Regulations is endorsed to the effect that the ship is solely engaged in voyages within Fiji waters.

(10) The Chief Executive Officer may approve in writing the reception facilities within Fiji waters for the purposes of sub-regulations (9)*(b)* and (11)*(a)*.

(11) The provisions of sub-regulation (1) shall not apply to a ship whose constructional and operational features are such that ballasting of cargo tanks is not required and cargo tank washing is only required for repair or dry-docking, if—

(a) any effluent from tank washings which may be carried before a repair or dry-docking is discharged to a reception facility approved by the Chief Executive Officer; and

(b) the certificate required by Part 3 of these Regulations indicates—

(i) that each cargo tank is certified for the carriage of a restricted number of substances which are comparable and can be carried alternately in the same tank without intermediate cleaning; and

(ii) that the ship does not comply with sub-regulation (1); and

(c) the ship's Procedures and Arrangements Manual required by Part 3 of these Regulations contains procedures for carrying out the requirement in sub-regulation (11)*(a)*.

Operations—Chemical tankers

177.—(1) The owner and the master of every chemical tanker, carrying noxious liquid substances in bulk as cargo, shall ensure that the operation of the ship is such as to minimise the uncontrolled discharge into the sea of such substances.

(2) The owner and the master of every chemical tanker, constructed on or after 1 July 1986 shall ensure that the operation of the ship complies with the operational requirements of the IBC Code.

(3) The owner and the master of every chemical tanker, constructed before 1 July 1986 shall ensure that the operation of the ship complies with the operational requirements of the BCH Code.

Operations – Ships other than chemical tankers

178.—(1) The owner and the master of a ship which is carrying noxious liquid substances in bulk as cargo, but which is not a chemical tanker, shall ensure the operation of the ship is such as to minimise the uncontrolled discharge into the sea of such substances.

(2) In order to ensure that the provisions of sub-regulation (1) are complied with, the owner and the master of a ship which is carrying noxious liquid substances in bulk as cargo, but which is not a chemical tanker, shall ensure the operation of the ship is in accordance with the applicable requirements of the IBC Code or BCH Code or if the ship is an offshore support vessel or a general dry cargo ship, the guidelines developed by the IMO for such ships as amended from time to time.

PART 6—PLANS AND RESPONSES TO PROTECT MARINE ENVIRONMENT FROM MARINE SPILLS

Interpretations applying to Part 6

179. In this Part, unless the context otherwise requires,—

"Emergency spill response procedures" means those procedures of an offshore installation approved Discharge Management Plan prepared or required to be prepared in accordance with clause 2 of Appendix 3 of this part, and the emergency spill response procedures are a site marine oil spill contingency plan for an offshore installation;

"marine spill" means any actual or probable release, discharge, or escape of oil, harmful substance, and noxious liquid substance into the waters of Fiji;

"marine oil spill" means any actual or probable release, discharge, or escape of oil into the Fiji waters;

"Municipal Council" means the town councils and the city councils;

"Municipal Marine Spill Contingency Plan" means a plan as defined by section 154 of the Decree prepared by a Municipal Council and approved by the Chief Executive Officer or prepared by the Chief Executive Officer under section 177 of the Decree;

"National Marine Spill Contingency Plan" or "NATPLAN" means the plan most recently prepared or reviewed under section 178 of the Decree;

"transfer site or site" means any site that is defined by section 154 of the Decree that is used to transfer harmful substances, or, at or from which harmful substance is transferred, to, or from, a ship, or an offshore installation;

"Operator" in relation to an oil transfer site, includes any manager, lessee, licensee or other person in charge of the site;

"Provincial Council" means the Provincial Councils constituted under section 7 of the i-Taukei Affairs Act (Cap 120);

"Provincial Marine Spill Contingency Plan" means a plan prepared by a Provincial Council and approved by the Chief Executive Officer or prepared by the Chief Executive Officer under section 169 of the Decree;

"Shipboard Marine Spill Contingency Plan" means a plan as defined by section 154 of the Decree in respect of a ship and providing for the measures to be taken in respect of marine spills from ships which includes the shipboard marine oil spill contingency plan and shipboard marine pollution emergency plan for noxious liquid substance;

"Shipboard Marine Spill Contingency Plan" means a shipboard emergency plan for oil spills;

"Shipboard marine pollution emergency plan for noxious liquid substances" or "noxious liquid substance plan" means a shipboard emergency plan for noxious liquid substances spills;

"Shipboard oil pollution emergency plan" means a plan required by Regulation 26 of Annex 1 of MARPOL; and

"Site Marine Spill Contingency Plan" means a plan as defined in section 154 of the Decree prepared in respect of an offshore installation or device, or oil transfer site, and providing for the measures to be taken in respect of marine spills from the offshore installation or oil transfer site, as the case may be.

Division I—Shipboard Marine Oil Spill Contingency Plan,—Fiji Ships

Application for shipboard marine oil spill contingency plan

180.—(1) Subject to sub-regulation (2), regulations 181 to 198 apply to every Fiji ship that is an oil tanker of 150 gross tonnage or more, and every Fiji ship of 400 gross tonnage or more.

(2) Nothing in regulations 181 to 198 applies to any non-self-propelled barge of 400 gross tonnage or more provided that the barge is fitted with auxiliary engines with an output of less than 400 kW, and equipped with installations to ensure storage of oil residues on board for subsequent discharge to reception facilities and not designed to carry oil in bulk in its cargo spaces.

Requirements for shipboard marine spill oil contingency plan

181.—(1) The owner and the master of any ship shall ensure that there is a Shipboard Marine Spill Contingency Plan for the ship which is—

(a) prepared in accordance with regulations 182 to 193;

(b) approved in accordance with regulation 194;

(c) reviewed in accordance with regulation 195 and 196;

(d) kept in accordance with regulation 197; and

(e) carried on board the ship at all times.

(2) The owner of any ship shall hold an up to date copy of the ship's approved Shipboard Marine Spill Contingency Plan.

Division II—Preparation Of A Shipboard Marine Spill Contingency Plan

Language

182. The Shipboard Marine Spill Contingency Plan shall be written in English and the working language of the master and the officers of the ship.

Contents of the Shipboard Marine Spill Contingency Plan

183. The Shipboard Marine Spill Contingency Plan shall contain—

(a) the procedures to be followed by the master to report a discharge or escape, or probable discharge or escape, of oil into the sea;

(b) the list of authorities or persons, as set out in regulation 186, to be contacted in the event of a discharge or escape, or probable discharge or escape, of oil into the sea;

(c) a detailed description of the action to be taken immediately by persons onboard to reduce or control any discharge or escape of oil or; and

(d) the procedure and point of contact on the ship for coordinating shipboard response activities with national and local authority responses to a discharge or escape, or probable discharge or escape, of oil into the sea.

Reporting a discharge or escape, or probable discharge or escape, of oil into the sea to the nearest coastal state

184.—(1) The Shipboard Marine Spill Contingency Plan shall require that whenever there is—

(a) a discharge or escape, or probable discharge or escape, of oil into the sea resulting from damage to the ship or its equipment, or for the purpose of securing the safety of a ship or saving life at sea; or

(b) a discharge or escape of oil into the sea, during the operation of the ship, that is contrary to Part 2 of these Regulations,

a report is made by the fastest telecommunications channels available and with the highest possible priority to the appropriate authority in the nearest coastal state—

(i) in accordance with regulation 6 and 9 as applicable, where the nearest coastal state is Fiji; or

(ii) by the master the ship, or the owner of the ship where the master does not make a report, where the nearest coastal state is not Fiji.

(2) The Shipboard Marine Spill Contingency Plan shall specify the form and content of the reports referred to in sub-regulation (1) in accordance with the IMO Assembly resolution A.851(20) as revised by the IMO from time to time. A sample report form shall be included or appended to the plan.

(3) The Shipboard Marine Spill Contingency Plan shall require that in accordance with the IMO Assembly resolution A.851(20) as revised by the IMO from time to time—

(a) initial reports, referred to in sub-regulations (1) and (2) are supplemented as necessary and when possible, and information concerning further developments is provided; and

(b) requests from affected States for additional information are complied with as fully as possible.

(4) The Shipboard Marine Spill Contingency Plan shall, in accordance with section 182 of the Decree, specify the criteria and procedure for notifying the—

(a) Chief Executive Officer; or

(b) appropriate municipal or Provincial Council;

of a discharge or escape, or probable discharge or escape, of oil substance from a ship into the internal waters of Fiji and/or Fiji waters which the master of the ship considers cannot be contained and cleaned up using the resources available to the master for that purpose.

Identification of probable discharge or escape

185. The Shipboard Marine Spill Contingency Plan shall require the master to consider, as a minimum, the following factors when assessing whether there is a probable discharge or escape of oil into the sea and whether a report should be made—

(a) the nature of the equipment, failure or breakdown of the ship, machinery and equipment;

(b) the location of the ship and its proximity to land or other navigational hazards;

(c) weather, tide, current and sea state; and

(d) traffic density.

Contact information

186.—(1) A contact list for the reporting of discharges or escapes, and probable discharge or escapes, of oil into the sea suitable to the range of the ship's operation shall be included or appended to the Shipboard Marine Spill Contingency Plan.

(2) The contact list shall identify the following—

(a) State agencies, statutory authorities or officials of the administrations of coastal states responsible for receiving and processing reports of discharges or escapes, or probable discharges or escapes, of oil into the sea; and

(b) local agencies and representatives concerned with the operation of the ship located at the ports that the ship visits on a regular basis; and

(c) other parties whose interest in the ship, in the view of the owner, are likely to be affected by discharges or escapes, or probable discharges or escapes, of oil into the sea.

(3) Where no contact details for a coastal state are listed in the Shipboard Marine Spill Contingency Plan or there is any undue delay in contacting the responsible authority by direct means the plan shall require the master to contact the—

(a) nearest radio communication station;

(b) designated ship movement reporting station; or

(c) rescue coordination centre,

by the quickest available means.

Establishing contact details on arrival

187. The Shipboard Marine Spill Contingency Plan shall require that when a ship visits a port for which no local agency contact information is listed in the plan, the master upon arrival in port is to obtain details concerning local reporting procedures.

Scope of contact information

188.—(1) The information listed in the Shipboard Marine Spill Contingency Plan shall —

(a) provide 24 hour contact information;

(b) provide alternatives to the designated contact; and

(c) specify the preferred means of communication.

(2) The currency of contact information shall be checked in accordance with regulation 195 and any necessary amendments made.

Action to mitigate damage and control discharges or escape

189.—(1) The Shipboard Marine Spill Contingency Plan shall contain a separate section dealing with each of the following types of occurrence—

(a) operational spills—

(i) oil spilled and contained on deck;

(ii) pipe leakage;

(iii) tank overflow;

(iv) hull damage; and

(b) spills resulting from accidents—

(i) grounding;

(ii) fire and/ or explosion;

(iii) collision;

(iv) hull failure; or

(v) excessive list.

(2) Each section dealing with a particular type of occurrence shall include guidance to the master on the appropriate action to mitigate damage or control the discharge or escape of oil, including guidance to ensure consideration of all relevant factors.

Personal responsibilities

190. The Shipboard Marine Spill Contingency Plan shall define the duties of personnel in dealing with discharges or escapes, or probable discharges or escapes. These shall include response duties, and responsibilities under Part 2 of these Regulations.

Priority actions

191.—(1) The Shipboard Marine Spill Contingency Plan shall provide ship specific guidance to the master for determining priority actions to—

(a) ensure the safety of personnel and the ship;

(b) prevent the escalation of the discharge; and

(c) stop the discharge or escape at its source, where possible.

(2) The Shipboard Marine Spill Contingency Plan shall provide the master with ship-specific guidance and information for—

(a) assessing the damage sustained by his or her ship;

(b) determining whether or not the oil spill can be contained or cleaned up by the resources available to the master, or other person(s) responsible for implementing the plan, for that purpose;

(c) deciding what remedial action to take;

(d) identifying the stability and stress consequences of remedial action, including cases where these cannot be determined by the master and shall be referred to the owner;

(e) making damage stability and damage longitudinal stress assessments; and

(f) undertaking the transfer of all or part of the cargo to another ship, subject to any authorities required from the coastal State.

Ship's information to be appended to the Shipboard Marine Spill Contingency Plan

192.—(1) The Shipboard Marine Spill Contingency Plan shall have appended to it, plans, drawings and ship's specific details showing the general arrangements of the ship and the location of tanks.

(2) The Shipboard Marine Spill Contingency Plan shall show where current cargo, bunker, and ballast information, including quantity and specification is available.

Coastal state authorisation and requirements

193.—(1) The Shipboard Marine Spill Contingency Plan shall identify the circumstances where the master shall seek authorisation from the coastal state prior to undertaking specific mitigating actions.

(2) Where the ship trades to, or in the vicinity of, coastal States which require the owner to initiate the response to oil pollution, the detail and guidance given to the master shall be comprehensive.

Division III—Approval, Review And Testing Of Shipboard Marine Spill Contingency Plan

Approval and re-submission of shipboard marine spill contingency plan

194.—(1) The owner of a ship shall make an application to the Chief Executive Officer for approval of the ship's Shipboard Marine Spill Contingency Plan.

(2) Every Shipboard Marine Spill Contingency Plan submitted to the Chief Executive Officer for approval shall be provided to the Chief Executive Officer in an electronic and hard copy in a commonly used word processing format.

(3) Subject to sub-regulation (4), the Chief Executive Officer shall give approval in writing for a Shipboard Marine Spill Contingency Plan which meets the requirements of regulations 182 to 193 inclusive.

(4) The Chief Executive Officer may require the owner to include or omit from any Shipboard Marine Spill Contingency Plan submitted for approval such provisions the Chief Executive Officer may reasonably specify.

(5) A Shipboard Marine Spill Contingency Plan shall be re-submitted to the Chief Executive Officer by the owner for a new approval whenever—

(a) the use of the ship is altered in a way which could increase the risk of a discharge or escape of oil;

(b) the use of the ship is altered, or the ship is modified, in a way which increases the amount of oil which can be carried;

(c) the use of the ship is altered in a way which could render the ship's current shipboard marine oil spill contingency plan less effective; or

(d) a change notified to the Chief Executive Officer that in the Chief Executive Officer's opinion is cause for a new approval.

(6) Whenever a Shipboard Marine Spill Contingency Plan is resubmitted to the Chief Executive Officer under sub-regulation (5), the provisions of sub-regulations (2) to (4) inclusive shall apply.

