File Ref: THB (T) PML 8/10/90/2

LEGISLATIVE COUNCIL BRIEF

Merchant Shipping (Prevention and Control of Pollution) Ordinance (Cap. 413)

Merchant Shipping (Prevention of Oil Pollution) (Amendment) Regulation 2016

Introduction

The Secretary for Transport and Housing (STH) has made the Merchant Shipping (Prevention of Oil Pollution) (Amendment) Regulation 2016, at **Annex A**, under section 3 of the Merchant Shipping (Prevention and Control of Pollution) Ordinance (Cap.413) ("the Ordinance") to implement the latest requirements prescribed by the International Maritime Organization (IMO) for preventing oil pollution from ships.

A

Justifications

IMO Requirements

2. In 1973, IMO adopted the "International Convention for the Prevention of Pollution from Ships" (universally known as MARPOL) to prevent and minimise pollution from ships. MARPOL contains six technical Annexes to address different forms of pollution from ships[1], which have been implemented in Hong Kong by way of subsidiary legislation under the Ordinance.

---

[1] The six technical Annexes addressing different forms of pollution from ships are as follows -
Annex I: Pollution by oil;
Annex II: Pollution by noxious liquid substances in bulk;
Annex III: Pollution by harmful substances carried by sea in packaged form;
Annex IV: Pollution by sewage from ships;
Annex V: Pollution by garbage from ships; and
Annex VI: Air pollution from ships.

3. MARPOL Annex I, "Regulations for the Prevention of Oil Pollution from Ships", entered into force in 1983. Its requirements have been reflected in the Merchant Shipping (Prevention of Oil Pollution) Regulation (Cap. 413A) ("the Regulation"), which imposes control on the construction, operation and equipment of ships with a view to preventing or minimising the discharge of oil or oily mixture from ships.

4. Under the Regulation, all oil tankers of 150 gross tonnage and above and any other ships of 400 gross tonnage or above[2] must carry on board either the International Oil Pollution Prevention Certificate or the Hong Kong Oil Pollution Prevention Certificate to prove that their stability, structure, systems and fittings comply with the MARPOL requirements. To obtain the requisite certificates, ships are surveyed by the Marine Department (MD) or classification societies.

Legislative Proposals

(1) Incorporating the Latest MARPOL Requirements

5. The Regulation imposes controls on ships to prevent oil pollution. IMO has introduced, at different times, a number of amendments to MARPOL Annex I to strengthen the construction and operational requirements for preventing oil pollution from ships; details are at **Annex B**. These IMO amendments regulate ships constructed or delivered after different dates. The major new requirements proposed for incorporation into the Regulation are —

B

(a) ***Requiring double layers of pump-room bottoms on oil tankers***: To provide extra protection as well as to minimise the risk of damages from stranding, two layers of bottoms will be required for pump-rooms on oil tankers of 5 000 tonnes deadweight and above. This requirement will apply to such oil tankers constructed on or after 1 January 2007. As MD has issued Merchant Shipping Information Notes (MSIN)[3] to inform the industry of this requirement, relevant oil tankers should already be in compliance with the requirement.

---

[2] Oil pollution is more likely to be caused by oil tankers than other ships in case of accidents. Therefore, oil tankers of a smaller gross tonnage are also regulated.

[3] Where international conventions are updated but local laws have not been amended accordingly, MD would issue MSIN to require the industry to follow the latest international requirements.

(b) ***Keeping oil fuel tanks at a buffer distance from a ship's shell***: To reduce the risk of oil leakage from collision or stranding, all ships carrying an oil fuel tank with an aggregate oil fuel capacity of 600 m^3 and above must ensure that the oil fuel tank is located at a buffer distance[4] away from the ship's shell. This requirement will apply to such ships delivered on or after 1 August 2010. As locally licensed vessels are generally smaller in size, at present, there is no locally licensed vessel carrying oil fuel tank with an aggregate oil fuel capacity of 600 m^3 and above. Hence, notwithstanding its retrospective effect, the requirement does not impact on existing licensed vessels. As the requirements have been applied internationally, vessels engaged in international voyages are already in compliance.

(c) ***Requiring double layers of hull for oil tankers that carry heavy grade oil***: Leakage of heavy grade oil can cause serious marine pollution as such oil is difficult to clean up and slow to degrade. To enhance protection against leakage of heavy grade oil, all oil tankers of 600 tonnes deadweight and above for the carriage of heavy grade oil must be constructed with two layers of hull. As MD has issued MSIN to notify the industry of the requirement, relevant oil tankers are already in compliance.

(d) ***Introducing new performance standard to minimise oil leakage from oil tanker accidents***: To minimise impact on the marine environment from oil tanker accidents, oil tankers of 5 000 tonnes deadweight and above must meet the "oil outflow parameter" performance standard, which controls the amount of oil that can be released for different size of oil tankers and under different scenarios. To comply with this new standard, advance calculation and hypothetical simulation of different scenarios of hull damage will be taken into account during construction or major conversion. The requirement will apply to such oil tankers delivered on or after 1 January 2010. Oil tankers engaged in international voyages are in compliance with this requirement.

---

[4] The buffer distance is determined by the size of the oil tankers.

(e) ***Introducing an intact stability requirement to minimise the risk of oil leakage***: It is important that oil tankers must maintain its upright position in different situations during voyage, in port, or during liquid transfer operations. Oil tankers of 5 000 tonnes deadweight and above will be required to fulfill an "intact stability requirement". To meet this requirement, precise calculation is needed during construction or major conversion. This requirement will apply to such oil tankers delivered on or after 1 February 2002. As MD has issued MSIN to notify the industry of the requirement, relevant oil tankers are in compliance.

(f) ***Special requirements in Antarctic Area***: To protect the fragile natural environment of the region, vessels will not be allowed to use or carry heavy grade oil in the Antarctic Area. This requirement will apply to all Hong Kong registered ships sailing in the Antarctic Area irrespective of their sizes and delivery dates. Currently, no Hong Kong registered ships sail in the Antarctic Area.

(2) Power to Appoint and Recognise Classification Societies

6. It is a common international practice for governments to engage classification societies to conduct surveys for ships and issue certificates in accordance with the requirements of international conventions. The current Regulation empowers STH to appoint surveyors and engage classification societies with the requisite repute, knowledge and capability to carry out certain surveys and issue certificates to ships. We propose to transfer the power to appoint and recognise classification societies from STH to the Director of Marine because the latter will be in a better position to monitor compliance of the Regulation.

(3) Application of DRA

7. In line with the established practice in incorporating requirements of other marine-related international conventions into our local legislation, we have adopted the "direct reference approach" (DRA) in the Regulation. By making direct reference to provisions under international agreements in local legislation, DRA can keep our local legislation in tandem with IMO's new requirements. As a guiding principle, DRA is adopted for the technical details of IMO requirements (e.g. detailed constructional requirements of oil tankers).

The Regulation

8. The main provisions of the Regulation to implement the latest requirements of MARPOL Annex I are set out as follows —

(a) Part III sets out the requirements for control of oil discharge when ships are in operation; and

(b) Part IV imposes requirements on the construction of specific oil tankers and sets out the design standard for certain equipment installed on the tankers.

Legislative Timetable

9. The Regulation will be published in the Gazette on 22 April 2016 and introduced into the Legislative Council for negative vetting on 27 April 2016.

Implications of the Proposal

10. The proposal will contribute to environmental protection and sustainability of the marine environment. It is in conformity with the Basic Law, including provisions concerning human rights. It will not affect the current binding effect of the Ordinance. There is no financial, economic, productivity, civil service, gender or family implications.

Public Consultation

11. On 16 December 2014, we consulted the Legislative Council Panel on Economic Development on our proposal to incorporate the latest standards of MARPOL Annex I into local legislation. Members endorsed the proposal. The Shipping Consultative Committee and the Local Vessels Advisory Committee, which comprise various stakeholders in the shipping industry, were consulted and they supported the proposal.

Publicity

12. A press release will be issued on 22 April 2016. A spokesperson will be available to handle enquiries.

Others

13. Any enquiries on this brief can be addressed to Ms Louisa YAN, Principal Assistant Secretary for Transport and Housing (Transport) (Tel: 3509 8162) or Mr YK LAI, Chief, Maritime Policy of Marine Department (Tel: 2852 4603).

Transport and Housing Bureau
April 2016

Merchant Shipping (Prevention of Oil Pollution) (Amendment) Regulation 2016

Contents

Merchant Shipping (Prevention of Oil Pollution) (Amendment) Regulation 2016

Merchant Shipping (Prevention of Oil Pollution) (Amendment) Regulation 2016

(Made by the Secretary for Transport and Housing under section 3 of the Merchant Shipping (Prevention and Control of Pollution) Ordinance (Cap. 413))

1. Commencement

This Regulation comes into operation on 1 October 2016.

2. Merchant Shipping (Prevention of Oil Pollution) Regulations amended

The Merchant Shipping (Prevention of Oil Pollution) Regulations (Cap. 413 sub. leg. A) are amended as set out in sections 3 to 55.

3. Part I heading amended (general)

Part I, heading—

Repeal

"GENERAL"

Substitute

"PRELIMINARY".

4. Regulation 1 amended (citation and interpretation)

(1) Regulation 1(2)—

Repeal the definition of *Annex I*

Substitute

"***Annex I*** (附則I) means Annex I to the Convention (which sets out regulations for the prevention of pollution by oil), as from time to time revised or amended by any revision or amendment that applies to Hong Kong;".

(2) Regulation 1(2)—

Repeal the definition of *anniversary date*

Substitute

"***anniversary date*** (周年日期), in relation to a specified Certificate in force in respect of a ship, means the day and month of each year which corresponds to the date of expiry of the Certificate;".

(3) Regulation 1(2), definition of ***clean ballast***—

Repeal

"approved oil discharge monitoring and control system"

Substitute

"oil discharge monitoring and control system approved by the Director".

(4) Regulation 1(2), English text, definition of ***deadweight***—

Repeal

"metric tons"

Substitute

"tonnes".

(5) Regulation 1(2), definition of ***deadweight***—

Repeal

"specific gravity"

Substitute

"relative density".

(6) Regulation 1(2)—

Repeal the definition of *HKOPP Certificate*

Substitute

"***HKOPP Certificate*** (HKOPP 證書) means a certificate issued under regulation 7(1)(b);".

(7) Regulation 1(2), definition of ***Hong Kong oil tanker***—

Repeal

everything after "an oil"

Substitute

"tanker—

(a) which is registered in Hong Kong; or

(b) in respect of which a full licence is issued under section 15 of the Merchant Shipping (Local Vessels) (Certification and Licensing) Regulation (Cap. 548 sub. leg. D);".

(8) Regulation 1(2), definition of ***IBC Code***—

Repeal

everything after "Carrying"

Substitute

"Dangerous Chemicals in Bulk published by the IMO, as from time to time revised or amended by any revision or amendment that applies to Hong Kong;".

