PREVENTION OF POLLUTION OF THE SEA ACT
(CHAPTER 243)
PREVENTION OF POLLUTION OF THE SEA (OIL) REGULATIONS 2006

In exercise of the powers conferred by sections 7 (4), 12 and 34 of the Prevention of Pollution of the Sea Act, the Maritime and Port Authority of Singapore, with the approval of the Minister for Transport, hereby makes the following Regulations:

Citation and commencement

1. These Regulations may be cited as the Prevention of Pollution of the Sea (Oil) Regulations 2006 and shall come into operation on 1st January 2007.

Definitions

2. For the purposes of these Regulations —

"Annex I" means Annex I to the Convention which contains regulations for the prevention of pollution by oil and which is set out in the First Schedule;

"authorised organisation" means an organisation authorised by regulations made under section 116 of the Merchant Shipping Act (Cap. 179) for the purposes of surveying ships and issuing certificates under Part V of that Act;

"Contracting Party" means any State Party to the Convention;

"IMO" or "Organization" means the International Maritime Organization;

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"IOPP Certificate" means an International Oil Pollution Prevention Certificate issued under regulation 7 of Annex I by the Administration of any Contracting Party to the Convention;

"SOPP Certificate" means a Singapore Oil Pollution Prevention Certificate issued by the Director or an authorised organisation under regulation 8.

Application

3.

—(1) Annex I, with the exception of regulation 38 thereof, shall, subject to these Regulations, have the force of law in Singapore.

(2) A provision of Annex I interpreted or explained by a provision of these Regulations shall be read as having the same meaning attributed by that provision.

(3) For the purposes of regulation 2.1 of Annex I, the reference to "all ships" in that regulation shall be read as a reference to —

(*a*)

Singapore ships; and

(*b*)

other ships while they are in Singapore waters,

and these Regulations shall apply to such ships.

Exemptions

4. The Director may grant exemptions from all or any of these Regulations including Annex I (as may be specified in the exemption) for classes of cases or individual cases on such terms (if any) as he may so specify and may, subject to giving reasonable notice, alter or cancel any such exemption.

Administration

5.

—(1) Except where provided in these Regulations, for the purposes of these Regulations, references to the Administration and to an officer of the Administration shall be read as references to the Director and a surveyor of ships respectively, and references to a nominated surveyor or recognised organisation shall be read as references to an authorised organisation.

(2) For the purposes of regulation 7.2 of Annex I, references to the Administration shall be read as references to the Director, and references to persons or organisations duly authorised by the Administration shall be read as references to authorised organisations.

(3) For the purposes of regulations 14.3, 14.5.3.1, 18.5, 18.8.2, 18.8.4, 18.10.1.1, 19.8, 23.3.1, 25.5, 27.3.1, 28.1.3, 28.3.4, 28.4.4, 29.2.1, 29.2.3, 30.6.5.2, 30.7, 31.4, 33, 35.1, 37.1, 39, 40.1 and 41.1 of Annex I, references to the Administration shall be read as references to the Director or an authorised organisation.

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(4) For the purpose of these Regulations, references to the authority or authorities shall be read as references to the Authority.

Powers to inspect

6.

—(1) A ship to which these Regulations apply shall be subject, in Singapore waters, to inspection by a surveyor of ships.

(2) Any such inspection shall be limited to verifying that there is on board in relation to that ship a valid IOPP Certificate in the form prescribed by the Convention or a valid SOPP Certificate unless there are clear grounds for believing that the condition of the ship or its equipment does not correspond substantially with the particulars of that Certificate.

(3) In the case referred to in paragraph (2), or if the ship does not carry a valid IOPP Certificate in the form prescribed by the Convention or a valid SOPP Certificate, the surveyor of ships shall take such steps as he may consider necessary to ensure that the ship shall not sail until it can proceed to sea without presenting an unreasonable threat of harm to the marine environment.

(4) The Director may in such a case permit the ship to proceed to the nearest appropriate repair yard.

(5) Upon receiving evidence that a particular ship has discharged oil or an oily mixture contrary to the provisions of these Regulations, the Director shall cause the

matter to be investigated by an inspector and shall inform the State which has reported the contravention as well as IMO of the action taken.

(6) The Director may also cause a ship other than a Singapore ship to be inspected by an inspector when it enters Singapore waters if a request for an investigation is received from any Contracting Party together with sufficient evidence that the ship has discharged oil or an oily mixture contrary to the provisions of Annex I in any place.

(7) The report of such investigation may be sent to the State requesting the investigation and the State in which the ship is registered.

Prohibition on proceeding to sea without Certificate

7.

—(1) The master of —

(*a*)

every oil tanker of 150 gross tonnage and above; or

(*b*)

any other ship of 400 gross tonnage and above,

shall produce to the Port Master, at the time a clearance for the ship is demanded for a voyage from Singapore to a port or place outside Singapore waters, the IOPP Certificate to be in force when the ship proceeds to sea.

(2) A clearance shall not be granted, and the ship may be detained, until the IOPP Certificate is so produced.

SOPP Certificate

8.

—(1) The Director or an authorised organisation shall, after a survey in accordance with the provisions of regulation 6 of Annex I which relates to —

(*a*)

an oil tanker of 150 gross tonnage and above; or

(*b*)

any other ship of 400 gross tonnage and above,

which operates within Singapore waters and is not engaged in voyages to ports or offshore terminals under the jurisdiction of other Contracting Parties, issue in relation to that ship a SOPP Certificate in such form as the Director may determine; and the annual survey requirements of regulation 6 of Annex I shall not apply to such ships.

(2) The SOPP Certificate shall be issued in the form set out in Appendix II of Annex I modified in line with this regulation and approved by the Director.

Penalties

9. If any ship fails to comply with any requirement of these Regulations, the owner and the master of the ship shall each be guilty of an offence and shall each be liable on conviction to a fine not exceeding $20,000 or to imprisonment for a term not exceeding 2 years or to both.

Exemption in certain circumstances

10. For the purposes of section 7(4) of the Act, the ships exempted from the operation of section 7(1) of the Act shall be such ships as are exempted from the prohibition of the discharge into the sea of oil or oily mixtures in accordance with the provisions of Annex I.
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Fees

11. The fees specified in the Second Schedule shall be payable to the Director in respect of the services provided by the Director specified in that Schedule.
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Revocation

12. The Prevention of Pollution of the Sea (Oil) Regulations (Rg 1) are revoked.

FIRST SCHEDULE

Regulation 2

ANNEX I
OF THE CONVENTION

REGULATIONS FOR THE PREVENTION OF POLLUTION BY OIL

ARRANGEMENT OF REGULATIONS

CHAPTER 1

GENERAL

CHAPTER 3

REQUIREMENTS FOR MACHINERY SPACES OF ALL SHIPS

12. Tanks for oil residues (sludge)
13. Standard discharge connection
14. Oil filtering equipment
15. Control of discharge of oil
16. Segregation of oil and water ballast and carriage of oil in forepeak tanks
17. Oil Record Book, Part I – Machinery space operations

CHAPTER 4

REQUIREMENTS FOR THE CARGO AREA OF OIL TANKERS

18. Segregated Ballast Tanks
19. Double hull and double bottom requirements for oil tankers delivered on or after 6 July 1996
20. Double hull and double bottom requirements for oil tankers delivered before 6 July 1996
21. Prevention of oil pollution from oil tankers carrying heavy grade oil as cargo
22. Pump-room bottom protection
23. Accidental oil outflow performance
24. Damage assumptions
25. Hypothetical outflow of oil
26. Limitations of size and arrangement of cargo tanks
27. Intact stability
28. Subdivision and damage stability
29. Slop tanks
30. Pumping, piping and discharge arrangement
31. Oil discharge monitoring and control system
32. Oil/water interface detector
33. Crude oil washing requirements
34. Control of discharge of oil
35. Crude oil washing operations
36. Oil Record Book, Part II – Cargo/ballast operations

CHAPTER 5

PREVENTION OF POLLUTION ARISING FROM AN OIL POLLUTION INCIDENT

37. Shipboard oil pollution emergency plan

CHAPTER 6

CHAPTER 1

GENERAL

1 —

DEFINITIONS

For the purposes of this Annex:

1. *Oil* means petroleum in any form including crude oil, fuel oil, sludge, oil refuse and refined products (other than those petrochemicals which are subject to the provisions of Annex II of the present Convention) and, without limiting the generality of the foregoing, includes the substances listed in appendix I to this Annex.

2. *Crude oil* means any liquid hydrocarbon mixture occurring naturally in the earth whether or not treated to render it suitable for transportation and includes:

1. crude oil from which certain distillate fractions may have been removed; and

2. crude oil to which certain distillate fractions may have been added.

3. *Oily mixture* means a mixture with any oil content.

4. *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.

5. *Oil tanker* means a ship constructed or adapted primarily to carry oil in bulk in its cargo spaces and includes combination carriers, any "NLS tanker" as defined in Annex II of the present Convention and any gas carrier as defined in regulation 3.20 of chapter II-1 of SOLAS 74 (as amended), when carrying a cargo or part cargo of oil in bulk.

6. *Crude oil tanker* means an oil tanker engaged in the trade of carrying crude oil.

7. *Product carrier* means an oil tanker engaged in the trade of carrying oil other than crude oil.

8. *Combination carrier* means a ship designed to carry either oil or solid cargoes in bulk.

9. *Major conversion*:

1. means a conversion of a ship:

1. which substantially alters the dimensions or carrying capacity of the ship; or

2. which changes the type of the ship; or

3.

the intent of which in the opinion of the Administration is substantially to prolong its life; or

4.

which otherwise so alters the ship that, if it were a new ship, it would become subject to relevant provisions of the present Convention not applicable to it as an existing ship.

2.

Notwithstanding the provisions of this definition:

1.

conversion of an oil tanker of 20,000 tonnes deadweight and above delivered on or before 1 June 1982, as defined in regulation 1.28.3, to meet the requirements of regulation 18 of this Annex shall not be deemed to constitute a major conversion for the purpose of this Annex; and

2.

conversion of an oil tanker delivered before 6 July 1996, as defined in regulation 1.28.5, to meet the requirements of regulation 19 or 20 of this Annex shall not be deemed to constitute a major conversion for the purpose of this Annex.

10. *Nearest land*. The term *from the nearest land* means from the baseline from which the territorial sea of the territory in question is established in accordance with international law, except that, for the purposes of the present 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 11°00' S, longitude 142°08' E
to a point in latitude 10°35' S, longitude 141°55' E,
thence to a point latitude 10°00' S, longitude 142°00' E,
thence to a point latitude 9°10' S, longitude 143°52' E,
thence to a point latitude 9°00' S, longitude 144°30' E,
thence to a point latitude 10°41' S, longitude 145°00' E,
thence to a point latitude 13°00' S, longitude 145°00' E,
thence to a point latitude 15°00' S, longitude 146°00' E,
thence to a point latitude 17°30' S, longitude 147°00' E,
thence to a point latitude 21°00' S, longitude 152°55' E,
thence to a point latitude 24°30' S, longitude 154°00' E,
thence to a point on the coast of Australia
in latitude 24°42' S, longitude 153°15' E.

11. *Special area* means a sea area where for recognized technical reasons in relation to its oceanographical and ecological condition and to the particular character of its traffic the adoption of special mandatory methods for the prevention of sea pollution by oil is required.
For the purposes of this Annex, the special areas are defined as follows:

1.

the Mediterranean Sea area means the Mediterranean Sea proper including the gulfs and seas 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 005°36' W;

2.

the Baltic Sea area means 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;

3.

the Black Sea area means the Black Sea proper with the boundary between the Mediterranean Sea and the Black Sea constituted by the parallel 41° N;

4.

the 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, 043°19.6' E) and Husn Murad (12°40.4' N, 043°30.2' E);

5.

the Gulfs area means the sea area located north-west of the rhumb line between Ras al Hadd (22°30' N, 059°48' E) and Ras al Fasteh (25°04' N, 061° 25' E);

6.

the 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, 043°19.6' E) and Husn Murad (12°40.4' N, 043°30.2' E) and to the east by the rhumb line between Ras Asir (11°50' N, 051°16.9' E) and the Ras Fartak (15°35' N, 052°13.8' E);

7.

the Antarctic area means the sea area south of latitude 60°S; and

8.

the North West European waters include the North Sea and its approaches, the Irish Sea and its approaches, the Celtic Sea, the English Channel and its approaches and part of the North East Atlantic immediately to the west of Ireland. The area is bounded by lines joining the following points:
48° 27' N on the French coast

48° 27' N; 006° 25' W

49° 52' N; 007° 44' W

50° 30' N; 012° W

56° 30' N; 012° W

62° N; 003° W

62° N on the Norwegian coast

57° 44.8' N on the Danish and Swedish coasts

9.

the Oman area of the Arabian Sea means 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

10.

the Southern South African waters means 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

[S 26/2008 wef 01/03/2008]

12. *Instantaneous rate of discharge of oil content* means the rate of discharge of oil in litres per hour at any instant divided by the speed of the ship in knots at the same instant.

13. *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.

14. *Wing tank* means any tank adjacent to the side shell plating.

15. *Centre tank* means any tank inboard of a longitudinal bulkhead.

16. *Slop tank* means a tank specifically designated for the collection of tank drainings, tank washings and other oily mixtures.

17. *Clean ballast* means the ballast in a tank which since oil was last carried therein, has been so cleaned that effluent therefrom if it were discharged from a ship which is stationary into clean calm water on a clear day would not produce visible traces of oil on the surface of the water or on adjoining shorelines or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines. If the ballast is discharged through an oil discharge monitoring and control system approved by the Administration, evidence based on such a system to the effect that the oil content of the effluent did not exceed 15 parts per million shall be determinative that the ballast was clean, notwithstanding the presence of visible traces.

18. *Segregated ballast* means the ballast water introduced into a tank which is completely separated from the cargo oil and oil fuel system and which is permanently allocated to the carriage of ballast or to the carriage of ballast or cargoes other than oil or noxious liquid substances as variously defined in the Annexes of the present Convention.

19. *Length (L)* 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. In ships designed with a rake of keel the

waterline on which this length is measured shall be parallel to the designed waterline. The length *(L)* shall be measured in metres.

20. *Forward and after perpendiculars* shall be taken at the forward and after ends of the length *(L)*. The forward perpendicular shall coincide with the foreside of the stem on the waterline on which the length is measured.

21. *Amidships* is at the middle of the length *(L)*.

22. *Breadth (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. The breadth *(B)* shall be measured in metres.

23. *Deadweight (DW)* means the difference in tonnes between the displacement of a ship in water of a relative density of 1.025 at the load waterline corresponding to the assigned summer freeboard and the lightweight of the ship.

24. *Lightweight* means the displacement of a ship in metric tons without cargo, fuel, lubricating oil, ballast water, fresh water and feed water in tanks, consumable stores, and passengers and crew and their effects.

25. *Permeability* of a space means the ratio of the volume within that space which is assumed to be occupied by water to the total volume of that space.

26. *Volumes and areas* in a ship shall be calculated in all cases to moulded lines.

27. *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.

??. *ship delivered on or before 31 December 1979* means a ship:

1. for which the building contract is placed on or before 31 December 1975; or

2. in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction on or before 30 June 1976; or

3. the delivery of which is on or before 31 December 1979; or

4. which has undergone a major conversion:

1. for which the contract is placed on or before 31 December 1975; or

2. in the absence of a contract, the construction work of which is begun on or before 30 June 1976; or

3. which is completed on or before 31 December 1979.

??. *ship delivered after 31 December 1979* means a ship:

1. for which the building contract is placed after 31 December 1975; or

2. in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction after 30 June 1976; or

3. the delivery of which is after 31 December 1979; or

4. which has undergone a major conversion:

1. for which the contract is placed after 31 December 1975; or

2. in the absence of a contract, the construction work of which is begun after 30 June 1976; or

3. which is completed after 31 December 1979.

??. *oil tanker delivered on or before 1 June 1982* means an oil tanker:

1. for which the building contract is placed on or before 1 June 1979; or

2. in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction on or before 1 January 1980; or

3. the delivery of which is on or before 1 June 1982; or

4. which has undergone a major conversion:

1. for which the contract is placed on or before 1 June 1979; or

2. in the absence of a contract, the construction work of which is begun on or before 1 January 1980; or

3. which is completed on or before 1 June 1982.

??. *oil tanker delivered after 1 June 1982* means an oil tanker:

1. for which the building contract is placed after 1 June 1979; or

2. in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction after 1 January 1980; or

3. the delivery of which is after 1 June 1982; or

4. which has undergone a major conversion:

1. for which the contract is placed after 1 June 1979; or

2. in the absence of a contract, the construction work of which is begun after 1 January 1980; or

3. which is completed after 1 June 1982.

??. *oil tanker delivered before 6 July 1996* means an oil tanker:

1. for which the building contract is placed before 6 July 1993; or

2. in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction before 6 January 1994; or

3. the delivery of which is before 6 July 1996; or

4. which has undergone a major conversion:

1. for which the contract is placed before 6 July 1993; or

2. in the absence of a contract, the construction work of which is begun before 6 January 1994; or

3. which is completed before 6 July 1996.

??. *oil tanker delivered on or after 6 July 1996* means an oil tanker:

1. for which the building contract is placed on or after 6 July 1993; or

2. in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction on or after 6 January 1994; or

3. the delivery of which is on or after 6 July 1996; or

4. which has undergone a major conversion:

1. for which the contract is placed on or after 6 July 1993; or

2. in the absence of a contract, the construction work of which is begun on or after 6 January 1994; or

3. which is completed on or after 6 July 1996.

??. *oil tanker delivered on or after 1 February 2002* means an oil tanker:

1. for which the building contract is placed on or after 1 February 1999; or

2. in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction on or after 1 August 1999; or

3. the delivery of which is on or after 1 February 2002; or

4. which has undergone a major conversion:

1. for which the contract is placed on or after 1 February 1999; or

2. in the absence of a contract, the construction work of which is begun on or after 1 August 1999; or

3. which is completed on or after 1 February 2002.

??. *oil tanker delivered on or after 1 January 2010* means an oil tanker:

1. for which the building contract is placed on or after 1 January 2007; or

2. in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction on or after 1 July 2007; or

3. the delivery of which is on or after 1 January 2010; or

4. which has undergone a major conversion:

1. for which the contract is placed on or after 1 January 2007; or

2. in the absence of a contract, the construction work of which is begun on or after 1 July 2007; or

3. which is completed on or after 1 January 2010.

28.—

9 *ship delivered on or after 1 August 2010* means a ship:

1. for which the building contract is placed on or after 1 August 2007; or

2. 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; or

3. the delivery of which is on or after 1 August 2010; or

4. which have undergone a major conversion:

1. for which the contract is placed after 1 August 2007; or

2. in the absence of contract, the construction work of which is begun after 1 February 2008; or

3. which is completed after 1 August 2010.

[S 393/2007 wef 01/08/2007]

29. *Parts per million (ppm)* means parts of oil per million parts of water by volume.

30. *Constructed* means a ship the keel of which is laid or which is at a similar stage of construction.

31. *Oil residue (sludge)* means the residual waste oil products generated during the normal operation of a ship 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.

[S 792/2010 wef 01/01/2011]

32. *Oil residue (sludge) tank* means a tank which holds oil residue (sludge) from which sludge may be disposed directly through the standard discharge connection or any other approved means of disposal.

[S 792/2010 wef 01/01/2011]

33. *Oily bilge water* means water which may be contaminated by oil resulting from things such as leakage or maintenance work in machinery spaces. Any liquid entering the bilge system including bilge wells, bilge piping, tank top or bilge holding tanks is considered oily bilge water.

[S 792/2010 wef 01/01/2011]

34. *Oily bilge water holding tank* means a tank collecting oily bilge water prior to its discharge, transfer or disposal.

[S 792/2010 wef 01/01/2011]

2 —

APPLICATION

1. Unless expressly provided otherwise, the provisions of this Annex shall apply to all ships.

2. In ships other than oil tankers fitted with cargo spaces which are constructed and utilized to carry oil in bulk of an aggregate capacity of 200 cubic metres or more, the requirements of regulations 16, 26.4, 29, 30, 31, 32, 34 and 36 of this Annex for oil tankers shall also apply to the construction and operation of those spaces, except that where such aggregate capacity is less than 1,000 cubic metres the requirements of regulation 34.6 of this Annex may apply in lieu of regulations 29, 31 and 32.

3. Where a cargo subject to the provisions of Annex II of the present Convention is carried in a cargo space of an oil tanker, the appropriate requirements of Annex II of the present Convention shall also apply.

4. The requirements of regulations 29, 31 and 32 of this Annex shall not apply to oil tankers carrying asphalt or other products subject to the provisions of this Annex, which through their physical properties inhibit effective product/water separation and monitoring, for which the control of discharge under regulation 34 of this Annex shall be effected by the retention of residues on board with discharge of all contaminated washings to reception facilities.

5. Subject to the provisions of paragraph 6 of this regulation, regulations 18.6 to 18.8 of this Annex shall not apply to an oil tanker delivered on or before 1 June 1982, as defined in regulation 1.28.3, solely engaged in specific trades between:

1. ports or terminals within a State Party to the present Convention; or

2. ports or terminals of States Parties to the present Convention, where:

1. the voyage is entirely within a Special Area; or

2. the voyage is entirely within other limits designated by the Organization.

6. The provisions of paragraph 5 of this regulation shall only apply when the ports or terminals where cargo is loaded on such voyages are provided with reception facilities adequate for the reception and treatment of all the ballast and tank washing water from oil tankers using them and all the following conditions are complied with:

1. subject to the exceptions provided for in regulation 4 of this Annex, all ballast water, including clean ballast water, and tank washing residues are retained on board and transferred to the reception facilities and the appropriate entry in the Oil Record Book Part II referred to in regulation 36 of this Annex is endorsed by the competent Port State Authority;

2. agreement has been reached between the Administration and the Governments of the Port States referred to in paragraphs 5.1 or 5.2 of this regulation concerning the use of an oil tanker delivered on or before 1 June 1982, as defined in regulation 1.28.3, for a specific trade;

3. the adequacy of the reception facilities in accordance with the relevant provisions of this Annex at the ports or terminals referred to above, for the purpose of this regulation, is approved by the Governments of the States Parties to the present Convention within which such ports or terminals are situated; and

4. the International Oil Pollution Prevention Certificate is endorsed to the effect that the oil tanker is solely engaged in such specific trade.

3 —

EXEMPTIONS AND WAIVERS

1. Any ship such as hydrofoil, air-cushion vehicle, near-surface craft and submarine craft etc. whose constructional features are such as to render the application of any of the provisions of chapters 3 and 4 of this Annex relating to construction and equipment unreasonable or impracticable may be exempted by the Administration from such provisions, provided that the construction and equipment of that ship provides equivalent protection against pollution by oil, having regard to the service for which it is intended.

2. Particulars of any such exemption granted by the Administration shall be indicated in the Certificate referred to in regulation 7 of this Annex.

3. The Administration which allows any such exemption shall, as soon as possible, but not more than 90 days thereafter, communicate to the Organization particulars of same and the reasons

therefore, which the Organization shall circulate to the Parties to the present Convention for their information and appropriate action, if any.

4. The Administration may waive the requirements of regulations 29, 31 and 32 of this Annex, for any oil tanker which engages exclusively on voyages both of 72 hours or less in duration and within 50 nautical miles from the nearest land, provided that the oil tanker is engaged exclusively in trades between ports or terminals within a State Party to the present Convention. Any such waiver shall be subject to the requirement that the oil tanker shall retain on board all oily mixtures for subsequent discharge to reception facilities and to the determination by the Administration that facilities available to receive such oily mixtures are adequate.

5. The Administration may waive the requirements of regulations 31 and 32 of this Annex for oil tankers other than those referred to in paragraph 4 of this regulation in cases where:

1. the tanker is an oil tanker delivered on or before 1 June 1982, as defined in regulation 1.28.3, of 40,000 tonnes deadweight or above, as referred to in regulation 2.5 of this Annex, solely engaged in specific trades, and the conditions specified in regulation 2.6 of this Annex are complied with; or

2. the tanker is engaged exclusively in one or more of the following categories of voyages:

1. voyages within special areas; or

2. voyages within 50 nautical miles from the nearest land outside special areas where the tanker is engaged in:

1. trades between ports or terminals of a State Party to the present Convention; or

2. restricted voyages as determined by the Administration, and of 72 hours or less in duration;

provided that all of the following conditions are complied with:

3. all oily mixtures are retained on board for subsequent discharge to reception facilities;

4. for voyages specified in paragraph 5.2.2 of this regulation, the Administration has determined that adequate reception facilities are available to receive such oily mixtures in those oil loading ports or terminals the tanker calls at;

5. the International Oil Pollution Prevention Certificate, when required, is endorsed to the effect that the ship is exclusively engaged in one or more of the categories of voyages specified in paragraphs 5.2.1 and 5.2.2.2 of this regulation; and

6. the quantity, time and port of discharge are recorded in the Oil Record Book.

EXCEPTIONS

Regulations 15 and 34 of this Annex shall not apply to:

1. the discharge into the sea of oil or oily mixture necessary for the purpose of securing the safety of a ship or saving life at sea; or

2. the discharge into the sea of oil or oily mixture resulting from damage to a ship or its equipment:

1.

provided that all reasonable precautions have been taken after the occurrence of the damage or discovery of the discharge for the purpose of preventing or minimizing the discharge; and

2.
except if the owner or the master acted either with intent to cause damage, or recklessly and with knowledge that damage would probably result; or

3.
the discharge into the sea of substances containing oil, approved by the Administration, when being used for the purpose of combating specific pollution incidents in order to minimize the damage from pollution. Any such discharge shall be subject to the approval of any Government in whose jurisdiction it is contemplated the discharge will occur.