(7) The issue of a new Shipboard Marine Spill Contingency Plan approval by the Chief Executive Officer automatically replaces the ship's former Shipboard Marine Spill Contingency Plan approval(s).

(8) The owner shall without delay supply a hard copy of the Shipboard Marine Spill Contingency Plan to—

(a) the municipal or provincial on-scene commander in each municipality or provincial boundary the ship routinely visits; and

(b) the District Chief Fire Officer in each municipality or provincial boundary the ship routinely visits.

Review of Shipboard Marine Spill Contingency Plan

195.—(1) A ship's Shipboard Marine Spill Contingency Plan shall be reviewed by the owner of the ship not less than once every 12 months to check the currency and completeness of the information contained in it.

(2) After any review of a Shipboard Marine Spill Contingency Plan, the owner of the ship shall ensure that any information in the plan which is not current is updated and any new information relevant to the plan is incorporated.

(3) The owner shall maintain a record of every review.

Post-use review of Shipboard Marine Spill Contingency Plan

196.—(1) The effectiveness of a ship's Shipboard Marine Spill Contingency Plan shall be evaluated by the owner of the ship as soon as possible after its use in response to any discharge or escape, or probable discharge or escape, of oil into the sea.

(2) After any review under sub-regulation (1), the owner of the ship shall ensure that any modifications that would increase the effectiveness of the ship's Shipboard Marine Spill Contingency Plan are made.

Periodic testing of Shipboard Marine Spill Contingency Plan

197. The owner and the master shall ensure that—

(a) the Shipboard Marine Spill Contingency Plan is tested not less than once every 12 months;

(b) accurate details of every such exercise and its results are recorded in the official logbook or if no logbook is required for the ship, the Noxious Liquid Substances Plan;

(c) any modifications that would increase the effectiveness of the shipboard marine spill contingency plan are made.

Notification of modification to Shipboard Marine Spill Contingency Plan

198. The owner of a ship shall—

(a) notify the Chief Executive Officer as soon as possible of any modifications made to the ship's Shipboard Marine Spill Contingency Plan whether arising from a periodic or post use review, periodic testing or any other cause;

(b) notify every other person holding a copy of that Shipboard Marine Spill Contingency Plan as soon as possible of any modifications made to the plan, whether arising from a periodic or post use review, periodic testing or any other cause; and

(c) have a documented procedure for complying with the owner's obligations under sub-paragraphs *(a)* and *(b)*, and for recording the actions taken to meet those obligations.

Division IV—Shipboard Oil Pollution Emergency Plan—Foreign Ships

Application for shipboard oil pollution emergency plan

199.—(1) Subject to sub-regulation (2), regulation 200 applies to every foreign ship that is an oil tanker of 150 gross tonnage or more and every foreign ship of 400 gross tonnage or more that is within Fiji's waters.

(2) Nothing in this regulation applies to any non-self-propelled barge of 400 tons gross tonnage or more provided that that the barge is fitted with auxiliary engines with an output of less than 400 kW, and equipped with installations to ensure storage of oil residues on board for subsequent discharge to reception facilities and not designed to carry oil in bulk in its cargo spaces.

Requirement to carry shipboard oil pollution emergency plan

200. The owner and the master of a foreign ship shall ensure that—

(a) where the ship is registered in a State party to MARPOL Convention, there is carried onboard the ship a current shipboard oil pollution emergency plan approved by the Administration; and

(b) where the ship is registered in a State which is not a party to MARPOL there is carried onboard the ship an emergency plan for responding to oil pollution incidents and containing and cleaning up oil spills from the ship, together with evidence that the emergency plan complies with the standards prescribed by Regulation 26 of Annex I of MARPOL.

Division V—Shipboard Marine Spill Contingency Plan Regarding Noxious Liquid Substances—Fiji Ships

Application of noxious liquid substances plan

201.—(1) The Shipboard Marine Spill Contingency Plan regarding noxious liquid substance relates to the plan defined in section 154 of the Decree.

(2) Regulations 202 to 207 applies to Fiji ships of 150 gross tonnage or more carrying noxious liquid substances in bulk as cargo.

Requirement for a Noxious Liquid Substances Plan

202.—(1) The owner and the master of a Fiji ship shall ensure that there is, carried on board the ship at all times, a shipboard emergency plan for noxious liquid substances—

(a) approved by the Chief Executive Officer;

(b) having the contents prescribed in Schedule 1 of part 6; and

(c) tested and reviewed and kept in accordance with regulation 199.

(2) The Shipboard Marine Spill Contingency Plan regarding noxious liquid substances may be included in a Shipboard Marine Spill Contingency Plan in the case of any ship to which these regulations apply.

Application for approval of a Shipboard Marine Spill Contingency Plan regarding noxious liquid substances

203.—(1) Every application for approval of a Noxious Liquid Substances Plan—

(a) shall be made by the owner;

(b) may be made by a letter or in such other form as the Chief Executive Officer may allow;

(c) shall be in English;

(d) shall include the applicant's—

(i) address for service in Fiji;

(ii) telephone number;

(iii) fax number (if any); and

(iv) email address (if any); and

(e) shall include the contents of the proposed plan prescribed in the Schedule 1 of Part 6 in electronic and hard copy.

(2) The Chief Executive Officer may require any additional information he or she considers necessary to support an application for approval of a Noxious Liquid Substances Plan.

(3) If the Chief Executive Officer requires any additional information, he or she shall advise the applicant, in writing, of—

(a) the details of the required information; and

(b) the reason(s) why this information is required, no later than 15 working days from the date of receipt of the application.

Approval and duration of a Noxious Liquid Substances Plan

204.—(1) If the Chief Executive Officer is satisfied that the Noxious Liquid Substances Plan complies with the requirements of regulations 195 to 200, the Chief Executive Officer may approve the plan for a period not exceeding 3 years.

(2) If an application for a new approval is made, by the holder of an existing approval, at least 2 months before the existing approval expires, the duration of the existing approval is extended until the Chief Executive Officer determines the application.

(3) The Chief Executive Officer's written approval of a Noxious Liquid Substances Plan shall be a marine protection document for the purposes of the Decree.

Custody of a Noxious Liquid Substances Plan

205. The owner shall—

(a) keep the Chief Executive Officer's written approval of the Noxious Liquid Substances Plan at all times and make both documents available to the Chief Executive Officer on request;

(b) ensure that a copy of the Chief Executive Officer's written approval and the Noxious Liquid Substances Plan is kept and made available on the ship; and

(c) supply a hard copy of the Chief Executive Officer's written approval, together with the Noxious Liquid Substances Plan, to Postmaster, Jetty Masters or Enforcement Officers for every Port that the ship routinely visits—

(i) immediately the written approval is issued; and

(ii) prior to arrival in any other port.

Testing and review of a Noxious Liquid Substances Plan

206.—(1) The owner and the master shall ensure that—

(a) the Noxious Liquid Substances Plan is tested not less than once every 12 months and the test demonstrates that procedures or actions in the plan are workable and effective;

(b) details of every test and its results are recorded in the Official Logbook or if no logbook is required for the ship, the details are recorded in the Noxious Liquid Substances Plan.

(2) The owner shall review the ship's Noxious Liquid Substances Plan not less than once every 12 months to verify its currency and completeness.

(3) After every review, and subject to regulation 207(3), the owner shall ensure that any information in the plan which is not current is updated and any new information is incorporated in the plan.

(4) The owner shall evaluate the effectiveness of the ship's Noxious Liquid Substances Plan as soon as practicable after every use of the plan in response to any actual or probable discharge of any noxious liquid substance.

(5) After every test, review or evaluation, the owner and the master shall determine any modifications that would increase the effectiveness of the Noxious Liquid Substances Plan and implement those modifications, subject to regulation 207(3).

Notification of modifications to a Noxious Liquid Substances Plan

207.—(1) As soon as possible after every modification of the Noxious Liquid Substances Plan, the owner shall notify the Chief Executive Officer and every other person holding a copy of the Plan under regulation 195 of the changes.

(2) The owner shall keep a record of the action(s) taken to meet the obligation in sub-regulation 200(1).

(3) The owner shall apply for re-approval of the Noxious Liquid Substances Plan if the owner proposes to modify or change the use of the ship in a way that could—

(a) increase the risk of discharge or escape of noxious liquid substances;

(b) increase the amount of noxious liquid substances that can be carried; or

(c) render the ship's Noxious Liquid Substances Plan less effective.

(4) Regulation 203 and the Appendix 1 of part 6 apply to an application for re-approval of a Noxious Liquid Substances Plan.

Division VI—Shipboard Marine Pollution Emergency Plan— Foreign Ships

Requirement for foreign ships to carry emergency plans

208.—(1) In the case of a foreign ship registered in a State party to MARPOL Convention, the owner and the master shall ensure that there is carried on board the ship—

(a) a current Noxious Liquid Substances Plan approved by the Administration; or

(b) a current shipboard marine pollution emergency plan approved by the Administration combining a Noxious Liquid Substances Plan and a shipboard oil pollution emergency plan in the case of a ship to which this regulation may apply.

(2) In the case of a foreign ship registered in a State that is not a party to MARPOL Convention, the owner and the master shall ensure that there is carried on board the ship—

(a) a current emergency plan for responding to noxious liquid substances incidents and containing and cleaning up noxious liquid substances spills from the ship, together with evidence, acceptable to the Chief Executive Officer, that the emergency plan complies with the standards prescribed by Regulation 17 of Annex II of MARPOL; or

(b) a current marine pollution emergency plan combining shipboard marine pollution emergency plans for noxious liquid substances and oil pollution, together with evidence, acceptable to the Chief Executive Officer, that the emergency plan complies with the standards prescribed by Regulation 37 of Annex I and Regulation 16 of Annex II of MARPOL in the case of a ship to which this regulation may apply.

Identification of a probable discharge or escape

209. In determining whether the discharge of any noxious liquid substance into the sea is probable and, accordingly, whether a report should be made under—

(a) section 131 of the Decree;

(b) regulation 6; and

(c) regulation 9;

the master shall consider the following factors, as a minimum—

(i) the nature of the damage, failure or breakdown of the ship, machinery or equipment;

(ii) the location of the ship and its proximity to land or other navigational hazards;

(iii) the weather, tide, current and sea state; and

(iv) shipping traffic density.

Reporting a discharge

210. If, in the event of an actual or probable discharge of any noxious liquid substance—

(a) the Noxious Liquid Substances Plan contains no contact details for a coastal state; or

(b) there is any undue delay in contacting the responsible authority by the means prescribed by regulations 6 and 9, the master shall contact the nearest —

(i) radio communication station;

(ii) designated ship movement reporting station; or

(iii) rescue coordination centre,

by the fastest telecommunications channels available and with the highest possible priority.

Division VII—Application For Site Marine Spill Contingency Plan

Application

211.—(1) Except as provided in sub-regulation (2), this sub-part applies to every transfer site within—

(a) the land area of Fiji; and

(b) the rivers and other inland waters of Fiji.

(2) This sub-part does not apply to a transfer site that is—

(a) an offshore installation or device;

(b) associated with an offshore installation, if the Site Marine Spill Contingency Plan for that offshore installation covers transfer operations to and from that transfer site; or

(c) in the land area, if a spill at that site cannot lead directly to a marine spill.

Operator to have a Site Marine Spill Contingency Plan

212. No person may operate a transfer site without the Chief Executive Officer's written approval of a site marine spill contingency plan that complies with the requirements of Schedule 2 of Part 6.

Application for approval of a site marine spill contingency plan

213.—(1) Every application for approval of a Site Marine Spill Contingency Plan—

(a) is an application for the purpose of this regulation;

(b) shall be in English;

(c) may be made by a letter or in such other form as the Chief Executive Officer may allow;

(d) shall include the applicant's—

(i) address for service in Fiji;

(ii) telephone number;

(iii) fax number (if any); and

(iv) email address (if any); and

(e) shall include the contents of the proposed contingency plan in electronic and hard copy.

(2) The Chief Executive Officer may require any additional information he or she considers necessary to support an application for approval of a Site Marine Spill Contingency Plan.

(3) If the Chief Executive Officer requires any additional information, he or she shall advise the applicant, in writing, of the details of the required information and the reason(s)

why the information is required no later than 15 working days from the date of receipt of the application.

Approval and duration of a Site Marine Spill Contingency Plan

214.—(1) If the Chief Executive Officer is satisfied that the Site Marine Spill Contingency Plan complies with the requirements of this regulation, the Chief Executive Officer may approve the plan for a period not exceeding 3 years.

(2) If an application for a new approval is made, by the holder of an existing approval, at least 2 months before the existing approval expires, the duration of the existing approval is extended until the Chief Executive Officer determines the application.

(3) The Chief Executive Officer's written approval of a site marine spill contingency plan is a marine protection document for the purposes of the Decree.

Division VIII—Operating The Site

Conditions for transfer sites

215. The operator of every transfer site shall—

(a) ensure that personnel responsible for implementing the contingency plan and dealing with oil spills receive training appropriate to their responsibilities under the plan;

(b) keep a record of that training;

(c) maintain access to equipment to deal with an oil spill at a level appropriate to the risks presented by the site and the response options identified in the contingency plan; and

(d) when called upon by the Chief Executive Officer, justify any response option in the contingency plan as effective and achievable.

Form and custody of the site marine spill contingency plan

216.—(1) The operator of every transfer site shall keep the Chief Executive Officer's written approval with the approved contingency plan at all times and make both documents available to the Chief Executive Officer on request.

(2) A copy of the Chief Executive Officer's written approval and the approved contingency plan shall be kept and made available at every site to which the plan applies.

(3) As soon as practicable after it is issued, the operator shall supply a copy of the Chief Executive Officer's written approval, together with the approved Site Marine Spill Contingency Plan, to—

(a) the Chief Executive Officer; and

(b) the Director of Environment;

(c) if the site is in a municipality or province, the Municipal or Provincial On-Scene Commander appointed under section 183 of the Decree.

Testing and reviewing the contingency plan

217.—(1) The operator of every transfer site shall—

(a) test the contingency plan not less than once every 12 months; and

(b) review the effectiveness of the contingency plan as soon as practicable after every—

(i) test carried out under paragraph (a);

(ii) use of the contingency plan in response to a spill; and

(iii) change in the response procedures or equipment for the site (other than the direct replacement of equipment).

(2) The operator shall keep a record of every test and review and the results and findings of every such test and review.