(9) Regulation 1(2)—

Repeal the definition of *IOPP Certificate*

Substitute

"***IOPP Certificate*** (IOPP 證書) means a certificate issued under regulation 7(1)(a);".

(10) Regulation 1(2), English text, definition of ***lightweight***—

Repeal

"metric tons"

Substitute

"tonnes".

(11) Regulation 1(2), definition of ***oil tanker***—

Repeal

everything after "carrier"

Substitute

", an NLS tanker and a gas carrier (when carrying a cargo or part cargo of oil in bulk);".

(12) Regulation 1(2), definition of ***ppm***—

Repeal

everything after "parts"

Substitute

"of oil per million parts of water by volume;".

(13) Regulation 1(2)—

(a) definition of ***approved***;

(b) definition of ***Certifying Authority***;

(c) definition of ***chemical tanker***;

(d) definition of ***existing ship***;

(e) definition of ***GRT***;

(f) definition of ***major conversion***;

(g) definition of ***Merchant Shipping Notice***;

(h) definition of ***nearest land***;

(i) definition of ***new ship***;

(j) definition of ***oil***;

(k) definition of ***the Organization***;

(l) definition of ***segregated ballast***;

(m) definition of ***separating equipment***;

(n) definition of ***ship***;

(o) definition of ***special area***;

(p) definition of ***surveyor***—

Repeal the definitions.

(14) Regulation 1(2)—

Add in alphabetical order

"***Administration*** (主管機關), in relation to a ship, means the government of any place outside Hong Kong whose flag the ship is entitled to fly;

Amendment Regulation 2016 (《2016年修訂規例》) means the Merchant Shipping (Prevention of Oil Pollution) (Amendment) Regulation 2016;

Convention (《公約》) means the International Convention for the Prevention of Pollution from Ships, 1973, including its protocols and appendices, and Annex I (but no other Annex), as from time to time revised or amended by any revision or amendment to any provision of such Convention that applies to Hong Kong;

gas carrier (氣體運載船) means a gas carrier as defined by regulation 3.20 of Chapter II-1 of the International Convention for the Safety of Life at Sea, 1974, as from time to time revised or amended by any revision or amendment that applies to Hong Kong;

Government surveyor (政府驗船師) means a person appointed under regulation 3A to be a Government surveyor;

GT (總噸), in relation to a ship, means the gross tonnage of the ship determined in accordance with regulation 6 of the Merchant Shipping (Registration) (Tonnage) Regulations (Cap. 415 sub. leg. C);

Hong Kong Oil Pollution Prevention Certificate (香港防油污證書) means—

(a) a HKOPP Certificate; or

(b) a Hong Kong Oil Pollution Prevention Certificate issued by a recognized organization;

International Oil Pollution Prevention Certificate (國際防油污證書) means—

(a) an IOPP Certificate;

(b) an International Oil Pollution Prevention Certificate issued by a recognized organization; or

(c) an International Oil Pollution Prevention Certificate issued by or under the authority of an Administration;

NLS tanker (NLS液貨船) means an NLS tanker as defined by Annex II to the International Convention for the Prevention of Pollution from Ships, 1973, including its protocols and appendices, as from time to time revised or amended by any revision or amendment that applies to Hong Kong;

non-Hong Kong ship (非香港船舶) means a ship other than a Hong Kong ship;

recognized organization (認可機構) means an organization recognized under regulation 3B;

specified Certificate (指明證書) means an International Oil Pollution Prevention Certificate or a Hong Kong Oil Pollution Prevention Certificate;".

(15) After regulation 1(2)—

Add

"(3) Each of the following terms or expressions, when used in these Regulations, has the same meaning as in Annex I—

(a) Antarctic area;

(b) constructed;

(c) heavy grade oil;

(d) nearest land;

(e) oil;

(f) oil fuel tank;

(g) oil residue (sludge);

(h) oil tanker delivered on or before 1 June 1982;

(i) oil tanker delivered after 1 June 1982;

(j) oil tanker delivered on or after 1 January 2010;

(k) reception facilities;

(l) segregated ballast;

(m) ship delivered on or before 31 December 1979;

(n) ship delivered after 31 December 1979;

(o) special area.".

5. Regulation 2 amended (applications and exemptions)

(1) Regulation 2(1)(b)—

Repeal

"other"

Substitute

"non-Hong Kong".

(2) Regulation 2(2)—

Repeal

"State"

Substitute

"Government".

(3) Regulation 2(3)—

Repeal

"new type of"

Substitute

"type of Hong Kong".

(4) Regulation 2(3)—

Repeal

"IOPP or HKOPP Certificate referred to in regulation 7"

Substitute

"specified Certificate".

6. Regulations 3A to 3D added

Part I, after regulation 3—

Add

"**3A. Director may appoint Government surveyors**

The Director may appoint a person to be a Government surveyor for the purposes of these Regulations.

3B. Director may recognize organizations to survey ships and issue certificates etc.

The Director may recognize an organization for—

(a) carrying out surveys of Hong Kong ships;

(b) issuing the following certificates in respect of Hong Kong ships—

(i) International Oil Pollution Prevention Certificates; or

(ii) Hong Kong Oil Pollution Prevention Certificates;

(c) making endorsements on the Certificates referred to in paragraph (b) that are issued by the organization in conformity with Regulation 6 of Annex I;

(d) with the prior written consent of the Director, granting extensions of the validity periods of the Certificates referred to in paragraph (b) that are issued by the organization;

(e) altering any particulars contained in the Certificates referred to in paragraph (b) that are issued by the organization;

(f) issuing certified true copies of the Certificates referred to in paragraph (b) that are issued by the organization; and

(g) specifying any corrective actions which the organization considers necessary to be taken in respect of Hong Kong ships.

3C. Director may request Convention countries to survey Hong Kong ships and issue or endorse certificates

The Director may request any Convention country—

(a) to carry out a survey of a Hong Kong ship on behalf of the Director in conformity with Annex I; and

(b) to do the following—

(i) issue an International Oil Pollution Prevention Certificate in respect of the ship in conformity with Annex I; or

(ii) endorse on an International Oil Pollution Prevention Certificate issued in respect of the ship in conformity with Annex I.

3D. Director may at request of Convention countries survey non-Hong Kong ships and issue or endorse certificates

The Director may, at the request of any Convention country—

(a) cause a non-Hong Kong ship that is within the waters of Hong Kong to be surveyed under Part II as if the ship were a Hong Kong ship; and

(b) do the following—

(i) issue an IOPP Certificate in respect of the ship under Part II as if the ship were a Hong Kong ship; or

(ii) endorse on an International Oil Pollution Prevention Certificate issued in respect of the ship in conformity with Annex I.".

7. Regulation 4 amended (surveys before issue of an IOPP or HKOPP Certificate)

(1) Regulation 4, heading—

Repeal

"Surveys before issue of an IOPP or HKOPP Certificate"

Substitute

"Initial survey and renewal survey".

(2) Regulation 4(1)—

Repeal

"150 GRT"

Substitute

"150 GT".

(3) Regulation 4(1)—

Repeal

"400 GRT"

Substitute

"400 GT".

(4) Regulation 4(1), before "surveyor"—

Add

"Government".

(5) Regulation 4(1), Chinese text—

Repeal

"國際防油污證書或香港防油污"

Substitute

"IOPP 證書或 HKOPP".

(6) Regulation 4(2)—

Repeal

"A Certifying Authority"

Substitute

"The Director".

(7) Regulation 4(2), before "surveyor"—

Add

"Government".

(8) Regulation 4(3), before "surveyor"—

Add

"Government".

(9) Regulation 4(3)—

Repeal

", oily water separating equipment and oil filtering systems"

Substitute

"and oil filtering equipment".

(10) Regulation 4—

Repeal paragraph (4).

(11) Regulation 4(5), before "surveyor"—

Add

"Government".

(12) Regulation 4(5)—

Repeal

everything after "forward to"

Substitute

"the Director a declaration of survey containing such particulars of the ship as are required by the Director to enable the Director to issue the IOPP Certificate or HKOPP Certificate in respect of the ship.".

(13) After regulation 4(5)—

Add

"(6) The owner of a ship referred to in paragraph (1) is regarded as having complied with that paragraph if the owner causes the ship to be subject to—

(a) an initial survey by a recognized organization—

(i) before the ship is put into service; or

(ii) before an IOPP Certificate or HKOPP Certificate in respect of the ship is issued for the first time; and

(b) a renewal survey by a recognized organization, at intervals not exceeding 5 years.".

8. Regulation 5 amended (annual survey)

(1) Regulation 5(1)—

Repeal

"The"

Substitute

"Subject to paragraph (1A), the".

(2) Regulation 5(1), English text—

Repeal

"certificate"

Substitute

"Certificate".

(3) Regulation 5(1)—

Repeal

everything after "the anniversary date of the" (where first appearing)

Substitute

"Certificate.".

(4) After regulation 5(1)—

Add

"(1A) If an intermediate survey of the ship has been carried out under regulation 6(1) in a particular year, the annual

survey of the ship under paragraph (1) for that year is not required to be carried out.".

(5) Regulation 5(2)—

Repeal

"A Certifying Authority"

Substitute

"The Director".

(6) Regulation 5(2), before "fee"—

Add

"prescribed".

(7) Regulation 5(2), before "surveyor"—

Add

"Government".

(8) Regulation 5—

Repeal paragraph (3)

Substitute

"(3) The Government surveyor must survey the ship to ensure that the requirements in Regulation 6 of Annex I concerning an annual survey are complied with.".

(9) Regulation 5(4), before "surveyor"—

Add

"Government".

(10) Regulation 5(4), Chinese text—

Repeal

everything after "須在"

Substitute

"IOPP 證書上，作出表明其信納上述事項的簽註。".

(11) After regulation 5(4)—

Add

"(5) If, in a particular year, the owner of a ship referred to in paragraph (1) causes the ship to be subject to an annual survey by a recognized organization within 3 months before or after the anniversary date of the International Oil Pollution Prevention Certificate, that paragraph (as read with paragraph (1A)) is regarded as having been complied with by the owner for that year.".

9. Regulation 6 amended (intermediate survey)

(1) Regulation 6(1)—

Repeal

everything after "This"

Substitute

"survey must be carried out—

(a) within the period commencing 3 months before and ending 3 months after the second anniversary date of the Certificate issued in respect of the ship; or

(b) within the period commencing 3 months before and ending 3 months after the third anniversary date of the Certificate issued in respect of the ship.".

(2) Regulation 6(2)—

Repeal

"A Certifying Authority"

Substitute

"The Director".

(3) Regulation 6(2), before "fee"—

Add

"prescribed".

(4) Regulation 6(2), before "surveyor"—

Add

"Government".