5 —

EQUIVALENTS

1. The Administration may allow any fitting, material, appliance or apparatus to be fitted in a ship as an alternative to that required by this Annex if such fitting, material, appliance or apparatus is at least as effective as that required by this Annex. This authority of the Administration shall not extend to substitution of operational methods to effect the control of discharge of oil as equivalent to those design and construction features which are prescribed by regulations in this Annex.

2. The Administration which allows a fitting, material, appliance or apparatus to be fitted in a ship as an alternative to that required by this Annex shall communicate particulars thereof to the Organization for circulation to the Parties to the Convention for their information and appropriate action, if any.

CHAPTER 2

SURVEYS AND CERTIFICATION

6 —

SURVEYS

1. Every oil tanker of 150 gross tonnage and above, and every other ship of 400 gross tonnage and above shall be subject to the surveys specified below:

1.
an initial survey before the ship is put in service or before the Certificate required under regulation 7 of this Annex is issued for the first time, which shall include a complete survey of its structure, equipment, systems, fittings, arrangements and material in so far as the ship is covered by this Annex. This survey shall be such as to ensure that the structure, equipment, systems, fittings, arrangements and material fully comply with the applicable requirements of this Annex;

2.
a renewal survey at intervals specified by the Administration, but not exceeding 5 years, except where regulation 10.2.2, 10.5, 10.6 or 10.7 of this Annex is applicable. The renewal survey shall be such as to ensure that the structure, equipment, systems, fittings, arrangements and material fully comply with applicable requirements of this Annex;

3.
an intermediate survey within 3 months before or after the second anniversary date or within 3 months before or after the third anniversary date of the Certificate which shall take the place of one of the annual surveys specified in paragraph 1.4 of this regulation. The intermediate survey shall be such as to ensure that the 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 this Annex and are in good working order. Such intermediate surveys shall be endorsed on the Certificate issued under regulation 7 or 8 of this Annex;

4.

an annual survey within 3 months before or after each anniversary date of the Certificate, including a general inspection of the structure, equipment, systems, fittings, arrangements and material referred to in paragraph 1.1 of this regulation to ensure that they have been maintained in accordance with paragraphs 4.1 and 4.2 of this regulation and that they remain satisfactory for the service for which the ship is intended. Such annual surveys shall be endorsed on the Certificate issued under regulation 7 or 8 of this Annex; and

5.

an additional survey either general or partial, according to the circumstances, shall be made after a repair resulting from investigations prescribed in paragraph 4.3 of this regulation, or whenever any important repairs or renewals are made. The survey shall be such as to ensure that the necessary repairs or renewals have been effectively made, that the material and workmanship of such repairs or renewals are in all respects satisfactory and that the ship complies in all respects with the requirements of this Annex.

2. The Administration shall establish appropriate measures for ships which are not subject to the provisions of paragraph 1 of this regulation in order to ensure that the applicable provisions of this Annex are complied with.

??. Surveys of ships as regards the enforcement of the provisions of this Annex shall be carried out by officers of the Administration. The Administration may, however, entrust the surveys either to surveyors nominated for the purpose or to organizations recognized by it. Such organizations shall comply with the guidelines adopted by the Organization by resolution A.739(18), as may be amended by the Organization, and the specifications adopted by the Organization by resolution A.789(19), as may be amended by the Organization, provided that such amendments are adopted, brought into force and take effect in accordance with the provisions of article 16 of the present Convention concerning the amendment procedures applicable to this Annex.

??. An Administration nominating surveyors or recognizing organizations to conduct surveys as set forth in paragraph 3.1 of this regulation shall, as a minimum, empower any nominated surveyor or recognized organization to:

1.

require repairs to a ship; and

2.

carry out surveys, if requested by the appropriate authorities of a port State.

The Administration shall notify the Organization of the specific responsibilities and conditions of the authority delegated to the nominated surveyors or recognized organizations, for circulation to Parties to the present Convention for the information of their officers.

??. When a nominated surveyor or recognized organization determines that the condition of the ship or its equipment does not correspond substantially with the particulars of the Certificate or is such that the ship is not fit to proceed to sea without presenting an unreasonable threat of harm to the marine environment, such surveyor or organization shall immediately ensure that corrective action is taken and shall in due course notify the Administration. If such corrective action is not taken the Certificate shall be withdrawn and the Administration shall be notified immediately; and if the ship is in a port of another Party, the appropriate authorities of the port State shall also be notified immediately. When an officer of the Administration, a nominated surveyor or a recognized organization has notified the appropriate authorities of the port State, the Government of the port State concerned shall give such officer, surveyor or organization any necessary assistance to carry out their obligations under this regulation. When applicable, the Government of the port State concerned shall take such steps as will ensure that the ship shall not sail until it can proceed to sea or leave the port for the purpose of proceeding to the nearest appropriate repair yard available without presenting an unreasonable threat of harm to the marine environment.

??. In every case, the Administration concerned shall fully guarantee the completeness and efficiency of the survey and shall undertake to ensure the necessary arrangements to satisfy this obligation.

??. The condition of the ship and its equipment shall be maintained to conform with the provisions of the present Convention to ensure that the ship in all respects will remain fit to proceed to sea without presenting an unreasonable threat of harm to the marine environment.

??. After any survey of the ship under paragraph 1 of this regulation has been completed, no change shall be made in the structure, equipment, systems, fittings, arrangements or material covered by the survey, without the sanction of the Administration, except the direct replacement of such equipment and fittings.

??. Whenever an accident occurs to a ship or a defect is discovered which substantially affects the integrity of the ship or the efficiency or completeness of its equipment covered by this Annex the master or owner of the ship shall report at the earliest opportunity to the Administration, the recognized organization or the nominated surveyor responsible for issuing the relevant Certificate, who shall cause investigations to be initiated to determine whether a survey as required by paragraph 1 of this regulation is necessary. If the ship is in a port of another Party, the master or owner shall also report immediately to the appropriate authorities of the port State and the nominated surveyor or recognized organization shall ascertain that such report has been made.

7 —

ISSUE OR ENDORSEMENT OF CERTIFICATE

1. An International Oil Pollution Prevention Certificate shall be issued, after an initial or renewal survey in accordance with the provisions of regulation 6 of this Annex, to any oil tanker of 150 gross tonnage and above and any other ships of 400 gross tonnage and above which are engaged in voyages to ports or offshore terminals under the jurisdiction of other Parties to the present Convention.

2. Such certificate shall be issued or endorsed as appropriate either by the Administration or by any persons or organization duly authorized by it. In every case the Administration assumes full responsibility for the certificate.

8 —

ISSUE OR ENDORSEMENT OF CERTIFICATE BY ANOTHER GOVERNMENT

1. The Government of a Party to the present Convention may, at the request of the Administration, cause a ship to be surveyed and, if satisfied that the provisions of this Annex are complied with, shall issue or authorize the issue of an International Oil Pollution Prevention Certificate to the ship and where appropriate, endorse or authorize the endorsement of that certificate on the ship in accordance with this Annex.

2. A copy of the certificate and a copy of the survey report shall be transmitted as soon as possible to the requesting Administration.

3. A certificate so issued shall contain a statement to the effect that it has been issued at the request of the Administration and it shall have the same force and receive the same recognition as the certificate issued under regulation 7 of this Annex.

4. No International Oil Pollution Prevention Certificate shall be issued to a ship, which is entitled to fly the flag of a State, which is not a Party.

9 —

FORM OF CERTIFICATE

The International Oil Pollution Prevention Certificate shall be drawn up in the form corresponding to the model given in appendix II to this Annex and shall be at least in English, French or Spanish. If an official language of the issuing country is also used, this shall prevail in case of a dispute or discrepancy.

DURATION AND VALIDITY OF CERTIFICATE

1. An International Oil Pollution Prevention Certificate shall be issued for a period specified by the Administration, which shall not exceed 5 years.

??. Notwithstanding the requirements of paragraph 1 of this regulation, when the renewal survey is completed 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 5 years from the date of expiry of the existing certificate.

??. When the renewal survey is completed 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.

??. When the renewal survey is completed more than 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 5 years from the date of completion of the renewal survey.

3. If a certificate is issued for a period of less than 5 years, the Administration may extend the validity of the certificate beyond the expiry date to the maximum period specified in paragraph 1 of this regulation, provided that the surveys referred to in regulations 6.1.3 and 6.1.4 of this Annex applicable when a certificate is issued for a period of 5 years are carried out as appropriate.

4. If a renewal survey has been completed and a new certificate cannot be issued or placed on board the ship before the expiry date of the existing certificate, the person or organization authorized by the Administration may endorse the existing certificate and such a certificate shall be accepted as valid for a further period which shall not exceed 5 months from the expiry date.

5. If a ship at the time when a certificate expires is not in a port in which it is to be surveyed, the Administration may extend the period of validity of the certificate but this extension shall be granted only 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. No certificate shall be extended for a period longer than 3 months, and a ship to which an extension is granted shall not, on its arrival in the port in which it is to be surveyed, be entitled by virtue of such extension to leave that port without having a new certificate. When the renewal survey is completed, the new certificate shall be valid to a date not exceeding 5 years from the date of expiry of the existing certificate before the extension was granted.

6. A certificate issued to a ship engaged on short voyages which has not been extended under the foregoing provisions of this regulation may be extended by the Administration for a period of grace of up to one month from the date of expiry stated on it. When the renewal survey is completed, the new certificate shall be valid to a date not exceeding 5 years from the date of expiry of the existing certificate before the extension was granted.

7. In special circumstances, as determined by the Administration, a new certificate need not be dated from the date of expiry of the existing certificate as required by paragraphs 2.2, 5 or 6 of this regulation. In these special circumstances, the new certificate shall be valid to a date not exceeding 5 years from the date of completion of the renewal survey.

8. If an annual or intermediate survey is completed before the period specified in regulation 6 of this Annex, then:

1.
the anniversary date shown on the 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;

2.
the subsequent annual or intermediate survey required by regulation 6.1 of this Annex shall be completed at the intervals prescribed by that regulation using the new anniversary date; and

3.
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 6.1 of this Annex are not exceeded.

9. A certificate issued under regulation 7 or 8 of this Annex shall cease to be valid in any of the following cases:

1.
if the relevant surveys are not completed within the periods specified under regulation 6.1 of this Annex;

2.
if the certificate is not endorsed in accordance with regulation 6.1.3 or 6.1.4 of this Annex; or

3.
upon transfer of the ship to the flag of another State. A new certificate shall only be issued when the Government issuing the new certificate is fully satisfied that the ship is in compliance with the requirements of regulations 6.4.1 and 6.4.2 of this Annex. In the case of a transfer between Parties, if requested within 3 months after the transfer has taken place, the Government of the Party whose flag the ship was formerly entitled to fly shall, as soon as possible, transmit to the Administration copies of the certificate carried by the ship before the transfer and, if available, copies of the relevant survey reports.

11 —

PORT STATE CONTROL ON OPERATIONAL REQUIREMENTS**

** Refer to the Procedures for port State control, adopted by the Organization by resolution A.787(19) as amended by resolution A.882(21); see IMO publication, sales No. IMO-650E

1. A ship when in a port or an offshore terminal of another Party is subject to inspection by officers duly authorized by such Party concerning operational requirements under this Annex, where there are clear grounds for believing that the master or crew are not familiar with essential shipboard procedures relating to the prevention of pollution by oil.

2. In the circumstances given in paragraph 1 of this regulation, the Party shall take such steps as will ensure that the ship shall not sail until the situation have been brought to order in accordance with the requirements of this Annex.

3. Procedures relating to the port State control prescribed in article 5 of the present Convention shall apply to this regulation.

4. Nothing in this regulation shall be construed to limit the rights and obligations of a Party carrying out control over operational requirements specifically provided for in the present Convention.

CHAPTER 3

REQUIREMENTS FOR MACHINERY SPACES OF ALL SHIPS

Part A Construction

12 —

TANKS FOR OIL RESIDUES (SLUDGE)

1. Every ship of 400 gross tonnage and above shall be provided with a tank or tanks of adequate capacity, having regard to the type of machinery and length of voyage, to receive the oil residues (sludge) which cannot be dealt with otherwise in accordance with the requirements of this Annex, such as those resulting from the purification of fuel and lubricating oils and oil leakages in the machinery spaces.

2. Piping to and from sludge tanks shall have no direct connection overboard, other than the standard discharge connection referred to in regulation 13.

3. In ships delivered after 31 December 1979, as defined in regulation 1.28.2, tanks for oilresidues shall be designed and constructed so as to facilitate their cleaning and the discharge of residues to reception facilities. Ships delivered on or before 31 December 1979, as defined in regulation 1.28.1, shall comply with this requirement as far as is reasonable and practicable.

12A —

OIL FUEL TANK PROTECTION

[S 393/2007 wef 01/08/2007]

1. This regulation shall apply to all ships with an aggregate oil fuel capacity of 600 m^3 and above which are delivered on or after 1 August 2010, as defined in regulation 1.28.9 of this Annex.

2. The application of this regulation in determining the location of tanks used to carry oil fuel does not govern over the provisions of regulation 19 of this Annex.

3. For the purpose of this regulation, the following definitions shall apply:

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

2. "Load line draught (d_S)" 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.

3. "Light ship draught" is the moulded draught amidships corresponding to the lightweight.

4. "Partial load line draught (d_P)" is the light ship draught plus 60% of the difference between the light ship draught and the load line draught d_S. The partial load line draught (d_p) shall be measured in metres.

5. "Waterline (d_B)" is the vertical distance, in metres, from the moulded baseline at mid-length to the waterline corresponding to 30% of the depth D_S.

6. "Breadth (B_S)" is the greatest moulded breadth of the ship, in metres, at or below the deepest load line draught (d_S).

7. "Breadth (B_B)" is the greatest moulded breadth of the ship, in metres, at or below the waterline (d_B).

8. "Depth (D_S)" is the moulded depth, in metres, measured at mid-length to the upper deck at side. For the purpose of the application, "upper deck" means the highest deck to which the watertight transverse bulkheads except aft peak bulkheads extend.

9. "Length (L)" means 96% of the total length on a waterline at 85% 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. In ships designed with a rake of keel the waterline on which this length is measured shall be parallel to the designed waterline. The length (L) shall be measured in metres.

10. "Breadth (B)" means the maximum breadth of the ship, in metres, 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.

11. "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.

12. "Small oil fuel tank" is an oil fuel tank with a maximum individual capacity not greater than 30 m^3.

13. "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.

14. "Oil fuel capacity" means the volume of a tank in m^3, at 98% filling.

4. The provisions of this regulation shall apply to all oil fuel tanks except small oil fuel tanks, as defined in 3.12, provided that the aggregate capacity of such excluded tanks is not greater than 600 m^3.

5. Individual oil fuel tanks shall not have a capacity of over 2,500 m^3.

6. For ships, other than self-elevating drilling units, having an aggregate oil fuel capacity of 600 m^3 and above, 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
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 1.

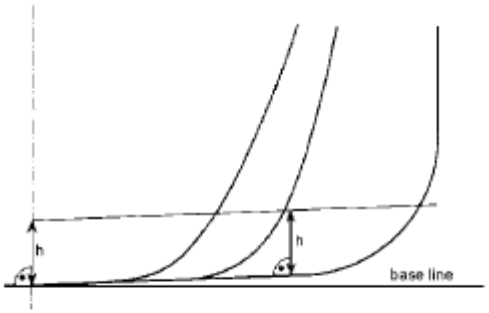

Figure 1 — *Oil fuel tank boundary lines for the purpose of paragraph 6*

7. For ships having an aggregate oil fuel capacity of 600 m^3 or more but less than 5,000 m^3, 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 2, 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 m^3 the minimum value is 0.76 m.

8. For ships having an aggregate oil fuel capacity of 5,000 m^3 and over, 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 2, 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

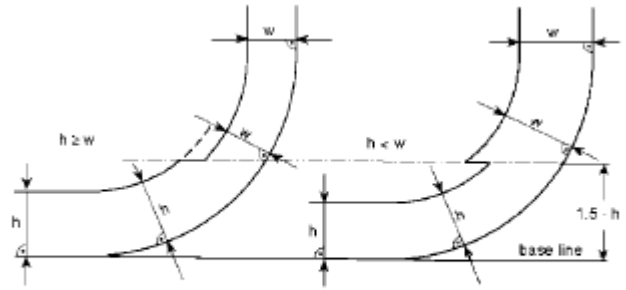

Figure 2 — *Oil fuel tank boundary lines for the purpose of paragraphs 7 and 8*

9. Lines of oil fuel piping located at a distance from the ship's bottom of less than *h*, as defined in paragraph 6, or from the ship's side less than *w*, as defined in paragraphs 7 and 8 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.

10. 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*.

11. Alternatively to paragraphs 6 and either 7 or 8, ships shall comply with the accidental oil fuel outflow performance standard specified below:

1. 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:

$OM < 0.0157 - 1.14E-6 \cdot C$ $600\ m^3 \leq C < 5{,}000\ m^3$

$OM < 0.010$ $C \leq 5{,}000\ m^3$

where: OM = mean oil outflow parameter; and

C = total oil fuel volume.

2. The following general assumptions shall apply when calculating the mean oil outflow parameter:

1. the ship shall be assumed loaded to the partial load line draught d^P without trim or heel;

2. all oil fuel tanks shall be assumed loaded to 98% of their volumetric capacity;

3. the nominal density of the oil fuel (p_n) 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

4. for the purpose of these outflow calculations, the permeability of each oil fuel tank shall be taken as 0.99, unless proven otherwise.

3.

The following assumptions shall be used when combining the oil outflow parameters:

1.

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 O_M, as follows:

$$O_M = (0.4\ O_{MS} + 0.6\ O_{MB}) / C$$

where:

O_{MS} = mean outflow for side damage, in m^3;

O_{MB} = mean outflow for bottom damage, in m^3; and

C = total oil fuel volume.

2.

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:

$$O_{MB} = 0.7\ O_{MB(0)} + 0.3\ O_{MB(2.5)}$$

where:

$O_{MB(0)}$ = mean outflow for 0 m tide condition; and

$O_{MB(2.5)}$ = mean outflow for minus 2.5 m tide condition, in m^3.

4.

The mean outflow for side damage O_{MS} shall be calculated as follows:

where:

i = represents each oil fuel tank under consideration;

n = total number of oil fuel tanks;

$P_{S(i)}$ = the probability of penetrating oil fuel tank i from side damage, calculated in accordance with paragraph 11.6 of this regulation;

$O_{S(i)}$ = 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.

5.

The mean outflow for bottom damage shall be calculated for each tidal condition as follows:

where:

i = represents each oil fuel tank under consideration;

n = total number of oil fuel tanks;

$P_{B(i)}$ = the probability of penetrating oil fuel tank i from bottom damage, calculated in accordance with paragraph 11.7 of this regulation;

$O_{B(i)}$ = the outflow from oil fuel tank i, in m^3, calculated in accordance with paragraph 11.5.3 of this regulation; and

$C_{DB(i)}$ = factor to account for oil capture as defined in paragraph 11.5.4.

where:

i, n, $P_{B(i)}$ and $C_{DB(i)}$ = as defined in subparagraph .1 above

$O_{B(i)}$ = the outflow from oil fuel tank i, in m^3, after tidal change.

3.

The oil outflow $O_{B(i)}$ for each oil fuel tank shall be calculated based on pressure balance principles, in accordance with the following assumptions:

1.

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 d_P.

2.

The oil fuel level after damage shall be calculated as follows:

$$h_F = \{(d_P + t_C - Z_l)(p_S)\}/p_n$$

where:

h_F = the height of the oil fuel surface above Z_l, in m;

t_C = the tidal change, in m. Reductions in tide shall be expressed as negative values;

Z_l = the height of the lowest point in the oil fuel tank above the baseline, in m;

p_S = density of seawater, to be taken as 1,025 kg/m^3; and

p_n = nominal density of the oil fuel, as defined in 11.2.3.

3.

The oil outflow $O_{B(i)}$ for any tank bounding the bottom shell plating shall be taken not less than the following formula, but no more than the tank capacity:

$$O_{B(i)} = H_W \times A$$

where:

H_W = 1.0 m, when $Y_B = 0$

$H_W = B_B/50$ but not greater than 0.4 m, when Y_B is greater than $B_B/5$ or 11.5 m, whichever is less

"H_W" 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, H_W is to be measured from a line parallel to the midship flat bottom, as shown for distance "h" in Figure 1.

For Y_B values outboard $B_B/5$ or 11.5 m, whichever is less, H_W is to be linearly interpolated.

Y_B = the minimum value of Y_B over the length of the oil fuel tank, where at any given location, Y_B is the transverse distance between the side shell at waterline d_B and the tank at or below waterline d_B.

A = the maximum horizontal projected area of the oil fuel tank up to the level of H_W from the bottom of the tank.

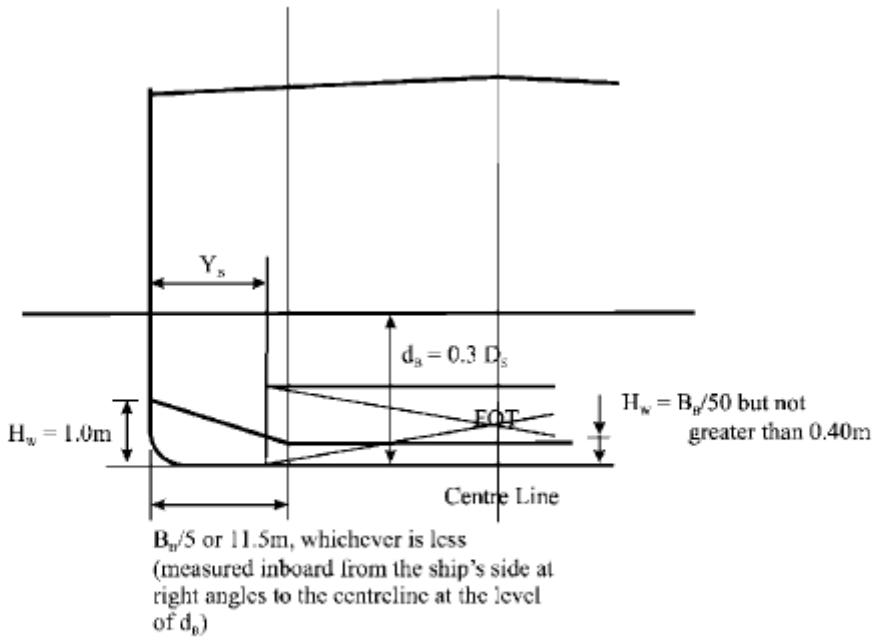

Figure 3 — *Dimensions for calculation of the minimum oil outflow for the purpose of subparagraph 11.5.3.3*

4.

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 $C_{DB(i)}$ for each tank, which shall be taken as follows:

$C_{DB(i)} = 0.6$ for oil fuel tanks bounded from below by non-oil compartments;

$C_{DB(i)} = 1$ otherwise.

6.

The probability P_S of breaching a compartment from side damage shall be calculated as follows:

1.

$$_S = P_{SL} \times P_{SV} \times P_{ST}$$

where:

P_{SL}	=	$(1 - P_{Sf} - P_{Sa})$	=	probability the damage will extend into the longitudinal zone bounded by Xa and Xf;
P_{SV}	=	$(1 - P_{Su} - P_{Sl})$	=	probability the damage will extend into the vertical zone bounded by Zl and Zu;
P_{ST}	=	$(1 - P_{Sy})$	=	probability the damage will extend transversely beyond the boundary defined by y;

2.

P_{Sa}, P_{Sf}, P_{Su} and P_{Sl} shall be determined by linear interpolation from the table of probabilities for side damage provided in 11.6.3, and P_{Sy} shall be calculated from the formulas provided in 11.6.3, where:

P_{Sa} = the probability the damage will lie entirely aft of location X_a/L;

P_{Sf} = the probability the damage will lie entirely forward of location X_f/L;

P_{Sl} = the probability the damage will lie entirely below the tank;

P_{Su} = the probability the damage will lie entirely above the tank; and

P_{Sy} = the probability the damage will lie entirely outboard of the tank.

Compartment boundaries X_a, X_f, Z_l, Z_u and y shall be developed as follows:

X_a = the longitudinal distance from aft terminal of L to the aft most point on the compartment being considered, in m;

X_f = the longitudinal distance from aft terminal of L to the foremost point on the compartment being considered, in m;

Z_l = the vertical distance from the moulded baseline to the lowest point on the compartment being considered, in m. Where Z_l is greater than D_S, Z_l shall be taken as D_S;

Z_u = the vertical distance from the moulded baseline to the highest point on the compartment being considered, in m. Where Z_u is greater than D_S, Z_u shall be taken as D_S; and

y = the minimum horizontal distance measured at right angles to the centreline between the compartment under consideration and the side shell, in m[**].

[**] 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).

In way of the turn of the bilge, y need not to be considered below a distance h above baseline, where h is lesser of B/10, 3 m or the top of the tank.

3.

Table of probabilities for side damage

X_a/L	P_{Sa}	X_f/L	P_{Sf}	Z_l/D_S	P_{Sl}	Z_u/D_S	P_{Su}
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

P_{Sy} shall be calculated as follows:

$P_{Sy} = (24.96 – 199.6\ y/B_S)\ (y/B_S)$ for $y/B_S \leq 0.05$

$P_{Sy} = 0.749 + \{5 – 44.4\ (y/B_S – 0.05)\}\ \{(y/B_S) – 0.05\}$ for $0.05 < y/B_S < 0.1$

$P_{Sy} = 0.888 + 0.56\ (y/B_S – 0.1)$ for $y/B_S \geq 0.1$

P_{Sy} shall not be taken greater than 1.

7.