(3) After every review, the operator shall determine any modifications to the contingency plan that, in light of the review, would increase the effectiveness of the contingency plan, implement those changes immediately, in the case of amendments to the 24 hour contact list or reassignment of personnel responsibilities, and on the Chief Executive Officer's approval, in the case of any other modification.

Notification of modifications to the contingency plan

218.—(1) As soon as possible after every modification of the contingency plan, the operator of a transfer site shall notify the Chief Executive Officer and every other person holding a copy of the plan required to be kept or supplied under regulation 216.

(2) The operator shall keep a record of the action(s) taken to meet the obligation in sub-regulation (1).

Changes during the currency of the contingency plan

219.—(1) Except as provided in sub-regulation (3), the operator shall apply for approval of any changes to the Site Marine Spill Contingency Plan, in particular, when the operator proposes to alter the use or layout of the site in a way that could increase the risk of a marine oil spill.

(2) The provisions of regulation 213 and Schedule 2 of Part 6 apply to an application for approval of changes to a Site Marine Spill Contingency Plan.

(3) The operator may make the following changes to the contingency plan without the prior approval of the Chief Executive Officer—

(a) modifications to the 24 hour contact list; and

(b) reassignment of personnel responsibilities.

Reporting spills

220. Immediately after any marine spill, the operator of a transfer site shall report the spill, by the fastest means of communication available and with the highest possible priority, to the Chief Executive Officer, the Director of Environment and the Municipal or Provincial Council, if the spill occurs in a municipality or provincial boundary using the procedures outlined in the contingency plan and in accordance to regulations 6 and 9.

Division IX—Offshore Installation Discharge Management Plan

Application

221. A person shall not operate an offshore installation without the Chief Executive Officer's written approval of a Discharge Management Plan containing the matters prescribed in Schedule 3 of Part 6 that are appropriate to the operation of that installation.

Application for approval of an offshore installation Discharge Management Plan

222.—(1) Every application for approval of a Discharge Management Plan shall—

(a) be in English;

(b) be made by letter or in an electronic form acceptable to the Chief Executive Officer;

(c) include a covering page with the applicant's address for service in Fiji, telephone number, fax number, and email address;

(d) be made at least 2 months before the date on which the operations are due to begin or the existing approval expires; and

(e) include the contents of the proposed Discharge Management Plan in hard copy and an electronic form acceptable to the Chief Executive Officer and include evidence of compliance with regulation 223.

(2) The Chief Executive Officer may require an inspection or audit of the installation or device to be carried out, and may require any additional information he or she considers necessary, to support an application for approval of a Discharge Management Plan.

(3) If under sub-regulation (2) the Chief Executive Officer requires an inspection or audit or additional information, the Chief Executive Officer shall advise the applicant in writing, no later than 15 working days from the date of receipt of the application, of the details required and the reasons for it.

Consultation

223.—(1) Before a Discharge Management Plan is submitted for approval, the owner shall consult with—

(a) if the site is in a municipality or province—

(i) the municipal or provincial on-scene commander;

(ii) the municipal or provincial office; and

(iii) the persons whose interests in the vicinity of the installation that are likely to be affected by a marine spill from that installation; and

(b) the persons whose interests in the vicinity of the installation that are likely to be affected by a marine spill from that installation (including, if appropriate, municipal or provincial on-scene commanders or national on scene commander).

(2) The owner shall consult on—

(a) the locations and resources, in the municipality or province identified as at risk of environmental damage in the event of a marine spill;

(b) the procedure by which the municipal or provincial on-scene commander should be notified in the event of a marine spill; and

(c) the role of the municipality or province and national on-scene commander in the event of a marine spill.

Approval and duration of Discharge Management Plan

224.—(1) If the Chief Executive Officer is satisfied that a proposed Discharge Management Plan complies with the requirements of Schedule 3 of part 6, the Chief Executive Officer may approve the Discharge Management Plan for a period not exceeding 3 years.

(2) The Chief Executive Officer's written approval of a Discharge Management Plan is a marine protection document for the purposes of Part 14 of the Decree.

Custody of a Discharge Management Plan

225.—(1) The owner shall keep the approved Discharge Management Plan and the Chief Executive Officer's written approvals at all times, and make both documents available to the Chief Executive Officer on request.

(2) A copy of the approved Discharge Management Plan and the Chief Executive Officer's written approval shall be kept and made available on every manned installation to which the plan applies.

(3) Two hard copies and an electronic copy acceptable to the Chief Executive Officer of the approved Discharge Management Plan shall be supplied to the Chief Executive Officer as soon as practicable after the approval is issued.

(4) If the installation is within a municipality or province, the owner shall supply a copy of the Chief Executive Officer's written approval and the approved Discharge Management Plan to the Municipal or Provincial On-Scene Commander as soon as practicable after the approval is issued.

Modifications to a Discharge Management Plan

226.—(1) Except as provided in sub-regulation (3), the owner shall apply to the Chief Executive Officer for approval of any modification to the Discharge Management Plan, for example, when the owner proposes to—

(a) alter the use or layout of the installation in such a way that could increase the risk of a spill of oil or other harmful substance;

(b) use a harmful substance not approved in the plan; or

(c) make any change as a result of training or review of the emergency spill response procedures.

(2) Every application for modifications to a Discharge Management Plan—

(a) shall be in English;

(b) shall be made by letter or in an electronic form acceptable to the Chief Executive Officer;

(c) shall be made at least 2 months before the date on which the modification is to be implemented;

(d) shall include the details of the proposed amendments and, if applicable, reference to the provisions in the approved Discharge Management Plan they are to replace; and

(e) where the proposed change will result in a significantly increased risk of a spill of oil or other harmful substances, evidence of consultation in accordance with regulation 223.

(3) The owner may make the following changes to the Discharge Management Plan without the prior approval of the Chief Executive Officer—

(a) modifications to the 24-hour contact list; and

(b) reassignment of personnel responsibilities.

Notification of modifications to a Discharge Management Plan

227.—(1) The owner shall notify the Chief Executive Officer and every person holding a copy of the Discharge Management Plan, required to be kept or supplied under regulation 218 of any modification made to the Discharge Management Plan within 2 weeks of the change being made.

(2) The owner shall keep a record of the action or actions taken to meet the obligation in sub-regulation (1).

Implementation of the emergency spill response procedures

228. The owner of an installation shall—

(a) ensure that personnel assigned responsibilities under the approved Discharge Management Plan and dealing with marine spills are aware of their responsibilities under the Discharge Management Plan and receive training appropriate to their responsibilities;

(b) ensure that training required by paragraph *(a)* is carried out before any person commences operational duties and the record of all the training is maintained;

(c) any training record maintained in accordance with paragraph *(b)* is provided to the Chief Executive Officer on request;

(d) maintain access to equipment to deal with a spill, at a level appropriate to the emergency spill response procedures identified in the approved Discharge Management Plan; and

(e) when called upon by the Chief Executive Officer, justify any spill response option, identified in the Discharge Management Plan, as effective and achievable.

Test and review of the emergency spill response procedures

229.—(1) The owner of an installation shall—

(a) test the emergency spill response procedures not less than once every 12 months; and

(b) review the effectiveness of the emergency spill response procedures as soon as practicable after—

(i) every test carried out under sub-regulation (1)*(a)*; and

(ii) every use of the emergency spill response procedures in response to a spill; and

(iii) any change in the spill response procedures or equipment for the installation, other than the direct replacement of equipment.

(2) The owner shall—

(a) notify the Chief Executive Officer of any test or review not less than 14 days prior to the test or review being carried out in accordance with sub-regulation (1);

(b) keep a record of every test and review, including the results of any test and review; and

(c) provide the Chief Executive Officer with a copy of the results of every test and review.

(3) Following every review of the emergency spill response procedures, the owner shall—

(a) determine the modifications to the Discharge Management Plan that would increase the effectiveness of the plan;

(b) submit all modifications to the Chief Executive Officer for approval; and

(c) implement those modifications immediately, in the case of modifications to the 24-hour contact list or reassignment of personnel responsibilities or when they have been approved by the Chief Executive Officer.

Division X—Contents Of The Municipal Or Provincial Marine Spill Contingency Plans

Application

230. This Division applies to every Municipal or Provincial Council required under the Decree to prepare a marine spill contingency plan.

Purpose of the plan

231. The Municipal or Provincial Marine Spill Contingency Plan shall state the purpose for producing the plan.

Objectives to be achieved

232. The Municipal or Provincial Marine Spill Contingency Plan shall define the objectives to be achieved when implementing the plan.

Interface with other plans

233. The Municipal or Provincial Marine Spill Contingency Plan shall specify how the plan relates to—

(a) shipboard marine spill contingency plans;

(b) site marine spill contingency plans; and

(c) the national marine spill contingency plan;

including—

(i) the relationship of the plan to shipboard or site marine spill contingency plans (Tier1) and the criteria for escalation of a shipboard or site spill response to a national marine spill response (Tier 2); and

(ii) the criteria for escalation of a national marine spill response to spills that are beyond the response capability and resources of the Republic of Fiji, and that require activation of the Pacific Islands Regional Marine Spill Contingency Plan (PACPLAN) and other mutual aid agreements (Tier 3) marine spill response.

Document control

234. The Municipal or Provincial Marine Spill Contingency Plan shall contain a list of those functions where the holder of that function shall be issued a controlled copy of the plan and a register of controlled copies shall be maintained by the Municipal or Provincial Council.

Standard operating procedures

235. The Municipal or Provincial Marine Spill Contingency Plan shall contain the procedures to be followed for the—

(a) discovery and notification of a marine spill to the Chief Executive Officer;

(b) assessment of a marine spill, including guidance on the circumstances indicating that a marine spill should be monitored only and no clean up action initiated;

(c) reporting and notification of the marine spill;

(d) alerting and mobilising response team personnel; and

(e) implementing the incident action plan, including—

(i) media and public relations;

(ii) cost tracking and accounting;

(iii) sampling and evidence collection; and

(iv) documentation of the incident and response; and

(f) de-mobilisation and response termination.

Post operations

236. The Municipal or Provincial Marine Spill Contingency Plan shall contain procedures to be followed for recovering costs from the spiller and debriefing, review and audit of the response operation.

Marine spill response equipment and supporting resources

237.—(1) The Municipal or Provincial Marine Spill Contingency Plan shall contain details of at least one response command centre facility, which include—

(a) the location and address;

(b) a floor plan;

(c) phone number(s); and

(d) all supporting equipment and facilities required for the response operation.

(2) The Municipal or Provincial Marine Spill Contingency Plan shall—

(a) contain lists and locations of marine spill response equipment, including approved dispersants, held by the municipality or province;

(b) contain lists and locations of marine spill response equipment held by other organisations in the municipality or province;

(c) include a list and locations of potential support equipment held by the municipal or Provincial Council and other organisations in the region; and

(d) provide 24 hour contact information for mobilisation of the marine spill response, including equipment to support the spill response, listed in the plan.

(3) The Municipal or Provincial Marine Spill Contingency Plan shall list options and detail facilities available to the Municipal or Provincial Council for—

(a) the re-use, recycling, treatment, and disposal of oil, oily waste and other harmful substance from the clean-up of a marine spill; and

(b) for the cleaning, decontamination, and disposal of oiled equipment and gear.

Municipal or provincial response team structure, roles and responsibilities and assigned duties of support organisations

238. The Municipal or Provincial Marine Spill Contingency Plan shall—

(a) include the marine spill response team structure as specified in the NATPLAN;

(b) identify the persons assigned to key positions as well as alternates and deputies to act in the absence of designated personnel;

(c) contain contact details for identified response personnel;

(d) contain details of any ancillary services required such as security, media and contract authorisations;

(e) define the duties assigned to any support organisations; and

(f) include a list of interested parties to be notified in the event of a marine spill.

Municipal or provincial marine spill communications systems

239. The Municipal or Provincial Marine Spill Contingency Plan shall contain details on communication systems and procedures to be used during a response, including—

(a) marine, aviation, and land-based communications systems, networks, channels, frequencies, and call signs;

(b) equipment types and capabilities;

(c) communication control sites and repeater sites; and

(d) communication limitations and constraints.

Municipal or provincial risk sites and threatened resources

240.—(1) The Municipal or Provincial Marine Spill Contingency Plan shall include—

(a) details of areas and locations within the municipality or province, such as transfer sites, where marine spills are likely to occur; and

(b) details of likely spill scenarios from sites identified in paragraph *(a)*, including oil or other harmful substance types and volumes.

(2) The Municipal or Provincial Marine Spill Contingency Plan shall—

(a) identify and prioritise the municipal or provincial resources and amenities most sensitive to a marine spill;

(b) assess the likely risk to the areas and locations referred to in paragraph *(a)*, including the type of spill;

(c) identify preferred response options for the areas and locations identified in paragraph *(a)* and the associated risks identified in paragraph *(b)*; and

(d) map these sites and resources electronically.

Information to predict oil or other harmful substances movement and behaviour

241. The Municipal or Provincial Marine Spill Contingency Plan shall include information to assist in predicting the movement and behaviour of spilled oil and other harmful substances including predominant coastal currents, tidal flows for major ports, harbours, and those sites identified in regulation 240(1) and average seawater temperatures.

Division XI—Training And Testing, Maintenance And Amendment Of Municipal Or Provincial Marine Spill Contingency Plans

Training

242. Every Municipal or Provincial Council that holds a municipal or provincial marine spill contingency plan shall ensure that—

(a) they maintain the minimum number of trained response personnel as set out by the Authority;

(b) all personnel receive training appropriate to their responsibilities for implementing the plan and dealing with marine spills under that municipal or provincial marine spill contingency plan in accordance with NATPLAN;

(c) trained personnel responsible for implementing the plan meets the Authority training revalidation requirements; and

(d) accurate training records and contact details of trained response personnel are kept.

Testing

243. Every municipal or Provincial Council—

(a) shall ensure that the plan is regularly tested in accordance with an exercise programme approved by the Chief Executive Officer for each year, which includes at least two field exercises involving the deployment of equipment, at least one of which shall involve the production of an incident action plan and/or a site operations plan;

(b) shall ensure that accurate records of each exercise and its results are kept; and

(c) may be required to participate in an Authority directed combined exercise in lieu of one of the exercises required in paragraph *(a)*.

Post-use review

244.—(1) The effectiveness of the municipal or provincial marine spill contingency plan shall be assessed, and a record of the assessment kept, by the municipal or Provincial Council after its use in response to any marine spill.

(2) Any proposed amendments to increase the effectiveness of a municipal or provincial marine spill contingency plan shall be submitted to the Chief Executive Officer as soon as practicable for approval.