(5) Regulation 6—

Repeal paragraph (3)

Substitute

"(3) The Government surveyor must survey the ship to ensure that the requirements in Regulation 6 of Annex I concerning an intermediate survey are complied with.".

(6) Regulation 6(4), before "surveyor"—

Add

"Government".

(7) Regulation 6(4)—

Repeal

"and forward a report to the Certifying Authority".

(8) After regulation 6(4)—

Add

"(5) The owner of a ship referred to in paragraph (1) is regarded as having complied with that paragraph if the owner causes the ship to be subject to an intermediate survey by a recognized organization—

(a) within the period commencing 3 months before and ending 3 months after the second anniversary date of the International Oil Pollution Prevention Certificate issued in respect of the ship; or

(b) within the period commencing 3 months before and ending 3 months after the third anniversary date of

the International Oil Pollution Prevention Certificate issued in respect of the ship.".

10. Regulation 6A added

After regulation 6—

Add

"**6A. Additional survey**

(1) The Director may, by written notice to the owner and the master of a ship, require an additional survey of the ship to be carried out by a Government surveyor within a reasonable period specified by the Director.

(2) The Director may exercise the power under paragraph (1) only if—

(a) the Director determines on the basis of an investigation under regulation 8(3) that the survey is necessary;

(b) the Director has reasonable grounds to believe that important repairs or renewals have been made to the ship after an IOPP Certificate or a HKOPP Certificate has been issued in respect of the ship;

(c) the Director has reasonable grounds to believe that regulation 8(1) is not complied with in respect of the ship; or

(d) after an IOPP Certificate or a HKOPP Certificate has been issued in respect of the ship, alterations have been made to the structure, equipment, systems, fittings, arrangements or material covered by the survey leading to the issue of the Certificate.

(3) On receiving a notice under paragraph (1), the owner and the master of the ship must cause an additional survey to be carried out.

(4) The additional survey may be general or partial as the Director thinks fit.

(5) If, after having carried out an additional survey of the ship, the surveyor is satisfied that—

(a) the structure, equipment, systems, fittings, arrangements and material of the ship which are covered by the survey comply with the applicable requirements; and

(b) where repairs or renewals have been made to the ship—

(i) such repairs or renewals have been effectively made; and

(ii) the materials used in, and the workmanship of, such repairs or renewals are in all respects satisfactory,

the surveyor must make a declaration of survey to that effect and forward the declaration to the Director.

(6) In this regulation—

applicable requirements (適用規定) means—

(a) for a ship in respect of which an IOPP Certificate is in force, the requirements under Chapter 2 of Annex I; and

(b) for a ship in respect of which a HKOPP Certificate is in force, the requirements under this Part.".

11. Regulation 7 amended (issue and duration of IOPP and HKOPP Certificate)

(1) Regulation 7, Chinese text, heading—

Repeal

"國際防油污證書及香港防油污"

Substitute

"IOPP 證書及 HKOPP".

(2) Regulation 7—

Repeal paragraph (1)

Substitute

"(1) The Director must, on receipt of a declaration of survey under regulation 4(5) which relates to a Hong Kong ship, issue to the ship—

(a) in the case of an oil tanker of 150 GT and above and any other ship of 400 GT and above which is engaged in voyages to ports or off-shore terminals under the jurisdiction of other Parties to the Convention—an IOPP Certificate; or

(b) in the case of any other oil tanker of 150 GT and above and any other ship of 400 GT and above—a HKOPP Certificate.".

(3) Regulation 7—

Repeal paragraphs (2), (3) and (4).

(4) Regulation 7—

Repeal paragraph (5)

Substitute

"(5) An IOPP Certificate or HKOPP Certificate is valid for a period not exceeding 5 years from the date of issue stated in the Certificate.".

(5) Regulation 7—

Repeal paragraph (6).

(6) Regulation 7—

Repeal paragraph (7)

Substitute

"(7) An IOPP Certificate or HKOPP Certificate issued in respect of a Hong Kong ship which is either an oil tanker of 150 GT and above or a ship of 400 GT and above, other than an oil tanker, must be—

(a) kept on board the ship; and

(b) made available for inspection at all reasonable times.".

12. Regulations 7A to 7F added

After regulation 7—

Add

"7A. Duration of specified Certificate issued after renewal survey

Despite regulation 7(5), a new specified Certificate issued in respect of a ship as a result of a renewal survey under regulation 4 is valid for such period as may be specified in the Certificate in accordance with Regulation 10 of Annex I.

7B. Duration of specified Certificate after early completion of surveys

(1) This regulation applies if—

(a) an annual survey of a ship is completed before the period within which the survey is required to be completed under regulation 5; or

(b) an intermediate survey of a ship is completed before the period within which the survey is required to be completed under regulation 6.

(2) After a survey is completed as described in paragraph (1)(a) or (b), the existing specified Certificate issued in respect of the ship must be endorsed to show a date described on the endorsement as the "new anniversary date", which must be a date that is within 3 months from the date of completion of the survey (***new anniversary date***).

(3) For the purposes of the survey and any annual survey or intermediate survey to be carried out in respect of the ship under regulation 5 or 6 in any year subsequent to the endorsement, the period within which the survey must be carried out is to be ascertained by reference to the new anniversary date instead of an anniversary date of the existing IOPP Certificate or International Oil Pollution Prevention Certificate (as the case may require) issued in respect of the ship.

(4) The duration of an existing specified Certificate issued in respect of a ship may be varied by the Director in accordance with Regulation 10 of Annex I.

7C. Extension of validity period of specified Certificate in certain circumstances

The Director may extend the validity period of an existing specified Certificate issued in respect of a ship in accordance with Regulation 10 of Annex I if—

(a) the Certificate is valid for a period of less than 5 years;

(b) a new specified Certificate cannot be issued or placed on board the ship before the expiry of the Certificate;

(c) the ship is not in the port in which it is to be surveyed when the Certificate expires; or

(d) the ship is engaged in short voyages.

7D. Specified Certificate ceases to be valid

A specified Certificate issued in respect of a Hong Kong ship ceases to be valid if—

(a) without the approval of the Director, a material change has been made to the structure, equipment, systems, fittings, arrangements or material required by these Regulations, other than the direct replacement of such equipment or fittings;

(b) a survey referred to in this Part is not carried out in relation to the ship within the period specified for the survey in this Part;

(c) the Certificate is not endorsed under regulation 5, or under Regulation 6 of Annex I, after an annual survey of the ship is carried out;

(d) the Certificate is not endorsed under regulation 6, or under Regulation 6 of Annex I, after an intermediate survey of the ship is carried out; or

(e) the ship is transferred to the registry of a place outside Hong Kong.

7E. Certificates issued under this Part regarded as International Oil Pollution Prevention Certificate in Annex I

For the purposes of regulations 7A, 7B and 7C, an IOPP Certificate or HKOPP Certificate issued under this Part is to be regarded as an International Oil Pollution Prevention Certificate referred to in Regulation 10 of Annex I.

7F. Cancellation of specified Certificate

(1) The Director may, by written notice to the owner and the master of a Hong Kong ship, cancel a specified Certificate issued in respect of the ship in the circumstances set out in paragraph (2).

(2) The circumstances are that the Director has reasonable grounds to believe that the Certificate was issued, or any endorsement on it was made, on the basis of false or erroneous information.

(3) The Director must give reasons for cancelling the Certificate in the notice under paragraph (1).

(4) On receiving a notice under paragraph (1), the owner of the ship must deliver the Certificate to the Director immediately.".

13. Regulation 8 amended (responsibilities of owner and master)

(1) Regulation 8(2)—

Repeal

"a Certifying Authority"

Substitute

"the Director".

(2) Regulation 8(3), before "affects"—

Add

"substantially".

(3) Regulation 8(3)—

Repeal

"may cause investigations to be initiated to determine whether a survey by a surveyor is necessary and may in that event require such a survey to be carried out. If a ship"

Substitute

"must cause an investigation to be carried out to determine whether an additional survey under regulation 6A is necessary. If the ship".

(4) Regulation 8(4)(a)—

Repeal

"ship which is not a Hong Kong ship"

Substitute

"non-Hong Kong ship".

(5) Regulation 8(4)(a), before "affect"—

Add

"substantially".

(6) Regulation 8(4)(a), English text—

Repeal

"an IOPP"

Substitute

"the International Oil Pollution Prevention".

(7) Regulation 8(4)(b), English text—

Repeal

"IOPP"

Substitute

"International Oil Pollution Prevention".

(8) Regulation 8(4)(c), English text—

Repeal

"IOPP Certificate to the ship,"

Substitute

"International Oil Pollution Prevention Certificate to the ship,".

(9) Regulation 8(4)(c)—

Repeal

"request the authority responsible for issuing an IOPP"

Substitute

"request the authority responsible for issuing the".

14. Regulation 9 amended (procedure to be adopted when corrective action is necessary)

(1) Regulation 9(1)—

Repeal

"Certifying Authority" (wherever appearing)

Substitute

"Government surveyor".

(2) Regulation 9(1), after "correspond"—

Add

"substantially".

(3) Regulation 9(1)—

Repeal

"IOPP or HKOPP"

Substitute

"specified".

(4) Regulation 9(1)—

Repeal

"in its opinion".

(5) Regulation 9(2)—

Repeal

"Certifying Authority may specify, the Certifying Authority"

Substitute

"Government surveyor may specify, the Government surveyor".

(6) Regulation 9(2)—

Repeal

everything after "notification,"

Substitute

", by written notice to the owner and the master of the ship, require the surrender of the specified Certificate issued in respect of the ship to the Director.".

(7) Regulation 9—

Repeal paragraph (3)

Substitute

"(3) On receiving a notice under paragraph (2), the owner of the ship must deliver the Certificate to the Director immediately.".

(8) Regulation 9—

Repeal paragraph (4).

(9) Before regulation 9(5)—

Add

"(4A) The owner or the master of the ship may, after the corrective action has been taken in respect of the ship, apply to the Director for the return of the specified Certificate.

(4B) On receiving an application under paragraph (4A), the Director must, if satisfied that the corrective action has been taken in respect of the ship, by written notice to the applicant, return the specified Certificate to the applicant.".

(10) Regulation 9(5)—

Repeal

"country which is a Party to the Convention"

Substitute

"Convention country".

(11) Regulation 9(5)—

Repeal

"Certifying Authority"

Substitute

"Government surveyor".

(12) Regulation 9—

Repeal paragraph (6).

15. Regulation 10 amended (Oil Record Book)

(1) Regulation 10(1)—

Repeal

"400 GRT"

Substitute

"400 GT".

(2) Regulation 10(1)—

Repeal

"150 GRT" (wherever appearing)

Substitute

"150 GT".

(3) Regulation 10(1)—

Repeal

"Schedule 2, hereto"

Substitute

"Appendix III to Annex I".

(4) Regulation 10(2)(a)(iii)—

Repeal

"oily residues"

Substitute

"oil residue".