The probability P_B of breaching a compartment from bottom damage shall be calculated as follows:

1.

$$P_B = P_{BL} \times P_{BT} \times P_{BV}$$

where:

P_{BL}	=	$(1 – P_{Bf} – P_{Ba}) =$	probability the damage will extend into the longitudinal zone bounded by X_a and X_f;
P_{BT}	=	$(1 – P_{Bp} – P_{Bs}) =$	probability the damage will extend into transverse zone bounded by Y_p and Y_s; and
P_{BV}	=	$(1 – P_{Bz}) =$	probability the damage will extend vertically above the boundary defined by z.

2.

P_{Ba}, P_{Bf}, P_{Bp} and P_{Bs} shall be determined by linear interpolation from the table of probabilities for bottom damage provided in 11.7.3. and P_{Bz} shall be calculated from the formulas provided in 11.7.3. where:

P_{Ba} = the probability the damage will lie entirely aft of location X_a/L;
P_{Bf} = the probability the damage will lie entirely forward of location X_f/L;
P_{Bp} = the probability the damage will lie entirely to port of the tank;
P_{Bs} = the probability the damage will lie entirely to starboard of the tank; and
P_{Bz} = the probability the damage will lie entirely below the tank.
Compartment boundaries X_a, X_f, Y_p, Y_s and z shall be developed as follows:

X_a and X_f as defined in 11.6.2;

Y_p = the transverse distance from the port-most point on the compartment located at or below the waterline d_B, to a vertical plane located $B_B/2$ to starboard of the ship's centreline;

Y_s = the transverse distance from the starboard-most point on the compartment located at or below the waterline d_B, to a vertical plane located $B_B/2$ 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.

3. Table of probabilities for bottom damage

X_a/L	P_{Ba}	X_f/L	P_{Bf}	Y_p/B_B	P_{Bp}	Ys/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

P_{Bz} shall be calculated as follows:

$$P_{Bz} = (14.5 – 67\ z/D_S)\ (z/D_S) \text{ for } z/D_S < 0.1$$
$$P_{Bz} = 0.78 + 1.1\ \{(z/D_S – 0.1)\} \text{ for } z/D_S > 0.1$$

P_{Bz} shall not be taken greater than 1.

8.

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 the minimum value of *h* in paragraph 6 and no closer to the side shell plating than the applicable minimum value of *w* in paragraph 7 or 8.

12. In approving the design and construction of ships to be built in accordance with this regulation, Administrations shall have due regard to the general safety aspects, including the need for maintenance and inspection of wing and double bottom tanks or spaces.

13 —

STANDARD DISCHARGE CONNECTION

To enable pipes of reception facilities to be connected with the ship's discharge pipeline for residues from machinery bilges and from oil residue (sludge) tanks, both lines shall be fitted with a standard discharge connection in accordance with the following table:

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 600 kPa.		

Part B Equipment

14 —

OIL FILTERING EQUIPMENT

1. Except as specified in paragraph 3 of this regulation any ship of 400 gross tonnage and above but less than 10,000 gross tonnage shall be fitted with oil filtering equipment complying with

paragraph 6 of this regulation. Any such ship which may discharge into the sea ballast water retained in fuel oil tanks in accordance with regulation 16.2 shall comply with paragraph 2 of this regulation.

2. Except as specified in paragraph 3 of this regulation any ship of 10,000 gross tonnage and above shall be fitted with oil filtering equipment complying with paragraph 7 of this regulation.

3. Ships, such as hotel ships, storage vessels, etc., which are stationary except for non-cargo-carrying relocation voyages need not be provided with oil filtering equipment. Such ships shall be provided with a holding tank having a volume adequate, to the satisfaction of the Administration, for the total retention on board of the oily bilge water. All oily bilge water shall be retained on board for subsequent discharge to reception facilities.

4. The Administration shall ensure that ships of less than 400 gross tonnage are equipped, as far as practicable, to retain on board oil or oily mixtures or discharge them in accordance with the requirements of regulation 15.6 of this Annex.

5. The Administration may waive the requirements of paragraphs 1 and 2 of this regulation for:

1. any ship engaged exclusively on voyages within special areas; or

2. any ship certified under the International Code of Safety for High-Speed Craft (or otherwise within the scope of this Code with regard to size and design) engaged on a scheduled service with a turn-around time not exceeding 24 hours and covering also non-passenger/cargo-carrying relocation voyages for these ships;

3. with regard to the provision of subparagraphs .1 and .2 above, the following conditions shall be complied with:

1. the ship is fitted with a holding tank having a volume adequate, to the satisfaction of the Administration, for the total retention on board of the oily bilge water;

2. all oily bilge water is retained on board for subsequent discharge to reception facilities;

3. the Administration has determined that adequate reception facilities are available to receive such oily bilge water in a sufficient number of ports or terminals the ship calls at;

4. the International Oil Pollution Prevention Certificate, when required, is endorsed to the effect that the ship is exclusively engaged on the voyages within special areas or has been accepted as a high-speed craft for the purpose of this regulation and the service is identified; and

5. the quantity, time, and port of the discharge are recorded in the Oil Record Book Part I.

6. Oil filtering equipment referred to in paragraph 1 of this regulation shall be of a design approved by the Administration and shall be such as will ensure that any oily mixture discharged into the sea after passing through the system has an oil content not exceeding 15 parts per million. In considering the design of such equipment, the Administration shall have regard to the specification recommended by the Organization.**

** Refer to the Recommendation on International Performance and Test Specification for Oily-Water Separating Equipment and Oil Content Meters, adopted by the Organization by Assembly resolution A.393(X), or the Guidelines and Specifications for Pollution Prevention Equipment for Machinery Space Bilges of Ships, adopted by the Marine Environment Protection Committee by resolution MEPC.60(33), or the Revised Guidelines and Specification for Pollution Prevention Equipment for Machinery Space Bilges of Ships, adopted by the Marine Environment Protection Committee by resolution MEPC.107(49).

7. Oil filtering equipment referred to in paragraph 2 of this regulation shall comply with paragraph 6 of this regulation. In addition, it shall be provided with alarm arrangement to indicate when this level cannot be maintained. The system shall also be provided with arrangements to ensure that any discharge of oily mixtures is automatically stopped when the oil content of the effluent exceeds 15 parts per million. In considering the design of such equipment and approvals, the Administration shall have regard to the specification recommended by the Organization.[**]

[**] Refer to the Recommendation on International Performance and Test Specification for Oily-Water Separating Equipment and Oil Content Meters, adopted by the Organization by Assembly resolution A.393(X), or the Guidelines and Specifications for Pollution Prevention Equipment for Machinery Space Bilges of Ships, adopted by the Marine Environment Protection Committee by resolution MEPC.60(33), or the Revised Guidelines and Specification for Pollution Prevention Equipment for Machinery Space Bilges of Ships, adopted by the Marine Environment Protection Committee by resolution MEPC.107(49).

Part C Control of Operational Discharge of Oil

15 —

CONTROL OF DISCHARGE OF OIL

1. Subject to the provisions of regulation 4 of this annex and paragraphs 2, 3, and 6 of this regulation, any discharge into the sea of oil or oily mixtures from ships shall be prohibited.

A. Discharges outside special areas

2. Any discharge into the sea of oil or oily mixtures from ships of 400 gross tonnage and above shall be prohibited except when all the following conditions are satisfied:

1. the ship is proceeding en route;

2. the oily mixture is processed through an oil filtering equipment meeting the requirements of regulation 14 of this Annex;

3. the oil content of the effluent without dilution does not exceed 15 parts per million;

4. the oily mixture does not originate from cargo pump room bilges on oil tankers; and

5. the oily mixture, in case of oil tankers, is not mixed with oil cargo residues.

B. Discharges in special areas

3. Any discharge into the sea of oil or oily mixtures from ships of 400 gross tonnage and above shall be prohibited except when all of the following conditions are satisfied:

1. the ship is proceeding en route;

2. the oily mixture is processed through an oil filtering equipment meeting the requirements of regulation 14.7 of this Annex;

3. the oil content of the effluent without dilution does not exceed 15 parts per million;

4. the oily mixture does not originate from cargo pump room bilges on oil tankers; and

5. the oily mixture, in case of oil tankers, is not mixed with oil cargo residues.

4. In respect of the Antarctic area, any discharge into the sea of oil or oily mixtures from any ship shall be prohibited.

5. Nothing in this regulation shall prohibit a ship on a voyage only part of which is in a special area from discharging outside a special area in accordance with paragraphs 2 of this regulation.

C. Requirements for ships of less than 400 gross tonnage in all areas except the Antarctic area

6. In the case of a ship of less than 400 gross tonnage, oil and all oily mixtures shall either be retained on board for subsequent discharge to reception facilities or discharged into the sea in accordance with the following provisions:

1. the ship is proceeding en route;

2. the ship has in operation equipment of a design approved by the Administration that ensures that the oil content of the effluent without dilution does not exceed 15 parts per million;

3. the oily mixture does not originate from cargo pump room bilges on oil tankers; and

4. the oily mixture, in case of oil tankers, is not mixed with oil cargo residues.

D. General requirements

7. Whenever visible traces of oil are observed on or below the surface of the water in the immediate vicinity of a ship or its wake, Governments of Parties to the present Convention should, to the extent they are reasonably able to do so, promptly investigate the facts bearing on the issue of whether there has been a violation of the provisions of this regulation. The investigation should include, in particular, the wind and sea conditions, the track and speed of the ship, other possible sources of the visible traces in the vicinity, and any relevant oil discharge records.

8. No discharge into the sea shall contain chemicals or other substances in quantities or concentrations which are hazardous to the marine environment or chemicals or other substances introduced for the purpose of circumventing the conditions of discharge specified in this regulation.

9. The oil residues which cannot be discharged into the sea in compliance with this regulation shall be retained on board for subsequent discharge to reception facilities.

16 —

SEGREGATION OF OIL AND WATER BALLAST AND CARRIAGE OF OIL IN FOREPEAK TANKS

1. Except as provided in paragraph 2 of this regulation, in ships delivered after 31 December 1979, as defined in regulation 1.28.2, of 4,000 gross tonnage and above other than oil tankers, and in oil tankers delivered after 31 December 1979, as defined in regulation 1.28.2, of 150 gross tonnage and above, no ballast water shall be carried in any oil fuel tank.

2. Where the need to carry large quantities of oil fuel render it necessary to carry ballast water which is not a clean ballast in any oil fuel tank, such ballast water shall be discharged to reception facilities or into the sea in compliance with regulation 15 of this Annex using the equipment specified in regulation 14.2 of this Annex, and an entry shall be made in the Oil Record Book to this effect.

3. In a ship of 400 gross tonnage and above, for which the building contract is placed after 1 January 1982 or, in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction after 1 July 1982, oil shall not be carried in a forepeak tank or a tank forward of the collision bulkhead.

4. All ships other than those subject to paragraphs 1 and 3 of this regulation shall comply with the provisions of those paragraphs as far as is reasonable and practicable.

17 —

OIL RECORD BOOK, PART I — MACHINERY SPACE OPERATIONS

1. Every oil tanker of 150 gross tonnage and above and every ship of 400 gross tonnage and above other than an oil tanker shall be provided with an Oil Record Book Part I (Machinery Space Operations). The Oil Record Book, whether as a part of the ship's official log-book or otherwise, shall be in the Form specified in appendix III to this Annex.

2. The Oil Record Book Part I shall be completed on each occasion, on a tank-to-tank basis if appropriate, whenever any of the following machinery space operations takes place in the ship:

1. ballasting or cleaning of oil fuel tanks;

2. discharge of dirty ballast or cleaning water from oil fuel tanks;

3. collection and disposal of oil residues (oil residue (sludge));

4. discharge overboard or disposal otherwise of bilge water which has accumulated in machinery spaces; and

5. bunkering of fuel or bulk lubricating oil.

3. In the event of such discharge of oil or oily mixture as is referred to in regulation 4 of this Annex or in the event of accidental or other exceptional discharge of oil not excepted by that regulation, a statement shall be made in the Oil Record Book Part I of the circumstances of, and the reasons for, the discharge.

4. Each operation described in paragraph 2 of this regulation shall be fully recorded without delay in the Oil Record Book Part I, so that all entries in the book appropriate to that operation are completed. Each completed operation shall be signed by the officer or officers in charge of the operations concerned and each completed page shall be signed by the master of ship. The entries in the Oil Record Book Part I, for ships holding an International Oil Pollution Prevention Certificate, shall be at least in English, French or Spanish. Where entries in an official national language of the State whose flag the ship is entitled to fly are also used, this shall prevail in case of a dispute or discrepancy.

5. Any failure of the oil filtering equipment shall be recorded in the Oil Record Book Part I.

6. The Oil Record Book Part I, shall be kept in such a place as to be readily available for inspection at all reasonable times and, except in the case of unmanned ships under tow, shall be kept on board the ship. It shall be preserved for a period of three years after the last entry has been made.

7. The competent authority of the Government of a Party to the present Convention may inspect the Oil Record Book Part I on board any ship to which this Annex applies while the ship is in its port or offshore terminals and may make a copy of any entry in that book and may require the master of the ship to certify that the copy is a true copy of such entry. Any copy so made which has been certified by the master of the ship as a true copy of an entry in the ship's Oil Record Book Part I shall be made admissible in any judicial proceedings as evidence of the facts stated in the entry. The inspection of an Oil Record Book Part I and the taking of a certified copy by the competent authority under this paragraph shall be performed as expeditiously as possible without causing the ship to be unduly delayed.

CHAPTER 4

REQUIREMENTS FOR THE CARGO AREA OF OIL TANKERS

Part A Construction

18 —

SEGREGATED BALLAST TANKS

***Oil tankers of 20,000 tonnes deadweight and above delivered after* 1 June 1982**

1. Every crude oil tanker of 20,000 tonnes deadweight and above and every product carrier of 30,000 tonnes deadweight and above delivered after 1 June 1982, as defined in regulation 1.28.4, shall be provided with segregated ballast tanks and shall comply with paragraphs 2, 3 and 4, or 5 as appropriate, of this regulation.

2. The capacity of the segregated ballast tanks shall be so determined that the ship may operate safely on ballast voyages without recourse to the use of cargo tanks for water ballast except as provided for in paragraph 3 or 4 of this regulation. In all cases, however, the capacity of segregated ballast tanks shall be at least such that, in any ballast condition at any part of the voyage, including the conditions consisting of lightweight plus segregated ballast only, the ship's draughts and trim can meet the following requirements:

1.
the moulded draught amidships (d_m) in metres (without taking into account any ship's deformation) shall not be less than:

$$d_m = 2.0 + 0.02L$$

2.
the draughts at the forward and after perpendiculars shall correspond to those determined by the draught amidships (dm) as specified in paragraph 2.1 of this regulation, in association with the trim by the stern of not greater than 0.015L; and

3.
in any case the draught at the after perpendicular shall not be less than that which is necessary to obtain full immersion of the propeller(s).

3. In no case shall ballast water be carried in cargo tanks, except:

1.
on those rare voyages when weather conditions are so severe that, in the opinion of the master, it is necessary to carry additional ballast water in cargo tanks for the safety of the ship; and

2.
in exceptional cases where the particular character of the operation of an oil tanker renders it necessary to carry ballast water in excess of the quantity required under paragraph 2 of this regulation, provided that such operation of the oil tanker falls under the category of exceptional cases as established by the Organization.

Such additional ballast water shall be processed and discharged in compliance with regulation 34 of this Annex and an entry shall be made in the Oil Record Book Part II referred to in regulation 36 of this Annex.

4. In the case of crude oil tankers, the additional ballast permitted in paragraph 3 of this regulation shall be carried in cargo tanks only if such tanks have been crude oil washed in accordance with regulation 35 of this Annex before departure from an oil unloading port or terminal.

5. Notwithstanding the provisions of paragraph 2 of this regulation the segregated ballast conditions for oil tankers less than 150 metres in length shall be to the satisfaction of the Administration.

***Crude oil tankers of 40,000 tonnes deadweight and above delivered on or before* 1 June 1982**

6. Subject to the provisions of paragraph 7 of this regulation every crude oil tanker of 40,000 tonnes deadweight and above delivered on or before 1 June 1982, as defined in regulation 1.28.3, shall be provided with segregated ballast tanks and shall comply with the requirements of paragraphs 2 and 3 of this regulation.

7. Crude oil tankers referred to in paragraph 6 of this regulation may, in lieu of being provided with segregated tanks operate with a cargo tank cleaning procedure using crude oil washing in accordance with regulation 33 and 35 of this Annex unless the crude oil tanker is intended to carry crude oil which is not suitable for crude oil washing.

***Product carriers of 40,000 tonnes deadweight and above delivered on or before* 1 June 1982**

8. Every product carrier of 40,000 tonnes deadweight and above delivered on or before 1 June 1982, as defined in regulation 1.28.3, shall be provided with segregated ballast tanks and shall comply with the requirements of paragraphs 2 and 3 of this regulation, or alternatively operate with dedicated clean ballast tanks in accordance with the following provisions:

1. The product carrier shall have adequate tank capacity, dedicated solely to the carriage of clean ballast as defined in regulation 1.17 of this Annex, to meet the requirements of paragraphs 2 and 3 of this regulation.

2. The arrangements and operational procedures for dedicated clean ballast tanks shall comply with the requirements established by the Administration. Such requirements shall contain at least all the provisions of the revised Specifications for Oil Tankers with Dedicated Clean Ballast Tanks adopted by the Organization by resolution A.495(XII).

3. The product carrier shall be equipped with an oil content meter, approved by the Administration on the basis of specifications recommended by the Organization, to enable supervision of the oil content in ballast water being discharged.**

** For oil content meters installed on oil tankers built prior to 2 October 1986, refer to the Recommendation on International Performance and Test Specifications for Oily-Water Separating Equipment and Oil Content Meters adopted by the Organization by resolution A.393(X). For oil content meters as part of discharge monitoring and control systems installed on oil tankers built on or after 2 October 1986, refer to the Guidelines and Specifications for Oil Discharge Monitoring and Control Systems for Oil Tankers adopted by the Organization by resolution A.586(14). For oil content meters installed on oil tankers the keels of which are laid, or which are at a similar stage of construction, on or after 1 January 2005, refer to the Revised Guidelines and Specifications adopted by the Organization by resolution MEPC.108(49).

4. Every product carrier operating with dedicated clean ballast tanks shall be provided with a Dedicated Clean Ballast Tank Operation Manual** detailing the system and specifying operational procedures. Such a Manual shall be to the satisfaction of the Administration and shall contain all the information set out in the Specifications referred to in subparagraph 8.2 of this regulation. If an alteration affecting the dedicated clean ballast tank system is made, the Operation Manual shall be revised accordingly.

** See resolution A.495(XII) for the standard format of the Manual.

An oil tanker qualified as a segregated ballast oil tanker

9. Any oil tanker which is not required to be provided with segregated ballast tanks in accordance with paragraphs 1, 6 or 8 of this regulation may, however be qualified as a segregated ballast tanker, provided that it complies with the requirements of paragraphs 2 and 3 or 5 as appropriate, of this regulation.

Oil tankers delivered on or before* 1 June 1982 *having special ballast arrangements

10. Oil tankers delivered on or before 1 June 1982, as defined in regulation 1.28.3, having special ballast arrangements.

1. Where an oil tanker delivered on or before 1 June 1982, as defined in regulation 1.28.3, is so constructed or operates in such a manner that it complies at all times with the draught and trim requirements set out in paragraph 2 of this regulation without recourse to the use of ballast water, it shall be deemed to comply with the segregated ballast tank requirements referred to in paragraph 6 of this regulation, provided that all of the following conditions are complied with:

1. operational procedures and ballast arrangements are approved by the Administration;

2.

agreement is reached between the Administration and the Governments of the port States Parties to the present convention concerned when the draught and trim requirements are achieved through an operational procedure; and

3. the International Oil Pollution Prevention Certificate is endorsed to the effect that the oil tanker is operating with special ballast arrangements.

2. In no case shall ballast water be carried in oil tanks except on those rare voyages when weather conditions are so severe that, in the opinion of the master, it is necessary to carry additional ballast water in cargo tanks for the safety of the ship. Such additional ballast water shall be processed and discharged in compliance with regulation 34 of this Annex and in accordance with the requirements of regulations 29, 31 and 32 of this Annex, and entry shall be made in the Oil Record Book referred to in regulation 36 of this Annex.

3. An Administration which has endorsed a Certificate in accordance with subparagraph 10.1.3 of this regulation shall communicate to the Organization the particulars thereof for circulation to the Parties to the present Convention.

Oil tankers of 70,000 tonnes deadweight and above delivered after 31 December 1979

11. Oil tankers of 70,000 tonnes deadweight and above delivered after 31 December 1979, as defined in regulation 1.28.2, shall be provided with segregated ballast tanks and shall comply with paragraphs 2, 3 and 4 or paragraph 5 as appropriate of this regulation.

Protective location of segregated ballast

12. Protective location of segregated ballast spaces.
In every crude oil tanker of 20,000 tonnes deadweight and above and every product carrier of 30,000 tonnes deadweight and above delivered after 1 June 1982, as defined in regulation 1.28.4, except those tankers that meet regulation 19, the segregated ballast tanks required to provide the capacity to comply with the requirements of paragraph 2 of this regulation, which are located within the cargo tank length, shall be arranged in accordance with the requirements of paragraphs 13, 14 and 15 of this regulation to provide a measure of protection against oil outflow in the event of grounding or collision.

13. Segregated ballast tanks and spaces other than oil tanks within the cargo tanks length (L_t) shall be so arranged as to comply with the following requirement:

where:

PA_c	=	the side shell area in square metres for each segregated ballast tank or space other than an oil tank based on projected moulded dimensions,
PA_s	=	the bottom shell area in square metres for each such tank or space based on projected moulded dimensions,
L_t	=	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 1.22 of this Annex,
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 shall be 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,

J = 0.45 for oil tankers of 20,000 tonnes deadweight, 0.30 for oil tankers of 200,000 tonnes deadweight and above, subject to the provisions of paragraph 14 of this regulation.

For intermediate values of deadweight the value of J shall be determined by linear interpolation.

Whenever symbols given in this paragraph appear in this regulation, they have the meaning as defined in this paragraph.

14. For tankers of 200,000 tonnes deadweight and above the value of J may be reduced as follows:

where:

a = 0.25 for oil tankers of 200,000 tonnes deadweight,

a = 0.40 for oil tankers of 300,000 tonnes deadweight,

a = 0.50 for oil tankers of 420,000 tonnes deadweight and above.

For intermediate values of deadweight the value of *a* shall be determined by linear interpolation.

O_c = as defined in regulation 25.1.1 of this Annex,

O_s = as defined in regulation 25.1.2 of this Annex,

O_A = the allowable oil outflow as required by regulation 26.2 of this Annex.

15. In the determination of PA_c and PA_s for segregated ballast tanks and spaces other than oil tanks the following shall apply:

1. 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 be not less than 2 metres. The width shall be measured inboard from the ship's side at right angles to the centreline. Where a lesser width is provided the wing tank or space shall not be taken into account when calculating the protecting area PA_c; and

2.

the minimum vertical depth of each double bottom tank or space shall be B/15 or 2 metres, 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 PA_s.
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, shall be measured clear of any rounded gunwale area.

19 —

DOUBLE HULL AND DOUBLE BOTTOM REQUIREMENTS FOR OIL TANKERS DELIVERED ON OR AFTER 6 JULY 1996

1. This regulation shall apply to oil tankers of 600 tonnes deadweight and above delivered on or after 6 July 1996, as defined in regulation 1.28.6, as follows:

2. Every oil tanker of 5,000 tonnes deadweight and above shall:

1.
in lieu of paragraphs 12 to 15 of regulation 18, as applicable, comply with the requirements of paragraph 3 of this regulation unless it is subject to the provisions of paragraphs 4 and 5 of this regulation; and

2.
comply, if applicable, with the requirements of regulation 28.6.

3. The entire cargo tank length shall be protected by ballast tanks or spaces other than tanks that carry oil as follows:

Wing tanks or spaces

1.
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 such that the cargo tanks are located inboard of the moulded line of the side shell plating nowhere less than the distance w which, as shown in figure 1 is measured at any cross-section at right angles to the side shell, as specified below:

$$w = 0.5 + \frac{DW}{20{,}000} \text{ (m) , or}$$

w = 2.0 m, whichever is the lesser.

The minimum value of w = 1.0 m.

Double bottom tanks or spaces

2.
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 (m) or

h = 2.0 m, whichever is the lesser.

The minimum value of h = 1.0 m.

Turn of the bilge area or at locations without a clearly defined turn of the bilge

3.
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.

The aggregate capacity of ballast tanks

4.

On crude oil tankers of 20,000 tonnes deadweight and above and product carriers of 30,000 tonnes deadweight and above, the aggregate capacity of wing tanks, double bottom tanks, forepeak tanks and after peak tanks shall not be less than the capacity of segregated ballast tanks necessary to meet the requirements of regulation 18 of this Annex. Wing tanks or spaces and double bottom tanks used to meet the requirements of regulation 18 shall be located as uniformly as practicable along the cargo tank length. Additional segregated ballast capacity provided for reducing longitudinal hull girder bending stress, trim, etc., may be located anywhere within the ship.

Suction wells in cargo tanks

5.

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.

Ballast and cargo piping

6.

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. Exemptions to this requirement may be granted for short lengths of piping, provided that they are completely welded or equivalent.

4. The following applies for double bottom tanks or spaces:

1.

Double bottom tanks or spaces as required by paragraph 3.2 of this regulation may be dispensed with, provided that 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:

$$f \times h_c \times p_c \times g + p \leq d_n \times p_s \times g$$

where

h_c = height of cargo in contract with the bottom shell plating in metres

p_c = maximum cargo density in kg/m^3

d_n = minimum operating draught under any expected loading condition in metres

p_s = density of seawater in kg/m^3

p = maximum set pressure above atmospheric pressure (gauge pressure) of pressure/vacuum valve provided for the cargo tank in Pa

f = safety factor = 1.1

g = standard acceleration of gravity (9.81 m/s^2)

2.