Maintenance and amendment of municipal or provincial marine oil spill contingency plan

245.—(1) The municipal or provincial marine spill contingency plan shall be checked by the Municipal or Provincial Council not less than once every 12 months to verify the currency and completeness of the information contained in it.

(2) At the time of every check under sub-regulation (1) the Municipal or Provincial Council shall ensure that any information in the municipal or provincial marine spill contingency plan which is not current is updated and any new information relevant to the municipal or provincial marine spill contingency plan is incorporated in the plan after approval by the Chief Executive Officer.

(3) The municipal or Provincial Council shall ensure that any amendments that would increase the effectiveness of the plan resulting from exercises are submitted to the Chief Executive Officer as soon as practicable for approval and added to the plan and provided to all persons who hold a copy of that plan, once approved by the Chief Executive Officer.

(4) The Chief Executive Officer may periodically provide updated chapters for inclusion in the municipal or provincial plan, and these shall be incorporated into the plan.

(5) The Chief Executive Officer and every other person nominated in the controlled copy register plan shall be notified by the Municipal or Provincial Council of any changes made to the plan as a result of a check made under this regulation.

Format of draft and amended plans

246. Every Municipal or Provincial Council that submits a draft municipal or provincial marine spill contingency plan or an amendment to a plan to the Chief Executive Officer for approval under the Decree shall provide two hard copies and one electronic copy of the draft plan or the amendment to a plan.

Notification for submission of municipal or provincial marine spill contingency plan

247.—(1) Every Municipal or Provincial Council shall, by a date specified by the Chief Executive Officer pursuant to section 164 and section 172 of the Decree, draft and submit to the Chief Executive Officer, for the Chief Executive Officer's approval, a marine spill contingency plan that complies with the provisions of this regulation.

(2) Notification of the date specified by the Chief Executive Officer for the purposes of sub-regulation (1) shall be published in the *Gazette*.

PART 7—MARINE PROTECTION PRODUCTS—DISPERSANTS AND DEMULSIFIERS

Interpretations applying to Part 7

248. In this Part, unless the context otherwise requires,—

"approved substance" means—

(a) any substance approved under this Part as suitable for discharging into the sea to contain or clean up an oil spill; and

(b) any dispersant named in Schedule 1 of part 7;

"demulsifier" means any substance used or intended to be used for the demulsification of an oil spill in the sea and for the purposes of the Decree, a demulsifier is a marine protection product;

"dispersant" means any substance used or intended to be used for the dispersal or emulsification of oil spill in the sea;

"substance" means a dispersant or a demulsifier.

Division I—Approval Of Substances

Application for approval of a substance

249.—(1) Every application for approval of a substance shall be made to the Chief Executive Officer in accordance with the requirements of this Division.

(2) Every application for approval of a substance shall be accompanied by—

(a) test results, supporting data, and certification from recognised test laboratories, as required by regulations 255 and 256; and

(b) details of the formulation used in the preparation of the substance, including—

(i) percentage by weight of each component of the total formulation;

(ii) percentage of aromatics;

(iii) chemical name (if any) of each component;

(iv) function of each component; and

(v) a material safety data sheet;

(c) details of the recommended application procedures, concentrations, and conditions for use;

(d) details of recommended handling and storage procedures and any precautions to be taken by personnel working with the substance;

(e) the name and contact details of the manufacturer of the substance; and

(f) a warranty from the manufacturer of the substance that each subsequent batch of the product will comply with the dispersant specifications set out in regulation 255, or the demulsifier specifications set out in regulation 256, as applicable.

(3) The Chief Executive Officer may, subsequent to the receipt of an application for approval of a substance, require the applicant to—

(a) elaborate on specified information set out in the initial application;

(b) supply additional specified information; and

(c) supply a sample of the substance for testing, at the applicant's expense, against the specification set out in regulation 255 or regulation 256, as applicable.

Assessment and decision on application for approval of substance

250. The Chief Executive Officer in consultation with the Director of Environment shall—

(a) assess and decide an application for approval of a substance according to the assessment requirements set out in regulation 254;

(b) notify the applicant of the Chief Executive Officer's decision to approve or refuse approval for that substance within 21 working days of making that decision; and

(c) when he or she has decided to approve a substance, publish a notice in the *Gazette* as soon as possible—

(i) stating the product name of the substance;

(ii) stating the name of the manufacturer of the substance;

(iii) setting out any conditions which the Chief Executive Officer has imposed under regulation 251(1), including any expiry date for the approval; and

(iv) setting out any other information relating to the substance and its approval as the Chief Executive Officer sees fit.

Scope and duration of approval, and packaging requirements for, an approved substance

251.—(1) In approving a substance, the Chief Executive Officer may specify the following conditions—

(a) the particular purposes for which, and circumstances in which the approved substance may be used;

(b) the period for which the approval is current;

(c) require that each batch of the approved substance complies, in the case of a dispersant, with the dispersant specifications set out in regulation 255 or, in the case of a demulsifier, with the demulsifier specifications set out in regulation 256; and

(d) how the approved substance is to be used.

(2) An approved substance shall be supplied with a material safety data sheet and instructions from the manufacturer on its use.

(3) A person who supplies an approved substance shall supply the substance in one or more containers or bulk carriers that are—

(a) sound, clean, and dry;

(b) suitable for the substance; and

(c) marked with—

(i) the name of the manufacturer;

(ii) the name of the substance;

(iii) the substance type;

(iv) the dispatch date from the supplier;

(v) the expiry date of the substance;

(vi) any relevant safety warnings in compliance with the labelling requirements of New Zealand Standards NZ5433:1988 or its successor standard; and

(vii) details of any controls or requirements imposed under sub-regulation (1).

Subsequent testing of an approved substance

252. The Chief Executive Officer may at any time require the manufacturer of an approved substance to submit a particular consignment of that substance to any of the tests set out in regulations 255 or 256, as applicable, to ensure that the substance continues to comply with the appropriate specifications.

Withdrawal of approval of a substance

253.—(1) The Chief Executive Officer may withdraw his or her approval for an approved substance where he or she is satisfied that—

(a) one or more samples of the approved substance do not conform to the specifications warranted by the manufacturer or to the substance's chemical formulation given in the application for approval;

(b) any conditions imposed under regulation 251(1) relating to the approval of the substance are not being adhered to;

(c) the substance is not being supplied as required under regulations 251(2) and 251(3);

(d) the approved substance is not submitted for testing as required under regulation 252;

(e) evidence shows that the substance is toxic to the marine environment; or

(f) the substance is no longer manufactured or available for use in Fiji.

(2) The Chief Executive Officer shall as soon as possible after deciding to withdraw approval for a substance—

(a) publish a notice of the withdrawal of approval in the Gazette; and

(b) notify the applicant who sought approval for the substance under regulation 249 of the withdrawal of approval.

Division II—Assessment Of Substance For Approval

Assessment requirements

254.—(1) The Chief Executive Officer shall not approve a substance unless that substance—

(a) has undergone an assessment and complies with any applicable controls on its importation, manufacture, and use; and

(b) complies, in the case of a dispersant, with the dispersant specifications set out in regulation 255 or, in the case of a demulsifier, with the demulsifier specifications set out in regulation 256 by virtue of—

(i) a certificate of approval issued for the dispersant or demulsifier in Fiji evidencing that the dispersant meets or exceeds the dispersant specifications or that the demulsifier meets or exceeds the demulsifier specifications; or

(ii) a certificate issued for the dispersant or demulsifier in a foreign country evidencing that the dispersant meets or exceeds the dispersant specifications or that the demulsifier meets or exceeds the demulsifier specifications.

Dispersant specification

255.—(1) Every dispersant approved as an approved substance shall—

(a) be categorised as conforming to one of the following types—

(i) type 1: Conventional hydrocarbon base. For use undiluted from appropriate spray equipment, using breaker boards or other suitable means of application and agitation;

(ii) type 2: Water dilutable concentrate. For use after dilution with sea water and sprayed from appropriate spray equipment, using breaker boards or other suitable means of application and agitation; or

(iii) type 3: Concentrate. For use undiluted from aircraft or ships, using appropriate spray equipment;

(b) comply with each of the tests set out in Table 4 for Type 1, Type 2, or Type 3 dispersants, as appropriate;

(c) comply with the marine ecological toxicity testing standards using organisms relevant to the Fiji environment, conducted in accordance with the specifications contained in Schedule 2 of this Part by a recognised laboratory;

(d) have documentation issued that complies with sub-regulation (2);

(e) retain, when suitably stored in its original sealed containers in temperate climates (–20°C to 40°C), the properties described in paragraph *(b)* for a period of not less than two years commencing at the date of dispatch from the supplier; and

(f) not contain benzene, chlorinated hydrocarbons, phenols, caustic alkali, free mineral acid, or compounds which could expose the user to an unacceptable toxicological hazard during normal spraying or handling operations.

Table 4

Test No.	Test	Type 1	Type 2	Type 3	Method
1	Appearance	Clear and homogeneous			Visual examination
2	Dynamic viscosity at 0°C, mPa, maximum	50	250	250	ASTM D445 IP 71 BS 4708 IP 34 BS 2839
3	Flash point, °C minimum	60	60	60	ASTM D93
4	Cloud point, °C (as received) maximum	–10	–10	–10	ASTM D2500 IP 219

5	Efficiency index, % 2000 minimum mPa fuel oil 500 minimum mPa fuel oil	 30 —	 30 —	 60 45	The dispersant supplied shall consist of suitable ionic or non-ionic surfactants, or a blend of such surfactants, dissolved in a suitable solvent to be efficient at the specified index for the specified fuel
6	Storage test (–10°C to 50°C for 7 days)	Pass	Pass	—	The surfactants shall be wholly soluble in the solvent, and shall remain distributed uniformly at all temperatures from –10°C to 50°C when stored for periods up to 7 days
7	Miscibility with water (Type 2 only)	—	Pass	—	Type 2 dispersants shall be miscible with sea water at 1:10 concentration, the resulting solution or emulsion having a viscosity not greater than that of the original dispersant alone

Abbreviations—

"ASTM International" formerly American Society for Testing and Materials

"BS" British Standard

"IP" Institute of Petroleum

(2) Documentation of the tests set out in sub-regulations (1)*(b)* and (1)*(c)* shall comprise—

(a) a copy of the test results and supporting data;

(b) in the case of the marine ecological toxicity test—

(i) the tests used, including—

A. a full description of the test species and test methods;

B. acclimation procedures;

C. daily animal observations, feeding and medium changes;

D. results and statistical analyses including control treatment survivorship; and

E. reference toxicant tests; and

(ii) details of the testing laboratory's accreditation; and

(c) certification signed by the relevant officers of the manufacturer stating that a representative product sample was supplied for testing and the testing laboratory stating that the testing was done using generally accepted laboratory practices and that they believe the results are accurate.

Demulsifier specification

256.—(1) Every demulsifier approved as an approved substance shall—

(a) comply with each of the tests set out in Table 5;

(b) comply with an internationally recognised marine ecological toxicity test using organisms relevant to the Fiji environment, undertaken by a laboratory with previous toxicity testing experience;

(c) have documentation issued that complies with sub-regulation (2);

(d) retain, when suitably stored in its original sealed containers in temperate climates (–10°C to 40°C), the properties described in sub-regulation (1)*(a)* for a period of not less than two years commencing at the date of dispatch from the supplier; and

(e) not contain benzene, chlorinated hydrocarbons, phenols, caustic alkali, free mineral acid, or compounds which could expose the user to an unacceptable toxicological hazard during normal spraying or handling operations.

Table 5			
Test No.	**Test**	**Standard**	**Method**
1	Appearance	Clear and homogeneous	Visual examination
2	Dynamic viscosity at 0°C, mPa, maximum	250	ASTM D445 IP 71 BS 4708 IP 34 BS 2839
3	Flash point, °C minimum	60	ASTM D93
4	Cloud point, °C (as received) maximum	–10	ASTM D2500 IP 219
5	Storage test (–10°C and 50°C for 7 days)	Pass	Phase separation shall not occur at any temperatures from –10°C to 50°C when stored for periods up to 7 days

Abbreviations—

"ASTM International" formerly American Society for Testing and Materials;

"BS" British Standard; and

"IP" Institute of Petroleum

(2) Documentation of the tests set out in sub-regulations (1)*(a)* and (1)*(b)* shall comprise—

(a) a copy of the test results and supporting data;

(b) in the case of the marine ecological toxicity test, the test used and details of the testing laboratory's previous experience in toxicity testing; and

(c) certification signed by the relevant officers of the manufacturer stating that a representative product sample was supplied for testing and the testing laboratory stating that the testing was done using generally accepted laboratory practices and that they believe the results are accurate.

Division III—Use Of An Approved Substance

Use of an approved substance

257.—(1) Any approved substance may be discharged into the Fiji waters to contain or clean up an oil spill.

(2) The discharge of an approved substance authorised by sub-regulation (1) is subject to—

(a) its use being consistent with any particular purposes and circumstances specified under regulation 251(1)*(a)*; and

(b) its use being in compliance with the manufacturer's instructions and regulation 249.

(3) Subject to regulations 251 and 253, any approved substance may be discharged from a Fiji ship into the sea beyond Fiji waters to contain or clean up an oil spill subject to the approval of any government in whose waters it is contemplated the discharge will occur.

Division IV—Dispersants Approved Under This Part

Dispersants approved under this part

258.—(1) The approved substances listed in the Schedule are marine protection products for the purposes of the Decree.

(2) Approval and assessments requirements of a substance as prescribed in regulations 249 to 251 and, 254 to 256 respectively do not apply to an approved substance listed in Schedule 1 of this Part, except for the purposes of regulation 252.

PART 8—TRANSITIONAL PROVISIONS

Transitional provisions

259.—(1) Compliance with these Regulations for foreign convention ships entering Fiji waters shall be required on the date on which these Regulations enter into force.

(2) In case of foreign non convention ships compliance with this regulation is required 6 months after the date on which these Regulations come into force.

(3) In case of existing Fiji ships on domestic voyage, compliance with these Regulations is required 36 months after the date on which these Regulations come into force.

(4) In case of any new ship or second hand ship brought into the country to be registered in Fiji, compliance with these Regulations is required on the date these Regulations come into force.

(5) In case of Ports, wharves and marinas that are required to have in place waste reception facilities to receive harmful substances from ships and offshore platforms, compliance with these Regulations is required 36 months after these Regulations come into force.