(5) Regulation 10(6)—

Repeal

"person authorized by the Certifying Authority"

Substitute

"Government surveyor".

(6) Regulation 10(6)—

Repeal

"the competent authority, or an authorized person,"

Substitute

"the Government surveyor".

16. Regulation 11 amended (general exceptions)

Regulation 11(c)—

Repeal

everything before "being used"

Substitute

"(c) any discharge into the sea of substances containing oil as approved by the Director, when the substances are".

17. Regulation 12 amended (ships other than oil tankers and machinery space bilges of oil tankers)

(1) Regulation 12(2)—

Repeal

"Subject to paragraph (3) of this regulation a"

Substitute

"A".

(2) Regulation 12—

Repeal paragraph (3).

18. Regulation 12A added

After regulation 12—

Add

"12A. Location of oil fuel tank

(1) This regulation applies to a ship delivered on or after 1 August 2010 with an aggregate oil fuel capacity of 600 m^3 and above.

(2) Subject to paragraph (3), an oil fuel tank of a ship must be constructed and located in compliance with Regulation 12A of Annex I.

(3) Paragraph (2) does not apply to a small oil fuel tank of the ship if the aggregate oil fuel capacity of the small oil fuel tanks of the ship is not greater than 600 m^3.

(4) The location or fitting of lines of oil fuel piping and a suction well in an oil fuel tank of the ship must comply with Regulation 12A of Annex I.

(5) In this regulation—

oil fuel capacity (燃油容量), in relation to an oil fuel tank, means the volume of a tank in m^3, at 98% filling;

ship delivered on or after 1 August 2010 (船舶在 2010 年 8 月 1 日或之後交付) has the meaning given by Regulation 1 of Annex I;

small oil fuel tank (小型燃油艙) means an oil fuel tank with a maximum individual capacity of not greater than 30 m^3.".

19. Regulation 13 amended (oil tankers)

(1) Regulation 13(2)(e), before "the total quantity of oil discharged into"—

Add

"for oil tankers delivered after 31 December 1979 (being ships delivered after 31 December 1979),".

(2) Regulation 13(2)(e)—

Repeal

"in the case of existing tankers"

Substitute

"for oil tankers delivered on or before 31 December 1979 (being ships delivered on or before 31 December 1979)".

20. Regulation 14 amended (oil discharge monitoring and control system and oily-water separating and oil filtering equipment)

(1) Regulation 14, heading—

Repeal

"discharge monitoring and control system and oily-water separating and oil".

(2) Regulation 14(1)—

Repeal

"paragraph (4)"

Substitute

"paragraph (2A)".

(3) Regulation 14(1)—

Repeal

"400 GRT and above but less than 10 000 GRT"

Substitute

"400 GT and above but less than 10 000 GT".

(4) Regulation 14(1)—

Repeal

"10 000 GRT)"

Substitute

"10 000 GT)".

(5) Regulation 14(2)—

Repeal

"paragraph (4)"

Substitute

"paragraph (2A)".

(6) Regulation 14(2)—

Repeal

"10 000 GRT"

Substitute

"10 000 GT".

(7) Regulation 14(2)—

Repeal

"parts per million"

Substitute

"ppm".

(8) After regulation 14(2)—

Add

"(2A) A ship which is stationary (except for non-cargo-carrying relocation voyages) need not be fitted with the oil filtering equipment required under paragraph (1) or (2) if—

(a) a holding tank having a volume adequate, to the satisfaction of the Director or an Administration, for the total retention on board of the oily bilge water, is provided on the ship; and

(b) all oily bilge water is retained on board for subsequent discharge to reception facilities.".

(9) Regulation 14(3)—

Repeal

"Subject to paragraph (4) of this regulation—".

(10) Regulation 14(3)(a), English text—

Repeal

"paragraphs (1)"

Substitute

"Paragraphs (1)".

(11) Regulation 14(3)(a)(D)—

Repeal

"IOPP or HKOPP"

Substitute

"specified".

(12) Regulation 14(3)(a)(E)—

Repeal

"; or"

Substitute a full stop.

(13) Regulation 14(3)(b), English text—

Repeal

"ships of"

Substitute

"Ships of".

(14) Regulation 14(3)(b)—

Repeal

"400 GRT"

Substitute

"400 GT".

(15) Regulation 14—

Repeal paragraph (4).

(16) Regulation 14(5), after "approved"—

Add

"by the Director or an Administration".

(17) Regulation 14(5)—

Repeal

"set out in Schedule 3"

Substitute

"adopted by IMO".

(18) Regulation 14(6)(a)—

Repeal

everything after "approved"

Substitute

"by the Director or an Administration as being in accordance with the specification adopted by IMO;".

(19) Regulation 14(6)(c)—

Repeal

"set out in Schedule 3"

Substitute

"adopted by IMO".

(20) Regulation 14—

Repeal paragraphs (7) and (8).

(21) Regulation 14(9)—

Repeal

everything after "15 ppm.".

(22) After regulation 14(9)—

Add

"(10) In this regulation—

oily bilge water (油性艙底水) has the meaning given by Regulation 1 of Annex I.".

21. Regulation 15 amended (retention of oil on board)

(1) Regulation 15(1)—

Repeal

"150 GRT"

Substitute

"150 GT".

(2) Regulation 15(1)—

Repeal

everything after "accordance with"

Substitute

"paragraph (2).".

(3) Regulation 15(2)(a)—

Repeal

"a Certifying Authority. In existing oil tankers"

Substitute

"the Director. In oil tankers delivered on or before 31 December 1979 (being ships delivered on or before 31 December 1979)".

(4) Regulation 15(2)(e)—

Repeal

"New oil tankers of 70 000 tons deadweight and above"

Substitute

"Oil tankers of 70 000 tonnes deadweight and above delivered after 31 December 1979 (being ships delivered after 31 December 1979)".

(5) Regulation 15(3)—

Repeal subparagraph (a)

Substitute

"(a) An oil discharge monitoring and control system of a design approved by the Director must be fitted. It must be designed and installed in compliance with the guidelines and specifications adopted by IMO for oil discharge monitoring and control systems of oil tankers.".

(6) Regulation 15(3)(b)—

Repeal

"Schedule 4"

Substitute

"the guidelines and specifications referred to in subparagraph (a)".

(7) Regulation 15(3)(c)—

Repeal

"Schedule 4"

Substitute

"the guidelines and specifications referred to in subparagraph (a)".

(8) Regulation 15(3)(e)—

Repeal

everything before "be provided"

Substitute

"(e) Effective oil/water interface detectors, of a design approved by the Director as being in compliance with the specifications adopted by IMO, must".

(9) Regulation 15(3)(f)—

Repeal

"Approved instruction"

Substitute

"Instruction".

(10) Regulation 15(3)(f), after "control system"—

Add

"approved by the Director".

(11) Regulation 15(4)—

Repeal

"150 GRT"

Substitute

"150 GT".

(12) Regulation 15(5)(b)(i)—

Repeal

"existing oil tanker as defined in regulation 17(2) of 40 000 deadweight tons or above"

Substitute

"oil tanker of 40 000 tonnes deadweight and above delivered on or before 1 June 1982".

(13) Regulation 15(5)(c)(iii)—

Repeal

"IOPP or HKOPP"

Substitute

"specified".

22. Regulation 16 amended (methods for the prevention of oil pollution from ships operating in special areas)

(1) Regulation 16—

Repeal paragraph (1).

(2) Regulation 16(2)(a)—

Repeal

"400 GRT"

Substitute

"400 GT".

(3) Regulation 16(2)(b)—

Repeal

"400 GRT"

Substitute

"400 GT".

(4) Regulation 16(3)(b), after "machinery spaces"—

Add

"in a special area (other than in the Antarctic area)".

(5) Regulation 16(3)(b)(v) and (vi)—

Repeal

"system"

Substitute

"equipment".

23. Regulations 16A, 16B and 16C added

Part III, after regulation 16—

Add

"16A. Transfer of oil cargo between oil tankers at sea

(1) This regulation applies to oil tankers of 150 GT and above that are engaged in the transfer of oil cargo between oil tankers at sea (***STS operation***).

(2) This regulation does not apply to—

(a) oil transfer operations associated with—

(i) fixed or floating platforms (including drilling rigs);

(ii) floating production, storage and offloading facilities used for the offshore production and storage of oil; and

(iii) floating storage units used for the offshore storage of oil other than crude oil;

(b) bunkering operations;

(c) STS operations that are 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; and

(d) STS operations where either of the ships concerned is a warship, naval auxiliary or other ship owned or operated by a government and used, for the time being, only on government non-commercial service.

(3) An oil tanker engaged in an STS operation must carry on board a plan (***STS operation plan***) that—

(a) prescribes how the operation is to be conducted; and

(b) complies with paragraph (4).

(4) The STS operation plan—

(a) must be approved by the Director or an Administration; and

(b) must be written in the working language of the crew.

(5) The owner or the master of an oil tanker engaged in an STS operation must ensure that the tanker complies with the STS operation plan carried on board.

(6) The person who has the overall advisory control of an STS operation must be qualified to perform all the duties relating to the operation.

(7) A record of every STS operation must be retained on board the tankers for 3 years after the operation and be made readily available for inspection.

16B. Notification of STS operation

(1) Subject to paragraph (2), if an oil tanker to which regulation 16A applies is scheduled to engage in an STS operation referred to in regulation 16A(1) within the territorial sea or the exclusive economic zone of a Convention country, the owner or the master of the tanker must, at least 48 hours before the operation begins (***specified time***)—

(a) notify the country that the operation is to occur; and

(b) provide in the notification all the information set out in paragraph (3).

(2) If, in an exceptional case, not all the information set out in paragraph (3) is available at the specified time, the owner or the master of the tanker that is to discharge oil cargo must—

(a) notify the Convention country at the specified time that the STS operation is to occur; and

(b) provide all the information set out in paragraph (3) to the country at the earliest opportunity.

(3) The information are—

(a) name, flag, call sign, IMO number and estimated time of arrival of the tankers to be engaged in the STS operation;

(b) the date on which and the time and geographical location at which the STS operation commences;

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

(d) the type and quantity of oil to be transferred during the STS operation;

(e) the planned duration of the STS operation;

(f) the identification of the STS operation service provider or person in overall advisory control, and the contact information of the provider or person; and

(g) a confirmation that the tankers concerned have on board STS operation plans that comply with regulation 16A(3).

(4) If the estimated time of arrival of an oil tanker at the geographical location scheduled for the STS operation changes by more than 6 hours, the owner or the master of the tanker must provide a revised estimated time of arrival to the Convention country at the earliest opportunity.

16C. Special requirements for carriage or use of heavy grade oil in Antarctic area

(1) The following carriage or use of heavy grade oil by a Hong Kong ship is prohibited in the Antarctic area—

(a) carriage of heavy grade oil in bulk as cargo (use as ballast);

(b) carriage of heavy grade oil as fuel; and

(c) use of heavy grade oil as fuel.