Any horizontal partition necessary to fulfil the above requirements shall be located at a height not less than B/6 or 6 m, whichever is the lesser, but not more than 0.6D, above the baseline where D is the moulded depth amidships.

3.

The location of wing tanks or spaces shall be as defined in paragraph 3.1 of this regulation except that, below a level 1.5 h above the baseline where h is as defined in paragraph 3.2 of this regulation, the cargo tank boundary line may be vertical down to the bottom plating, as shown in figure 2.

5. Other methods of design and construction of oil tankers may also be accepted as alternatives to the requirements prescribed in paragraph 3 of this regulation, 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 Environment Protection Committee based on guidelines developed by the Organization[**].

[**] 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 Organization by resolution MEPC.110(49).

6. Every oil tanker of less than 5,000 tonnes deadweight shall comply with paragraphs 3 and 4 of this regulation, or shall:

1. at least be fitted with double bottom tanks or spaces having such a depth that the distance h specified in paragraph 3.2 of this regulation, complies with the following:

$$h = B/15 \text{ (m)}$$

with a minimum value of h = 0.76 m; 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

2. be provided with cargo tanks so arranged that the capacity of each cargo tank does not exceed 700 m^3 unless wing tanks or spaces are arranged in accordance with paragraph 3.1 of this regulation, complying with the following:

$$w = 0.4 + \frac{2.4\,DW}{20000} \quad (m)$$

with a minimum value of w = 0.76 m.

7. Oil shall not be carried in any space extending forward of a collision bulkhead located in accordance with regulation II-1/11 of the International Convention for the Safety of Life at Sea, 1974, as amended. An oil tanker that is not required to have a collision bulkhead in accordance with that regulation shall not carry oil in any space extending forward of the transverse plane perpendicular to the centreline that is located as if it were a collision bulkhead located in accordance with that regulation.

8. In approving the design and construction of oil tankers to be built in accordance with the provisions of this regulation, Administrations shall have due regard to the general safety aspects including the need for the maintenance and inspections of wing and double bottom tanks or spaces.

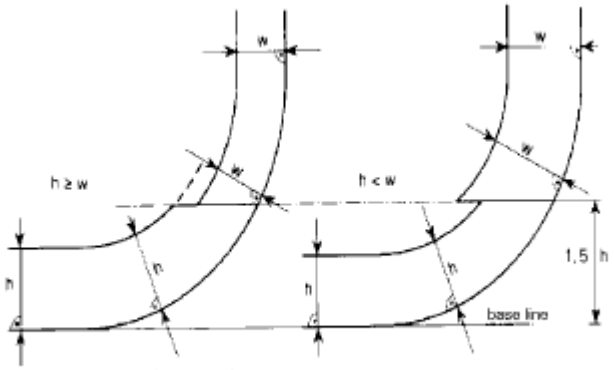

Figure 1 — *Cargo tank boundary lines for the purpose of paragraph 3*

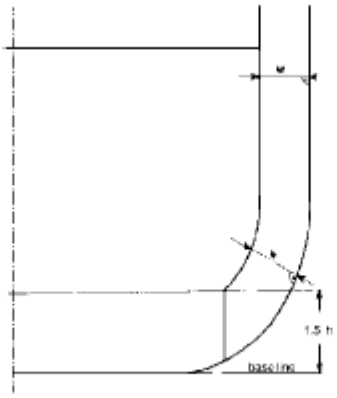

Figure 2 — *Cargo tank boundary lines for the purpose of paragraph 4*

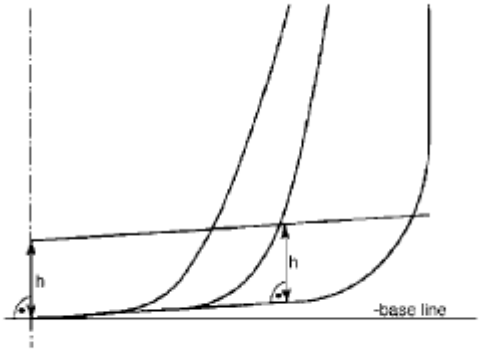

Figure 3 — *Cargo tank boundary lines for the purpose of paragraph 6*

DOUBLE HULL AND DOUBLE BOTTOM REQUIREMENTS FOR OIL TANKERS DELIVERED BEFORE 6 JULY 1996

1. Unless expressly provided otherwise this regulation shall:

1.
apply to oil tankers of 5,000 tonnes deadweight and above, which are delivered before 6 July 1996, as defined in regulation 1.28.5 of this Annex; and

2.
not apply to oil tankers complying with regulation 19 and regulation 28 in respect of paragraph 28.6, which are delivered before 6 July 1996, as defined in regulation 1.28.5 of this Annex; and

3. not apply to oil tankers covered by subparagraph 1 above which comply with regulation 19.3.1 and 19.3.2 or 19.4 or 19.5 of this Annex, except that the requirement for minimum distances between the cargo tank boundaries and the ship side and bottom plating need not be met in all respects. In that event, the side protection distances shall not be less than those specified in the International Bulk Chemical Code for type 2 cargo tank location and the bottom protection distances at centreline shall comply with regulation 18.15.2 of this Annex.

2. For the purpose of this regulation:

1. "Heavy diesel oil" means diesel oil other than those distillates of which more than 50 per cent by volume distils at a temperature not exceeding 340ºC when tested by the method acceptable to the Organization**.

** Refer to the American Society for Testing and Material's Standard Test Method (Designation D86).

2. "Fuel oil" means heavy distillates or residues from crude oil or blends of such materials intended for use as a fuel for the production of heat or power of a quality equivalent to the specification acceptable to the Organization**.

** Refer to the American Society for Testing and Material's Specification for Number Four Fuel Oil (Designation D396) or heavier.

3. For the purpose of this regulation, oil tankers are divided into the following categories:

1. "Category 1 oil tanker" means an oil tanker of 20,000 tonnes deadweight and above carrying crude oil, fuel oil, heavy diesel oil or lubricating oil as cargo, and of 30,000 tonnes deadweight and above carrying oil other than the above, which does not comply with the requirements for oil tankers delivered after 1 June 1982, as defined in regulation 1.28.4 of this Annex;

2. "Category 2 oil tanker" means an oil tanker of 20,000 tonnes deadweight and above carrying crude oil, fuel oil, heavy diesel oil or lubricating oil as cargo, and of 30,000 tonnes deadweight and above carrying oil other than the above, which complies with the requirements for oil tankers delivered after 1 June 1982, as defined in regulation 1.28.4 of this Annex; and

3. "Category 3 oil tanker" means an oil tanker of 5,000 tonnes deadweight and above but less than that specified in subparagraph 1 or 2 of this paragraph.

4. An oil tanker to which this regulation applies shall comply with the requirements of paragraphs 2 to 5, 7 and 8 of regulation 19 and regulation 28 in respect of paragraph 28.6 of this Annex not later than 5 April 2005 or the anniversary of the date of delivery of the ship on the date or in the year specified in the following table:

Category of oil tanker		**Date or year**
Category 1		5 April 2005 for ships delivered on 5 April 1982 or earlier
		2005 for ships delive.red after 5 April 1982
Category 2 and Category 3		5 April 2005 for ships delivered on 5 April 1977 or earlier
		2005 for ships delivered after 5 April 1977 but before 1 January 1978
		2006 for ships delivered in 1978 and 1979

		2007 for ships delivered in 1980 and 1981
		2008 for ships delivered in 1982
		2009 for ships delivered in 1983
		2010 for ships delivered in 1984 or later

5. Notwithstanding the provisions of paragraph 4 of this regulation, in the case of a Category 2 or 3 oil tanker fitted with only double bottoms or double sides not used for the carriage of oil and extending to the entire cargo tank length or double hull spaces which are not used for the carriage of oil and extend to the entire cargo tank length, but which does not fulfil conditions for being exempted from the provisions of paragraph 1.3 of this regulation, the Administration may allow continued operation of such a ship beyond the date specified in paragraph 4 of this regulation, provided that:

1. the ship was in service on 1 July 2001;

2. the Administration is satisfied by verification of the official records that the ship complied with the conditions specified above;

3. the conditions of the ship specified above remain unchanged; and

4. such continued operation does not go beyond the date on which the ship reaches 25 years after the date of its delivery.

6. Category 2 or 3 oil tanker of 15 years and over after the date of its delivery shall comply with the Condition Assessment Scheme adopted by the Marine Environment Protection Committee by resolution MEPC.94(46), as amended, provided that such amendments shall be adopted, brought into force and take effect in accordance with the provisions of article 16 of the present Convention relating to amendment procedures applicable to an appendix to an Annex.

7. The Administration may allow continued operation of a Category 2 or 3 oil tanker beyond the date specified in paragraph 4 of this regulation, if satisfactory results of the Condition Assessment Scheme warrant that, in the opinion of the Administration, the ship is fit to continue such operation, provided that the operation shall not go beyond the anniversary of the date of delivery of the ship in 2015 or the date on which the ship reaches 25 years after the date of its delivery, whichever is the earlier date.

8.—1. The Administration of a Party to the present Convention which allows the application of paragraph 5 of this regulation, or allows, suspends, withdraws or declines the application of paragraph 7 of this regulation, to a ship entitled to fly its flag shall forthwith communicate to the Organization for circulation to the Parties to the present Convention particulars thereof, for their information and appropriate action, if any.

2. A party to the present convention shall be entitled to deny entry into the ports or offshore terminals under its jurisdiction of oil tankers operating in accordance with the provisions of:

1. paragraph 5 of this regulation beyond the anniversary of the date of delivery of the ship in 2015; or

2. paragraph 7 of this regulation.

In such cases, that party shall communicate to the organization for circulation to the parties to the present convention particulars thereof for their information.

1. This regulation shall:

1. apply to oil tankers of 600 tonnes deadweight and above carrying heavy grade oil as cargo regardless of the date of delivery; and

2. not apply to oil tankers covered by subparagraph 1 above which comply with regulations 19.3.1 and 19.3.2 or 19.4 or 19.5 of this Annex, except that the requirement for minimum distances between the cargo tank boundaries and the ship side and bottom plating need not be met in all respects. In that event, the side protection distances shall not be less than those specified in the International Bulk Chemical Code for type 2 cargo tank location and the bottom protection distances at centreline shall comply with regulation 18.15.2 of this Annex.

2. For the purpose of this regulation "heavy grade oil" means any of the following:

1. crude oils having a density at 15ºC higher than 900 kg/m ^{3};

2. oils, other than crude oils, having either a density at 15ºC higher than 900 kg/m ^{3} or a kinematic viscosity at 50ºC higher than 180 mm^2/s;

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3. bitumen, tar and their emulsions.

3. An oil tanker to which this regulation applies shall comply with the provisions of paragraphs 4 to 8 of this regulation in addition to complying with the applicable provisions of regulation 20.

4. Subject to the provisions of paragraphs 5, 6 and 7 of this regulation, an oil tanker to which this regulation applies shall:

1. if 5,000 tonnes deadweight and above, comply with the requirements of regulation 19 of this Annex not later than 5 April 2005; or

2. if 600 tonnes deadweight and above but less than 5,000 tonnes deadweight, be fitted with both double bottom tanks or spaces complying with the provisions of regulation 19.6.1 of this Annex, and wing tanks or spaces arranged in accordance with regulation 19.3.1 and complying with the requirement for distance *w* as referred to in regulation 19.6.2, not later than the anniversary of the date of delivery of the ship in the year 2008.

5. In the case of an oil tanker of 5,000 tonnes deadweight and above, carrying heavy grade oil as cargo fitted with only double bottoms or double sides not used for the carriage of oil and extending to the entire cargo tank length or double hull spaces which are not used for the carriage of oil and extend to the entire cargo tank length, but which does not fulfil conditions for being exempted from the provisions of paragraph 1.2 of this regulation, the Administration may allow continued operation of such a ship beyond the date specified in paragraph 4 of this regulation, provided that:

1. the ship was in service on 4 December 2003;

2. the Administration is satisfied by verification of the official records that the ship complied with the conditions specified above;

3. the conditions of the ship specified above remain unchanged; and

4. such continued operation does not go beyond the date on which the ship reaches 25 years after the date of its delivery.

6.—1. The Administration may allow continued operation of an oil tanker of 5,000 tonnes deadweight and above, carrying crude oil having a density at 15ºC higher than 900 kg/m ^{3} but lower than 945 kg/m^3, beyond the date specified in paragraph 4.1 of this regulation, if satisfactory results of

the Condition Assessment Scheme referred to in regulation 20.6 warrant that, in the opinion of the Administration, the ship is fit to continue such operation, having regard to the size, age, operational area and structural conditions of the ship and provided that the operation shall not go beyond the date on which the ship reaches 25 years after the date of its delivery.

2. The Administration may allow continued operation of an oil tanker of 600 tonnes deadweight and above but less than 5,000 tonnes deadweight, carrying heavy grade oil as cargo, beyond the date specified in paragraph 4.2 of this regulation, if, in the opinion of the Administration, the ship is fit to continue such operation, having regard to the size, age, operational area and structural conditions of the ship, provided that the operation shall not go beyond the date on which the ship reaches 25 years after the date of its delivery.

7. The Administration of a Party to the present Convention may exempt an oil tanker of 600 tonnes deadweight and above carrying heavy grade oil as cargo from the provisions of this regulation if the oil tanker:

1. either is engaged in voyages exclusively within an area under its jurisdiction, or operates as a floating storage unit of heavy grade oil located within an area under its jurisdiction; or

2. either is engaged in voyages exclusively within an area under the jurisdiction of another Party, or operates as a floating storage unit of heavy grade oil located within an area under the jurisdiction of another Party, provided that the Party within whose jurisdiction the oil tanker will be operating agrees to the operation of the oil tanker within an area under its jurisdiction.

8.—1. The Administration of a Party to the present Convention which allows, suspends, withdraws or declines the application of paragraph 5, 6 or 7 of this regulation to a ship entitled to fly its flag shall forthwith communicate to the Organization for circulation to the Parties to the present Convention particulars thereof, for their information and appropriate action, if any.

2. Subject to the provisions of international law, a Party to the present Convention shall be entitled to deny entry of oil tankers operating in accordance with the provisions of paragraph 5 or 6 of this regulation into the ports or offshore terminals under its jurisdiction, or deny ship-to-ship transfer of heavy grade oil in areas under its jurisdiction except when this is necessary for the purpose of securing the safety of a ship or saving life at sea. In such cases, that Party shall communicate to the Organization for circulation to the Parties to the present Convention particulars thereof for their information.

22 —

PUMP-ROOM BOTTOM PROTECTION

1. This regulation applies to oil tankers of 5,000 tonnes deadweight and above constructed on or after 1 January 2007.

2. The pump-room shall be provided with a double bottom such that 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 pump-room and the ship's base line measured at right angles to the ship's base line is not less than specified below:
h = B/15(m) or
h = 2 m, whichever is the lesser.
The minimum value of *h* = 1 m.

3. In case of pump rooms whose bottom plate is located above the base line by at least the minimum height required in paragraph 2 above (e.g. gondola stern designs), there will be no need for a double bottom construction in way of the pump-room.

4. Ballast pumps shall be provided with suitable arrangements to ensure efficient suction from double bottom tanks.

5. Notwithstanding the provisions of paragraphs 2 and 3 above, where the flooding of the pump-room would not render the ballast or cargo pumping system inoperative, a double bottom need not be fitted.

23 —

ACCIDENTAL OIL OUTFLOW PERFORMANCE

1. This regulation shall apply to oil tankers delivered on or after 1 January 2010, as defined in regulation 1.28.8.

2. For the purpose of this regulation, the following definitions shall apply:

1. "Load line draught (d_s)" is the vertical distance, in metres, from the moulded baseline at mid-length to the waterline corresponding to the summer freeboard to be assigned to the ship. Calculations pertaining to this regulation should be based on draught d_s, notwithstanding assigned draughts that may exceed d_s, such as the tropical loadline.

2. "Waterline (d_B)" is the vertical distance, in metres, from the moulded baseline at mid-length to the waterline corresponding to 30% of the depth D_s.

3. "Breadth (B_s)" is the greatest moulded breadth of the ship, in metres, at or below the deepest load line d_s.

4. "Breadth (B_B)" is the greatest moulded breadth of the ship, in metres, at or below the waterline d_B.

5. "Depth (D_s)" is the moulded depth, in metres, measured at mid-length to the upper deck at side.

6. "Length (L)" and "deadweight (DW)" are as defined in regulations 1.19 and 1.23, respectively.

3. To provide adequate protection against oil pollution in the event of collision or stranding the following shall be complied with:

1. for oil tankers of 5,000 tonnes deadweight (DWT) and above, the mean oil outflow parameter shall be as follows:

$O_M \leq 0.015$	for $C \leq 200{,}000\ m^3$
$O_M \leq 0.012 + (0.003/200{,}000)\ (400{,}000\text{-}C)$	for $200{,}000\ m^3 < C < 400{,}000\ m^3$
$O_M \leq 0.012$	for $C \geq 400{,}000\ m^3$

for combination carriers between 5,000 tonnes deadweight (DWT) and 200,000 m^3 capacity, the mean oil outflow parameter may be applied, provided calculations are submitted to the satisfaction of the Administration, demonstrating that after accounting for its increased structural strength, the combination carrier has at least equivalent oil out flow performance to a standard double hull tanker of the same size having a $O_M <= 0.015$.

$O_M \leq 0.021$	for $C \leq 100{,}000\ m^3$
$O_M \leq 0.015 + (0.006/100{,}000)\ (200{,}000\text{-}C)$	for $100{,}000\ m^3 < C \leq 200{,}000\ m^3$

where:

O_M = mean oil outflow parameter.

C = total volume of cargo oil, in m^3, at 98% tank filling

2.

for oil tankers of less than 5,000 tonnes deadweight (DWT): The length of each cargo tank shall not exceed 10 m or one of the following values, whichever is the greater:

1.

where no longitudinal bulkhead is provided inside the cargo tanks:

$$(0.5 \frac{b_i}{B} + 0.1)\,L \quad \text{but not to exceed } 0.2L$$

2.

where a centreline longitudinal bulkhead is provided inside the cargo tanks:

$$(0.25 \frac{b_i}{B} + 0.15)\,L$$

3.

where two or more longitudinal bulkheads are provided inside the cargo tanks:

1.

for wing cargo tanks: 0.2L

2.

for centre cargo tanks:

.1 if $\frac{b_i}{B} > 0.2L : 0.2L$

.2 if $\frac{b_i}{B}$ is < *0.2:*

— where no centreline longitudinal bulkhead is provided:

$$(0.5 \frac{b_i}{B} + 0.1)L$$

— where no centreline longitudinal bulkhead is provided:

$$(0.25 \frac{b_i}{B} + 0.15)L$$

4. 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 centreline at the level corresponding to the assigned summer freeboard.

4. The following general assumptions shall apply when calculating the mean oil outflow parameter:

1. The cargo block length extends between the forward and aft extremities of all tanks arranged for the carriage of cargo oil, including slop tanks.

2. Where this regulation refers to cargo tanks, it shall be understood to include all cargo tanks, slop tanks and fuel tanks located within the cargo block length.

3. The ship shall be assumed loaded to the load line draught d_S without trim or heel.

4. All cargo oil tanks shall be assumed loaded to 98% of their volumetric capacity. The nominal density of the cargo oil (p_n) shall be calculated as follows:

$$p_n = 1000\ (DWT)/C\ (kg/m^3)$$

5. For the purposes of these outflow calculations, the permeability of each space within the cargo block, including cargo tanks, ballast tanks and other non-oil spaces shall be taken as 0.99, unless proven otherwise.

6. Suction wells may be neglected in the determination of tank location 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, where h is the height as defined in regulation 19.3.2.

5. The following assumptions shall be used when combining the oil outflow parameters:

1. 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 O_M, as follows:

$$O_M = (0.4\ O_{MS} + 0.6\ O_{MB})/C$$

where:

O_{MS} = mean outflow for side damage, in m^3; and

O_{MB} = mean outflow for bottom damage, in m^3.

2. For bottom damage, independent calculations for mean outflow shall be done for 0 m and minus 2.5 m tide conditions, and then combined as follows:

$$O_{MB} = 0.7\ O_{MB(0)} + 0.3\ O_{MB(2.5)}$$

where:

$O_{MB(0)}$ = mean outflow for 0 m tide condition; and

$O_{MB(2.5)}$ = mean outflow for minus 2.5 m tide condition, in m^3.

6. The mean outflow for side damage O_{MS} shall be calculated as follows:

where:	i	=	represents each cargo tank under consideration;
	n	=	total number of cargo tanks;
	$P_{S(i)}$	=	the probability of penetrating cargo tank i from side damage, calculated in accordance with paragraph 8.1 of this regulation;
	$O_{S(i)}$	=	the outflow, in m^3, from side damage to cargo tank i, which is assumed equal to the total volume in cargo tank i at 98% filling, unless it is proven through the application of the Guidelines referred to in regulation 19.5 that any significant cargo volume will be retained; and
	C_3	=	0.77 for ships having two longitudinal bulkheads inside the cargo tanks, provided these bulkheads are continuous over the cargo block and $P_{s(i)}$ is developed in accordance with this regulation. C_3 equals 1.0 for all other ships or when $P_{s(i)}$ is developed in accordance with paragraph 10 of this regulation.

7. The mean outflow for bottom damage shall be calculated for each tidal condition as follows:

where:	i	=	represents each cargo tank under consideration;
	n	=	the total number of cargo tanks;
	$P_{B(i)}$	=	the probability of penetrating cargo tank i from bottom damage, calculated in accordance with, paragraph 9.1 of this regulation;

$O_{B(i)}$	=	the outflow from cargo tank i, in m^3, calculated in accordance with paragraph 7.3 of this regulation; and
$C_{DB(i)}$	=	factor to account for oil capture as defined in paragraph 7.4 of this regulation

where:

i, n, $P_{B(i)}$ and $C_{DB(i)}$	=	as defined in subparagraph .1 above;
$O_{B(i)}$	=	the outflow from cargo tank i, in m^3, after tidal change

3. The oil outflow $O_{B(i)}$ for each cargo oil tank shall be calculated based on pressure balance principles, in accordance with the following assumptions:

1. 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 d_s.

2. The cargo level after damage shall be calculated as follows:

$$h_c = \{(d_s + t_c - Z_l)\ (p_s) - (1000\ p)/g\}/p_n$$

where:

h_c	=	the height of the cargo oil above Z_l, in metres;
t_c		the tidal change, in m. Reductions in tide shall be expressed as negative values;
Z_l		the height of the lowest point in the cargo tank above baseline, in m;
p_s		density of seawater, to be taken as 1,025 kg/m^3;
p		if an inert gas system is fitted, the normal overpressure, in kPa, to be taken as not less than 5 kPa; if an inert gas system is not fitted, the overpressure may be taken as 0;
g		the acceleration of gravity, to be taken as 9.81 m/s^2; and
p_n		nominal density of cargo oil,

calculated in accordance with paragraph 4.4 of this regulation.

3. For cargo tanks bounded by the bottom shell, unless proven otherwise, oil outflow $O_{B(i)}$ shall be taken 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.

4. In the case of bottom damage, a portion from the outflow from a cargo tank may be captured by non-oil compartments. This effect is approximated by application of the factor $C_{DB(i)}$ for each tank, which shall be taken as follows:

$C_{DB(i)}$ = 0.6 for cargo tanks bounded from below by non-oil compartments;

$C_{DB(i)}$ = 1.0 for cargo tanks bounded by the bottom shell.

8. The probability P_S of breaching a compartment from side damage shall be calculated as follows:

1. $P_S = P_{SL} P_{SV} P_{ST}$

where:

$P_{SL} = 1 - P_{Sf} - P_{Sa}$	=	probability the damage will extend into the longitudinal zone bounded by X_a and X_f;
$P_{SV} = 1 - P_{Su} - P_{Sl}$	=	probability the damage will extend into the vertical zone bounded by Z_l and Z_u; and
$P_{ST} = 1 - P_{Sy}$	=	probability the damage will extend transversely beyond the boundary defined by y.

2. P_{Sa}, P_{Sf}, P_{Sl}, P_{Su} and P_{Sy} shall be determined by linear interpolation from the table of probabilities for side damage provided in paragraph 8.3 of this regulation, where:

P_{Sa}	=	the probability the damage will lie entirely aft of location X_a/L;
P_{Sf}	=	the probability the damage will lie entirely forward of location X_f/L;
P_{Sl}	=	the probability the damage will lie entirely below the tank;
P_{Su}	=	the probability the damage will lie entirely above the tank; and
P_{Sy}	=	the probability the damage will lie entirely outboard of the tank.

Compartment boundaries X_a, X_f, Z_l, Z_u and y shall be developed as follows:

X_a	=	the longitudinal distance from the aft terminal of L to the aftmost point on the compartment being considered, in metres;
X_f	=	the longitudinal distance from the aft terminal of L to the foremost point on the compartment being considered, in metres;
Z_l	=	the vertical distance from the moulded baseline to the lowest point on the compartment being considered, in metres;
Z_u	=	the vertical distance from the moulded baseline to the highest point on the compartment being considered, in metres. Z_u is not to be taken greater than D_s; and
y	=	the minimum horizontal distance measured at right angles to the centreline between the compartment under consideration and the side shell in metres;*

* 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 the same side. For asymmetrical arrangements refer to the Explanatory Notes on matters related to the accidental oil outflow performance, adopted by the Organization by resolution MEPC.122(52).

3.

Table of probabilities for side damage

X_a/L	P_{Sa}	X_f/L	P_{Sf}	Z_l/D_S	P_{Sl}	Z_u/D_S	P_{Su}
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

P_{Sy} shall be calculated as follows:

$P_{Sy} = (24.96 - 199.6\ y/B_S)\ (y/B_S)$ for $y/B_S \leq = 0.05$

$P_{Sy} = 0.749 + \{5 - 44.4\ (y/B_S - 0.05)\}\ (y/B_S - 0.05)$ for $0.05 < y/B_S < 0.1$

$P_{Sy} = 0.888 + 0.56\ (y/B_S - 0.1)$ for $y/B_S \geq 0.1$

P_{Sy} shall not be taken greater than 1.