SCHEDULES

PART 2

SCHEDULE 1
(Regulation 2)

SUBSTANCES CLASSIFIED AS OIL

Asphalt Solutions	***Oils***
Blending Stocks	Clarified
Roofers Flux	Crude oil
Straight run residue	Mixtures containing crude oil
	Diesel oil
	Fuel oil no 4
Gasoline Blending Stocks	Fuel oil no 5
Alkylates - fuel	Fuel oil no 6
Reformates	Residual fuel oil
Polymer – fuel	Road oil
	Transformer oil
	Aromatic oil (excluding vegetable oil)
Gasoline	Lubricating oil and blending stocks
Casing head (natural)	Mineral oil
Automotive	Motor oil
Aviation	Penetrating oil
Straight Run	Spindle oil

Asphalt Solutions	***Oils***
Fuel oil no. 1 (kerosene)	Turbine oil
Fuel oil no. 1 – D	
Fuel oil no. 2	***Distillates***
Fuel oil no. 2 – D	Straight run
	Flashed feed stocks
Jet Fuels	
JP - 1 (kerosene)	***Gas Oil***
Jp – 3	Cracked
JP – 4	
JP - 5 (kerosene, heavy)	***Naphtha***
Turbo fuel	Solvent
Kerosene	Petroleum
Mineral spirit	Heartcut distillate oil

SCHEDULE 2
(Regulation 38)

FORM OF CARGO RECORD BOOK

CARGO RECORD BOOK FOR SHIPS
CARRYING NOXIOUS LIQUID SUBSTANCES IN BULK

Name of ship:

Distinctive number or letters:

IMO Number:

Gross tonnage:

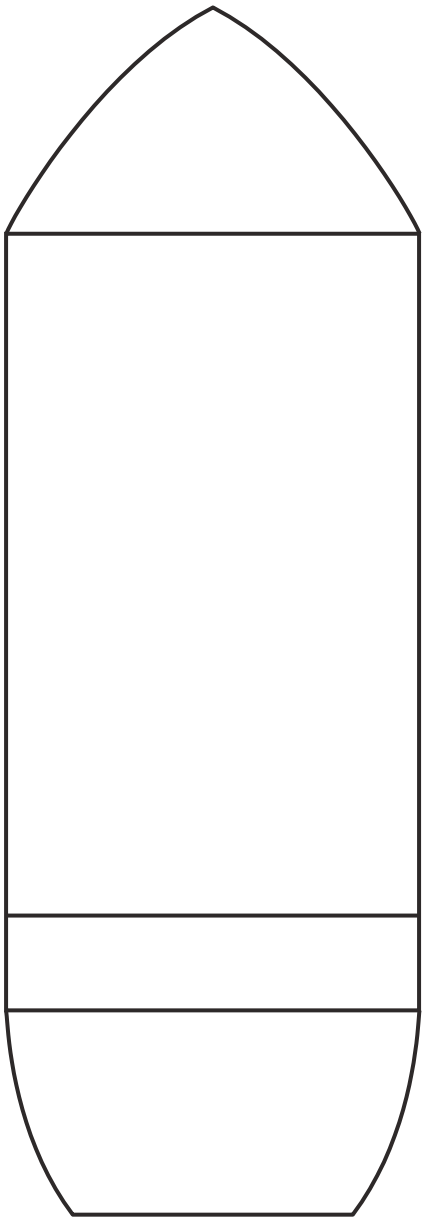
Period from: to:

Name of ship.....

Distinctive number or letters.....

PLAN VIEW OF CARGO AND SLOP TANKS

(to be completed on board)



Identification of the tanks	Capacity

(Give the capacity of each tank in cubic meters).

Introduction

The following pages show a comprehensive list of items of cargo and ballast operations which are, when appropriate, to be recorded in the Cargo Record Book on a tank-by-tank basis in accordance with regulation 15.2 of Annex II of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto, as amended. The items have been grouped into operational sections, each of which is denoted by a letter code.

When making entries in the Cargo Record Book, the date, operational code and item number shall be inserted in the appropriate columns and the required particulars shall be recorded chronologically in the blank spaces.

Each completed operation shall be signed for and dated by the officer or officers in charge and, if applicable, by a surveyor authorised by the competent authority of the State in which the ship is unloading. Each completed page shall be countersigned by the master of the ship.

LIST OF ITEMS TO BE RECORDED

(A) Loading of cargo

1. Place of loading.
2. Identify tank(s), name of substances(s) and category or categories

(B) Internal transfer of cargo

3. Name and category of cargo transferred.
4. Identity of tanks:
   .1 from:
   .2 to:
5. Was (were) the tank(s) in 4.1 emptied?
6. If not, state quantity remaining in tank(s).

(C) Unloading of cargo

7. Place of unloading.
8. Identity of tank(s) unloaded.
9. Was (were) the tank(s) emptied?
   .1 If yes, confirm the procedure for emptying and stripping has been performed in accordance with the ship's Procedures and Arrangements Manual (i.e. list, trim, stripping temperature).

.2 If not, quantity remaining in tanks(s).

10. Does the ship's Procedures and Arrangements Manual require a prewash with subsequent disposal to reception facilities?

11. Failure of pumping and/or stripping system:

.1 time and nature of failure;

.2 reasons for failure;

.3 time when system has been made operational.

(D) Mandatory prewash in accordance with the ship's Procedures and Arrangements Manual

12. Identify tank(s), substance(s) and category or categories

13. Washing method:

.1 number of washing machines per tank;

.2 duration of wash/washing cycles;

.3 hot/cold wash.

14. Prewash slops transferred to:

.1 reception facility in unloading port (identify port)[3];

.2 reception facility otherwise (identify port).

(E) Cleaning of cargo tanks except mandatory prewash (other prewash operations, final wash, ventilation etc.)

15. State time, identify tank(s), substance(s) and category and state:

.1 washing procedure used;

.2 cleaning agent(s) (identify agent(s) and quantities);

.3 ventilation procedure used (state number of fans used, duration of ventilation).

16. Tank washings transferred:

.1 into the sea;

.2 to reception facility (identify port);

.3 to slops collecting tank (identify tank).

[3]Ship's masters should obtain from the operator of the reception facilities, which include barges and tank trucks, a receipt or certificate specifying the quantity of tank washings transferred, together with the time and date of the transfer, The receipt or certificate should be kept together with the Cargo Record Book.

(F) Discharge into the sea of tank washings

17. Identify tank(s):

.1 Were tank washings discharged during cleaning of tank(s)? If so at what rate?

.2 Were tank washing(s) discharged from a slop tank? If so, state quantity and rate of discharge.

18. Time pumping commenced and stopped.

19. Ship's speed during discharge.

(G) Ballasting of cargo tanks

20. Identity of tank(s) ballasted.

21. Time at start of ballasting.

(H) Discharge of ballast water from cargo tanks

22. Identity of tank(s).

23. Discharge of ballast:

.1 into the sea;

.2 to reception facilities (identify port)[4].

24. Time ballast discharge commenced and stopped.

25. Ship's speed during discharge.

(I) Accidental or other exceptional discharge

26. Time of occurrence.

27. Approximate quantity, substance(s) and category or categories.

28. Circumstances of discharge or escape and general remarks.

(J) Control by authorised surveyors

29. Identify port.

30. Identify tank(s), substance(s), category or categories discharged ashore.

31. Have tank(s), pump(s), and piping system(s) been emptied?

32. Has a prewash in accordance with the ship's Procedures and Arrangements Manual been carried out?

33. Have tank washings resulting from the prewash been discharged ashore and is the tank empty?

[4]Ship's masters should obtain from the operator of the reception facilities, which include barges and tank trucks, a receipt or certificate specifying the quantity of tank washings transferred, together with the time and date of the transfer. The receipt or certificate should be kept together with the Cargo Record Book.

34. An exemption has been granted from mandatory prewash.
35. Reasons for exemption.
36. Name and signature of authorised surveyor.
37. Organisation, company, government agency for which surveyor works.

(K) Additional operational procedures and remarks

Name of ship.....

Distinctive number or letters.....

IMO Number……..

CARGO/ BALLAST OPERATIONS

Date	Code (letter)	Item (number)	Record of operations/ signature of officer in charge/ name of and signature of authorised surveyor

Signature of master.....

SCHEDULE 3
(Regulation 56)

FORM OF GARBAGE RECORD BOOK

Garbage Record Book

Name of Ship: _____

Distinctive number or letters: _____

IMO No: _____

Period:_____ From: _____ To: _____

1. Introduction

In accordance with regulation 10 of Annex V of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 (MARPOL 73/78), a record is to be kept of each discharge operation or completed incineration. This includes discharges at sea, to reception facilities, or to other ships, as well as the incidental loss of Garbage.

2. Garbage and garbage management

Garbage means all kinds of food waste, domestic waste, and operational waste, all plastics, cargo residue, cooking oil, fishing gear, and animal carcasses generated during the normal operation of the ship or offshore installation and liable to be discharged continuously or periodically except those substances which are defined or listed in other Annexes to the Convention. Garbage does not include fresh fish and parts thereof generated as a result of fishing activities undertaken during a voyage, or as a result of aquaculture activities which involve the transportation of fish including shellfish for placement in the aquaculture facility and the transport of harvested fish including shellfish from such facilities to shore for processing.

The guidelines for the Implementation of Annex V of MARPOL[5] should also be referred to for relevant information.

3. Description of the garbage

The garbage is to be grouped into categories for the purposes of this record book as follows:

1. Plastics
2. Food wastes
3. Domestic wastes
4. Cooking oil
5. Incinerator ashes

[5] Refer to guidelines for the implementation of Annex V of MARPOL 73/78, as amended by resolutions.

6. Operational wastes
7. Cargo residues
8. Animal Carcasses
9. Fishing gear[6]

4. Entries in the Garbage Record Book

4.1 Entries in the Garbage Record Book shall be made on each of the following occasions—

(a) When garbage is discharged to reception facilities,[7] ashore or to other ships —

(i) Date and time of discharge;

(ii) Port or facility, or name of ship;

(iii) Categories of garbage discharged;

(iv) Estimated amount discharged for each categories in cubic meters; and

(v) Signature of officer in charge of the operation.

(b) When garbage is incinerated—

(i) Date and time of start and stop of incineration;

(ii) Position of the ship (latitude and longitude) at the start and stop of incineration;

(iii) Categories of garbage incinerated;

(iv) Estimated amount incinerated in cubic meters; and

(v) Signature of the officer in charge of the operation.

(c) When garbage is discharged into sea in accordance with regulations 4, 5 or 6 of Annex V of MARPOL—

(i) Date and time of discharge;

(ii) Position of the ship (latitude and longitude). Note: for cargo residue discharges, include discharge start and stop position;

(iii) Category of garbage discharged;

(iv) Estimated amount discharged for each category in cubic meters; and

Signature of the officer in charge of the operation.

(d) Accidental or other exceptional discharges or loss of garbage into sea, including in accordance with regulation 7 of the Annex V of MARPOL—

(i) Date and time of occurrence;

[6] Refer to guidelines to be developed by the organization.

[7] Ships master should obtain from the operator of the reception facilities, which includes barges and trucks, a receipt or certificate specifying the estimated amount of garbage transferred. The receipts or certificates must be kept together with the garbage record book.

(ii) Port or position of the ship at time of occurrence;

(iii) Estimated amount for each category of garbage discharged or lost;

(iv) Category of garbage discharged or lost; and

(v) The reason for discharge or loss and general remarks.

4.2 Amount of Garbage

The amount of garbage on board should be estimated in cubic meters, if possible separately according to category. The Garbage Record Book contains many references to estimated amount of garbage. It is recognised that the accuracy of estimating amounts of garbage is left to interpretation. Volume estimates will differ before and after processing. Some processing procedures may not allow for a usable estimate of volume, e.g., the continuous processing of food waste. Such factors should be taken into consideration when making and interpreting entries made in a record.

RECORD OF GARBAGE DISCHARGE

Ship's name: _____

Distinctive No. or letters: _____

IMO No.: _____

Garbage Categories:

A. Plastics
B. Food wastes
C. Domestic wastes (e.g. paper products, rags, glass, metal, bottles, crockery, etc.)
D. Cooking oil
E. Incinerator ashes
F. Operational wastes
G. Cargo residues
H. Animal Carcass (es)
I. Fishing gear

NEW TABLE LAYOUT AS BELOW:

Date/ Time	Position of the Ships/Remarks (e.g., accidental loss)	Category	Estimated Amount Discharged or Incinerated	To Sea	To Reception Facility	Incineration	Certification

Master's signature: _____ Date: _____

SCHEDULE 4
(Regulation 70)

NORMAL OPERATIONS OF SHIPS OR OFFSHORE INSTALLATIONS

1. Ship's main propulsion and auxiliary generators.
2. Heat exchange systems, including engine cooling systems, air conditioning, refrigeration, and condensers.
3. Storm water drainage from systems and scuppers, except from those areas used for the storage of any harmful substance.
4. The use of washing facilities in the accommodation areas producing greywater from showers, handbasins, baths, galleys, dishwashers, and laundries but does not include use of any dispensary, sick bay, or other medical premises.
5. The cleaning of the ship or offshore installation, except for the exterior of the hull below the load line or parts of the ship used for carrying cargo.
6. The incineration of waste or other matter generated from a ship or offshore installation.
7. Fire-fighting drills.
8. The operation of a weapon system on any warship.

PART 3

SCHEDULE 1
(Regulation 88)

FORM OF INTERNATIONAL POLLUTION PREVENTION CERTIFICATE FOR THE CARRIAGE OF NOXIOUS LIQUID SUBSTANCES IN BULK

International Pollution Prevention Certificate
for the Carriage of Noxious Liquid Substances in Bulk

Issued under the provisions of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto, as amended (hereinafter referred to as "the Convention") under the authority of the Government of:

……..
(full designation of the country)

By…….
(full designation of the competent person or organization authorized under the provisions of the Convention)

Particulars of ship

Name of ship.....

Distinctive number or letters.....

IMO Number.....

Port of registry.....

Gross Tonnage.....

THIS IS TO CERTIFY—

1. That the ship has been surveyed in accordance with regulation 8 of Annex II of the Convention.

2. That the survey showed that the structure, equipment, systems, fitting, arrangements and material of the ship and the condition thereof are in all respects satisfactory and that the ship complies with the applicable requirements of Annex II of the Convention.

3. That the ship has been provided with a Procedures and Arrangements Manual as required by regulation 14 of Annex II of the Convention, and that the arrangements and equipment of the ship prescribed in the Manual are in all respects satisfactory.