(2) Paragraph (1) does not apply if the Hong Kong ship is engaged—

(a) in securing the safety of a ship; and

(b) in a search and rescue operation.".

24. Part IV heading amended (requirements for the segregation of cargo)

Part IV, heading—

Repeal

"SEGREGATION OF CARGO"

Substitute

"CARGO AREA OF OIL TANKERS".

25. Regulation 17 repealed (interpretation of Part IV)

Regulation 17—

Repeal the regulation.

26. Cross-heading before regulation 18 substituted

Cross-heading before regulation 18—

Repeal the cross-heading

Substitute

"Oil tankers of 20 000 tonnes deadweight and above delivered after 1 June 1982".

27. Regulation 18 amended (general application)

(1) Regulation 18, heading—

Repeal

"General application"

Substitute

"Segregated ballast tanks".

(2) Regulation 18(1)—

Repeal

everything before "be provided"

Substitute

"(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 must".

(3) Regulation 18(4)—

Repeal

"new crude oil tankers"

Substitute

"crude oil tankers delivered after 1 June 1982".

(4) Regulation 18(6)—

Repeal

"Every new crude oil tanker of 20 000 tons deadweight and above"

Substitute

"Every crude oil tanker of 20 000 tonnes deadweight and above delivered after 1 June 1982".

(5) Cross-heading before regulation 18(7)—

Repeal the cross-heading

Substitute

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

(6) Regulation 18(7)—

Repeal

"paragraphs (8) and (9)"

Substitute

"paragraph (8)".

(7) Regulation 18(7) —

Repeal

"existing crude oil tanker of 40 000 tons deadweight and above"

Substitute

"crude oil tanker of 40 000 tonnes deadweight and above delivered on or before 1 June 1982".

(8) Regulation 18(8)—

Repeal

"existing crude oil tankers of 40 000 tons deadweight and above"

Substitute

"crude oil tankers of 40 000 tonnes deadweight and above delivered on or before 1 June 1982".

(9) Regulation 18—

Repeal paragraph (9).

(10) Cross-heading before regulation 18(10)—

Repeal the cross-heading

Substitute

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

(11) Regulation 18(10)—

Repeal

"existing product carrier of 40 000 tons deadweight and above"

Substitute

"product carrier of 40 000 tonnes deadweight and above delivered on or before 1 June 1982".

(12) Cross-heading before regulation 18(11)—

Repeal

"the IOPP or HKOPP"

Substitute

"specified".

(13) Regulation 18(11)—

Repeal

"IOPP or HKOPP"

Substitute

"specified".

(14) After regulation 18(11)—

Add

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

(12) Every oil tanker of 70 000 tonnes deadweight and above delivered after 31 December 1979 (being a ship delivered after 31 December 1979) must be provided with segregated ballast tanks and must comply with

paragraphs (2), (3) and (4), or paragraph (5), as appropriate.".

28. Regulation 19 amended (protective location of segregated ballast spaces)

(1) Regulation 19(1)—

Repeal

everything before "the segregated"

Substitute

"(1) 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 (except any such tanker that meets the requirements set out in regulation 23A),".

(2) Regulation 19(2) and (3)—

Repeal

"tons" (wherever appearing)

Substitute

"tonnes".

(3) Regulation 19(4)—

Repeal subparagraphs (a) and (b)

Substitute

"(a) the minimum width of any 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 must not be less than 2 m. The width must be measured inboard from the ship's side at right angles to the centreline. If a lesser width is provided, the wing tank or space is not to be taken into account when calculating the protecting area "PA_c"; and

(b) the minimum vertical depth of any double bottom tank or space must be B/15 or 2 m, whichever is the lesser. If a lesser depth is provided, the double bottom tank or space is not to be taken into account when calculating the protecting area "PA_s".".

(4) Regulation 19(4), before "width and depth"—

Add

"minimum".

(5) Regulation 19(4), before "width,"—

Add

"minimum".

29. Regulation 20 amended (requirements for oil tankers with dedicated clean ballast tanks)

(1) Regulation 20, heading—

Repeal

"**oil tankers**"

Substitute

"**product carriers**".

(2) Regulation 20(1)—

Repeal

everything before "shall have"

Substitute

"(1) A product carrier of 40 000 tonnes deadweight and above (being an oil tanker delivered on or before 1 June 1982) operating with dedicated clean ballast tanks in accordance with regulation 18(10)".

(3) Regulation 20(2)—

Repeal

"requirements of Schedule 6 hereto"

Substitute

"specifications adopted by IMO for oil tankers with dedicated clean ballast tanks".

(4) Regulation 20—

Repeal paragraph (3)

Substitute

"(3) The product carrier operating with dedicated clean ballast tanks must be equipped with an oil content meter approved by the Director as being in compliance with the specifications adopted by IMO, so as to permit supervision of the oil content in the ballast water being discharged.".

(5) Regulation 20—

Repeal paragraph (4)

Substitute

"(4) The product carrier operating with dedicated clean ballast tanks must be provided with a Dedicated Clean Ballast Tank Operation Manual detailing the system and specifying operational procedures. The Manual must have been approved by the Director and must contain all the information set out in the specifications referred to in paragraph (2). If an alteration affecting the dedicated clean ballast tank system is made, the Manual must be revised, and the revision submitted to the Director for approval.".

30. Regulation 21 amended (requirements for crude oil washing)

(1) Regulation 21(2)—

Repeal

"set out in Schedule 7 hereto"

Substitute

"adopted by IMO".

(2) Regulation 21(4)—

Repeal

"a Certifying Authority"

Substitute

"the Director".

(3) Regulation 21(4)—

Repeal

"Schedule 7 hereto"

Substitute

"the specifications adopted by IMO for crude oil washing systems".

31. Regulation 22 amended (existing oil tankers engaged in specific trades)

(1) Regulation 22, heading—

Repeal

"Existing oil"

Substitute

"Oil".

(2) Regulation 22(1)—

Repeal

everything before "solely engaged"

Substitute

"(1) Subject to paragraph (2), regulation 18(7), (8) and (10) must not apply to an oil tanker delivered on or before 1 June 1982 and".

(3) Regulation 22(1)(b)(i)—

Repeal

"Special Area as defined in regulation 16(1)"

Substitute

"special area".

(4) Regulation 22(2)(b)—

Repeal

"existing oil tanker"

Substitute

"oil tanker delivered on or before 1 June 1982".

(5) Regulation 22(2)(d), English text—

Repeal

"IOPP"

Substitute

"International Oil Pollution Prevention".

32. Regulation 23 amended (existing oil tankers having special ballast arrangements)

(1) Regulation 23, heading—

Repeal

"Existing oil tankers"

Substitute

"Oil tankers delivered on or before 1 June 1982".

(2) Regulation 23(1)—

Repeal

"existing oil tanker of 40 000 deadweight tons and above"

Substitute

"oil tanker of 40 000 tonnes deadweight and above delivered on or before 1 June 1982".

(3) Regulation 23(1)(a)—

Repeal

"a Certifying Authority"

Substitute

"the Director".

(4) Regulation 23(1)(c), English text—

Repeal

"IOPP"

Substitute

"International Oil Pollution Prevention".

33. Regulation 23A amended (prevention of pollution in the event of collision or stranding)

(1) Regulation 23A, heading—

Repeal

"Prevention of pollution in the event of collision or stranding"

Substitute

"Double hull and double bottom requirements for oil tankers delivered on or after 6 July 1996".

(2) Regulation 23A(1)—

Repeal

everything after "600"

Add

"tonnes deadweight and above delivered on or after 6 July 1996.".

(3) Regulation 23A(2) and (3)—

Repeal

"tons" (wherever appearing)

Substitute

"tonnes".

(4) Regulation 23A(5)—

Repeal

"developed by the Organization"

Substitute

"adopted by IMO".

(5) Regulation 23A(6) and (7)—

Repeal

"tons" (wherever appearing)

Substitute

"tonnes".

(6) After regulation 23A(9)—

Add

"(10) In this regulation, a reference to an oil tanker delivered on or after 6 July 1996 has the meaning given by Regulation 1 of Annex I.".

34. Regulation 23B amended (prevention of oil pollution in the event of collision or stranding—measures for existing ships)

(1) Regulation 23B, heading—

Repeal

"Prevention of oil pollution in the event of collision or stranding—measures for existing ships"

Substitute

"Double hull and double bottom requirements for oil tankers delivered before 6 July 1996".

(2) Regulation 23B(1)—

Repeal subparagraph (a)

Substitute

"(a) apply to oil tankers of 5 000 tonnes deadweight and above delivered before 6 July 1996;".

(3) Regulation 23B(1)(b)—

Repeal

everything after "which are"

Substitute

"delivered before 6 July 1996; and".

(4) Regulation 23B—

Repeal paragraphs (2), (3), (4), (5), (6) and (7).

(5) At the end of regulation 23B—

Add

"(8) An oil tanker must comply with regulation 23A(2), (3), (4), (5), (6), (8) and (9).

(9) If all the conditions in paragraph (10) are met in respect of a category 2 oil tanker or category 3 oil tanker, the Director may, even if the tanker does not comply with

paragraph (8), allow the operation of the tanker if it is fitted with—

(a) only double bottoms or double sides that are not used for the carriage of oil and extending to the entire cargo tank length; or

(b) double hull spaces that—

(i) are not used for the carriage of oil and extending to the entire cargo tank length; and

(ii) do not comply with the requirements of being exempted from paragraph (1)(c).

(10) The conditions are—

(a) the tanker was in service since 1 July 2001; and

(b) the operation does not go beyond 25 years after the date of the delivery of the tanker.

(11) A category 2 oil tanker or category 3 oil tanker must, on the expiry of 15 years after the date of its delivery, comply with the Condition Assessment Scheme adopted by IMO.

(12) For the purposes of paragraphs (9) and (11)—

(a) a category 2 oil tanker is—

(i) an oil tanker of 20 000 tonnes deadweight and above delivered after 1 June 1982 which carries crude oil, fuel oil, heavy diesel oil or lubricating oil as cargo; and

(ii) an oil tanker of 30 000 tonnes deadweight and above delivered after 1 June 1982 which carries oil other than oil specified in sub-subparagraph (i); and

(b) a category 3 oil tanker is an oil tanker of 5 000 tonnes deadweight and above but less than the following tonnes deadweight—

(i) for an oil tanker which carries crude oil, fuel oil, heavy diesel oil or lubricating oil as cargo, 20 000 tonnes deadweight; or

(ii) for an oil tanker which carries oil other than oil specified in sub-subparagraph (i), 30 000 tonnes deadweight.

(13) In this regulation—

fuel oil (燃油) 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 quality set out in the specification adopted by IMO;

heavy diesel oil (重柴油) means diesel oil other than those the distillates of which more than 50% by volume distils at a temperature not exceeding 340°C when tested by a method acceptable to IMO.