9. The probability P_B of breaching a compartment from bottom damage shall be calculated as follows:

.1 $P_B = P_{BL}\ P_{BT}\ P_{BV}$

where:

$P_{BL} = 1 - P_{Bf} - P_{Ba}$ = probability the damage will extend into the longitudinal zone bounded by X_a and X_f;

$P_{BT} = 1 - P_{Bp} - P_{Bs}$ = probability the damage will extend into the transverse zone bounded by Y_p and Y_s; and

$P_{BV} = 1 - P_{Bz}$ = probability the damage will extend vertically above the boundary defined by z.

.2 P_{Ba}, P_{Bf}, P_{Bp}, P_{Bs}, and P_{Bz} shall be determined by linear interpolation from the table of probabilities for bottom damage provided in paragraph 9.3 of this regulation, where:

P_{Ba} = the probability the damage will lie entirely aft of location X_a/L;

P_{Bf} = the probability the damage will lie entirely forward of location X_f/L;

P_{Bp} = the probability the damage will lie entirely to port of the tank;

P_{Bs}	=	the probability the damage will lie entirely to starboard of the tank; and
P_{Bz}	=	the probability the damage will lie entirely below the tank.

Compartment boundaries X_a, X_f, Y_p, Y_s, and z shall be developed as follows:

X_a and X_f are as defined in paragraph 8.2 of this regulation;

Y_p	=	the transverse distance from the port-most point on the compartment located at or below the waterline d_B, to a vertical plane located $B_B/2$ to starboard of the ship's centreline, in metres;
Y_s	=	the transverse distance from the starboard-most point on the compartment located at or below the waterline d_B, to a vertical plane located $B_B/2$ to starboard of the ship's centreline, in metres; 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, in metres.

3.

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

P_{Bz} shall be calculated as follows:

$$P_{Bz} = (14.5 - 67\ z/D_S)\ (z/D_S) \qquad \text{for } z/D_S \leq 0.1,$$

$$P_{Bz} = 0.78 + 1.1\ (z/D_S - 0.1) \qquad \text{for } z/D_S > 0.1.$$

P_{Bz} shall not be taken greater than 1.

10. This regulation uses a simplified probabilistic approach where a summation is carried out over the contributions to the mean outflow from each cargo tank. For certain designs such as those characterized by the occurrence of steps/recesses in bulkheads/decks and for sloping bulkheads and/or a pronounced hull curvature, more rigorous calculations may be appropriate. In such cases one of the following calculation procedures may be applied:

1. The probabilities referred to in 8 and 9 above may be calculated with more precision through application of hypothetical sub-compartments.**

** Refer to the Explanatory Notes on matters related to the accidental oil outflow performance, adopted by the Organization by resolution MEPC.122(52).

2. The probabilities referred to in 8 and 9 above may be calculated through direct application of the probability density functions contained in the Guidelines referred to in regulation 19.5.

3. The oil outflow performance may be evaluated in accordance with the method described in the Guidelines referred to in regulation 19.5.

11. The following provisions regarding piping arrangements shall apply:

1. Lines of piping that run through cargo tanks in a position less than $0.30B_s$ from the ship's side or less than $0.30D_s$ 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. These valves shall be kept closed at sea at any time when the tanks contain cargo oil, except that they may be opened only for cargo transfer needed for essential cargo operations.

2. 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 Organization. Submittal for approval shall be made in accordance with the provisions of the Guidelines referred to in regulation 19.5.

24 —

DAMAGE ASSUMPTIONS

1. For the purpose of calculating hypothetical oil outflow from oil tankers in accordance with regulations 25 and 26, three dimensions of the extent of damage of a parallelepiped on the side and bottom of the ship are assumed as follows. In the case of bottom damages two conditions are set forth to be applied individually to the stated portions of the oil tanker.

1.

Side damage:

1 Longitudinal extent(l_c):	1/3 $L^{2/3}$ or 14.5 metres, whichever is less.
2 Transverse extent (t_c) (inboard from the ship's side at right angles to the centreline at the level corresponding to the assigned summer freeboard):	B/5 or 11.5 metres, whichever is less
3 Vertical extent (v_c):	From the base line upwards without limit

2.

Bottom damage:

	For 0.3L from the forward perpendicular of the ship	Any other part of the ship
1 Longitudinal extent (l_s):	L/10	L/10 or 5 metres, whichever is less
2 Transverse extent (t_s):	B/6 or 10 metres, whichever is less but not less than 5 metres	5 metres
3 Vertical extent from the base line (v_s):	B/15 or 6 metres, whichever is less	

2. Wherever the symbols given in this regulation appear in this chapter, they have the meaning as defined in this regulation.

25 —

HYPOTHETICAL OUTFLOW OF OIL

1. The hypothetical outflow of oil in the case of side damage (O_c) and bottom damage (O_s) shall 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 24 of this Annex.

1.

For side damages:

2.

For bottom damages:

where:

W_i = volume of a wing tank in cubic metres assumed to be breached by the damage as specified in regulation 24 of this Annex; W_i for a segregated ballast tank may be taken equal to zero

C_i = volume of a centre tank in cubic metres assumed to be breached by the damage as specified in regulation 24 of this Annex; C_i for a segregated ballast tank may be taken equal to zero.

K_i = $1 - b_i/t_c$ when b_i is equal to or greater than t_c, K_i shall be taken equal to zero.

Z_i = $1 - h_i/v_s$, when h_i is equal to or greater than v_s, Z_i shall be taken equal to zero.

b_i = width of wing tank in metres under consideration measured inboard from the ship's side at right angles to the centreline at the level corresponding to the assigned summer freeboard.

h_i = minimum depth of the double bottom in metres under consideration; where no double bottom is fitted h_i shall be taken equal to zero.

Whenever symbols given in this paragraph appear in this chapter, they have the meaning as defined in this regulation.

2. If a void space or segregated ballast tank of a length less than l_c as defined in regulation 24 of this Annex is located between wing oil tanks, O_c in formula (I) may be calculated on the basis of volume W_i 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 S_i as defined below and taking for all other wing tanks involved in such collision the value of the actual full volume.

$$S_i = 1 - l_i / l_c$$

where l_i = length in metres of void space or segregated ballast tank under consideration.

Piping serving such wells if installed within the double bottom shall be fitted with valves or other closing arrangements located at the point of connection to the tank served to prevent oil outflow in the event of damage to the piping. Such piping shall be installed as high from the bottom shell as possible. These valves shall be kept closed at sea at any time when the tank contains oil cargo, except that they may be opened only for cargo transfer needed for the purpose of trimming of the ship.

3.—1. Credit shall only be given in respect of double bottom tanks which are either empty or carrying clean water when cargo is carried in the tanks above.

2. Where the double bottom does not extend for the full length and width of the tank involved, the double bottom is considered non-existent and the volume of the tanks above the area of the bottom damage shall be included in formula (II) even if the tank is not considered breached because of the installation of such a partial double bottom.

3. Suction wells may be neglected in the determination of the value hi provided such wells are not excessive in area and extend below the tank for a minimum distance and in no case more than half the height of the double bottom. If the depth of such a well exceeds half the height of the double bottom, hi shall be taken equal to the double bottom height minus the well height.

4. In these case where bottom damage simultaneously involves four centre tanks, the value of Os may be calculated according to the formula:

5. An Administration may credit as reducing oil outflow in case of bottom damage, an installed cargo transfer system having an emergency high suction in each cargo oil tank, capable of transferring from a breached tank or tanks to segregated ballast tanks or to available cargo tankage if it can be assured that such tanks will have sufficient ullage. Credit for such a system would be governed by ability to transfer in two hours of operation oil equal to one half of the largest of the breached tanks involved and by availability of equivalent receiving capacity in ballast or cargo tanks. The credit shall be confined to permitting calculation of O_s according to formula (III). The pipes for such suctions shall be installed at least at a height not less than the vertical extent of the bottom damage v_s. The Administration shall supply the Organization with the information concerning the arrangements accepted by it, for circulation to other Parties to the Convention.

6. This regulation does not apply to oil tankers delivered on or after 1 January 2010, as defined in regulation 1.28.8.

26 —

LIMITATIONS OF SIZE AND ARRANGEMENT OF CARGO TANKS

1. Except as provided in paragraph 7 below:

1. every oil tanker of 150 gross tonnage and above delivered after 31 December 1979, as defined in regulation 1.28.2; and

2. every oil tanker of 150 gross tonnage and above delivered on or before 31 December 1979, as defined in regulation 1.28.1, which falls into either of the following categories:

1. a tanker, the delivery of which is after 1 January 1977; or

2. a tanker to which both the following conditions apply:

1. delivery is not later than 1 January 1977; and

2. the building contract is placed after 1 January 1974, or in cases where no building contract has previously been placed, the keel is laid or the tanker is at a similar stage of construction after 30 June 1974,

shall comply with the provisions of this regulation.

2 Cargo tanks of oil tankers shall be of such size and arrangements that the hypothetical outflow O_c or O_s calculated in accordance with the provisions of regulation 25 of this Annex anywhere in the length of the ship does not exceed 30,000 cubic metres or 400 $\sqrt[3]{DW}$, whichever is the greater, but subject to a maximum of 40,000 cubic metres.

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 paragraph 2 of this regulation. The volume of any one centre cargo oil tank shall not exceed 50,000 cubic metres. However, in segregated ballast oil tankers as defined in regulation 18 of this Annex, the permitted volume of a wing cargo oil tank situated between two segregated ballast tanks, each exceeding l_c in length, may be increased to the maximum limit of hypothetical oil outflow provided that the width of the wing tanks exceeds t_c.

4. The length of each cargo tank shall not exceed 10 m or one of the following values, whichever is the greater:

1.

where no longitudinal bulkhead is provided inside the cargo tanks:

$$(0.5 \frac{b_i}{B} + 0.1)L$$ but not to exceed 0.2L

2.

where a centreline longitudinal bulkhead is provided inside the cargo tanks:

$$(0.25 \frac{b_i}{B} + 0.15)L$$

3.

where two or more longitudinal bulkheads are provided inside the cargo tanks:

1.

for wing cargo tanks: 0.2L

2.

for centre cargo tanks:

$\frac{b_i}{B}$ is equal to or greater than one fifth: 0.2L

. 2 if $\frac{b_i}{B}$ is less than one fifth:

— where no centreline longitudinal bulkhead is provided:

$$(0.5 \frac{b_i}{B} + 0.1)L$$

— where a centreline longitudinal bulkhead is provided:

$$(0.25 \frac{b_i}{B} + 0.15) L$$

4. *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 centreline at the level corresponding to the assigned summer freeboard.

5. In order not to exceed the volume limits established by paragraphs 2, 3 and 4 of this regulation 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. These valves or devices shall be closed when the tanker is at sea.

6. Lines of piping which run through cargo tanks in a position less than t_c from the ship's side or less than v_c 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. These valves shall be kept closed at sea at any time when the tanks contain cargo oil, except that they may be opened only for cargo transfer needed for the purpose of trimming of the ship.

7. This regulation does not apply to oil tankers delivered on or after 1 January 2010, as defined in regulation 1.28.8.

27 —

INTACT STABILITY

1. Every oil tanker of 5,000 tonnes deadweight and above delivered on or after 1 February 2002, as defined in regulation 1.28.7, shall comply with the intact stability criteria specified in paragraphs 1.1 and 1.2 of this regulation, as appropriate, for any operating draught under the worst possible conditions of cargo and ballast loading, consistent with good operational practice, including intermediate stages of liquid transfer operations. Under all conditions the ballast tanks shall be assumed slack.

1. In port, the initial metacentric height GMo, corrected for the free surface measured at 0° heel, shall be not less than 0.15 m;

2. At sea, the following criteria shall be applicable:

2. the righting lever GZ shall be at least 0.20 m at an angle of heel equal to or greater than 30º;

3. the maximum righting arm shall occur at an angle of heel preferably exceeding 30º but not less than 25º; and

4. the initial metacentric height GMo, corrected for free surface measured at 0º heel, shall be not less than 0.15 m.

2. The requirements of paragraph 1 of this regulation shall be met through design measures. For combination carriers simple supplementary operational procedures may be allowed.

3. Simple supplementary operational procedures for liquid transfer operations referred to in paragraph 2 of this regulation shall mean written procedures made available to the master which:

1. are approved by the Administration;

2.

indicate those cargo and ballast tanks which 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. The slack tanks may vary during the liquid transfer operations and be of any combination provided they satisfy the criteria;

3. will be readily understandable to the officer-in-charge of liquid transfer operations;

4. provide for planned sequences of cargo/ballast transfer operations;

5. allow comparisons of attained and required stability using stability performance criteria in graphical or tabular form;

6. require no extensive mathematical calculations by the officer-in-charge;

7. provide for corrective actions to be taken by the officer-in-charge in case of departure from recommended values and in case of emergency situations; and

8. are prominently displayed in the approved trim and stability booklet and at the cargo/ballast transfer control station and in any computer software by which stability calculations are performed.

SUBDIVISION AND DAMAGE STABILITY

1. Every oil tanker delivered after 31 December 1979, as defined in regulation 1.28.2, of 150 gross tonnage and above, shall comply with the subdivision and damage stability criteria as specified in paragraph 3 of this regulation, after the assumed side or bottom damage as specified in paragraph 2 of this regulation, for any operating draught reflecting actual partial or full load conditions consistent with trim and strength of the ship as well as relative densities of the cargo. Such damage shall be applied to all conceivable locations along the length of the ship as follows:

1. in tankers of more than 225 metres in length, anywhere in the ship’s length;

2. in tankers 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. The machinery space shall be treated as a single floodable compartment; and

3. in tankers not exceeding 150 metres in length, anywhere in the ship’s length between adjacent transverse bulkheads with the exception of the machinery space. For tankers of 100 metres or less in length where all requirements of paragraph 3 of this regulation cannot be fulfilled without materially impairing the operational qualities of the ship, Administrations may allow relaxations from these requirements.

Ballast conditions where the tanker is not carrying oil in cargo tanks, excluding any oil residues, shall not be considered.

2. The following provisions regarding the extent and the character of the assumed damage shall apply:

.1	Side damage:	
	1 Longitudinal extent:	$\frac{1}{3}\left(L^{\frac{2}{3}}\right)$ or 14.5 metres, whichever is less
	2 Transverse extent (inboard from the ship's side at right angles to the centreline at the level of the summer load line):	$\frac{B}{5}$ or 11.5 metres, whichever is less
	3 Vertical extent:	From the moulded line of the bottom shell plating at centreline, upwards without limit

.2	Bottom damage:		
		For 0.3L from the forward perpendicular of the ship	Any other part of the ship
	1 Longitudinal extent:	$\frac{1}{3}\left(L^{\frac{2}{3}}\right)$ or 14.5 metres, whichever is less	$\frac{1}{3}\left(L^{\frac{2}{3}}\right)$ or 5 metres, whichever is less
	2 Transverse extent:	$\frac{B}{6}$ or 10 metres, whichever is less	$\frac{B}{6}$ or 5 metres, whichever is less
	3 Vertical extent:	$\frac{B}{15}$ or 6 metres, whichever is less, measured from the moulded line of the bottom shell plating at centreline	$\frac{B}{15}$ or 6 metres, whichever is less, measured from the moulded line of the bottom shell plating at centreline

3.

If any damage of a lesser extent than the maximum extent of damage specified in subparagraphs 2.1 and 2.2 of this paragraph would result in a more severe condition, such damage shall be considered.

4.

Where the damage involving transverse bulkheads is envisaged as specified in subparagraphs 1.1 and 1.2 of this regulation, transverse watertight bulkheads shall be spaced at least at a distance equal to the longitudinal extent of assumed damage specified in subparagraph 2.1 of this paragraph in order to be considered effective. Where transverse bulkhead are spaced at a lesser distance, one or more of these bulkheads within such extent of damage shall be assumed as non-existent for the purpose of determining flooded compartments.

5.

Where the damage between adjacent transverse watertight bulkheads is envisaged as specified in subparagraph 1.3 of this regulation, no main transverse bulkhead or a transverse bulkhead bounding side tanks or double bottom tanks shall be assumed damaged, unless:

1.

the spacing of the adjacent bulkheads is less than the longitudinal extent of assumed damage specified in subparagraph 2.1 of this paragraph; or

2.

there is a step or recess in a transverse bulkhead of more than 3.05 metres in length, located within the extent of penetration of assumed damage. The step formed by the after peak bulkhead and after peak top shall not be regarded as a step for the purpose of this regulation.

6.
If pipes, ducts or tunnels are situated within the assumed extent of damage, arrangements shall be made so that progressive flooding cannot thereby extend to compartments other than those assumed to be floodable for each case of damage.

3. Oil tankers shall be regarded as complying with the damage stability criteria if the following requirements are met:

1.
The final waterline, taking into account sinkage, heel and trim, shall be below the lower edge of any opening through which progressive flooding may take place. Such openings shall include air-pipes and those which are closed by means of weathertight doors or hatch covers and may exclude 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 sidescuttles of the non-opening type.

2.
In the final stage of flooding, the angle of heel due to unsymmetrical flooding shall not exceed 25°, provided that this angle may be increased up to 30º if no deck edge immersion occurs.

3.
The stability in the final stage of flooding shall be investigated and may be regarded as sufficient if the righting lever curve has at least a range of 20º beyond the position of equilibrium in association with a maximum residual righting lever of at least 0.1 metre within the 20º range; the area under the curve within this range shall not be less than 0.0175 metre radians. Unprotected openings shall not be immersed within this range unless the space concerned is assumed to be flooded. Within this range, the immersion of any of the openings listed in subparagraph 3.1 of this paragraph and other openings capable of being closed watertight may be permitted.

4.
The Administration shall be satisfied that the stability is sufficient during intermediate stages of flooding.

5.
Equalization 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 subparagraphs 3.1, 3.2 and 3.3 of this paragraph and sufficient residual stability shall be maintained during all stages where equalization is used. Spaces which are linked by ducts of a large cross-sectional area may be considered to be common.

4. The requirements of paragraph 1 of this regulation shall be confirmed by calculations which take into consideration the design characteristics of the ship, the arrangements, configuration and contents of the damaged compartments; and the distribution, relative densities and the free surface effect of liquids. The calculations shall be based on the following:

1.
Account shall be taken of any empty or partially filled tank, the relative density of cargoes carried, as well as any outflow of liquids from damaged compartments.

2.
The permeabilities assumed for spaces flooded as a result of damage shall be as follows:

SPACES	*PERMEABILITIES*
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.	

3.
The buoyancy of any superstructure directly above the side damage 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 subparagraph .1 of this regulation in respect of these intact spaces are complied with. Hinged watertight doors may be acceptable in watertight bulkheads in the superstructure.

4.
The free surface effect shall be calculated at an angle of heel of 5º for each individual compartment. The Administration may require or allow the free surface corrections to be calculated at an angle of heel greater than 5º for partially filled tanks.

5.
In calculating the effect of free surfaces of consumable liquids it shall be 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 shall be those where the effect of free surface is the greatest.

5. The master of every oil tanker to which this regulation applies and the person in charge of a non-self-propelled oil tanker, to which this regulation applies shall be supplied in a approved form with:

1.
information relative to loading and distribution of cargo necessary to ensure compliance with the provisions of this regulation; and

2.
data on the ability of the ship to comply with damage stability criteria as determined by this regulation, including the effect of relaxations that may have been allowed under subparagraph 1.3 of this regulation.

6. For oil tankers of 20,000 tonnes deadweight and above delivered on or after 6 July 1996, as defined in regulation 1.28.6, the damage assumptions prescribed in paragraph 2.2 of this regulation shall be supplemented by the following assumed bottom raking damage:

1.
longitudinal extent:

1.
ships of 75,000 tonnes deadweight and above: 0.6L measured from the forward perpendicular;

2.
ships of less than 75,000 tonnes deadweight: 0.4L measured from the forward perpendicular;

2.
transverse extent: B/3 anywhere in the bottom;

3.
vertical extent: breach of the outer hull.

SLOP TANKS

1. Subject to the provisions of paragraph 4 of regulation 3 of this Annex, oil tankers of 150 gross tonnage and above shall be provided with slop tank arrangements in accordance with the requirements

of paragraphs 2.1 to 2.3 of this regulation. In oil tankers delivered on or before 31 December 1979, as defined in regulation 1.28.1, any cargo tank may be designated as a slop tank.

??. Adequate means shall be provided for cleaning the cargo tanks and transferring the dirty ballast residue and tank washings from the cargo tanks into a slop tank approved by the Administration.

??. In this system arrangements shall be provided to transfer the oily waste into a slop tank or combination of slop tanks in such a way that any effluent discharged into the sea will be such as to comply with the provisions of regulation 34 of this Annex.

??. The arrangements of the slop tank or combination of slop tanks shall 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, except that the Administration may accept:

1. 2 per cent for such oil tankers where the tank washing arrangement are 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 eductors, without the introduction of additional water into the system;

2. 2 per cent where segregated ballast tanks or dedicated clean ballast tanks are provided in accordance with regulation 18 of this Annex, or where a cargo tank cleaning system using crude oil washing is fitted in accordance with regulation 3 of this Annex. This capacity may be further reduced to 1.5 per cent for such oil tankers where the tank washing arrangements are 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 eductors, without the introduction of additional water into the system; and

3. 1 per cent for combination carriers where oil cargo is only carried in tanks with smooth walls. This capacity may be further reduced to 0.8 per cent where the tank washing arrangements are 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 eductors, without the introduction of additional water into the system.

??. Slop tanks shall be so designed particularly in respect of the position of inlets, outlets, baffles or weirs where fitted, so as to avoid excessive turbulence and entrainment of oil or emulsion with the water.

3. Oil tankers of 70,000 tonnes deadweight and above delivered after 31 December 1979, as defined in regulation 1.28.2, shall be provided with at least two slop tanks.

PUMPING, PIPING AND DISCHARGE ARRANGEMENT

1. In every oil tanker, a discharge manifold for connection to reception facilities for the discharge of dirty ballast water or oil-contaminated water shall be located on the open deck on both sides of the ship.

2. In every oil tanker of 150 gross tonnage and above, pipelines for the discharge to the sea of ballast water or oil contaminated water from cargo tank areas which may be permitted under regulation 34 of this Annex shall be led to the open deck or to the ship’s side above the waterline in the deepest ballast condition. Different piping arrangements to permit operation in the manner permitted in subparagraphs 6.1 to 6.5 of this regulation may be accepted.

3. In oil tankers of 150 gross tonnage and above delivered after 31 December 1979, as defined in regulation 1.28.2, means shall be provided for stopping the discharge into the sea of ballast water or oil contaminated water from cargo tank areas, other than those discharges below the waterline permitted under paragraph 6 of this regulation, from a position on the upper deck or above located so

that the manifold in use referred to in paragraph 1 of this regulation and the discharge to the sea from the pipelines referred to in paragraph 2 of this regulation may be visually observed. Means for stopping the discharge need not be provided at the observation position if a positive communication system such as a telephone or radio system is provided between the observation position and the discharge control position.

4. Every oil tanker delivered after 1 June 1982, as defined in regulation 1.28.4, required to be provided with segregated ballast tanks or fitted with a crude oil washing system, shall comply with the following requirements:

1.
it shall be equipped with oil piping so designed and installed that oil retention in the lines is minimized; and

2.
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. The line and pump draining shall be capable of being discharged both ashore and to a cargo tank or a slop tank. For discharge ashore a special small diameter line shall be provided and shall be connected outboard of the ship's manifold valves.

5. Every crude oil tanker delivered on or before 1 June 1982, as defined in regulation 1.28.3, required to be provided with segregated ballast tanks, or to be fitted with a crude oil washing system, shall comply with the provisions of paragraph 4.2 of this regulation.

6. On every oil tanker the discharge of ballast water or oil contaminated water from cargo tank areas shall take place above the waterline, except as follows:

1.
Segregated ballast and clean ballast may be discharged below the waterline:

1.
in ports or at offshore terminals; or

2.
at sea by gravity; or

3.
at sea by pumps if the ballast water exchange is performed under the provisions of regulation D-1.1 of the International Convention for the Control and Management of Ships' Ballast Water and Sediments,

provided that the surface of the ballast water has been examined either visually or by other means immediately before the discharge to ensure that no contamination with oil has taken place.

2.
Oil tankers delivered on or before 31 December 1979, as defined in regulation 1.28.1, which, without modification, are 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.

3.
Oil tankers delivered on or before 1 June 1982, as defined in regulation 1.28.3 operating with dedicated clean ballast tanks, which without modification are not capable of discharging ballast water from dedicated clean ballast tanks above the waterline, may discharge this ballast below the waterline provided that the discharge of the ballast water is supervised in accordance with regulation 18.8.3 of this Annex.

4.
On every oil tanker at sea, dirty ballast water or oil contaminated water from tanks in the cargo area, other than slop tanks, may be discharged by gravity below the waterline, provided that sufficient time has elapsed in order to allow oil/water separation to have taken place and the ballast water has been examined immediately before the discharge with an oil/water interface detector referred to in regulation 32 of this Annex, 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.

5.

On oil tankers delivered on or before 31 December 1979, as defined in regulation 1.28.1, at sea dirty ballast water or oil contaminated water from cargo tank areas may be discharged below the waterline, subsequent to or in lieu of the discharge by the method referred to in subparagraph 6.4 of this paragraph, provided that:

1. 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 it may be visually observed during the discharge operation; and

2. such part flow arrangements comply with the requirements established by the Administration, which shall contain at least all the provisions of the Specifications for the Design, Installation and Operation of a Part Flow System for Control of Overboard Discharges adopted by the Organization**.