4. That the ship complies with the requirements of Annex II to MARPOL 73/78 for the carriage in bulk of the following Noxious Liquid Substances, provided that all relevant provisions of Annex II are observed.

Noxious Liquid Substances	**Conditions of carriage (tank numbers etc.)**	**Pollution category**
Continued on additional signed and dated sheets		

This certificate is valid until (dd/mm/yyyy): ……..… subject to surveys in accordance with regulation 8 of Annex II of the Convention.

Completion date of the survey on which this certificate is based (dd/mm/yyyy):……

Issued at:…….....
(Place of issue of certificate)

(dd/mm/yyyy) :…… ...…….…….…….…….....
(Date of issue) *(Signature of authorized official issuing the certificate)*

(Seal or stamp of the authority, as appropriate)

ENDORSEMENT FOR ANNUAL AND INTERMEDIATE SURVEYS

THIS IS TO CERTIFY that, at a survey required by regulation 8 of Annex II of the Convention, the ship was found to comply with the relevant provisions of the Convention:

Annual survey: Signed: …….....
(Signature of duly authorized official)

Place: …….....
Date(dd/mm/yyyy): .....

(Seal or stamp of the authority, as appropriate)

Annual/Intermediate* survey: Signed:…….....
(Signature of duly authorized official)

Place:…….....
Date(dd/mm/yyyy):.....

(Seal or stamp of the authority, as appropriate)

Annual/Intermediate* survey: Signed:…….....
(Signature of duly authorized official)

Place:.....
Date(dd/mm/yyyy):.....

(Seal or stamp of the authority, as appropriate)

Annual survey: Signed:…….....
(Signature of duly authorized official)

Place:…….....
Date(dd/mm/yyyy):.....

(Seal or stamp of the authority, as appropriate)

ANNUAL/INTERMEDIATE SURVEY IN ACCORDANCE WITH REGULATION 10.8.3

THIS IS TO CERTIFY that, at an annual/intermediate survey in accordance with regulation 10.8.3 of Annex II of the Convention, the ship was found to comply with the relevant provisions of the Convention:

Signed:…….....
(Signature of duly authorized official)

Place:…….....
Date (dd/mm/yyyy):.....

(Seal or stamp of the authority, as appropriate)

ENDORSEMENT TO EXTEND THE CERTIFICATE IF VALID FOR LESS THAN 5 YEARS WHERE REGULATION 10.3 APPLIES

The ship complies with the relevant provisions of the Convention, and this Certificate shall, in accordance with regulation 10.3 of Annex II of the Convention, be accepted as valid until (dd/mm/yyyy):……..

Signed:…….....
(Signature of duly authorized official)

Place:…….....
Date (dd/mm/yyyy):.....

(Seal or stamp of the authority, as appropriate)

ENDORSEMENT WHERE THE RENEWAL SURVEY HAS BEEN COMPLETED AND REGULATION 10.4 APPLIES

The ship complies with the relevant provisions of the Convention, and this Certificate shall, in accordance with regulation 10.4 of Annex II of the Convention, be accepted as valid until (dd/mm/yyyy):……..

Signed:…….....
(Signature of duly authorized official)

Place:…….....
Date (dd/mm/yyyy):.....

(Seal or stamp of the authority, as appropriate)

ENDORSEMENT TO EXTEND THE VALIDITY OF THE CERTIFICATE UNTIL REACHING THE PORT OF SURVEY OR FOR A PERIOD OF GRACE WHERE REGULATION 10.5 OR 10.6 APPLIES

This Certificate shall, in accordance with regulation 10.5 or 10.6 of Annex II of the Convention, be accepted as valid until (dd/mm/yyyy):……

Signed:…….....
(Signature of duly authorized official)

Place:…….....
Date (dd/mm/yyyy):.....

(Seal or stamp of the authority, as appropriate)

ENDORSEMENT FOR ADVANCEMENT OF ANNIVERSARY DATE WHERE REGULATION 10.8 APPLIES

In accordance with regulation 10.8 of Annex II of the Convention, the new anniversary date is (dd/mm/yyyy):……

Signed:…….....
(Signature of duly authorized official)

Place:…….....
Date (dd/mm/yyyy):.....

(Seal or stamp of the authority, as appropriate)

In accordance with regulation 10.8 of Annex II of the Convention, the new anniversary date is (dd/mm/yyyy):……

Signed:…….....
(Signature of duly authorized official)

Place:…….....
Date (dd/mm/yyyy):.....

(Seal or stamp of the authority, as appropriate)

SCHEDULE 2
(Regulation 119)

FORM OF INTERNATIONAL SEWAGE POLLUTION PREVENTION DOCUMENT OF COMPLIANCE

INTERNATIONAL SEWAGE POLLUTION PREVENTION DOCUMENT OF COMPLIANCE

Issued in accordance with the Provisions of the International Convention for the Prevention of Pollutions from ships, 1973, under the authority of the Government of Fiji.

by

.....
(full designation of the surveyor or organisation authorised by the Government of Fiji)

Name of ship	Distinctive number or letter	Port of registry	Gross tonnage	Number of persons which the ship is certified to carry

Date of building contract: .....
Date on which keel was laid or ship was at a similar stage of Construction: ……
.....

Date of delivery:……

THIS IS TO CERTIFY THAT—

1. The ship is equipped with a sewage treatment plant/comminuter/holding tank*[8] and a discharge pipeline in compliance with regulation 3(1)*(a)*(i) to (iv) of Annex IV of the Convention as follows—

**(a)* Description of the sewage treatment plant:
Type of sewage treatment plant .....

8 * Delete as appropriate

Name of manufacturer .....
The sewage treatment plant is certified by the Chief Executive Officer/Authorised Organisation to meet the following effluent standards**[9]
.....

**(b)* Description of the comminuter:
Type of comminuter .....
Name of manufacturer .....
Standard of sewage after disinfection .....

**(c)* Description of holding tank equipment:
Total capacity of the holding tank .....m^3
Location .....

(d) A pipeline for the discharge of sewage to a reception facility, fitted with a standard shore connection.

2. The ship has been surveyed in accordance with regulation 3 of Annex IV of the International Convention for the Prevention of Pollution from Ships, 1973, concerning the prevention of pollution by sewage and the survey showed that the equipment of the ship and the condition thereof are in all respects satisfactory and the ship complies with the applicable requirements of Annex IV of the Convention.

This certificate is valid until .....
Issued at .....
(place of issue of certificate)

....
(date) *(Signature of official issuing the certificate)*

(Seal or stamp of the issuing authority, as appropriate)

Under the provisions of regulation 7(2) and (4) of Annex IV of the Convention the validity of this certificate is extended until
.....

Signed .....
(Signature of duly authorised official)

Place ..... Date .....

(Signature or stamp of the authority, as appropriate)

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9 **Parameters should be incorporated

Part 4

SCHEDULE 1
(Regulation 153)

CALCULATION AND ASSUMPTIONS FOR THE DETERMINATION OF MEAN OIL OUTFLOW PARAMETER (OM)

1. Interpretation

(1) For the purpose of this Schedule and regulation 153(2) and 153(3)—

"BB" means the greatest moulded breadth of the ship, in metres, at or below the waterline;

"bi" means the minimum distance from the ship's side to the outer longitudinal bulkhead of the tank in question measured inboard at right angles to the centre line at the level corresponding to the assigned summer freeboard;

"BS" means the greatest moulded breadth of the ship, in metres, at or below dS;

"C" means total volume of cargo oil, in m^3, at 98% tank filling;

"C3" is equal to—

(a) 0.77, for ships having two longitudinal bulkheads inside the cargo tanks, if these bulkheads are continuous over the cargo block and PS(i) is calculated in accordance with this Schedule;

(b) 1.0 for all other ships or when Ps(i) is calculated in accordance within clause 7(2);

"CDB(i)" is the factor to account for oil capture and is equal to—

(a) 0.6 for cargo tanks bounded from below by non-oil compartments;

(b) 1.0 for cargo tanks bounded by the bottom shell;

"deadweight" or "DW" has the meaning given to it in regulation 122;

"depth" or "DS" means the moulded depth, in metres, measured at mid-length to the upper deck at side;

"dB" means waterline;

"dS" means the vertical distance, in metres, from the moulded baseline at mid-length to the waterline corresponding to the summer freeboard assigned to the ship;

"g" means the acceleration of gravity and is to be taken to be 9.81 m/s^2;

"I" represents the particular cargo tank under consideration;

"length" or "L" has the meaning given to it in regulation 122;

"load line draught" has the same meaning as "ds"

"m" means metres;

"n" means the total number of cargo tanks;

"OB(i)" means the outflow from cargo tank i, in m3, calculated in accordance with clause 5(2);

"OM" means the mean oil outflow parameter;

"OMB(0)" means the mean outflow for 0 m tide condition;

"OMB(2.5)" means the mean outflow for minus 2.5 m tide condition, in m ;

"OMB" means the mean outflow for bottom damage, in m3;

"OMS" means the mean outflow for side damage, in m3;

"OS(i)"

(a) means the outflow, in m3, from side damage to cargo tank i;

(b) shall be assumed to be equal to the total volume in cargo tank i at 98% filling, unless it is proven, through the application of the guidelines developed by the IMO for the approval of alternative methods of design and construction of oil tankers, that any significant cargo volume will be retained;

"pn" means—

(a) the nominal density of the cargo oil; and

(b) is equal to 1000 (DWT)/C (kg/m3);

"ps" means the density of seawater, to be taken as 1,025 kg/m3;

"p" means overpressure and if an inert gas system is—

(a) fitted, the normal overpressure, in kPa, is to be taken as not less than 5 kPa;

(b) not fitted, the overpressure may be taken as 0;

"PB(i)" means the probability of penetrating cargo tank i from bottom damage, calculated in accordance with clause 7;

"PBa" means the probability the damage will lie entirely aft of location Xa/L determined by linear interpolation from the table of probabilities for bottom damage provided in clause 7(2);

"PBf" means the probability the damage will lie entirely forward of location Xf/L determined by linear interpolation from the table of probabilities for bottom damage provided in clause 7(2);

"PBL"—

(a) means probability the damage will extend into the longitudinal zone bounded by Xa and Xf; and

(b) is equal to 1 - PBf - PBa;

"PBp" means the probability the damage will lie entirely to port of the tank determined by linear interpolation from the table of probabilities for bottom damage provided in clause 7(2);

"PBs" means the probability the damage will lie entirely to starboard of the tank determined by linear interpolation from the table of probabilities for bottom damage provided in clause 7(2); and

"PBT"—

(a) means the probability the damage will extend into the transverse zone bounded by Yp and Ys; and

(b) is equal to 1 - PBp - PBs;

"PBV"—

(a) means the probability the damage will extend vertically above the boundary defined by z; and

(b) is equal to 1 - PBz;

"PBz"—

(a) means the probability the damage will lie entirely below the tank; and

(b) is equal to—

(i) $(14.5 - 67\ z/DS)\ (z/DS)$ if $z/DS \leq 0.1$;

(ii) $0.78 + 1.1\ (z/DS - 0.1)$ if $z/DS > 0.1$,

except that PBz shall not be taken as greater than 1;

"PS(i)" means the probability of penetrating cargo tank i from side damage, calculated in accordance with clause 6(1);

"PSa" means the probability the damage will lie entirely aft of location Xa/L determined by linear interpolation from the table of probabilities for side damage provided in clause 6(2);

"PSf" means the probability the damage will lie entirely forward of location Xf/L determined by linear interpolation from the table of probabilities for side damage provided in clause 6(2);

"PSL"—

(a) means the probability the damage will extend into the longitudinal zone bounded by Xa and Xf; and

(b) is equal to 1 - PSf - PSa;

"PS1"—

(a) means the probability the damage will lie entirely below the tank

and shall be determined by linear interpolation from the table of probabilities for side damage provided in clause 6(2); and

(b) is equal to 1 - PSy;

"PST" means the probability the damage will extend transversely beyond the boundary defined by y;

"PSu" means the probability the damage will lie entirely above the tank determined by linear interpolation from the table of probabilities for side damage provided in clause 6(2); and

"PSV"—

(a) means the probability the damage will extend into the vertical zone bounded by Zl and Zu; and

(b) is equal to 1 - PSu - PS1;

"PSy"—

(a) means the probability the damage will lie entirely outboard of the tank; and –

(b) if y/BS ≤ 0.05 then PSy = (24.96 -199.6 y/BS) (y/BS);

(c) if 0.05 < y/BS < 0.1 then PSy = 0.749 + {5 -44.4 (y/BS - 0.05)} (y/BS - 0.05);

(d) if y/BS ≥ 0.1 then PSy = 0.888 + 0.56 (y/BS - 0.1),

but PSy shall not be taken as greater than 1.

"side and bottom damage probabilities" means PS(i), PSa, PSf, PSL, PS1, PST, PSu, PSV, PSy, PB(i), PBa, PBf, PBL, PBp, PBs, PBT, PBV, PBz;

"tc" means tidal change, in meters and reductions in tide shall be expressed as negative values;

"waterline" or "dB" means the vertical distance, in meters, from the moulded baseline at mid-length to the waterline corresponding to 30% of the depth (DS);

"Xa" means the longitudinal distance from the aft terminal of L to the aftmost point on the compartment being considered, in meters;

"Xf" means the longitudinal distance from the aft terminal of L to the foremost point on the compartment being considered, in meters;

"y" means the minimum horizontal distance measured at right angles to the centerline between the compartment under consideration and the side shell in meters;[10]

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[10] *For symmetrical tank arrangements, damages are considered for one side of the ship only, in which case all "y" dimensions are to be measured from that same side. For asymmetrical arrangements refer to the explanatory notes on matters related to the accidental outflow performance, adopted by the International Maritime Organisation in resolution MEPC.122(52).*

"Yp" means the transverse distance from the port-most point on the compartment located at or below the waterline dB, to a vertical plane located BB/2 to starboard of the ship's centerline, in meters;

"YS" means the transverse distance from the starboard-most point on the compartment located at or below the waterline dB, to a vertical plane located BB /2 to starboard of the ship's centerline, in meters;

"z" means the minimum value of z over the length of the compartment, where, at any given longitudinal location, z is the vertical distance from the lower point of the bottom shell at that longitudinal location to the lower point of the compartment at that longitudinal location, in meters;

"Zl" means—

(a) in calculating cargo level after bottom damage, the height of the lowest point in the cargo tank above baseline, in meters;

(b) in calculating probability of breaching a compartment from side damage, the vertical distance from the moulded baseline to the lowest point on the compartment being considered, in meters;

"Zu" means the vertical distance from the moulded baseline to the highest point on the compartment being considered, in meters except that Zu shall not be taken as greater than Ds.