(14) In this regulation, a reference to an oil tanker delivered before 6 July 1996 has the meaning given by Regulation 1 of Annex I.".

35. Regulations 23C to 23F added

After regulation 23B—

Add

"**23C. Prevention of oil pollution from oil tankers carrying heavy grade oil as cargo**

(1) This regulation applies to an oil tanker of 600 tonnes deadweight and above carrying heavy grade oil as cargo.

(2) Despite paragraph (1), this regulation does not apply to an oil tanker that complies with—

(a) regulation 23A(3)(a) and (b);

(b) regulation 23A(3)(a) and (4); or

(c) regulation 23A(5),

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 must not be less than those specified in the IBC Code for type 2 cargo tank location and the bottom protection must comply with regulation 19(4)(b).

(3) An oil tanker must comply with paragraphs (4), (5), (7), (8) and (9) in addition to complying with the provisions of regulation 23B that are applicable to the tanker.

(4) Subject to paragraphs (5), (7), (8) and (9), an oil tanker must—

(a) if it is of 5 000 tonnes deadweight and above, comply with regulation 23A; or

(b) if it is of 600 tonnes deadweight and above but less than 5 000 tonnes deadweight, be fitted with—

(i) double bottom tanks or spaces complying with regulation 23A(7)(a); and

(ii) wing tanks or spaces arranged in accordance with regulation 23A(3)(a), and complying with the requirement for distance w referred to in regulation 23A(7)(b).

(5) If all the conditions in paragraph (6) are met in respect of an oil tanker of 5 000 tonnes deadweight and above, the Director may, even if the tanker does not comply with

paragraphs (3) and (4), allow the operation of the tanker if it is fitted with—

(a) only double bottoms or double sides that are not used for the carriage of oil and extending to the entire cargo tank length; or

(b) double hull spaces that—

(i) are not used for the carriage of oil and extending to the entire cargo tank length; and

(ii) do not comply with the requirements of being exempted from paragraph (2).

(6) The conditions are—

(a) the tanker was in service since 4 December 2003; and

(b) the operation does not go beyond 25 years after the date of the delivery of the tanker.

(7) The Director may allow the operation of an oil tanker of 5 000 tonnes deadweight and above carrying crude oil having a density at 15°C higher than 900 kg/m^3 but lower than 945 kg/m^3 (being heavy grade oil) if—

(a) in the opinion of the Director, results of the Condition Assessment Scheme as referred to in regulation 23B(11) warrant that the tanker is fit to continue the operation, having regard to its size, age, operational area and structural conditions; and

(b) the operation does not go beyond 25 years after the date of the delivery of the tanker.

(8) The Director may allow the operation of an oil tanker of 600 tonnes deadweight and above but less than 5 000 tonnes deadweight if—

(a) in the opinion of the Director, the tanker is fit to continue the operation, having regard to its size, age, operational area and structural conditions; and

(b) the operation does not go beyond 25 years after the date of the delivery of the tanker.

(9) The Director may exempt an oil tanker of 600 tonnes deadweight and above from this regulation if—

(a) the tanker is engaged in voyages exclusively within Hong Kong waters; or

(b) the tanker operates as a floating storage unit of heavy grade oil located within Hong Kong waters.

23D. Pump-room bottom protection

(1) This regulation applies to an oil tanker of 5 000 tonnes deadweight and above constructed on or after 1 January 2007.

(2) Subject to paragraphs (3) and (4), the pump-room of an oil tanker must be provided with a double bottom such that at any cross-section the depth of each double bottom tank or space the distance h between the bottom of the pump-room and base line of the tanker is not less than that specified below—

$$h = \frac{B}{15} \text{ (m); or}$$

$h = 2$ m,

whichever is the lesser.

The minimum value of $h = 1$ m.

(3) It is not necessary to fit a double bottom to a pump-room of the tanker if any flooding of the pump-room would

not render its ballast or cargo pumping system inoperative.

(4) If the bottom plate of a pump room is located above the base line by at least the minimum height required in paragraph (2), a double bottom construction for the pump-room is not necessary.

(5) A ballast pump must be provided with suitable arrangements to ensure efficient suction from a double bottom tank.

23E. Accidental oil outflow performance

(1) This regulation applies to an oil tanker delivered on or after 1 January 2010.

(2) An oil tanker must comply with the requirements set out in Regulation 23 of Annex I in the event of collision or stranding.

23F. Intact stability

(1) This regulation applies to an oil tanker of 5 000 tonnes deadweight and above delivered on or after 1 February 2002.

(2) An oil tanker must comply with the intact stability criteria specified in Regulation 27.1 of Annex I for any operating draught under the worst possible conditions of cargo and ballast loading (including intermediate stages of liquid transfer operations) that is consistent with good operational practice.

(3) The requirement under paragraph (2) must be complied with through design measures.

(4) For a combination carrier, simple supplementary operational procedures for liquid transfer operations

referred to in Regulation 27.3 of Annex I may be allowed by the Director or an Administration.

(5) In this regulation, a reference to an oil tanker delivered on or after 1 February 2002 has the meaning given by Regulation 1 of Annex I.".

36. Regulation 24 amended (segregation of oil and water ballast)

(1) Regulation 24(1)—

Repeal

"new ships of 4 000 GRT and above other than oil tankers, and in new oil tankers of 150 GRT and above"

Substitute

"ships of 4 000 GT and above delivered after 31 December 1979 (other than oil tankers), and in oil tankers of 150 GT and above, being ships delivered after 31 December 1979".

(2) Regulation 24(4)—

Repeal

"400 GRT"

Substitute

"400 GT".

37. Regulation 25 amended (tanks for oil residue (sludge))

(1) Regulation 25(1)—

Repeal

"400 GRT"

Substitute

"400 GT".

(2) Regulation 25(1)—

Repeal

"a tank or tanks of adequate capacity, having regard to the type of machinery installed and length of voyage, to receive any oily residues (sludges)"

Substitute

"an oil residue (sludge) tank of adequate capacity that complies with Regulation 12 of Annex I, having regard to the type of machinery installed and length of voyage, to receive and dispose of any oil residue (sludge)".

(3) Regulation 25—

Repeal paragraphs (2) and (3).

(4) Regulation 25(4)—

Repeal

"6 kg/cm^2"

Substitute

"600 kilopascal".

(5) After regulation 25(4)—

Add

"(5) In this regulation—

oil residue (sludge) tank (油類殘餘物(油類淤渣)液艙) has the meaning given by Regulation 1 of Annex I.".

38. Regulation 26 amended (pumping, piping and discharge arrangements of oil tankers)

(1) Regulation 26(2), after "oil tanker"—

Add

"of 150 GT and above".

(2) Regulation 26(3)—

Repeal

"new oil tankers"

Substitute

"oil tankers of 150 GT and above delivered after 31 December 1979 (being ships delivered after 31 December 1979)".

(3) Regulation 26(4)—

Repeal

"new oil tanker"

Substitute

"oil tanker delivered after 1 June 1982 that is".

(4) Regulation 26(5)—

Repeal

"existing crude oil tanker required to be provided with segregated ballast tanks, or to be fitted with a crude oil washing system, or to operate with dedicated clean ballast tanks"

Substitute

"crude oil tanker delivered on or before 1 June 1982 that is required to be provided with segregated ballast tanks, or to be fitted with a crude oil washing system,".

(5) Regulation 26(6), proviso, paragraph (a)(i)—

Repeal

", or"

Substitute a semicolon.

(6) Regulation 26(6), proviso, paragraph (a)(ii)—

Repeal the comma

Substitute

"; or".

(7) Regulation 26(6), proviso, after paragraph (a)(ii)—

Add

"(iii) at sea by a pump if 95% of the ballast water is replaced,".

(8) Regulation 26(6), proviso, paragraph (b)—

Repeal

"Existing oil tankers"

Substitute

"Oil tankers delivered on or before 31 December 1979 (being ships delivered on or before 31 December 1979)".

(9) Regulation 26(6), proviso, paragraph (c)—

Repeal

"Existing oil tankers"

Substitute

"Oil tankers delivered on or before 1 June 1982".

(10) Regulation 26(6), proviso, paragraph (e)—

Repeal

"an existing oil tanker"

Substitute

"oil tankers delivered on or before 31 December 1979 (being ships delivered on or before 31 December 1979)".

(11) Regulation 26(6), proviso, paragraph (e)(ii)—

Repeal

"Schedule 8 hereto"

Substitute

"the guideline adopted by IMO on the specifications for the design, installation and operation of a part flow system for control of overboard discharges".

(12) After regulation 26(6)—

Add

"(7) Every oil tanker of 150 GT and above delivered on or after 1 January 2010, which has installed a sea chest that is permanently connected to the cargo pipeline system, must be equipped with both a sea chest valve and an inboard isolation valve.

(8) In addition to the valves referred to in paragraph (7), the sea chest must be capable of being isolated from the cargo piping system whilst the tanker is loading, transporting or discharging cargo by use of a positive means.

(9) The positive means referred to in paragraph (8) 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 from being filled with cargo.".

39. Regulation 27 amended (interpretation of Part V)

(1) Regulation 27—

Repeal paragraph (1A).

(2) After regulation 27(5)—

Add

"(6) This regulation does not apply to oil tankers delivered on or after 1 January 2010.".

40. Regulation 28 amended (limitation of size and arrangement of cargo tanks)

(1) Regulation 28(1)—

Repeal

everything before "if—"

Substitute

"(1) Every oil tanker of 150 GT and above (being a ship delivered after 31 December 1979) must comply with this regulation. Every oil tanker of 150 GT and above (being a ship delivered on or before 31 December 1979) must comply with this regulation".

(2) After regulation 28(6)—

Add

"(7) This regulation does not apply to an oil tanker delivered on or after 1 January 2010.".

41. Regulation 29 amended (subdivision and stability)

(1) Regulation 29(1)—

Repeal

"new oil tanker"

Substitute

"oil tanker of 150 GT and above (being a ship delivered after 31 December 1979)".

(2) Regulation 29(1)—

Repeal

"specific gravities"

Substitute

"relative densities".

(3) Regulation 29(3)(e)—

Repeal

"A Certifying Authority"

Substitute

"The Director".

(4) Regulation 29(4)—

Repeal

"specific gravities"

Substitute

"relative densities".

(5) Regulation 29(4)(a)—

Repeal

"specify gravity"

Substitute

"relative density".

(6) Regulation 29(5)—

Repeal

everything before "shall"

Substitute

"(5) The master of every oil tanker and the person in charge of a non-self-propelled oil tanker, to which this regulation applies,".

(7) After regulation 29(5)—

Add

"(6) Subject to paragraphs (7), (9), (10) and (11), an oil tanker must be fitted with a stability instrument that is capable of verifying compliance with intact and damage

stability requirements approved by the Director or an Administration, having regard to the performance standards recommended by IMO.