** See appendix 4 to Unified Interpretations.

7. Every oil tanker of 150 gross tonnage and above delivered on or after 1 January 2010, as defined in regulation 1.28.8, which has installed a sea chest that is permanently connected to the cargo pipeline system, shall be equipped with both a sea chest valve and an inboard isolation valve. In addition to these valves, the sea chest shall be capable of isolation from the cargo piping system whilst the tanker is loading, transporting, or discharging cargo by use of a positive means that is to the satisfaction of the Administration. Such a positive means is a facility that is installed in the pipeline system in order to prevent, under all circumstances, the section of pipeline between the sea chest valve and the inboard valve being filled with cargo.

Part B Equipment

31 —

OIL DISCHARGE MONITORING AND CONTROL SYSTEM

1. Subject to the provisions of paragraphs 4 and 5 of regulation 3 of this Annex, oil tankers of 150 gross tonnage and above shall be equipped with an oil discharge monitoring and control system approved by the Administration.

2. In considering the design of the oil content meter to be incorporated in the system, the Administration shall have regard to the specification recommended by the Organization.** The system shall be 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. This record shall be identifiable as to time and date and shall be kept for at least three years. The oil discharge monitoring and control system shall come into operation when there is any discharge of effluent into the sea and shall be such as will ensure that any discharge of oily mixture is automatically stopped when the instantaneous rate of discharge of oil exceeds that permitted by regulation 34 of this Annex. Any failure of this monitoring and control system shall stop the discharge. In the event of failure of the oil discharge monitoring and control system a manually operated alternative method may be used, but the defective unit shall be made operable as soon as possible. Subject to allowance by the port State authority a tanker with a defective oil discharge monitoring and control system may undertake one ballast voyage before proceeding to a repair port.

** For oil content meters installed on oil tankers built prior to 2 October 1986, refer to the Recommendation on International Performance and Test Specifications for Oily-Water Separating Equipment and Oil Content Meters adopted by the Organization by resolution A.393(X). For oil content meters as part of discharge monitoring and control systems installed on oil tankers built on or after 2 October 1986, refer to the Guidelines and Specifications for Oil Discharge Monitoring and Control Systems for Oil Tankers adopted by the Organization by resolution A.586(14). For oil content meters as part of discharge monitoring and control systems installed on oil tankers the keels of which are laid or which are in a similar stage of construction on or after 1 January 2005, refer to the Revised Guidelines and Specifications for Oil Discharge Monitoring and Control Systems for Oil Tankers adopted by the Organization by resolution MEPC.108(49).

3. The oil discharge monitoring and control system shall be designed and installed in compliance with the guidelines and specifications for oil discharge monitoring and control system for oil tankers developed by the Organization**. Administrations may accept such specific arrangements as detailed in the Guidelines and Specifications.

** Refer to the Guidelines and Specifications for Oil Discharge Monitoring and Control Systems for Oil Tankers adopted by the Organization by resolution A.496 (XII) or the Revised Guidelines and Specifications for Oil Discharge Monitoring and Control Systems for Oil Tankers adopted by the Organization by resolution A.586(14), or the Revised Guidelines and Specifications for Oil Discharge Monitoring and Control Systems for Oil Tankers adopted by the Organization by resolution MEPC.108(49) as applicable.

4. Instructions as to the operation of the system shall be in accordance with an operational manual approved by the Administration. They shall cover manual as well as automatic operations and shall be intended to ensure that at no time shall oil be discharged except in compliance with the conditions specified in regulation 34 of this Annex.

32 —

OIL/WATER INTERFACE DETECTOR**

** Refer to the Specifications for Oil/Water Interface Detectors adopted by the Organization by resolution MEPC.5(XIII)

Subject to the provisions of paragraphs 4 and 5 of regulation 3 of this Annex, oil tankers of 150 gross tonnage and above shall be provided with effective oil/water interface detectors approved by the Administration for a rapid and accurate determination of the oil/water interface in slop tanks and shall be available for use in other tanks where the separation of oil and water is effected and from which it is intended to discharge effluent direct to the sea.

33 —

CRUDE OIL WASHING REQUIREMENTS

1. Every crude oil tanker of 20,000 tonnes deadweight and above delivered after 1 June 1982, as defined in regulation 1.28.4, shall be fitted with a cargo tank cleaning system using crude oil washing. The Administration shall ensure that the system fully complies with the requirements of this regulation within one year after the tanker was first engaged in the trade of carrying crude oil or by the end of the third voyage carrying crude oil suitable for crude oil washing, whichever occurs later.

2. Crude oil washing installation and associated equipment and arrangements shall comply with the requirements established by the Administration. Such requirements shall contain at least all the provisions of the specifications for the design, operation and control of crude oil washing systems adopted by the Organization**. When a ship is not required, in accordance with paragraph 1 of this regulation to be, but is equipped with crude oil washing equipment, it shall comply with the safety aspects of the above-mentioned specifications.

** Refer to the Revised Specifications for the Design, Operation and Control of Crude Oil Washing Systems adopted by the Organization by resolution A.446(XI) and amended by the Organization by resolution A.497(XII) and as further amended by resolution A.897(21).

3. Every crude oil washing system required to be provided in accordance with regulation 18.7 of this Annex shall comply with the requirements of this regulation.

Part C Control of Operational Discharges of Oil

34 —

CONTROL OF DISCHARGE OF OIL

A. Discharges outside special areas

1. Subject to the provisions of regulation 4 of this Annex and paragraph 2 of this regulation, any discharge into the sea of oil or oily mixtures from the cargo area of an oil tanker, shall be prohibited except when all the following conditions are satisfied:

1. the tanker is not within a special area;

2. the tanker is more than 50 nautical miles from the nearest land;

3. the tanker is proceeding en route;

4. the instantaneous rate of discharge of oil content does not exceed 30 litres per nautical mile;

5. the total quantity of oil discharged into the sea does not exceed for tankers delivered on or before 31 December 1979, as defined in regulation 1.28.1, 1/15,000 of the total quantity of the particular cargo of which the residue formed a part, and for tankers delivered after 31 December 1979, as defined in regulation 1.28.2, 1/30,000 of the total quantity of the particular cargo of which the residue formed a part; and

6. the tanker has in operation an oil discharge monitoring and control system and a slop tank arrangement as required by regulations 29 and 31 of this Annex.

2. The provisions of paragraph 1 of this regulation shall not apply to the discharge of clean or segregated ballast.

B. Discharges in special areas

3. Subject to the provisions of paragraph 4 of this regulation, any discharge into the sea of oil or oily mixture from the cargo area of an oil tanker shall be prohibited while in a special area[**].

[**] Refer to regulation 38.6

4. The provisions of paragraph 3 of this regulation shall not apply to the discharge of clean or segregated ballast.

5. Nothing in this regulation shall prohibit a ship on a voyage only part of which is in a special area from discharging outside the special area in accordance with paragraph 1 of this regulation.

C. Requirements for oil tankers of less than 150 gross tonnage

6. The requirements of regulations 29, 31 and 32 of this Annex shall not apply to oil tankers of less than 150 gross tonnage, for which the control of discharge of oil under this regulation shall be effected by the retention of oil on board with subsequent discharge of all contaminated washings to reception facilities. The total quantity of oil and water used for washing and returned to a storage tank shall be discharged to reception facilities unless adequate arrangements are made to ensure that any effluent which is allowed to be discharged into the sea is effectively monitored to ensure that the provisions of this regulation are complied with.

D. General requirements

7. Whenever visible traces of oil are observed on or below the surface of the water in the immediate vicinity of a ship or its wake, the Governments of Parties to the present Convention should, to the extent they are reasonably able to do so, promptly investigate the facts bearing on the issue of whether there has been a violation of the provisions of this regulation. The investigation should include, in particular, the wind and sea conditions, the track and speed of the ship, other possible sources of the visible traces in the vicinity, and any relevant oil discharge records.

8. No discharge into the sea shall contain chemicals or other substances in quantities or concentrations which are hazardous to the marine environment or chemicals or other substances introduced for the purpose of circumventing the conditions of discharge specified in this regulation.

9. The oil residues which cannot be discharged into the sea in compliance with paragraphs 1 and 3 of this regulation shall be retained on board for subsequent discharge to reception facilities.

35 —

CRUDE OIL WASHING OPERATIONS

1. Every oil tanker operating with crude oil washing systems shall be provided with an Operations and Equipment Manual** detailing the system and equipment and specifying operational procedures. Such a Manual shall be to the satisfaction of the Administration and shall contain all the information set out in the specifications referred to in paragraph 2 of regulation 33 of this Annex. If an alteration affecting the crude oil washing system is made, the Operations and Equipment Manual shall be revised accordingly.

** Refer to the Standard Format of the Crude Oil Washing Operation and Equipment Manual adopted by the Marine Environment Protection Committee of the Organization by resolution MEPC.3(XII), as amended by resolution MEPC.81(43).

2. With respect to the ballasting of cargo tanks, sufficient cargo tanks shall be crude oil washed prior to each ballast voyage in order that, taking into account the tanker's trading pattern and expected weather conditions, ballast water is put only into cargo tanks which have been crude oil washed.

3. Unless an oil tanker carries crude oil which is not suitable for crude oil washing, the oil tanker shall operate the crude oil washing system in accordance with the Operations and Equipment Manual.

36 —

OIL RECORD BOOK, PART II — CARGO/BALLAST OPERATIONS

1. Every oil tanker of 150 gross tonnage and above shall be provided with an Oil Record Book Part II (Cargo/Ballast Operations). The Oil Record Book Part II, whether as a part of the ship's official logbook or otherwise, shall be in the Form specified in appendix III to this Annex.

2. The Oil Record Book Part II shall be completed on each occasion, on a tank-to-tank basis if appropriate, whenever any of the following cargo/ballast operations take place in the ship:

1. loading of oil cargo;

2. internal transfer of oil cargo during voyage;

3. unloading of oil cargo;

4. ballasting of cargo tanks and dedicated clean ballast tanks;

5. cleaning of cargo tanks including crude oil washing;

6. discharge of ballast except from segregated ballast tanks;

7. discharge of water from slop tanks;

8. closing of all applicable valves or similar devices after slop tank discharge operations;

9. closing of valves necessary for isolation of dedicated clean ballast tanks from cargo and stripping lines after slop tank discharge operations; and

10. disposal of residues.

3. For oil tankers referred to in regulation 34.6 of this Annex, the total quantity of oil and water used for washing and returned to a storage tank shall be recorded in the Oil Record Book Part II.

4. In the event of such discharge of oil or oily mixture as is referred to in regulation 4 of this Annex or in the event of accidental or other exceptional discharge of oil not excepted by that regulation, a statement shall be made in the Oil Record Book Part II of the circumstances of, and the reasons for, the discharge.

5. Each operation described in paragraph 2 of this regulation shall be fully recorded without delay in the Oil Record Book Part II so that all entries in the book appropriate to that operation are completed. Each completed operation shall be signed by the officer or officers in charge of the operations concerned and each completed page shall be signed by the master of ship. The entries in the Oil Record Book Part II shall be at least in English, French or Spanish. Where entries in an official language of the State whose flag the ship is entitled to fly are also used, this shall prevail in case of dispute or discrepancy.

6. Any failure of the oil discharge monitoring and control system shall be noted in the Oil Record Book Part II.

7. The Oil Record Book shall be kept in such a place as to be readily available for inspection at all reasonable times and, except in the case of unmanned ships under tow, shall be kept on board the ship. It shall be preserved for a period of three years after the last entry has been made.

8. The competent authority of the Government of a Party to the Convention may inspect the Oil Record Book Part II on board any ship to which this Annex applies while the ship is in its port or offshore terminals and may make a copy of any entry in that book and may require the master of the ship to certify that the copy is a true copy of such entry. Any copy so made which has been certified by the master of the ship as a true copy of an entry in the ship's Oil Record Book Part II shall be made admissible in any judicial proceedings as evidence of the facts stated in the entry. The inspection of an Oil Record Book Part II and the taking of a certified copy by the competent authority under this paragraph shall be performed as expeditiously as possible without causing the ship to be unduly delayed.

9. For oil tankers of less than 150 gross tonnage operating in accordance with regulation 34.6 of this Annex, an appropriate Oil Record Book should be developed by the Administration.

CHAPTER 5

PREVENTION OF POLLUTION ARISING FROM AN OIL POLLUTION INCIDENT

37 —

SHIPBOARD OIL POLLUTION EMERGENCY PLAN

1. Every oil tanker of 150 gross tonnage and above and every ship other than an oil tanker of 400 gross tonnage and above shall carry on board a shipboard oil pollution emergency plan approved by the Administration.

2. Such a plan shall be prepared based on guidelines** developed by the Organization and written in the working language of the master and officers. The plan shall consist at least of:

** Refer to the Guidelines for the development of shipboard oil pollution emergency plans adopted by the Organization by resolution MEPC.54(32) as amended by resolution MEPC.86(44).

1. the procedure to be followed by the master or other persons having charge of the ship to report an oil pollution incident, as required in article 8 and Protocol I of the present Convention, based on the guidelines developed by the Organization;**

** Refer to 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 Organization by resolution A.851(20).

2. the list of authorities or persons to be contacted in the event of an oil pollution incident;

3.
a detailed description of the action to be taken immediately by persons on board to reduce or control the discharge of oil following the incident; and

4.
the procedures and point of contact on the ship for co-ordinating shipboard action with national and local authorities in combating the pollution.

3. In the case of ships to which regulation 17 of Annex II of the present Convention also apply, such a plan may be combined with the shipboard marine pollution emergency plan for noxious liquid substances required under regulation 17 of Annex II of the present Convention. In this case, the title of such a plan shall be "Shipboard marine pollution emergency plan".

4. All oil tankers of 5,000 tons deadweight or more shall have prompt access to computerised, shore-based damage stability and residual structural strength calculation programs.

37 —

SHIPBOARD OIL POLLUTION EMERGENCY PLAN

1. Every oil tanker of 150 gross tonnage and above and every ship other than an oil tanker of 400 gross tonnage and above shall carry on board a shipboard oil pollution emergency plan approved by the Administration.

2. Such a plan shall be prepared based on guidelines** developed by the Organization and written in the working language of the master and officers. The plan shall consist at least of:

** Refer to the Guidelines for the development of shipboard oil pollution emergency plans adopted by the Organization by resolution MEPC.54(32) as amended by resolution MEPC.86(44).

1.
the procedure to be followed by the master or other persons having charge of the ship to report an oil pollution incident, as required in article 8 and Protocol I of the present Convention, based on the guidelines developed by the Organization;**

** Refer to 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 Organization by resolution A.851(20).

2.
the list of authorities or persons to be contacted in the event of an oil pollution incident;

3.
a detailed description of the action to be taken immediately by persons on board to reduce or control the discharge of oil following the incident; and

4.
the procedures and point of contact on the ship for co-ordinating shipboard action with national and local authorities in combating the pollution.

3. In the case of ships to which regulation 17 of Annex II of the present Convention also apply, such a plan may be combined with the shipboard marine pollution emergency plan for noxious liquid substances required under regulation 17 of Annex II of the present Convention. In this case, the title of such a plan shall be "Shipboard marine pollution emergency plan".

4. All oil tankers of 5,000 tons deadweight or more shall have prompt access to computerised, shore-based damage stability and residual structural strength calculation programs.

CHAPTER 6

RECEPTION FACILITIES

38 —

RECEPTION FACILITIES

A. Reception facilities outside special areas

1. The Government of each Party to the present Convention undertakes to ensure the provision at oil loading terminals, repair ports, and in other ports in which ships have oily residues to discharge, of facilities for the reception of such residues and oily mixtures as remain from oil tankers and other ships adequate** to meet the needs of the ships using them without causing undue delay to ships.

** See resolution MEPC.83(44) "Guidelines for ensuring the adequacy of port waste reception facilities".

2. Reception facilities in accordance with paragraph 1 of this regulation shall be provided in:

1. all ports and terminals in which crude oil is loaded into oil tankers 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;

2. all ports and terminals in which oil other than crude oil in bulk is loaded at an average quantity of more than 1,000 tonnes per day;

3. all ports having ship repair yards or tank cleaning facilities;

4. all ports and terminals which handle ships provided with the sludge tank(s) required by regulation 12 of this Annex;

5. all ports in respect of oily bilge waters and other residues that cannot be discharged in accordance with regulation 15 or 34 of this Annex; and

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6. all loading ports for bulk cargoes in respect of oil residues from combination carriers which cannot be discharged in accordance with regulation 34 of this Annex.

3. The capacity for the reception facilities shall be as follows:

1. Crude oil loading terminals shall have sufficient reception facilities to receive oil and oily mixtures which cannot be discharged in accordance with the provisions of regulation 34.1 of this Annex from all oil tankers on voyages as described in paragraph 2.1 of this regulation.

2. Loading ports and terminals referred to in paragraph 2.2 of this regulation shall have sufficient reception facilities to receive oil and oily mixtures which cannot be discharged in accordance with the provisions of regulation 34.1 of this Annex from oil tankers which load oil other than crude oil in bulk.

3. All ports having ship repair yards or tank cleaning facilities shall have sufficient reception facilities to receive all residues and oily mixtures which remain on board for disposal from ships prior to entering such yards or facilities.

4. All facilities provided in ports and terminals under paragraph 2.4 of this regulation shall be sufficient to receive all residues retained according to regulation 12 of this Annex from all ships that may reasonably be expected to call at such ports and terminals.

5. All facilities provided in ports and terminals under this regulation shall be sufficient to receive oily bilge waters and other residues which cannot be discharged in accordance with regulation 15 of this Annex.

6. The facilities provided in loading ports for bulk cargoes shall take into account the special problems of combination carriers as appropriate.

B. Reception facilities within special areas

4. The Government of each Party to the present Convention the coastline of which borders on any given special area shall ensure that all oil loading terminals and repair ports within the special area are provided with facilities adequate for the reception and treatment of all the dirty ballast and tank washing water from oil tankers. In addition all ports within the special area shall be provided with adequate** reception facilities for other residues and oily mixtures from all ships. Such facilities shall have adequate capacity to meet the needs of the ships using them without causing undue delay.

** See resolution MEPC.83(44) "Guidelines for ensuring the adequacy of port waste reception facilities".

5. The Government of each Party to the present Convention having under its jurisdiction entrances to seawater courses with low depth contour which might require a reduction of draught by the discharge of ballast shall ensure the provision of the facilities referred to in paragraph 4 of this regulation but with the proviso that ships required to discharge slops or dirty ballast could be subject to some delay.

6. With regard to the Red Sea area, Gulfs area, Gulf of Aden area and Oman area of the Arabian Sea:

1. Each Party concerned shall notify the Organization of the measures taken pursuant to provisions of paragraphs 4 and 5 of this regulation. Upon receipt of sufficient notifications the Organization shall establish a date from which the discharge requirements of regulations 15 and 34 of this Annex in respect of the area in question shall take effect. The Organization shall notify all Parties of the date so established no less than twelve months in advance of that date.

2. During the period between the entry into force of the present Convention and the date so established, ships while navigating in the special area shall comply with the requirements of regulations 15 and 34 of this Annex as regards discharges outside special areas.

3. After such date oil tankers loading in ports in these special areas where such facilities are not yet available shall also fully comply with the requirements of regulations 15 and 34 of this Annex as regards discharges within special areas. However, oil tankers entering these special areas for the purpose of loading shall make every effort to enter the area with only clean ballast on board.

4. After the date on which the requirements for the special area in question take effect, each Party shall notify the Organization for transmission to the Parties concerned of all cases where the facilities are alleged to be inadequate.

5. At least the reception facilities as prescribed in paragraphs 1, 2 and 3 of this regulation shall be provided one year after the date of entry into force of the present Convention.

7. Notwithstanding paragraphs 4, 5 and 6 of this regulation, the following rules apply to the Antarctic area:

1. The Government of each Party to the present Convention at whose ports ships depart *en route* to or arrive from the Antarctic area undertakes to ensure that as soon as practicable adequate facilities are provided for the reception of all oil residue (sludge), dirty ballast, tank washing water, and other oily residues and mixtures from all ships, without causing undue delay, and according to the needs of the ships using them.

2. The Government of each Party to the present Convention shall ensure that all ships entitled to fly its flag, before entering the Antarctic area, are fitted with a tank or tanks of sufficient capacity on board for the retention of all oil residue (sludge), dirty ballast, tank washing water and other oily residues and mixtures while operating in the area and have concluded arrangements to discharge such oily residues at a reception facility after leaving the area.

C. General requirements

8. Each Party shall notify the Organization for transmission to the Parties concerned of all cases where the facilities provided under this regulation are alleged to be inadequate.

RECEPTION FACILITIES

A. Reception facilities outside special areas

1. The Government of each Party to the present Convention undertakes to ensure the provision at oil loading terminals, repair ports, and in other ports in which ships have oily residues to discharge, of facilities for the reception of such residues and oily mixtures as remain from oil tankers and other ships adequate** to meet the needs of the ships using them without causing undue delay to ships.

** See resolution MEPC.83(44) "Guidelines for ensuring the adequacy of port waste reception facilities".

2. Reception facilities in accordance with paragraph 1 of this regulation shall be provided in:

1. all ports and terminals in which crude oil is loaded into oil tankers 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;

2. all ports and terminals in which oil other than crude oil in bulk is loaded at an average quantity of more than 1,000 tonnes per day;

3. all ports having ship repair yards or tank cleaning facilities;

4. all ports and terminals which handle ships provided with the sludge tank(s) required by regulation 12 of this Annex;

5. all ports in respect of oily bilge waters and other residues that cannot be discharged in accordance with regulation 15 or 34 of this Annex; and

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6. all loading ports for bulk cargoes in respect of oil residues from combination carriers which cannot be discharged in accordance with regulation 34 of this Annex.

3. The capacity for the reception facilities shall be as follows:

1. Crude oil loading terminals shall have sufficient reception facilities to receive oil and oily mixtures which cannot be discharged in accordance with the provisions of regulation 34.1 of this Annex from all oil tankers on voyages as described in paragraph 2.1 of this regulation.

2. Loading ports and terminals referred to in paragraph 2.2 of this regulation shall have sufficient reception facilities to receive oil and oily mixtures which cannot be discharged in accordance with the provisions of regulation 34.1 of this Annex from oil tankers which load oil other than crude oil in bulk.

3. All ports having ship repair yards or tank cleaning facilities shall have sufficient reception facilities to receive all residues and oily mixtures which remain on board for disposal from ships prior to entering such yards or facilities.

4. All facilities provided in ports and terminals under paragraph 2.4 of this regulation shall be sufficient to receive all residues retained according to regulation 12 of this Annex from all ships that may reasonably be expected to call at such ports and terminals.

5.

All facilities provided in ports and terminals under this regulation shall be sufficient to receive oily bilge waters and other residues which cannot be discharged in accordance with regulation 15 of this Annex.

6. The facilities provided in loading ports for bulk cargoes shall take into account the special problems of combination carriers as appropriate.

B. Reception facilities within special areas

4. The Government of each Party to the present Convention the coastline of which borders on any given special area shall ensure that all oil loading terminals and repair ports within the special area are provided with facilities adequate for the reception and treatment of all the dirty ballast and tank washing water from oil tankers. In addition all ports within the special area shall be provided with adequate** reception facilities for other residues and oily mixtures from all ships. Such facilities shall have adequate capacity to meet the needs of the ships using them without causing undue delay.

** See resolution MEPC.83(44) "Guidelines for ensuring the adequacy of port waste reception facilities".

5. The Government of each Party to the present Convention having under its jurisdiction entrances to seawater courses with low depth contour which might require a reduction of draught by the discharge of ballast shall ensure the provision of the facilities referred to in paragraph 4 of this regulation but with the proviso that ships required to discharge slops or dirty ballast could be subject to some delay.

6. With regard to the Red Sea area, Gulfs area, Gulf of Aden area and Oman area of the Arabian Sea:

1. Each Party concerned shall notify the Organization of the measures taken pursuant to provisions of paragraphs 4 and 5 of this regulation. Upon receipt of sufficient notifications the Organization shall establish a date from which the discharge requirements of regulations 15 and 34 of this Annex in respect of the area in question shall take effect. The Organization shall notify all Parties of the date so established no less than twelve months in advance of that date.

2. During the period between the entry into force of the present Convention and the date so established, ships while navigating in the special area shall comply with the requirements of regulations 15 and 34 of this Annex as regards discharges outside special areas.

3. After such date oil tankers loading in ports in these special areas where such facilities are not yet available shall also fully comply with the requirements of regulations 15 and 34 of this Annex as regards discharges within special areas. However, oil tankers entering these special areas for the purpose of loading shall make every effort to enter the area with only clean ballast on board.

4. After the date on which the requirements for the special area in question take effect, each Party shall notify the Organization for transmission to the Parties concerned of all cases where the facilities are alleged to be inadequate.

5. At least the reception facilities as prescribed in paragraphs 1, 2 and 3 of this regulation shall be provided one year after the date of entry into force of the present Convention.

7. Notwithstanding paragraphs 4, 5 and 6 of this regulation, the following rules apply to the Antarctic area:

1. The Government of each Party to the present Convention at whose ports ships depart *en route* to or arrive from the Antarctic area undertakes to ensure that as soon as practicable adequate facilities are provided for the reception of all oil residue (sludge), dirty ballast, tank washing water, and other oily residues and mixtures from all ships, without causing undue delay, and according to the needs of the ships using them.

2.
The Government of each Party to the present Convention shall ensure that all ships entitled to fly its flag, before entering the Antarctic area, are fitted with a tank or tanks of sufficient capacity on board for the retention of all oil residue (sludge), dirty ballast, tank washing water and other oily residues and mixtures while operating in the area and have concluded arrangements to discharge such oily residues at a reception facility after leaving the area.

C. General requirements

8. Each Party shall notify the Organization for transmission to the Parties concerned of all cases where the facilities provided under this regulation are alleged to be inadequate.