(2) Calculations in this Schedule and in regulation 126 should be based on draught dS even if assigned draughts, such as the tropical loadline, exceed dS.

2. Calculating mean oil flow parameter—general assumptions

When calculating the mean oil outflow parameter—

(a) the following shall be assumed—

(i) the cargo block length extends between the forward and aft extremities of all tanks arranged for the carriage of cargo oil, including slop tanks;

(ii) reference in this Schedule to "cargo tanks" includes all cargo tanks, slop tanks and fuel tanks located within the cargo block length;

(iii) the ship is loaded to the load line draught (dS) without trim or heel;

(iv) all cargo oil tanks are loaded to 98% of their volumetric capacity where the nominal density of the cargo oil (pn) is = 1000 (DWT)/C (kg/m3);

(v) the permeability of each space within the cargo block, including cargo tanks, ballast tanks and other non-oil spaces shall be taken to be 0.99, unless proven otherwise;

(b) suction wells may be disregarded in determining tank location, if—

(i) the well is as small as is practicable; and

(ii) the distance between the well bottom and bottom shell plating is not less than 0.5h.

3. Combining mean oil flow parameter—assumptions

When combining oil outflow parameters, the following assumptions shall be used—

(a) the mean oil outflow shall be calculated independently for side damage and for bottom damage and then combined into the non-dimensional oil outflow parameter OM, as follows—

$$OM = (0.4\ OMS + 0.6\ OMB)\ /C$$

(b) for bottom damage, mean outflow shall be calculated independently for 0 m and minus 2.5 m tide conditions, and then combined as follows—

$$OMB = 0.7\ OMB\ (0) + 0.3\ OMB\ (2.5)$$

4. Mean outflow for side damage

The mean outflow for side damage OMS shall be calculated as follows—

$$O_{MS} = C_3 \sum_{i}^{n} P_{S(i)}\ O_{S(i)}\ (m^3)$$

5. Mean outflow for bottom damage

(1) The mean outflow for bottom damage shall be calculated for each tidal condition as follows—

(a) $$O_{MB(0)} = \sum_{i}^{n} P_{B(i)}\ O_{B(i)}\ C_{DB(i)}\ (m^3)$$

(b) $$O_{MB(2.5)} = \sum_{i}^{n} P_{B(i)}\ O_{B(i)}\ C_{DB(i)}\ (m^3)$$

where OB(i) is the outflow from cargo tank i, in m^3, after tidal change.

(2) Oil outflow OB(i) for each cargo oil tank shall be calculated based on pressure balance principles, using the following assumptions—

(a) the ship shall be assumed stranded with zero trim and heel, with the stranded draught prior to tidal change equal to the load line draught (ds);

(b) the cargo level after damage shall be calculated as follows –

$$hc = \{(ds + tc - Zl)\ (ps) - (1000\ p)\ /\ g\ \}/pn$$

where hc = the height of the cargo oil above Zl, in meters;

(c) for cargo tanks bounded by the bottom shell, unless proven otherwise, oil outflow OB(i) shall be taken to be not less than 1% of the total volume of

cargo oil loaded in cargo tank i to account for initial exchange losses and dynamic effects due to current and waves;

(d) in the case of bottom damage, a portion from the outflow from a cargo tank may be captured by non-oil compartments and this effect may be approximated by applying the factor CDB(i) for each tank.

6. Side damage probabilities

The probability PS of breaching a compartment from side damage shall be calculated as follows PS = PSL PSV PST.

PSa, PSf, PSl, PSu and PSy shall be determined by linear interpolation from the table of probabilities for side damage—

Xa /L	PSa	Xf /L	PSf	Z1/DS	PSl	Zu/DS	PSu
0.00	0.000	0.00	0.967	0.00	0.000	0.00	0.968
0.05	0.023	0.05	0.917	0.05	0.000	0.05	0.952
0.10	0.068	0.10	0.867	0.10	0.001	0.10	0.931
0.15	0.117	0.15	0.817	0.15	0.003	0.15	0.905
0.20	0.167	0.20	0.767	0.20	0.007	0.20	0.873
0.25	0.217	0.25	0.717	0.25	0.013	0.25	0.836
0.30	0.267	0.30	0.667	0.30	0.021	0.30	0.789
0.35	0.317	0.35	0.617	0.35	0.034	0.35	0.733
0.40	0.367	0.40	0.567	0.40	0.055	0.40	0.670
0.45	0.417	0.45	0.517	0.45	0.085	0.45	0.599
0.50	0.467	0.50	0.467	0.50	0.123	0.50	0.525
0.55	0.517	0.55	0.417	0.55	0.172	0.55	0.452
0.60	0.567	0.60	0.367	0.60	0.226	0.60	0.383
0.65	0.617	0.65	0.317	0.65	0.285	0.65	0.317
0.70	0.667	0.70	0.267	0.70	0.347	0.70	0.255
0.75	0.717	0.75	0.217	0.75	0.413	0.75	0.197
0.80	0.767	0.80	0.167	0.80	0.482	0.80	0.143
0.85	0.817	0.85	0.117	0.85	0.553	0.85	0.092
0.90	0.867	0.90	0.068	0.90	0.626	0.90	0.046
0.95	0.917	0.95	0.023	0.95	0.700	0.95	0.013
1.00	0.967	1.00	0.000	1.00	0.775	1.00	0.000

7. Bottom damage probabilities

(1) The probability PB of breaching a compartment from bottom damage shall be calculated as follows PB = PBL PBT PBV.

(2) PBa, PBf, PBp, PBs, and PBz shall be determined by linear interpolation from the table of probabilities for bottom damage—

Xa /L	PBa	Xf /L	PBf	Yp BB	PBp	Ys/BB	PBs
0.00	0.000	0.00	0.969	0.00	0.844	0.00	0.000
0.05	0.002	0.05	0.953	0.05	0.794	0.05	0.009
0.10	0.008	0.10	0.936	0.10	0.744	0.10	0.032
0.15	0.017	0.15	0.916	0.15	0.694	0.15	0.063
0.20	0.029	0.20	0.894	0.20	0.644	0.20	0.097
0.25	0.042	0.25	0.870	0.25	0.594	0.25	0.133
0.30	0.058	0.30	0.842	0.30	0.544	0.30	0.171
0.35	0.076	0.35	0.810	0.35	0.494	0.35	0.211
0.40	0.096	0.40	0.775	0.40	0.444	0.40	0.253
0.45	0.119	0.45	0.734	0.45	0.394	0.45	0.297
0.50	0.143	0.50	0.687	0.50	0.344	0.50	0.344
0.55	0.171	0.55	0.630	0.55	0.297	0.55	0.394
0.60	0.203	0.60	0.563	0.60	0.253	0.60	0.444
0.65	0.242	0.65	0.489	0.65	0.211	0.65	0.494
0.70	0.289	0.70	0.413	0.70	0.171	0.70	0.544
0.75	0.344	0.75	0.333	0.75	0.133	0.75	0.594
0.80	0.409	0.80	0.252	0.80	0.097	0.80	0.644
0.85	0.482	0.85	0.170	0.85	0.063	0.85	0.694
0.90	0.565	0.90	0.089	0.90	0.032	0.90	0.744
0.95	0.658	0.95	0.026	0.95	0.009	0.95	0.794
1.00	0.761	1.00	0.000	1.00	0.000	1.00	0.844

8. Alternative designs

(1) Regulation 133(3) and this appendix utilise a simplified probabilistic approach where a summation is carried out over the contributions to the mean outflow from each cargo tank; more rigorous calculations may be appropriate for sloping bulkheads, a pronounced hull curvature and certain designs such as those characterised by the occurrence of steps or recesses in bulkheads or decks.

(2) In such cases, one of the following calculation procedures may be applied—

(a) side and bottom damage probabilities may be calculated with more precision through the application of hypothetical sub-compartments;[11]

[11] *Refer to the explanatory notes on matters related to the accidental oil outflow performance, adopted by the International Maritime Organisation by resolution MEPC.122(52).*

(b) side and bottom damage probabilities may be calculated through direct application of the probability density functions contained in guidelines developed by the IMO for the approval of alternative methods of design and construction of oil tankers;[12] or

(c) oil outflow performance may be evaluated in accordance with the method described in the those guidelines.

9. Other piping arrangements

Credit, for reducing oil outflow, through the use of an emergency rapid cargo transfer system, or other system, arranged to mitigate oil outflow in the event of an accident, may be taken into account, only after the effectiveness and safety aspects of the system are approved by the IMO.

PART 5

SCHEDULE 1
(Regulation 202)

CONTENTS OF A NOXIOUS LIQUID SUBSTANCES PLAN

1. Language

Every Noxious Liquid Substances Plan shall be in English and the working language of the crew.

2. Elements of the Noxious Liquid Substances Plan

Every Noxious Liquid Substances Plan shall contain—

(a) the procedures to be followed by the master to report an actual or probable discharge of noxious liquid substances;

(b) a detailed description of the actions to be taken immediately by persons on board to reduce or control any discharge or escape of noxious liquid substances; and

(c) the procedure and point of contact on the ship for coordinating shipboard response activities with national or local authority response activities to an actual or probable discharge of noxious liquid substances.

3. Reporting a discharge or escape

(1) Every Noxious Liquid Substances Plan shall require that a report is made in accordance with section 132 or 141 of the Decree and regulation 4 and regulation 7 in the case of every—

(a) actual or probable discharge of noxious liquid substances—

(i) resulting from damage to the ship or its equipment; or

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[12] *Refer to the Revised Interim Guidelines for the approval of alternative methods of design and construction of oil tankers adopted by the Marine Environment Protection Committee of the International Maritime Organisation in resolution MEPC.110(49).*

(ii) for the purpose of securing the safety of a ship or saving life at sea; or

(b) actual discharge of noxious liquid substances during the operation of the ship, contrary to Part 2 of these Regulations.

(2) Every Noxious Liquid Substances Plan shall—

(a) specify the form and content of reports in accordance with the IMO Assembly Resolution A.851(20);

(b) include, or have appended to it, a sample report form; and

(c) require that—

(i) initial reports are supplemented;

(ii) information concerning further developments is provided; and

(iii) requests from affected states for additional information are complied with, in accordance with IMO Assembly Resolution A.851(20).

4. Identification of probable discharge or escape

Every Noxious Liquid Substances Plan shall require the master to consider, in accordance with regulation 198, the factors prescribed in that regulation for determining whether a discharge of noxious liquid substances is probable and, accordingly, whether a report should be made.

5. Contact information

(1) Every Noxious Liquid Substances Plan shall include, or have appended to it, a contact list, suitable to the range of the ship's operation, for reporting actual or probable discharges of noxious liquid substances into the sea.

(2) The contact list shall identify—

(a) state agencies, statutory bodies or officials of the maritime administrations of coastal states responsible for receiving and processing reports of actual or probable discharges of noxious liquid substances into the sea;

(b) local agencies and representatives, concerned with the operation of the ship, at the ports visited by the ship on a regular basis; and

(c) other parties, whose interest(s) in the ship, are, in the owner's view, likely to be affected by an actual or probable discharge of noxious liquid substances into the sea.

(3) The contact list shall—

(a) provide 24 hour contact information;

(b) provide alternatives to the designated contacts; and

(c) specify the preferred means of communication.

(4) The plan shall require the master to contact the nearest radio communication station, designated ship movement reporting station or rescue coordination center in accordance with regulation 199 if the plan contains no contact details for a coastal state in whose waters a spill may occur, or there is any undue delay in contacting the responsible authority by direct means.

(5) Upon arrival in a port for which no local agency contact information is listed in the plan, the master shall obtain details of local reporting procedures and update the plan accordingly.

6. Action to mitigate damage and control discharges or escapes

(1) The Noxious Liquid Substances Plan shall contain separate sections dealing with operational spills[13] and spills resulting from accidents[14].

(2) Each section shall include guidance to the master on the appropriate action to mitigate damage or control the discharge or escape of noxious liquid substances; and that guidance shall require the consideration of all relevant factors.

(3) The Noxious Liquid Substances Plan shall include procedures for safe removal of noxious liquid substances and guidance for proper disposal of recovered substances and clean-up materials.

7. Personnel responsibilities

(1) The Noxious Liquid Substances Plan shall define the personnel duties for dealing with actual or probable discharges of noxious liquid substances including response duties and reporting responsibilities under Part 2 of these Regulations.

(2) The owner and the master shall ensure that—

(a) personnel responsible for implementing the emergency plan and dealing with spills of noxious liquid substances receive training appropriate to their responsibilities under the plan;

(b) a record of that training is kept; and

(c) that sufficient personal protective equipment appropriate for the noxious liquid substances carried as cargo is available to personnel identified in the emergency plan.

(3) The owner and the master should ensure that sufficient equipment is available for personnel to deal with a noxious liquid substances spill at a level appropriate to the risks presented on board and the response options identified in the emergency plan.

8. Priority actions

The Noxious Liquid Substances Plan shall provide the master with ship-specific guidance and information for—

(a) determining priority actions to ensure the safety of personnel and the ship (in the case of an actual or probable discharge), prevent the escalation of

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[13] *For example, noxious liquid substances spilled and contained on deck, pipe leakage and tank overflow.*

[14] *Accidents such as grounding, fire, explosion, collision, hull damage or failure and excessive list.*

an actual or probable discharge; and where possible, stop a discharge at its source.

(b) assessing the damage sustained by the ship;

(c) determining whether or not a noxious liquid substances spill can be contained or cleaned up using the resources available to the master or any other person responsible for implementing the plan;

(d) deciding what remedial action to take;

(e) identifying the stability and stress consequences of remedial actions and referring to the owner, in those cases where the stability and stress consequences of remedial actions cannot be determined;

(f) making damage stability and damaged longitudinal strength assessments; and

(g) undertaking the transfer of all or part of the cargo to another ship, subject to any authority required from the coastal state.

9. Ship's information to be appended to Noxious Liquid Substances Plan

The Noxious Liquid Substances Plan shall—

(a) have appended to it diagrams, drawings, and ship-specific details showing the general arrangement of the ship and the location of tanks;

(b) show the location of current cargo, bunker and ballast information (including quantities and specifications);

(c) show the quantities and location of any protective, containment, neutralisation and response equipment carried on board; and

(d) provide material safety data sheets for all noxious liquid substances carried on board in bulk as cargo, including specifications, physical properties and internationally recognised identifier numbers.