(7) A Hong Kong oil tanker must carry a document of approval issued under paragraph (8) for the instrument.

(8) The Director may approve a stability instrument of the oil tanker referred to in paragraph (7) by issuing a document of approval for the instrument.

(9) An oil tanker constructed before 1 January 2016 must comply with paragraph (6) not later than the first renewal survey of the tanker that is carried out after the commencement date of the Amendment Regulation 2016.

(10) Despite paragraph (6), a stability instrument fitted on an oil tanker constructed before 1 January 2016 need not be replaced if it is capable of verifying compliance with the intact and damage stability requirements approved by the Director.

(11) The Director may waive the requirements under paragraphs (6) and (7) for any of the following Hong Kong oil tankers if it is loaded in accordance with the conditions approved by the Director after taking into account the guidelines adopted by IMO—

(a) an oil tanker which is on a dedicated service, with a limited number of permutations of loading such that all anticipated conditions have been approved in the stability information provided to the master of the tanker in accordance with paragraph (5);

(b) an oil tanker where stability verification is made remotely by a means approved by the Director;

(c) an oil tanker which is loaded within an approved range of loading conditions;

(d) an oil tanker constructed before 1 January 2016 which is provided with approved limiting KG/GM curves covering all applicable intact and damage stability requirements.".

42. Regulation 30 amended (requirements for offshore installations)

(1) Regulation 30(1)—

Repeal

"400 GRT"

Substitute

"400 GT".

(2) Regulation 30(1)(a)—

Repeal

"and (2) of these Regulations".

(3) Regulation 30(1)(b)—

Repeal

"an approved form"

Substitute

"a form approved by the Director or an Administration".

43. Regulation 31 amended (reports to be made in the event of a discharge or likely discharge)

Regulation 31(1)(d)—

Repeal

"10 000 GRT"

Substitute

"10 000 GT".

44. Regulation 32 amended (approved emergency plan to be carried on board)

(1) Regulation 32(1)(a)—

Repeal

"GRT" (wherever appearing)

Substitute

"GT".

(2) Regulation 32(1)(b)—

Repeal

"GRT" (wherever appearing)

Substitute

"GT".

(3) Regulation 32(1)(b), English text—

Repeal

"paragraph (a)"

Substitute

"subparagraph (a)".

(4) Regulation 32(1)—

Repeal

"or the Certifying Authority".

(5) Regulation 32(1), English text—

Repeal

"paragraph (b)"

Substitute

"subparagraph (b)".

(6) Regulation 32—

Repeal paragraph (2).

(7) At the end of regulation 32—

Add

"(3) A computerized, shore-based damage stability and residual structural strength calculation program must be made promptly accessible to an oil tanker of 5 000 tonnes deadweight and above.

(4) For a ship to which Regulation 17 of Annex II also applies, the plan may be combined with the shipboard marine pollution emergency plan for noxious liquid substances required under that Regulation, and the plan must be entitled "Shipboard marine pollution emergency plan".

(5) In this regulation—

Annex II (《附則II》) means Annex II to the International Convention for the Prevention of Pollution from Ships, 1973, including its protocols and appendices, as from time to time revised or amended by any revision or amendment that applies to Hong Kong.".

45. Regulation 33 amended (preparation of emergency plan to be in accordance with guidelines)

Regulation 33—

Repeal

"the Organization"

Substitute

"IMO".

46. Regulation 34 amended (requirement as to emergency plan)

Regulation 34(a)—

Repeal

everything after "the guidelines"

Substitute

"adopted by IMO for reporting incidents involving dangerous goods, harmful substances and/or marine pollutants;".

47. Regulation 35 amended (power to inspect)

(1) Regulation 35, heading, after "**inspect**"—

Add

"**specified Certificate, etc.**".

(2) Regulation 35(1)—

Repeal

"persons appointed by the Secretary for Transport and Housing"

Substitute

"a Government surveyor".

(3) Regulation 35(1)—

Repeal

"IOPP Certificate in the form prescribed by the Convention or HKOPP Certificate in a form prescribed in Schedule 1 hereto"

Substitute

"specified Certificate".

(4) Regulation 35(1)—

Repeal

"that certificate"

Substitute

"that Certificate".

(5) Regulation 35(1)—

Repeal

"valid certificate"

Substitute

"valid specified Certificate".

(6) Regulation 35(1)—

Repeal

"inspector"

Substitute

"Government surveyor".

(7) Regulation 35(2)—

Repeal

"the Organization"

Substitute

"IMO".

(8) Regulation 35(4)—

Repeal

"any person appointed as an inspector"

Substitute

"a Government surveyor".

48. Regulation 35A added

After regulation 35—

Add

"**35A. General power of Government surveyors to inspect, examine etc. ships**

(1) Despite regulation 35, any of the powers conferred by this regulation may be exercised for the purpose of ascertaining whether these Regulations have been or are being complied with.

(2) A Government surveyor may, at any reasonable time—

(a) board a ship that is within the waters of Hong Kong; and

(b) take with the surveyor any other person and any equipment or materials required to assist the surveyor.

(3) After boarding the ship, the surveyor may—

(a) inspect the ship;

(b) make any examination and investigation as the surveyor considers necessary;

(c) take samples of any article or substance found on the ship that the surveyor may reasonably require for the inspection, examination or investigation;

(d) inspect, seize and remove from the ship any article or substance in respect of which the surveyor suspects on reasonable grounds that an offence under these Regulations has been committed;

(e) detain the article or substance for so long as is necessary—

(i) for the inspection, examination or investigation; and

(ii) to ensure that it is available for use as evidence in any proceedings for an offence under these Regulations;

(f) take any measurements and photographs and make any recordings that the surveyor may reasonably require for the inspection, examination or investigation;

(g) require that the ship or any part of it, or anything on the ship, is to be left undisturbed (whether generally or in particular respects) for so long as is necessary for the inspection, examination or investigation;

(h) require any person who the surveyor reasonably believes is able to give any information relevant to the inspection, examination or investigation—

(i) to attend at a place and time specified by the surveyor;

(ii) to answer the questions that the surveyor thinks fit to ask; and

(iii) to sign a declaration of the truth of the person's answers;

(i) require the production of, and inspect and take copies of or of any entry in—

(i) any certificates, books or documents that are required to be kept under these Regulations; and

(ii) any other certificates, books or documents that the surveyor considers necessary for the inspection, examination or investigation; and

(j) require any person to afford the surveyor such facilities and assistance with respect to any matters or things within that person's control or in relation to which that person has responsibilities as the surveyor considers necessary to enable the

surveyor to exercise any power conferred by this regulation.

(4) If an inspection of a ship under paragraph (3) reveals a deficiency, the Director may give a direction to the master of the ship requiring the master to cause the ship not to proceed to sea until the deficiency is rectified.

(5) A master to whom a direction is given under paragraph (4) must—

(a) comply with the direction;

(b) take steps to rectify the deficiency; and

(c) inform the Director once the deficiency is rectified.

(6) If the ship concerned is a Hong Kong ship and the deficiency is not rectified within the period specified by the Director, the Director may by written notice to the owner and the master of the ship, require the surrender of the specified Certificate issued in respect of the ship to the Director.

(7) On receiving a notice under paragraph (6), the owner and the master of the ship must deliver the Certificate concerned to the Director immediately.

(8) The owner or the master of the ship may, after the deficiency in respect of the ship has been rectified, apply to the Director for the return of the Certificate concerned.

(9) On receiving an application under paragraph (8), if the Director is satisfied that the deficiency in respect of the ship has been rectified, the Director must, by written notice to the applicant, return the Certificate concerned to the applicant.".

49. Regulation 36 amended (power to deny entry or detain)

(1) Regulation 36(1)—

Repeal

", he shall immediately report the matter to the Secretary for Transport and Housing and, if the Secretary"

Substitute

"and".

(2) Regulation 36(2)—

Repeal

"and (6)".

(3) Regulation 36(3)—

Repeal

everything before "immediately"

Substitute

"(3) If the Director denies the entry of a non-Hong Kong ship under paragraph (1) or detains it under paragraph (2), the Director must".

50. Regulation 36A added

After regulation 36—

Add

"**36A. Power to specify form**

The Director may specify the form of a specified Certificate.".

51. Regulation 37 amended (penalties)

(1) Regulation 37(1)—

Repeal

everything before "the owner"

Substitute

"(1) If any requirement of these Regulations (other than regulation 12, 13 or 16) is not complied with in respect of a ship,".

(2) Regulation 37(2)—

Repeal

everything before "each"

Substitute

"(2) If any requirement of regulation 12, 13 or 16 is not complied with in respect of a ship, the owner and the master of the ship".

(3) Regulation 37(4)—

Repeal

everything after "by the owner"

Substitute

"or the master due to the act or omission of some other person, that other person also commits the offence and may be charged with and convicted of the offence whether or not proceedings are taken against the owner or the master.".

52. Regulation 38 added

After regulation 37—

Add

"**38. Saving of Certificates and pending applications**

(1) An IOPP Certificate issued under these Regulations and in force immediately before the commencement date of the Amendment Regulation 2016 is taken as an

International Oil Pollution Prevention Certificate issued in accordance with these Regulations as amended by the Amendment Regulation 2016.

(2) A HKOPP Certificate issued under these Regulations and in force immediately before the commencement date of the Amendment Regulation 2016 is taken as a Hong Kong Oil Pollution Prevention Certificate issued in accordance with these Regulations as amended by the Amendment Regulation 2016.

(3) If an application for an IOPP Certificate or a HKOPP Certificate has been made before the commencement date of the Amendment Regulation 2016 for which a decision is pending, the application is to be regarded as an application made under these Regulations as amended by the Amendment Regulation 2016.".

53. Schedules 1 to 8 repealed

The following Schedules—

(a) Schedule 1;

(b) Schedule 2;

(c) Schedule 3;

(d) Schedule 4;

(e) Schedule 5;

(f) Schedule 6;

(g) Schedule 7;

(h) Schedule 8—

Repeal the Schedules.

54. "Director" substituted for "Certifying Authority"

The following provisions—

(a) Regulation 4(1);

(b) Regulation 21(4)—

Repeal

"Certifying Authority" (wherever appearing)

Substitute

"Director".

55. "15 ppm" substituted for "百萬分之十五"

The following provisions, Chinese text—

(a) Regulation 1(2), definition of *清潔壓載*;

(b) Regulation 1(2), definition of *過濾設備*;

(c) Regulation 12(2)(c);

(d) Regulation 13(3)(b);

(e) Regulation 14(5), (6)(b), (c) and (d) and (9);

(f) Regulation 16(2)(b) and (3)(b)(iv) and (vi);

(g) Regulation 30(2)—

Repeal

"百萬分之十五" (wherever appearing)

Substitute

"15 ppm".