CHAPTER 7

SPECIAL REQUIREMENTS FOR FIXED OR FLOATING PLATFORMS

39 —

SPECIAL REQUIREMENTS FOR FIXED OR FLOATING PLATFORMS

1. This regulation applies to fixed or floating platforms including drilling rigs, floating production, storage and offloading facilities (FPSOs) used for the offshore production and storage of oil, and floating storage units (FSUs) used for the offshore storage of produced oil.

2. Fixed or floating platforms when engaged in the exploration, exploitation and associated offshore processing of sea-bed mineral resources and other platforms shall comply with the requirements of this Annex applicable to ships of 400 gross tonnage and above other than oil tankers, except that:

1.
they shall be equipped as far as practicable with the installations required in regulations 12 and 14 of this Annex;

2.
they shall keep a record of all operations involving oil or oily mixture discharges, in a form approved by the Administration; and

3.
subject to the provisions of regulation 4 of this Annex, the discharge into the sea of oil or oily mixture shall be prohibited except when the oil content of the discharge without dilution does not exceed 15 parts per million.

3. In verifying compliance with this Annex in relation to platforms configured as FPSOs or FSUs, in addition to the requirements of paragraph 2, Administrations should take account of the Guidelines developed by the Organization[**].

[**] Refer to resolution MEPC.139(53) “Guidelines for the application of the revised MARPOL Annex I requirements to FPSOs and FSUs.”, as amended.

39 —

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they shall be equipped as far as practicable with the installations required in regulations 12 and 14 of this Annex;

2. they shall keep a record of all operations involving oil or oily mixture discharges, in a form approved by the Administration; and

3. subject to the provisions of regulation 4 of this Annex, the discharge into the sea of oil or oily mixture shall be prohibited except when the oil content of the discharge without dilution does not exceed 15 parts per million.

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** Refer to resolution MEPC.139(53) "Guidelines for the application of the revised MARPOL Annex I requirements to FPSOs and FSUs.", as amended.

CHAPTER 8

PREVENTION OF POLLUTION DURING TRANSFER OF OIL CARGO BETWEEN OIL TANKERS AT SEA

40 — SCOPE OF APPLICATION

1. The regulations contained in this chapter apply to oil tankers of 150 gross tonnage and above engaged in the transfer of oil cargo between oil tankers at sea (STS operations) and their STS operations conducted on or after 1 April 2012. However, STS operations conducted before that date but after the approval of the Administration of STS operations Plan required under regulation 41.1 shall be in accordance with the STS operations Plan as far as possible.

2. The regulations contained in this chapter shall not apply to oil transfer operations associated with fixed or floating platforms including drilling rigs; floating production, storage and offloading facilities (FPSOs) used for the offshore production and storage of oil; and floating storage units (FSUs) used for the offshore storage of produced oil**.

** Revised Annex I of MARPOL, chapter 7 (resolution MEPC.117(52)) and UNCLOS article 56 are applicable and address these operations.

3. The regulations contained in this chapter shall not apply to bunkering operations.

4. The regulations contained in this chapter shall not apply to STS operations necessary for the purpose of securing the safety of a ship or saving life at sea, or for combating specific pollution incidents in order to minimize the damage from pollution.

5. The regulations contained in this chapter shall not apply to STS operations where either of the ships involved is a warship, naval auxiliary or other ship owned or operated by a State and used, for the time being, only on government non-commercial service. However, each State shall ensure, by the adoption of appropriate measures not impairing operations or operational capabilities of such ships that the STS operations are conducted in a manner consistent, so far as is reasonable and practicable, with this chapter.

41 — GENERAL RULES ON SAFETY AND ENVIRONMENTAL PROTECTION

1. Any oil tanker involved in STS operations shall carry on board a Plan prescribing how to conduct STS operations (STS operations Plan) not later than the date of the first annual, intermediate

or renewal survey of the ship to be carried out on or after 1 January 2011. Each oil tanker's STS operations Plan shall be approved by the Administration. The STS operations Plan shall be written in the working language of the ship.

2. The STS operations Plan shall be developed taking into account the information contained in the best practice guidelines for STS operations identified by the Organization**. The STS operations Plan may be incorporated into an existing Safety Management System required by chapter IX of the International Convention for the Safety of Life at Sea, 1974, as amended, if that requirement is applicable to the oil tanker in question.

** IMO's "Manual on Oil Pollution, Section I, Prevention" as amended, and the ICS and OCIMF "Ship-to-ship Transfer Guide, Petroleum", fourth edition, 2005.

3. Any oil tanker subject to this chapter and engaged in STS operations shall comply with its STS operations Plan.

4. The person in overall advisory control of STS operations shall be qualified to perform all relevant duties, taking into account the qualifications contained in the best practice guidelines for STS operations identified by the Organization**.

** IMO's "Manual on Oil Pollution, Section I, Prevention" as amended, and the ICS and OCIMF "Ship-to-ship Transfer Guide, Petroleum", fourth edition, 2005.

5. Records**of STS operations shall be retained on board for three years and be readily available for inspection by a Party to the present Convention.

** Revised Annex I of MARPOL chapters 3 and 4 (resolution MEPC.117(52)); requirements for recording bunkering and oil cargo transfer operations in the Oil Record Book, and any records required by the STS operations Plan.

NOTIFICATION

1. Each oil tanker subject to this chapter that plans STS operations within the territorial sea, or the exclusive economic zone of a Party to the present Convention shall notify that Party not less than 48 hours in advance of the scheduled STS operations. Where, in an exceptional case, all of the information specified in paragraph 2 is not available not less than 48 hours in advance, the oil tanker discharging the oil cargo shall notify the Party to the present Convention, not less than 48 hours in advance that an STS operation will occur and the information specified in paragraph 2 shall be provided to the Party at the earliest opportunity.

2. The notification specified in paragraph 1 of this regulation** shall include at least the following:

** The national operational contact point as listed in document MSC-MEPC.6/Circ.4 of 31 December 2007 or its subsequent amendments.

1. name, flag, call sign, IMO Number and estimated time of arrival of the oil tankers involved in the STS operations;

2. date, time and geographical location at the commencement of the planned STS operations;

4. whether STS operations are to be conducted at anchor or underway;

4. oil type and quantity;

5. planned duration of the STS operations;

6. identification of STS operations service provider or person in overall advisory control and contact information; and

7.

confirmation that the oil tanker has on board an STS operations Plan meeting the requirements of regulation 41.

3. If the estimated time of arrival of an oil tanker at the location or area for the STS operations changes by more than six hours, the master, owner or agent of that oil tanker shall provide a revised estimated time of arrival to the Party to the present Convention specified in paragraph 1 of this regulation.

CHAPTER 9

SPECIAL REQUIREMENTS FOR THE USE OR CARRIAGE OF OILS IN THE ANTARCTIC AREA

Regulation 43

Special requirements for the use or carriage of oils in the Antarctic area

1 With the exception of vessels engaged in securing the safety of ships or in a search and rescue operation, the carriage in bulk as cargo or carriage and use as fuel of the following:

.1 crude oils having a density at 15°C higher than 900 kg/m^3;

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

.3 bitumen, tar and their emulsions,

shall be prohibited in the Antarctic area, as defined in regulation 1.11.7 of this Annex.

2 When prior operations have included the carriage or use of oils listed in paragraphs 1.1 to 1.3 of this regulation, the cleaning or flushing of tanks or pipelines is not required.

[S 399/2011 wef 01/08/2011]

APPENDIX I

LIST OF OILS**

** This list of oils shall not necessarily be considered as comprehensive

Asphalt solutions

Blending stocks

Roofers flux

Straight run residue

Gasoline blending stocks

Alkylates – fuel

Reformates

Polymer – fuel

Oils

Clarified

Crude oil

Gasolines

Casinghead (natural)

Automotive

Mixtures containing crude oil
Diesel oil
Fuel oil no. 4
Fuel oil no. 5
Fuel oil no. 6
Residual fuel oil
Road oil
Transformer oil
Aromatic oil (excluding vegetable oil)
Lubricating oils and blending stocks
Mineral oil
Motor oil
Penetrating oil
Spindle oil
Turbine oil

Distillates
Straight run
Flashed feed stocks

Gas oil
Cracked

Aviation
Straight run
Fuel oil no. 1 (kerosene)
Fuel oil no. 1-D
Fuel oil no. 2
Fuel oil no. 2-D

Jet fuels
JP-1 (kerosene)
JP-3
JP-4
JP-5 (kerosene, heavy)
Turbo fuel
Kerosene
Mineral spirit

Naphtha
Solvent
Petroleum
Heartcut distillate oil

APPENDIX II

FORM OF IOPP CERTIFICATE AND SUPPLEMENTS

INTERNATIONAL OIL POLLUTION PREVENTION CERTIFICATE

(*Note*: This certificate shall be supplemented by a Record of Construction and Equipment)

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	.....
Port of registry	.....
Gross tonnage	.....
Deadweight of ship (tonnes)**	.....
IMO Number***	.....
_____	
* Alternatively, the particulars of the ship may be placed horizontally in boxes.	
** For oil tankers	
*** Refer to the IMO Ship Identification Number Scheme adopted by the Organization by resolution A.600(15).	
Type of ship:*	
Oil tanker	
Ship other than an oil tanker with cargo tanks coming under regulation 2.2 of Annex I of the Convention	
Ship other than any of the above	
THIS IS TO CERTIFY:	
1. That the ship has been surveyed in accordance with regulation 6 of Annex I of the Convention; and	
2. That the survey shows that the structure, equipment systems, fittings, arrangement 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 I of the Convention.	
This certificate is valid until ..... **	
subject to surveys in accordance with regulation 6 of Annex I of the Convention.	
Completion date of the survey on which this certificate is based:	

dd/mm/yyyy	
Issued at	
(Place of issue of certificate)	
..... *(Date of issue)*	..... *(Signature of authorized official issuing the certificate)*
(Seal or stamp of the authority, as appropriate)	
_____	
* Delete as appropriate	
** Insert the date of expiry as specified by the Administration in accordance with regulation 10.1 of Annex I of the Convention. The day and the month of this day correspond to the anniversary date as defined in regulation 1.27 of Annex I of the Convention, unless amended in accordance with regulation 10.8 of Annex I of the Convention.	

ENDORSEMENT FOR ANNUAL AND INTERMEDIATE SURVEYS

THIS IS TO CERTIFY that at a survey required by regulation 6 of Annex I 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 .....
(Seal or stamp of the authority, as appropriate)	
Annual*/Intermediate survey*:	Signed ..... *(Signature of duly authorized official)*
	Place .....
	Date .....
(Seal or stamp of the authority, as appropriate)	
Annual*/Intermediate survey*:	Signed ..... *(Signature of duly authorized official)*
	Place .....

	Date .....
(Seal or stamp of the authority, as appropriate)	
Annual survey:	Signed ..... *(Signature of duly authorized official)*
	Place .....
	Date .....
(Seal or stamp of the authority, as appropriate)	
_____	
* Delete 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 I of the Convention, the ship was found to comply with the relevant provisions of the Convention:	
	Signed ..... *(Signature of duly authorized official)*
	Place .....
	Date .....
(Seal or stamp of the authority, as appropriate)	
* Delete 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 I of the Convention, be accepted as valid until	
	Signed ..... *(Signature of duly authorized official)*
	Place .....
	Date .....
(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 I of the Convention, be accepted as valid until	
	Signed ..... *(Signature of duly authorized official)*
	Place .....
	Date .....
(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 I of the Convention, be accepted as valid until ..	
	Signed ..... *(Signature of duly authorized official)*
	Place .....
	Date .....
(Seal or stamp of the authority, as appropriate)	
* Delete as appropriate.	

ENDORSEMENT FOR ADVANCEMENT OF ANNIVERSARY DATE WHERE REGULATION 10.8 APPLIES

In accordance with regulation 10.8 of Annex I of the Convention the new anniversary date is	
	Signed ..... *(Signature of duly authorized official)*
	Place .....
	Date .....
(Seal or stamp of the authority, as appropriate)	
In accordance with regulation 10.8 of Annex I of the Convention the new anniversary date is	
	Signed .....

	(Signature of duly authorized official)
	Place .....
	Date .....
(Seal or stamp of the authority, as appropriate)	

FORM A

Supplement to the International Oil Pollution Prevention Certificate (IOPP Certificate)

RECORD OF CONSTRUCTION AND EQUIPMENT FOR SHIPS OTHER THAN OIL TANKERS

In respect of the provisions of Annex I of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (hereinafter referred to as "the Convention").

Notes:

1 This form is to be used for the third type of ships as categorized in the IOPP Certificate, i.e. "ships other than any of the above". For oil tankers and ships other than oil tankers with cargo tanks coming under regulation 2.2 of Annex I of the Convention, Form B shall be used.

2 This Record shall be permanently attached to the IOPP Certificate. The IOPP Certificate shall be available on board the ship at all times.


No Image
Available

1.6.1 Date of conversion contract .....

1.6.2 Date on which conversion was commenced .....

1.6.3 Date of completion of conversion .....

1.7 The ship has been accepted by the Administration as a "ship delivered on or before 31 December 1979" under regulation 1.28.1 due to unforeseen delay in delivery ☐

2. Equipment for the control of oil discharge from machinery space bilges and oil fuel tanks
(regulations 16 and 14)

2.1 Carriage of ballast water in oil fuel tanks:

2.1.1 The ship may under normal conditions carry ballast water in oil fuel tanks ☐

2.2 Type of oil filtering equipment fitted:

2.2.1 Oil filtering (15 ppm) equipment (regulation 14.6) ☐

2.2.2 Oil filtering (15 ppm) equipment with alarm and automatic stopping device (regulation 14.7) ☐

2.3 Approval standards:*

2.3.1 The separating/filtering equipment:

.1 has been approved in accordance with resolution A.393(X); ☐

.2 has been approved in accordance with resolution MEPC.60(33); ☐

.3 has been approved in accordance with resolution MEPC.107(49); ☐

.4 has been approved in accordance with resolution A.233(VII); ☐

.5 has been approved in accordance with national standards not based upon resolution A.393(X) or A.233(VII); ☐

.6 has not been approved. ☐

2.3.2 The process unit has been approved in accordance with resolution A.444(XI) ☐

---

*Refer to the Recommendation on International Performance and Test Specifications of Oily-Water Separating Equipment and Oil Content Meters adopted by the Organization on 14 November 1977 by resolution A.393(X), which superseded resolution A.233(VII). Further reference is made to the Guidelines and Specifications for Pollution Prevention Equipment for Machinery Space Bilges adopted by the Marine Environment Protection Committee of the Organization by resolution MEPC.60(33), which, effective on 6 July 1993, superseded resolutions A.393(X) and A.444(XI) (see IMO sales publication IMO-646E); and to the Revised Guidelines and Specifications for Pollution Prevention Equipment for Machinery Spaces of Ships adopted by the Marine Environment Protection Committee of the Organization by resolution MEPC.107(49) which, effective on 1 January 2005, superseded resolutions MEPC.60(33), A.393(X) and A.444(XI); see IMO Sales Publication.

2.3.3 The oil content meter:

.1 has been approved in accordance with resolution A.393(X); ☐

.2 has been approved in accordance with resolution MEPC.60(33); ☐

.3 has been approved in accordance with resolution MEPC.107(49). ☐

2.4 Maximum throughput of the system is ..... m^3/h

2.5 Waiver of regulation 14:

2.5.1 The requirements of regulation 14.1 or 14.2 are waived in respect of the ship in accordance with regulation 14.5.

2.5.1.1 The ship is engaged exclusively on voyages within special area(s): ..... ☐

2.5.1.2 The ship is certified under the International Code of Safety for High-Speed Craft and engaged on a scheduled service with a turn-around time not exceeding 24 hours ☐

2.5.2 The ship is fitted with holding tank(s) for the total retention on board of all oily bilge water as follows: ☐

Tank identification	TANK LOCATION		*Volume* (m^3)
	Frames (from) — (to)	**Lateral position**	
		Total volume: ..... m^3	

2A. **Oil fuel tank protection** (regulation 12A)

2A.1 The ship is required to be constructed according to regulation 12A and complies with the requirements of:

paragraphs 6 and either 7 or 8 (double hull construction) ☐

paragraph 11 (accidental oil fuel outflow performance) ☐

2A.2 The ship is not required to comply with the requirements of regulation 12A ☐

3. **Means for retention and disposal of oil residues (sludge) (regulation 12) and bilge water holding tank(s)***

3.1 The ship is provided with oil residue (sludge) tanks as follows:

Tank identification	TANK LOCATION		*Volume* (m^3)
	Frames (from) — (to)	**Lateral position**	
		Total volume: ..... m^3	

---

*Bilge water holding tank(s) are not required by the Convention, entries in the table under paragraph 3.3 are voluntary.

3.2 Means for the disposal of residues in addition to the provisions of sludge tanks:

3.2.1 Incinerator for oil residues, capacity ..... l/h ☐

3.2.2 Auxiliary boiler suitable for burning oil residues ☐

3.2.3 Tank for mixing oil residues with fuel oil, capacity ..... m^3 ☐

3.2.4 Other acceptable means: ..... ☐

3.3 The ship is provided with holding tank(s) for the retention on board of oily bilge water as follows:

Tank identification	TANK LOCATION		*Volume* (m^3)
	Frames (from) — (to)	**Lateral position**	
		Total volume: ..... m^3	

4. Standard discharge connection (regulation 13)

4.1 The ship is provided with a pipeline for the discharge of residues from machinery bilges and sludges to reception facilities, fitted with a standard discharge connection in accordance with regulation 13 ☐

5. Shipboard oil/marine pollution emergency plan (regulation 37)

5.1 The ship is provided with a shipboard oil pollution emergency plan in compliance with regulation 37 ☐

5.2 The ship is provided with a shipboard marine pollution emergency plan in compliance with regulation 37.3 ☐

6. Exemption

6.1 Exemptions have been granted by the Administration from the requirements of chapter 3 of Annex I of the Convention in accordance with regulation 3.1 on those items listed under paragraph(s) .....
.....
.....of this Record ☐

7. Equivalents (regulation 5)

7.1 Equivalents have been approved by the Administration for certain requirements of Annex I on those items listed under paragraph(s)
.....
.....of this Record ☐

THIS IS TO CERTIFY that this Record is correct in all respects.

Issued at .....
(Place of issue of the Record)

....
(Date of issue) *(Signature of duly authorized official issuing the Record)*

(Seal or stamp of the issuing authority, as appropriate)

FORM B

Supplement to the International Oil Pollution Prevention Certificate (IOPP Certificate)

RECORD OF CONSTRUCTION AND EQUIPMENT FOR OIL TANKERS

In respect of the provisions of Annex I of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (hereinafter referred to as "the Convention").

Notes:

1 This form is to be used for the first two types of ships as categorized in the IOPP Certificate, i.e. "oil tankers" and "ships other than oil tankers with cargo tanks coming under regulation 2.2 of Annex I of the Convention". For the third type of ships as categorized in the IOPP Certificate, Form A shall be used.

2 This Record shall be permanently attached to the IOPP Certificate. The IOPP Certificate shall be available on board the ship at all times.

1.8.2	Date on which keel was laid or ship was at a similar stage of construction	
1.8.3	Date of delivery	
1.9	Major conversion (if applicable):	
1.9.1	Date of conversion contract	
1.9.2	Date on which conversion was commenced	
1.9.3	Date of completion of conversion.	
1.10	Unforeseen delay in delivery:	
1.10.1	The ship has been accepted by the Administration as a "ship delivered on or before 31 December 1979" under regulation 1.28.1 due to unforeseen delay in delivery	☐
1.10.2	The ship has been accepted by the Administration as an "oil tanker delivered on or before 1 June 1982" under regulation 1.28.3 due to unforeseen delay in delivery	☐
1.10.3	The ship is not required to comply with the provisions of regulation 26 due to unforeseen delay in delivery	☐
1.11	Type of ship:	
1.11.1	Crude oil tanker	☐
1.11.2	Product carrier	☐
1.11.3	Product carrier not carrying fuel oil or heavy diesel oil as referred to in regulation 20.2, or lubricating oil	☐
1.11.4	Crude oil/product carrier	☐
1.11.5	Combination carrier	☐
1.11.6	Ship, other than an oil tanker, with cargo tanks coming under regulation 2.2 of Annex I of the Convention	☐
1.11.7	Oil tanker dedicated to the carriage of products referred to in regulation 2.4	☐
1.11.8	The ship, being designated as a "crude oil tanker" operating with COW, is also designated as a "product carrier" operating with CBT, for which a separate IOPP Certificate has also been issued	☐
1.11.9	The ship, being designated as a "product carrier" operating with CBT, is also designated as a "crude oil tanker" operating with COW, for which a separate IOPP Certificate has also been issued	☐

2.	**Equipment for the control of oil discharge from machinery space bilges and oil fuel tanks** (regulations 16 and 14)	
2.1	Carriage of ballast water in oil fuel tanks:	
2.1.1	The ship may under normal conditions carry ballast water in oil fuel tanks	☐
2.2	Type of oil filtering equipment fitted:	
2.2.1	Oil filtering (15 ppm) equipment (regulation 14.6)	☐
2.2.2	Oil filtering (15 ppm) equipment with alarm and automatic stopping device (regulation 14.7)	☐
2.3	Approval standards:*	
2.3.1	The separating/filtering equipment:	
	.1 has been approved in accordance with resolution A.393(X);	☐
	.2 has been approved in accordance with resolution MEPC.60(33);	☐
	.3 has been approved in accordance with resolution MEPC.107(49);	☐
	.4 has been approved in accordance with resolution A.233(VII);	☐
	.5 has been approved in accordance with national standards not based upon resolution A.393(X) or A.233(VII);	☐
	.6 has not been approved.	☐
2.3.2	The process unit has been approved in accordance with resolution A.444(XI)	☐
2.3.3	The oil content meter:	
	.1 has been approved in accordance with resolution A.393(X);	☐
	.2 has been approved in accordance with resolution MEPC.60(33);	☐
	.3 has been approved in accordance with resolution MEPC.107(49).	☐

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*Refer to the Recommendation on International Performance and Test Specifications of Oily-Water Separating Equipment and Oil Content Meters adopted by the Organization on 14 November 1977 by resolution A.393(X), which superseded resolution A.233(VII). Further reference is made to the Guidelines and Specifications for Pollution Prevention Equipment for Machinery Space Bilges adopted by the Marine Environment Protection Committee of the Organization by resolution MEPC.60(33), which, effective on 6 July 1993, superseded resolutions A.393(X) and A.444(XI) (see IMO sales publication IMO-646E); and to the Revised Guidelines and Specifications for Pollution Prevention Equipment for Machinery Spaces of Ships adopted by the Marine Environment Protection Committee of the Organization by resolution MEPC.107(49) which, effective on 1 January 2005, superseded resolutions MEPC.60(33), A.393(X) and A.444(XI); see IMO Sales Publication.

2.4 Maximum throughput of the system is ..... m^3/h

2.5 Waiver of regulation 14:

2.5.1 The requirements of regulation 14.1 or 14.2 are waived in respect of the ship in accordance with regulation 14.5.

The ship is engaged exclusively on voyages within special area(s): ..... ☐

2.5.2 The ship is fitted with holding tank(s) for the total retention on board of all oily bilge water as follows: ☐

Tank identification	TANK LOCATION		*Volume* (m^3)
	Frames (from) — (to)	**Lateral position**	
		Total volume: ..... m^3	

2.5.3 In lieu of the holding tank(s) the ship is provided with arrangements to transfer bilge water to the slop tank ☐

2A. **Oil fuel tank protection** (regulation 12A)

2A.1 The ship is required to be constructed according to regulation 12A and complies with the requirements of:

paragraphs 6 and either 7 or 8 (double hull construction) ☐

paragraph 11 (accidental oil fuel outflow performance) ☐

2A.2 The ship is not required to comply with the requirements of regulation 12A ☐ .

3. **Means for retention and disposal of oil residues (sludge) (regulation 12) and bilge water holding tank(s)***

3.1 The ship is provided with oil residue (sludge) tanks as follows:

Tank identification	TANK LOCATION		*Volume* (m^3)
	Frames (from) — (to)	**Lateral position**	
		Total volume: ..... m^3	

3.2 Means for the disposal of residues in addition to the provisions of sludge tanks:

3.2.1 Incinerator for oil residues, capacity ..... l/h ☐

3.2.2 Auxiliary boiler suitable for burning oil residues ☐

3.2.3 Tank for mixing oil residues with fuel oil, capacity ..... m^3 ☐

3.2.4 Other acceptable means: ..... ☐

---

*Bilge water holding tank(s) are not required by the Convention, entries in the table under paragraph 3.3 are voluntary.