10. Coastal state authorisation and requirements

(1) The Noxious Liquid Substances Plan shall identify the circumstances in which the master shall seek authorisation from the coastal state before undertaking specific actions to mitigate marine pollution from noxious liquid substances.

(2) If the ship trades to, or in the vicinity of, any coastal state that requires the owner to initiate the response to marine pollution from noxious liquid substances, the owner shall provide the master with guidance of sufficient detail and appropriate equipment to allow the master to initiate that response.

SCHEDULE 2
(Regulation 212)

CONTENTS OF A SITE MARINE SPILL CONTINGENCY PLAN

1. Risk identification, assessment and prevention

Every site marine spill contingency plan shall include—

(a) up-to-date and accurate drawings, plans or general arrangements of the site, showing—

(i) the places and systems associated with the storage or transfer of fuels including tank capacity, filling arrangements, isolation valves and drainage systems highlighting the critical isolation points;

(ii) those areas or processes identified as presenting a risk of a marine spill; and

(iii) locations in the vicinity of the site identified as under threat of environmental damage should a marine spill occur;

(b) Particulars of all oils and other harmful substances stored at the site including specifications, material safety data sheets and the maximum volume of each type of fuel or chemicals held on site;

(c) a detailed description of all the identified processes and activities which present a risk of pollution from an oil spill, with a list of specific actions and procedures to reduce the risk of an oil spill including specific standard operating procedures to be employed at the interface between the site and a vessel; and

(d) a detailed description of those identified areas which may suffer environmental damage as a result of a marine spill.

2. Response to marine spills

(1) Every site marine spill contingency plan shall contain—

(a) guidance to ensure the safety of personnel at the site;

(b) information to help personnel at the site deal with a marine spill by initiating the actions necessary to stop or minimise the spill and to mitigate its effects, including procedures for—

(i) preventing the escalation of the marine spill;

(ii) stopping the discharge at its source, if possible;

(iii) deciding what action to take in response to a marine spill;

(iv) identifying the safety and environmental consequences of any remedial action; and

(v) determining whether or not the marine spill can be contained or cleaned up by the resources available to the operator or any other person responsible for implementing the contingency plan;

(c) appropriate response options for the site;

(d) the means and point of contact for co-ordination of response activities;

(e) the procedure by which spills are to be reported in accordance with regulation 220;

(f) the procedure by which the operator is to report to the Chief Executive Officer, Director of Environment and/or the municipal or Provincial Council, if the person responsible for implementing the contingency plan considers that the marine spill cannot be cleaned up or contained using the resources available to that person;

(g) a list of 24-hour contact information for—

(i) the operator or the operator's site representative;

(ii) the Chief Executive Officer;

(iii) the Director of Environment;

(iv) the municipal or Provincial Council, if the site is within their boundaries;

(v) any organisation contracted to the operator to respond to marine spills at the site;

(vi) off-duty personnel with responsibilities for dealing with marine spills;

(vii) other persons whose interests in or around the site are likely to be affected by a marine spill at the site;

(h) the name and contact details of any person responsible for implementing the plan;

(i) the organisational response structure for the installation, including duties of all personnel responsible for dealing with spills and positions consistent with the national marine spill contingency plan made from time to time under section 158 of the Decree;

(j) an inventory of any response equipment held on site (including the location of that equipment) with personnel responsibilities for the deployment, survey and maintenance of that equipment.

(2) A site marine spill contingency plan for a site within a defence area need not include any information about the site that is classified by the Fiji Military Forces provided that any such information relevant to a marine spill response is readily available at the site.

SCHEDULE 3
(Regulation 224)

CONTENTS OF AN OFFSHORE INSTALLATION DISCHARGE MANAGEMENT PLAN

1. Risk identification, assessment and prevention

(1) Every Discharge Management Plan shall include—

(a) location details of the offshore installation and of the field to which the application relates;

(b) up to date and accurate drawings or plans showing the general arrangement of the installation, in particular, the places and systems associated with the storage or transfer of fuels including tank capacity, filling arrangements, isolation valves and drainage systems highlighting the critical isolation points and the most likely sources of any spill that may result in a pollution incident;

(c) details of the proposed operations at the installation;

(d) particulars of all oils stored at the installation including characteristics, specifications, material safety data sheets and the maximum volume for each oil to be held on the installation;

(e) information on the oils produced by the installation, including[15]—

(i) physical properties including pour point, viscosity, density, API gravity, wax content and asphaltene content measured by a method approved by the Chief Executive Officer;

(ii) weathering information including evaporation rates, emulsion-forming tendencies and changes in oil properties measured at 12, 24 and 48 hours by a method approved by the Chief Executive Officer; and

(iii) effectiveness on selected dispersants as required by the Chief Executive Officer on fresh oil and oil weathered for 12, 24 and 48 hours measured by a method approved by the Chief Executive Officer;

(f) information on the likely fate of spilled produced oil taking into account weathering characteristics and the likely movement of any oil spilled from the installation;

(g) a detailed description of all the processes and activities which present a risk of pollution from an oil spill, with a list of specific procedures to reduce the risk of an oil spill;

(h) a detailed description of all identified potential environmental impacts, including any possible social, cultural and economic implications that may

[15] *To inform a national response in the event of a spill.*

result from any operational discharges or spill of oil or other substances from the installation.

(2) The Discharge Management Plan of an offshore installation shall also include information about every harmful substance that is eco-toxic in the aquatic environment.

(3) In fulfillment of sub-clause (2), the Discharge Management Plan shall include, in a form acceptable to the Chief Executive Officer, the information set out in Appendix 4 of this part, if the following is held on an offshore installation—

(a) 20 litres or more of a harmful substance that is eco-toxic in the aquatic environment; or

(b) 100 litres or more of any other harmful substance.

(4) The Discharge Management Plan for an offshore installation shall explain how the production water, displacement water, offshore processing drainage and any other water emanating from the well product, will be managed to avoid any risk of environmental impacts as identified in clause 1(h), including—

(a) selection of the least hazardous chemicals to minimise the toxicity of that water; and

(b) if re-injection of production water (the preferred option in all cases), is not to be used, the options to be used to reduce the volume of production water discharged into the marine environment; and

(c) the method to be used to monitor the concentration of oil in production water; and

(d) the procedure by which oil content and volume of production water discharged is to be recorded and reported in accordance with regulations 35 and 45.

(5) The Discharge Management Plan for an offshore installation shall describe measures to be taken to avoid environmental impacts from discharges during commissioning and decommissioning of the installation other than those identified in clause (4).

(6) The Discharge Management Plan for a controlled offshore installation shall include a detailed description of the environmental monitoring programme to be undertaken in accordance with regulation 47.

2. Emergency spill response procedures for oil and other harmful substances

(1) The information required in this clause shall be included as a consolidated section within the Discharge Management Plan.

(2) Every Discharge Management Plan shall contain emergency spill response procedures for oil.

(3) The Discharge Management Plan of an offshore installation shall also contain emergency spill response procedures for other harmful substances.

(4) Emergency spill response procedures shall include—

(a) guidance to ensure the safety of personnel;

(b) information to help personnel at the installation deal with a spill by detailing the actions necessary to stop, minimise or mitigate the effects of a spill, including procedures for—

(i) determining what action to take in response to a spill;

(ii) preventing escalation of the spill;

(iii) stopping the discharge at its source, if possible;

(iv) identifying the safety and environmental consequences of any remedial action; and

(v) determining whether the spill can be contained or cleaned up using the resources available to the owner or any other person responsible for implementing the emergency spill response procedures;

(c) details of the response options available to the installation;

(d) the procedure by which marine oil spills are to be reported in accordance with regulation 45;

(e) the procedure by which any pollution incident involving a harmful substance other than oil are to be reported in accordance with regulation 45;

(f) a list of 24-hour contact information, including that of—

(i) the owner or the owner's representative;

(ii) the Chief Executive Officer;

(iii) the municipality and Provincial Council, if the installation is within the municipality or province;

(iv) any organisation contracted to respond to spills at the installation;

(v) the person responsible for implementing the plan;

(vi) the person co-ordinating response activities;

(vii) off-duty personnel with responsibilities for dealing with spills; and

(viii) all other persons who have interests in the vicinity of the installation that are likely to be affected by a spill from the installation;

(g) the organisational emergency response structure for the installation, including the duties of all personnel responsible for dealing with spills;

(h) an inventory and location of response equipment held on the installation and personnel responsibilities for the deployment, survey and maintenance of that equipment.

SCHEDULE 4
(Regulation 224)

REQUIREMENTS FOR INFORMATION ON HARMFUL SUBSTANCES

Information on harmful substances submitted in accordance with clauses 1(2) and 1(3) of Schedule 3 above shall contain the following information, in respect of every harmful substance—

(1) Names

(a) chemical name;

(b) trade name or names; and

(2) Identification numbers

(a) UN number[16]; and

(b) CAS number[17].

(3) Chemical and physical properties

(a) physical state;

(b) reactivity;

(c) specific gravity;

(d) flash point;

(e) boiling point;

(f) melting (pour) point;

(g) water solubility; and

(4) Composition

(a) name of components;

(b) proportion of component or components as a percentage of the total substance;

(5) Eco-toxicity of the substance including—

(a) the eco-toxic ranking of the substance;

(b) acute toxicity;

(c) chronic toxicity;

(d) biodegradation;

(e) bioaccumulation;

(f) where requested by the Chief Executive Officer details of any or all the degradation and transformation products of the substance (that arise as a result of the operation for which the harmful substance is used);

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[16] *United Nations number.*
[17] *Chemical Abstracts Service registry number.*

(6) The purpose or purposes for which the substance is to be used;

(7) The maximum volume of the substance likely to be stored on the installation;

(8) The maximum concentration of the substance to be used in combination with any other substance that is intended to be discharged;

(9) The maximum amount of the substance anticipated to be discharged in specific periods;

(10) Risk and mitigation, including a description of the processes and activities that present a risk of accidental discharge of the substance and a list of procedures in place and action to be taken to reduce the risk of a spill.

PART 6

SCHEDULE 1
(Regulation 248)

DISPERSANTS APPROVED UNDER THIS REGULATION

APPROVED SUBSTANCES

Type	Brand
1	1100X
1	A-B
2	1100WD
3	Enersperse 1037
2/3	Atpet 787
1	Shell Dispersant LTX
1	Shell Dispersant ND
2	Shell Dispersant Concentrate
2/3	Shell Dispersant VDC (Dasic Slickgone LTSW)
3	Shell Dispersant HEC

1	Tergo Oil Spill Remover low toxic
2	Tergo Oil Spill Remover WSA
3	Tergo R40
2	Solvex OSD 9 Concentrate
1	OSR LT
2/3	Gamlen Oil Dispersant LT
2/3	Corexit 9527
2	Corexit 9600

SCHEDULE 2
(Regulation 255)

MINIMUM REQUIREMENTS FOR ECOLOGICAL TOXICITY TESTING OF DISPERSANTS OR DEMULSIFIERS

1. Test species

At least 2 different organism tests from the following list shall be tested:

Organism	Test type	Exposure	Common name	Scientific name	Organisms /replicate
Amphipod	Survival	48-96h LC50	Estuary amphipod	Chaetocorophium lucasi	10
Mysid shrimp	Survival	48-96h LC50	Shrimp	Tenagomysis novaezelandia	10
Mysid shrimp	Survival	48-96h LC50	Brown Shrimp	Crangon crangon	10
Bivalve	D-hinge development	36-48h EC50	Pacific oyster	Crassostrea gigas	1000
Bivalve	D-hinge development	36-48h EC50	Blue mussel	Mytilus galloprovincialis	1000
Echinoderm	Embryo development	36-48h LC50	Sand dollar	Fellaster zelandiae	1000
Fish	Survival	48-96h LC50	Sand flounder	*Rhombosolea plebeia*	10

NOTE: Consideration will be given to testing with other species on a case-by-case basis.

2. Testing protocols

(1) All testing to follow standard test protocols and include testing with a standard reference toxicant (e.g. zinc sulphate).

(2) All testing to include a minimum of:

(a) 4 dispersant concentrations and a clean seawater control;

(b) 3 replicate tests for each test solution with test chambers and animals allocated randomly across treatments.

(3) Dispersant concentrations should be reported as nominal (added) values.

(4) Measurements of DO, pH, temperature and salinity shall be taken at the test start and then daily (24 hourly) or following renewal of test solutions or feeding of test organisms.

(5) Test conditions shall fall within the following parameters:

(a) all testing should be in full strength seawater (salinity ~34 ppt) unless otherwise specified by standard test protocols;

(b) test temperatures should be within the range of 15-30 degrees centigrade;

(c) test organism biomass should not exceed 1 gram per litre in the test chamber;

(d) dissolved oxygen should not fall below 4 milligrams per litre in 24 hours;

(e) test chambers should be gently aerated to prevent stratification of test solutions;

(f) descriptions of the appearance of dispersant solutions recorded;

(g) product identification should include formulation specification and lot/batch references.

(6) The following test approaches are acceptable:

(a) Constant exposure testing where test organisms are placed in full strength test solutions for the entire test. The test solution may be renewed throughout the test (typically every 24 hours) and can be undertaken in a closed static chamber or a flow-through system where the test solution is circulated (but not diluted).

(b) Pulsed exposure testing where test organisms are placed in full strength test solutions in a closed static chamber for at least 2 hours, followed by transfer to clean seawater for the remainder of the test.

(c) Spiked exposure testing where test organisms are placed in full strength test solutions in flow-through chambers that are then slowly diluted with fresh seawater. The half-life of the test solution should be approximately 2 hours.

3. Approval criteria

(1) Survival in controls shall be at least 90% or 80% for developmental bioassays (ie oyster, mussel, sand dwellers).

(2) Test results will be measured against the Revised GESAMP rating scheme for acute aquatic toxicity (Table 1).

(3) To be approved for use in Fiji, dispersants and demulsifiers shall be no more than slightly toxic.

Table1: Revised GESAMP Rating Scheme for Acute Aquatic Toxicity

Description	LC_{50}, EC_{50} (mg/L)
Non-toxic	> 1000
Practically non-toxic	>100 and ≤1000
Slightly toxic	>10 and ≤100
Moderately toxic	>1 and ≤10
Highly toxic	>0.1 and ≤1
Very highly toxic	>0.01 and ≤0.1
Extremely toxic	≤0.01

Abbreviations:

LC_{50} = Lethal Concentration causing a 50% response

EC_{50} = Effective Concentration causing a 50% response