3.3 The ship is provided with holding tank(s) for the retention on board of oily bilge water as follows:

Tank identification	TANK LOCATION		*Volume* (m^3)
	Frames (from) — (to)	**Lateral position**	
		Total volume: ..... m^3	

4. Standard discharge connection (regulation 13)

4.1 The ship is provided with a pipeline for the discharge of residues from machinery bilges and sludges to reception facilities, fitted with a standard discharge connection in accordance with regulation 13 ☐

5. Construction (regulations 18, 19, 20, 23, 26, 27 and 28)

5.1 In accordance with the requirements of regulation 18, the ship is:

5.1.1 Required to be provided with SBT, PL and COW ☐

5.1.2 Required to be provided with SBT and PL ☐

5.1.3 Required to be provided with SBT ☐

5.1.4 Required to be provided with SBT or COW ☐

5.1.5 Required to be provided with SBT or CBT ☐

5.1.6 Not required to comply with the requirements of regulation 18 ☐

5.2 Segregated ballast tanks (SBT):

5.2.1 The ship is provided with SBT in compliance with regulation 18 ☐

5.2.2 The ship is provided with SBT, in compliance with regulation 18, which are arranged in protective locations (PL) in compliance with regulations 18.12 to 18.15 ☐

5.2.3 SBT are distributed as follows:

Tank	**Volume (m^3)**	**Tank**	**Volume (m^3)**
		Total volume: ..... m^3	

5.3 Dedicated clean ballast tanks (CBT):

5.3.1 The ship is provided with CBT in compliance with regulation 18.8, and may operate as a product carrier ☐

5.3.2 CBT are distributed as follows:

Tank	Volume (m^3)	Tank	Volume (m^3)
		Total volume: ..... m^3	

5.3.3 The ship has been supplied with a valid Dedicated Clean Ballast Tank Operation Manual, which is dated ..... ☐

5.3.4 The ship has common piping and pumping arrangements for ballasting the CBT and handling cargo oil ..... ☐

5.3.5 The ship has separate independent piping and pumping arrangements for ballasting the CBT ☐

5.4 Crude oil washing (COW):

5.4.1 The ship is equipped with a COW system in compliance with regulation 33 ☐

5.4.2 The ship is equipped with a COW system in compliance with regulation 33 except that the effectiveness of the system has not been confirmed in accordance with regulation 33.1 and paragraph 4.2.10 of the Revised COW Specifications (resolution A.446(XI) as amended by resolutions A.497(XII) and A.897(21)) ☐

5.4.3 The ship has been supplied with a valid Crude Oil Washing Operations and Equipment Manual which is dated ..... ☐

5.4.4 The ship is not required to be but is equipped with COW in compliance with the safety aspects of the Revised COW Specifications (resolution A.446(XI) as amended by resolutions A.497(XII) and A.897(21)) ☐

5.5 Exemption from regulation 18:

5.5.1 The ship is solely engaged in trade between .....
.....
in accordance with regulation 2.5 and is therefore exempted from the requirements of regulation 18 ☐

5.5.2 The ship is operating with special ballast arrangements in accordance with regulation 18.10 and is therefore exempted from the requirements of regulation 18 ☐

6.3	Oil/water interface detectors:	
6.3.1	The ship is provided with oil/water interface detectors approved under the terms of resolution MEPC.5(XIII)*	☐
6.4	Exemptions from regulations 29, 31 and 32:	
6.4.1	The ship is exempted from the requirements of regulations 29, 31 and 32 in accordance with regulation 2.4	☐
6.4.2	The ship is exempted from the requirements of regulations 29, 31 and 32 in accordance with regulation 2.2	☐
6.5	Waiver of regulation:	
6.5.1	The requirements of regulations 31 and 32 are waived in respect of the ship in accordance with regulation 3.5. The ship is engaged exclusively on:	
	.1 specific trade under regulation 2.5:	☐
	.2 voyages within special area(s):	☐
	.3 voyages within 50 nautical miles of the nearest land outside special area(s) of 72 hours or less in duration restricted to:	☐
7.	**Pumping, piping and discharge arrangements** (regulation 30)	
7.1	The overboard discharge outlets for segregated ballast are located:	
7.1.1.	Above the waterline	☐
7.1.2	Below the waterline	☐
7.2	The overboard discharge outlets, other than the discharge manifold, for clean ballast are located†:	
7.2.1	Above the waterline	☐
7.2.2	Below the waterline	☐
7.3	The overboard discharge outlets, other than the discharge manifold, for dirty ballast water or oil-contaminated water from cargo tank areas are located:	

*Refer to the Specification for oil/water interface detectors adopted by the Marine Environment Protection Committee of the Organization by resolution MEPC.5(XIII); see IMO sales publication IMO-646E.

†Only those outlets which can be monitored are to be indicated.

APPENDIX III

FORM OF OIL RECORD BOOK

OIL RECORD BOOK

Part I — Machinery Space Operations

(All Ships)
Name of Ship: .....
Distinctive number or letters: .....

Gross tonnage: .....
Period from: ..... to: .....
Note: Oil Record Book Part I shall be provided to every oil tanker of 150 gross tonnage and above and every ship of 400 gross tonnage and above, other than oil tankers, to record relevant machinery space operations. For oil tankers, Oil Record Book Part II shall also be provided to record relevant cargo/ballast operations.

Introduction

The following pages of this section show a comprehensive list of items of machinery space operations which are, when appropriate, to be recorded in the Oil Record Book Part I in accordance with regulation 17 of Annex I of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78). The items have been grouped into operational sections, each of which is denoted by a letter Code.

When making entries in the Oil Record Book Part I, 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. The master of the Ship shall sign each completed page.

The Oil Record Book Part I contains many references to oil quantity. The limited accuracy of tank Measurement devices, temperature variations and clingage will affect the accuracy of these readings. The entries in the Oil Record Book Part I should be considered accordingly.

In the event of accidental or other exceptional discharge of oil statement shall be made in the Oil Record Book Part I of the circumstances of, and the reasons for, the discharge.

Any failure of the oil filtering equipment shall be noted in the Oil Record Book Part I.

The entries in the Oil Record Book Part I, for ships holding an IOPP Certificate, shall be at least in English, French or Spanish. Where entries in official language of the State whose flag the ship is entitled to fly are also used, this shall prevail in case of a dispute or discrepancy.

The Oil Record Book Part I shall be kept in such a place as to be readily available for inspection at all reasonable times and, except in the case of unmanned ships under tow, shall be kept on board the ship. It shall be preserved for a period of three years after the last entry has been made.

The competent authority of the Government of a Party to the Convention may inspect the Oil Record Book Part I on board any ship to which this Annex applies while the ship is in its port or offshore terminals and may make a copy of any entry in that book and may require the master of the ship to certify that the copy is a true copy of such entry. Any copy so made which has been certified by the master of the ship as a true copy of an entry in the Oil Record Book Part I shall be made admissible in any juridical proceedings as evidence of the facts stated in the entry. The inspection of an Oil Record Book Part I and the taking of a certified copy by the competent authority under this paragraph shall be performed as expeditiously as possible without causing the ship to be unduly delayed.

LIST OF ITEMS TO BE RECORDED

(A) BALLASTING OR CLEANING OF OIL FUEL TANKS

1. Identity of tank(s) ballasted.

2. Whether cleaned since they last contained oil and, if not, type of oil previously carried.

3. Cleaning process:

1. position of ship and time at the start and completion of cleaning;

2. identify tank(s) in which one or another method has been employed (rinsing through, steaming, cleaning with chemicals; type and quantity of chemicals used, in m^3);

3. identity of tank(s) into which cleaning water was transferred.

4. Ballasting:

1. position of ship and time at start and end of ballasting;

2. quantity of ballast if tanks are not cleaned, in m^3.

(B) Discharge of dirty ballast or cleaning water from oil fuel tanks referred to under Section A

5. Identity of tank(s).

6. Position of ship at start of discharge.

7. Position of ship on completion of discharge.

8. Ship’s speed(s) during discharge.

9. Method of discharge:

1. through 15 ppm equipment

2. to reception facilities.

10. Quantity discharged, in m^3.

(C) Collection and disposal of oil residues (sludge and other oil residues)

Collection of oil residues

11.

Quantities of oil residues (sludge and other oil residues) retained on board. The quantity should be recorded weekly**: (This means that the quantity must be recorded once a week even if the voyage lasts more than one week)

** Tanks listed in item 3.1 of form A and B of the supplement in the IOPP Certificate used for sludge.

1.

identity of tank(s) .....

2.

capacity of tank(s) ..... m^3

3.

total quantity of retention ..... m^3

12.

Methods of disposal of residue.

State quantity of oil residues disposed of, the tank(s) emptied and the quantity of contents retained in m^3:

1.

to reception facilities (identify port)**;

** Ship's masters should obtain from the operator of the reception facilities, which includes barges and tank trucks, a receipt or certificate detailing the quantity of tank washings, dirty ballast, residues or oily mixtures transferred, together with the time and date of the transfer. This receipt or certificate, if attached to the Oil Record Book Part I, may aid the master of the ship in proving that his ship was not involved in an alleged pollution incident. The receipt or certificate should be kept together with the Oil Record Book Part I.

2.

transferred to another (other) tank(s) (indicate tank(s) and the total content of tank(s));

3.

incinerated (indicate total time of operation);

4.

other method (state which).

(D) Non-automatic discharge overboard or disposal otherwise of bilge water which has accumulated in machinery spaces

13.

Quantity discharged or disposed of, in cubic metres^3.**

** In case of discharge or disposal of bilge water from holding tank(s), state identity and capacity of holding tank(s) and quantity retained in holding tank.

14.

Time of discharge or disposal (starts and stop).

15.

Method of discharge or disposal:

1.

through 15 ppm equipment (state position at start and end);

2.

to reception facilities (identify port)**;

** Ship's masters should obtain from the operator of the reception facilities, which includes barges and tank trucks, a receipt or certificate detailing the quantity of tank washings, dirty ballast, residues or oily mixtures transferred, together with the time and date of the transfer. This receipt or certificate, if attached to the Oil Record Book Part I, may aid the master of the ship in proving that his ship was not

involved in an alleged pollution incident. The receipt or certificate should be kept together with the Oil Record Book Part I.

3. transfer to slop tank or holding tank (indicate tank(s); state the total quantity retained in tank(s), in m^3).

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

16. Time and position of ship at which the system has been put into automatic mode of operation for discharge overboard, through 15 ppm equipment.

17. Time when the system has been put into automatic mode of operation for transfer of bilge water to holding tank (identify tank).

18. Time when the system has been put into manual operation.

(F) Condition of the oil filtering equipment

19. Time of system failure**.

** The condition of the oil filtering equipment covers also the alarm and automatic stopping devices, if applicable.

20. Time when system has been made operational.

21. Reasons for failure.

(G) Accidental or other exceptional discharges of oil

22. Time of occurrence.

23. Place or position of ship at time of occurrence.

24. Approximate quantity and type of oil.

25. Circumstances of discharge or escape, the reasons therefore and general remarks.

(H) Bunkering of fuel or bulk lubricating oil

26. Bunkering:

1. Place of bunkering.

2. Time of bunkering.

3. Type and quantity of fuel oil and identity of tank(s) (state quantity added, in tonnes and total content of tank(s)).

4. Type and quantity of lubricating oil and identity of tank(s) (state quantity added, in tonnes and total content of tank (s)).

(I) Additional operational procedures and general remarks

Name of ship .....

Distinctive number or letters .....

MACHINERY SPACE OPERATIONS						
Date		**Code** (letter)		**Item** (number)		**Record of operations/signature of officer in charge**
Signature of master						

OIL RECORD BOOK

PART II – CARGO / BALLAST OPERATIONS

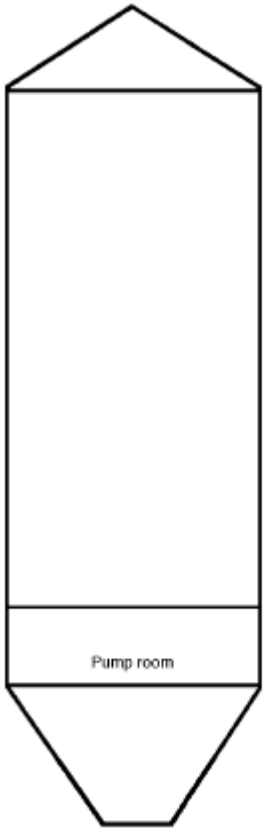
(OIL TANKERS)

Name of Ship: .....
Distinctive number or letters: .....
Gross tonnage: .....
Period from: ..... to: .....
Note: Every oil tanker of 150 gross tonnage and above shall be provided with Oil Record Book Part II to record relevant cargo/ballast operations. Such a tanker shall also be provided with Oil Record Book Part I to record relevant machinery space operations.

Name of Ship

Distinctive number or letters .....

PLAN VIEW OF CARGO AND SLOP TANKS
(TO BE COMPLETED ON BOARD)



Identification of tanks	Capacity
Depth of slop tank(s):	

(Give the capacity of each tank and the depth of slop tank(s))

INTRODUCTION

The following pages of this section show a comprehensive list of items of cargo and ballast operations which are, when appropriate, to be recorded in the Oil Record Book Part II in accordance with regulation 36 of Annex I of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78). The items have been grouped into operational section, each of which is denoted by a code letter.

When making entries in the Oil Record Book Part II, 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. Each completed page shall be countersigned by the master of the ship.

In respect of the oil tankers engaged in specific trades in accordance with regulation 2.5 of Annex I of MARPOL 73/78, appropriate entry in the Oil Record Book Part II shall be endorsed by the competent port State authority.**

** This sentence should only be inserted for the Oil Record Book of a tanker engaged in a specific trade.

The Oil Record Book Part II contains many references to oil quantity. The limited accuracy of tank Measurement devices, temperature variations and clingage will affect the accuracy of these readings. The entries in the Oil Record Book Part II should be considered accordingly.

In the event of accidental or other exceptional discharge of oil a statement shall be made in the Oil Record Book Part II of the circumstances of, and the reasons for, the discharge.

Any failure of the oil discharge monitoring and control system shall be noted in the Oil Record Book Part II.

The entries in the Oil Record Book Part II, for ships holding an IOPP Certificate, shall be at least in English, French or Spanish. Where entries in an official language of the State whose flag the ship is entitled to fly are also used, this shall prevail in case of a dispute or discrepancy.

The Oil Record Book Part II shall be kept in such a place as to be readily available for inspection at all reasonable times and, except in the case of unmanned Ships under tow, shall be kept on board the Ship. It shall be preserved for a period of three years after the last entry has been made.

The competent authority of the Government of a Party to the Convention may inspect the Oil Record Book Part II on board any Ship to which this Annex applies while the Ship is in its port or offshore terminals and may make a copy of any entry in that book and may require the master of the Ship to certify that the copy is a true copy of such entry. Any copy so made which has been certified by the master of the Ship as a true copy of an entry in the Oil Record Book Part II shall be made admissible in any juridical proceedings as evidence of the facts stated in the entry. The inspection of an Oil Record Book Part II and taking of a certified copy by the competent authority under this paragraph shall be performed as expeditiously as possible without causing the ship to be unduly delayed.

LIST OF ITEMS TO BE RECORDED

(A) LOADING OF OIL CARGO

(*1*)

Place of loading.

(*2*)

Type of oil loaded and identity of tank(s).

(*3*)

Total quantity of oil loaded (state quantity added, in m^3 at 15°C and the total content of tank(s), in m^3).

(B) INTERNAL TRANSFER OF OIL CARGO DURING VOYAGE

(4) Identity of tank(s):

1.

from:

2.

to: (state quantity transferred and total quantity of tank(s), in m^3).

(5) Was (were) the tank(s) in 4.1 emptied? (If not, state quantity retained, in m^3.)

(C) UNLOADING OF OIL CARGO

(6) Place of unloading.

(7) Identity of tank(s) unloaded.

(8) Was (were) the tank(s) emptied? (If not, state quantity retained, in m^3.)

(D) CRUDE OIL WASHING (COW TANKERS ONLY)

(To be completed for each tank being crude oil washed)

(*9*)

Port where crude oil washing was carried out or ship's position if carried out between two discharge ports.

(*10*)

Identity of tank(s) washed.**

** When an individual tank has more machines than can be operated simultaneously, as described in the Operations and Equipment Manual, then the section being crude oil washed should be identified, *e.g.* No.2 centre, forward section.

(*11*)

Number of machines in use.

(*12*)

Time of start of washing.

(*13*)

Washing pattern employed.**

** In accordance with the Operations and Equipment Manual, enter whether single-stage or multi-stage method of washing is employed. If multi-stage method is used, give the vertical arc covered by the machines and the number of times that arc is covered for that particular stage of the programme.

(*14*)

Washing line pressure.

(*15*)

Time washing was completed or stopped.

(*16*)

State method of establishing that tank(s) was (were) dry.

(*17*)

Remarks.**

** If the programmes given in the Operations and Equipment Manual are not followed, then the reasons must be given under Remarks.

(E) BALLASTING OF CARGO TANKS

(*18*)

Position of ship at start and end of ballasting.

(*19*)

Ballasting process:

1. identity of tank(s) ballasted;

2. time of start and end; and

3. quantity of ballast received. Indicate total quantity of ballast for each tank involved in operation, in m^3.

(F) BALLASTING OF DEDICATED CLEAN BALLAST TANKS (CBT TANKERS ONLY)

(*20*)

Identity of tank(s) ballasted.

(*21*)

Position of ship when water intended for flushing, or port ballast was taken to dedicated clean ballast tank(s).

(*22*)

Position of ship when pump(s) and lines were flushed to slop tank.

(*23*)

Quantity of the oily water which, after line flushing, is transferred to the slop tank(s) or cargo tank(s) in which slop is preliminarily stored (identify tank(s)). State total quantity, in m^3.

(*24*)

Position of ship when additional ballast water was taken to dedicated clean ballast tank(s).

(*25*)

Time and position of ship when valves separating the dedicated clean ballast tanks from cargo and stripping lines were closed.

(*26*)

Quantity of clean ballast taken on board, in m^3.

(G) CLEANING OF CARGO TANKS

(*27*)

Identity of tank(s) cleaned.

(*28*)

Port or ship's position.

(*29*)

Duration of cleaning.

(*30*)

Method of cleaning.**

** Hand-hosing, machine washing and/or chemical cleaning. Where chemically cleaned, the chemical concerned and amount used should be stated.

(*31*)

Tank washings transferred to:

1.

reception facilities (state port and quantity, in m^3)**; and

** Ships' masters should obtain from the operator of the reception facilities, which include barges and tank trucks, a receipt or certificate detailing the quantity of tank washings, dirty ballast, residues or oily mixtures transferred, together with the time and date of the transfer. This receipt or certificate, if attached to the Oil Record Book Part II, may aid the master of the ship in proving that his ship was not involved in an alleged pollution incident. The receipt or the certificate should be kept together with the Oil Record Book Part II.

2.

slop tank(s) or cargo tank(s) designated as slop tank(s) (identify tank(s); state quantity transferred and total quantity, in m^3).

(H) DISCHARGE OF DIRTY BALLAST

(*32*)

Identity of tank(s).

(*33*)

Time and position of ship at start of discharge into the sea.

(*34*)

Time and position of ship on completion of discharge into the sea.

(*35*)

Quantity discharged into the sea, in m^3.

(*36*)

Ship's speed(s) during discharge.

(*37*)

Was the discharge monitoring and control system in operation during the discharge?

(*38*)

Was a regular check kept on the effluent and the surface of the water in the locality of the discharge?

(*39*)

Quantity of oily water transferred to slop tank(s) (identify slop tank(s). State total quantity, in m^3.)

(*40*)

Discharged to shore reception facilities (identify port and quantity involved, in m^3).**

** Ships' masters should obtain from the operator of the reception facilities, which include barges and tank trucks, a receipt or certificate detailing the quantity of tank washings, dirty ballast, residues or oily mixtures transferred, together with the time and date of the transfer. This receipt or certificate, if attached to the Oil Record Book Part II, may aid the master of the ship in proving that his ship was not involved in an alleged pollution incident. The receipt or the certificate should be kept together with the Oil Record Book Part II.

(I) DISCHARGE OF WATER FROM SLOP TANKS INTO THE SEA

(*41*)

Identity of slop tanks.

(*42*)

Time of settling from last entry of residues, or

(*43*)

Time of settling from last discharge.

(*44*)

Time and position of ship at start of discharge.

(*45*)

Ullage of total contents at start of discharge.

(*46*)

Ullage of oil/water interface at start of discharge.

(*47*)

Bulk quantity discharged, in m^3 and rate of discharge, in m^3/hour.

(*48*)

Final quantity discharged, in m^3 and rate of discharge, in m^3/hour.

(*49*)

Time and position of ship on completion of discharge.

(*50*)

Was the discharge monitoring and control system in operation during the discharge?

(*51*)

Ullage of oil/water interface on completion of discharge, in metres.

(*52*)

Ship's speed(s) during discharge.

(*53*)

Was a regular check kept on the effluent and the surface of water in the locality of the discharge?

(*54*)

Confirm that all applicable valves in the ship's piping system have been closed on completion of discharge from the slop tanks.

(J) COLLECTION, TRANSFER AND DISPOSAL OF RESIDUES AND OILY MIXTURES NOT OTHERWISE DEALT WITH

(*55*)

Identity of tanks.

(*56*)

Quantity transferred or disposed of from each tank. (State the quantity retained, in m^3.)

(*57*)

Method of transfer or disposal:

1. disposal to reception facilities (identify port and quantity involved);

2. mixed with cargo (state quantity);

3. transferred to or from (an)other tank(s) including transfer from machinery space oil residue (sludge) and oily bilge water tanks (identify tank(s); state quantity transferred and total quantity in tank(s), in m^3); and

4. other method (state which); state quantity disposed of in m^3.

(K) DISCHARGE OF CLEAN BALLAST CONTAINED IN CARGO TANKS

(*58*)

Position of ship at start of clean ballast.

(*59*)

Identity of tank(s) discharged.

(*60*)

Was (were) the tank(s) empty on completion?

(*61*)

Position of ship on completion if different from 58.

(*62*)

Was a regular check kept on the effluent and the surface of the water in the locality of the discharge?

(L) DISCHARGE OF BALLAST FROM DEDICATED CLEAN BALLAST TANKS (CBT TANKERS ONLY)

(*63*)

Identity of tank(s) discharged.

(*64*)

Time and position of ship at start of discharge of clean ballast into the sea.

(*65*)

Time and position of ship on completion of discharge into the sea.

(*66*)

Quantity discharged, in m^3:

1.

into the sea; or

2.

to reception facility (identify port).**

** Ships' masters should obtain from the operator of the reception facilities, which include barges and tank trucks, a receipt or certificate detailing the quantity of tank washings, dirty ballast, residues or oily mixtures transferred, together with the time and date of the transfer. This receipt or certificate, if attached to the Oil Record Book Part II, may aid the master of the ship in proving that his ship was not involved in an alleged pollution incident. The receipt or the certificate should be kept together with the Oil Record Book Part II.

(*67*)

Was there any indication of oil contamination of the ballast water before or during discharge into the sea?

(*68*)

Was the discharge monitored by an oil content meter?

(*69*)

Time and position of ship when valves separating dedicated clean ballast tanks from the cargo and stripping lines were closed on completion of deballasting.

(M) CONDITION OF OIL DISCHARGE MONITORING AND CONTROL SYSTEM

(*70*)

Time of system failure.

(*71*)

Time when system has been made operational.

(*72*)

Reasons for failure.

(N) ACCIDENTAL OR OTHER EXCEPTIONAL DISCHARGES OF OIL

(*73*)

Time of occurrence.

(*74*)

Port or ship's position at time of occurrence.

(*75*)

Approximate quantity, in m^3, and type of oil.

(*76*)

Circumstances of discharge or escape, the reasons therefor and general remarks.

(O) ADDITIONAL OPERATIONAL PROCEDURES AND GENERAL REMARKS

TANKERS ENGAGED IN SPECIFIC TRADES

(P) LOADING OF BALLAST WATER

(*77*)

Identity of tank(s) ballasted.

(*78*)

Position of ship when ballasted.

(*79*)

Total quantity of ballast loaded in cubic metres.

(*80*)

Remarks.

(Q) RE-ALLOCATION OF BALLAST WATER WITHIN THE SHIP

(*81*)

Reason for re-allocation.

(R) BALLAST WATER DISCHARGE TO RECEPTION FACILITY

(*82*)

Port(s) where ballast water was discharged.

[S 792/2010 wef 01/01/2011]

(*83*)

Name or designation of reception facility.

[S 792/2010 wef 01/01/2011]

(*84*)

Total quantity of ballast water discharged in cubic metres.

[S 792/2010 wef 01/01/2011]

(*85*)

Date, signature and stamp of port authority official.

[S 792/2010 wef 01/01/2011]

Name of ship .....

Distinctive number or letters .....

CARGO/BALLAST OPERATIONS (OIL TANKERS)

Date	**Code** (letter)	**Item** (number)	**Record of operations/signature of officer in charge**

[S 792/2010 wef 01/01/2011]

Signature of master .....

SECOND SCHEDULE

Regulation 11

FEES

1. Time spent involving the following:	
(*a*) review of plans, drawings, record books, manuals, specifications, calculations, arrangements and details of hull, systems, materials, machinery and equipment and processing applications for exemption and extension of certificates;	
(*b*) surveys (initial, annual, intermediate and renewal) full or partial; or	
(*c*) inspection of equipment for the issue of type approval or acceptance certificate (per model):	
(i) per hour or part thereof	$60
(ii) transport for each visit within Singapore, if required	$40
2. Inspection or survey outside office hours (in addition to the appropriate fee prescribed for the survey or inspection):	
(*a*) first hour or part thereof	$120
(*b*) each additional 30 minutes or part thereof	$60
(*c*) transport for each visit within Singapore, if required	$40
3. Survey or inspection conducted abroad (in addition to the appropriate fee prescribed for the survey or inspection):	
(*a*) first 24 hours or part thereof during which the surveyor is absent from Singapore on account of such survey or inspection;	$600
(*b*) each subsequent hour or part thereof after the first 24 hours, subject to a maximum charge of $600 for each period of 24 hours;	$60
(*c*) travelling, taxation, fee for a visa if required and any expenses incurred arising	Actual cost

from the survey abroad; and

(*d*) board, lodging, insurance coverage and reasonable subsistence for the surveyor	Sum to be determined by the Director in accordance with Government Instruction Manual
4. Issue of a certificate or a report or a new certificate on strength of an existing certificate	$65
5. Amendment of any particulars on any certificate (if any inspection or survey is required, charges in accordance with item 1 shall be added)	$14
6. Type approval/acceptance certificate on strength of certificate/report issued by other Convention countries (per model)	$180.

Made this
22nd day of
December 2006.

PETER ONG
Chairman,
Maritime and Port
Authority of
Singapore.

[MPA 46/06.C03.V06/MM; AG/LEG/SL/243/2003/1 Vol. 4]