Secretary for Transport and Housing

18 April 2016

Explanatory Note

This Regulation amends the Merchant Shipping (Prevention of Oil Pollution) Regulations (Cap. 413 sub. leg. A) (***principal Regulations***) to give effect to certain changes made to Annex I (***MARPOL Annex I***) to the International Convention for the Prevention of Pollution from Ships, 1973 (***Convention***). The Regulation also provides for the transfer of power from the Secretary for Transport and Housing to the Director of Marine (***Director***) on operational and enforcement matters.

2. The Regulation amends and deletes some definitions in the principal Regulations. Examples of the deletions are ***existing ship*** and ***new ship***. References to those ships are replaced with respective labels used in MARPOL Annex I. New definitions such as ***recognized organization*** and ***specified Certificate*** have been introduced.

3. The Regulation also provides that certain terms or expressions used follow the meaning as they appear in MARPOL Annex I.

4. New provisions have been introduced to provide for—

(a) the appointment of Government surveyors;

(b) the power of the Director to recognize organizations to perform certain functions; and

(c) reciprocal arrangements for the Director and a Convention country to survey ships and issue certain certificates on oil pollution prevention for ships.

5. The Regulation contains amendments to different surveys required under MARPOL Annex I that lead to the issue of certain certificates on oil pollution prevention for ships. To reflect MARPOL Annex I, the provisions for the duration and cessation of the certificates are expanded in the Regulation.

6. Part III of the principal Regulations sets out requirements for the control of discharge of oil when ships are in operation. New regulations have been added to regulate certain oil tankers that are engaged in the transfer of oil cargo at sea (***STS operation***). A notification mechanism is built in for an STS operation. Special requirements are set out for the carriage or use of heavy grade oil in Antarctic area for Hong Kong ships.

7. Part IV of the principal Regulations imposes requirements on the construction of specific oil tankers and sets out the design standard for certain equipment installed on the tankers. Modelled on MARPOL Annex I, the Regulation imposes further technical requirements in the following aspects—

(a) segregated ballast tanks;

(b) double hull and double bottom requirements (with phasing-out arrangements);

(c) pump-room bottom protection;

(d) accidental oil outflow performance;

(e) intact stability;

(f) tanks for oil residue (sludge);

(g) pumping, piping and discharge arrangements;

(h) stability instrument; and

(i) shore-based damage stability and residual structural strength calculation program.

8. The Regulation confers general power on Government surveyors to inspect or examine ships within the waters of Hong Kong, and empowers the Director to specify the form in relation to certain certificates.

9. The Regulation provides for the saving of IOPP Certificates and HKOPP Certificates issued before its commencement.

10. The Regulation removes certain provisions from the principal Regulations that are obsolete or outdated. In line with MARPOL Annex I, the references to gross registered tonnage (GRT) for ships are replaced with the references to gross tonnage (GT). Similarly, the references to the deadweight of ships are amended from "tons" to "tonnes".

11. Schedules 1 to 8 to the principal Regulations prescribe the forms and set out technical guidelines and specifications for certain equipment or systems required for ships. The Regulation repeals the Schedules as—

(a) the Director is empowered to specify forms; and

(b) reference is now made to provisions in MARPOL Annex I for the technical details.

Annex B

List of MARPOL Amendments to be Implemented

Year	IMO Resolution	Commencement Date	Amendments to MARPOL Annex I[1]
2004	MEPC.117(52)	1 January 2007	• To strengthen pump room bottom protection and accidental oil outflow performance
2006	MEPC.141(54)	1 August 2007	• To strengthen oil fuel tank protection
2006	MEPC.154(55)	1 March 2008	• To designate the Southern South African waters as a special area
2007	MEPC.164(56)	1 December 2008	• To regulate reception facilities outside special areas
2009	MEPC.186(59)	1 January 2011	• To regulate transfer of oil cargo between oil tankers at sea
	MEPC.187(59)	1 January 2011	• To regulate tanks for oil residues (sludge)
2010	MEPC.189(60)	1 August 2011	• To regulate the use or carriage of oils in the Antarctic area
2013	MEPC.235(65)	1 October 2014	• To amend Form A and Form B to supplement the International Oil Pollution Prevention Certificate
2013	MEPC.238(65)	1 January 2015	• To make mandatory the Code for Recognized Organizations
2014	MEPC.248(66)	1 January 2016	• To make mandatory carriage requirements for a stability instrument for oil tankers

[1] At Annex C.

2014	MEPC. 256(67)	1 March 2016	• To prohibit the use of heavy grade oils as ballast in the Antarctic area

MARPOL Annex I
Regulations for the prevention of pollution by oil[1]

[1] The reference material is not an official document from the IMO but a consolidated version of the amendments to MAPROL Annex I adopted by the IMO through Resolutions.

CHAPTER 1 - GENERAL

Regulation 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 Trish 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 co-ordinates:

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 co-ordinates:

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

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.

28.1 *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.

28.2 *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.

28.3 *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

28.4 *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.

28.5 *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.

28.6 *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.

28.7 *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.

28.8 *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.

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.

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.

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.

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

35 *Audit* means a systematic, independent and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which audit criteria are fulfilled.

36 *Audit Scheme* means the IMO Member State Audit Scheme established by the Organization and taking into account the guidelines developed by the Organization*.

37 *Code for Implementation* means the IMO Instruments Implementation Code (III Code) adopted by the Organization by resolution A.1070(28).

38 *Audit Standard* means the Code for Implementation.

Regulation 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.

---

* Refer to the Framework and Procedures for the IMO Member State Audit Scheme, adopted by the Organization by resolution A.1067(28).

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.

Regulation 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 or section 1.2 of part II-A of the Polar Code 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 Arctic waters; or

.3 voyages within 50 nautical miles from the nearest land outside special areas or Arctic waters 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:

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

.5 for voyages specified in paragraph 5.2.3 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;

.6 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 5.2.3.2 of this regulation; and

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

6 The Administration may waive the requirements of regulation 28(6) for the following oil tankers if loaded in accordance with the conditions approved by the Administration taking into account the guidelines developed by the Organization[*]:

.1 oil tankers which are on a dedicated service, with a limited number of permutations of loading such that all anticipated conditions have been approved in the stability information provided to the master in accordance with regulation 28(5);

.2 oil tankers where stability verification is made remotely by a means approved by the Administration;

---

[*] Refer to operational guidance provided in part 2 of the *Guidelines for verification of damage stability requirements for tankers* (MSC.1/Circ.1461).

.3 oil tankers which are loaded within an approved range of loading conditions; or

.4 oil tankers constructed before 1 January 2016 provided with approved limiting KG/GM curves covering all applicable intact and damage stability requirements

Regulation 4

Exceptions

Regulations 15 and 34 of this Annex and paragraph 1.1.1 of part II-A of the Polar Code 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.

Regulation 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

Regulation 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.

3.1 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, including classification societies, shall be authorized by the Administration in accordance with the provisions of the present Convention and with the Code for Recognized Organizations (RO Code), consisting of part 1 and part 2 (the provisions of which shall be treated as mandatory) and part 3 (the provisions of which shall be treated as recommendatory), as adopted by the Organization by resolution MEPC.237(65), as may be amended by the Organization, provided that:

.1 amendments to part 1 and part 2 of the RO Code 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;

.2 amendments to part 3 of the RO Code are adopted by the Marine Environment Protection Committee in accordance with its Rules of Procedure; and

.3 any amendments referred to in .1 and .2 adopted by the Maritime Safety Committee and the Marine Environment Protection Committee are identical and come into force or take effect at the same time, as appropriate.

3.2 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.

3.3 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.

3.4 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.

4.1 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.

4.2 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.

4.3 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.

Regulation 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.

Regulation 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.

Regulation 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.

Regulation 10

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 five years.

2.1 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.

2.2 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.

2.3 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.

Regulation 11

*Port State control on operational requirements**

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.

* 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 number IA650E.

CHAPTER 3 - REQUIREMENTS FOR MACHINERY SPACES OF ALL SHIPS

PART A CONSTRUCTION

Regulation 12

Tanks for oil residues (sludge)

1 Unless indicated otherwise, this regulation applies to every ship of 400 gross tonnage and above except that paragraph 3.5 of this regulation need only be applied as far as is reasonable and practicable to ships delivered on or before 31 December 1979, as defined in regulation 1.28.1.

2 Oil residue (sludge) may be disposed of directly from the oil residue (sludge) tank(s) to reception facilities through the standard discharge connection referred to in regulation 13, or to any other approved means of disposal of oil residue (sludge), such as an incinerator, auxiliary boiler suitable for burning oil residues (sludge) or other acceptable means which shall be annotated in item 3.2 of the Supplement to IOPP Certificate Form A or B.

3 Oil residue (sludge) tank(s) shall be provided and:

.1 shall be 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;

.2 shall be provided with a designated pump that is capable of taking suction from the oil residue (sludge) tank(s) for disposal of oil residue (sludge) by means as described in regulation 12.2;

.3 shall have no discharge connections to the bilge system, oily bilge water holding tank(s), tank top or oily water separators, except that:

.1 the tank(s) may be fitted with drains, with manually operated self-closing valves and arrangements for subsequent visual monitoring of the settled water, that lead to an oily bilge water holding tank or bilge well, or an alternative arrangement, provided such arrangement does not connect directly to the bilge discharge piping system; and

.2 the sludge tank discharge piping and bilge-water piping may be connected to a common piping leading to the standard discharge connection referred to in regulation 13; the connection of both systems to the possible common piping leading to the standard discharge connection referred to in regulation 13 shall not allow for the transfer of sludge to the bilge system;

.4 shall not be arranged with any piping that has direct connection overboard, other than the standard discharge connection referred to in regulation 13; and

.5 shall be designed and constructed so as to facilitate their cleaning and the discharge of residues to reception facilities.

4 Ships constructed before 1 January 2017 shall be arranged to comply with paragraph 3.3 of this regulation not later than the first renewal survey carried out on or after 1 January 2017.

Regulation 12A

Oil fuel tank protection

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.

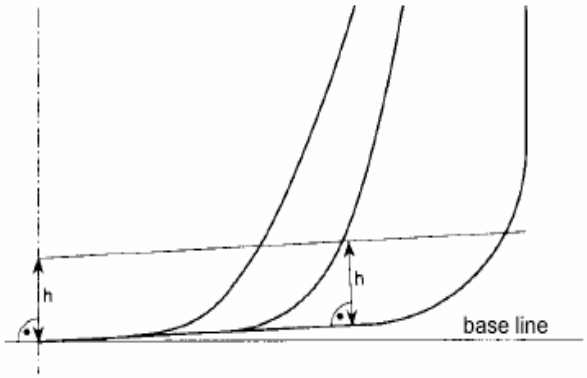


Figure 1 – Oil fuel tank boundary lines for the purpose of paragraph 6

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

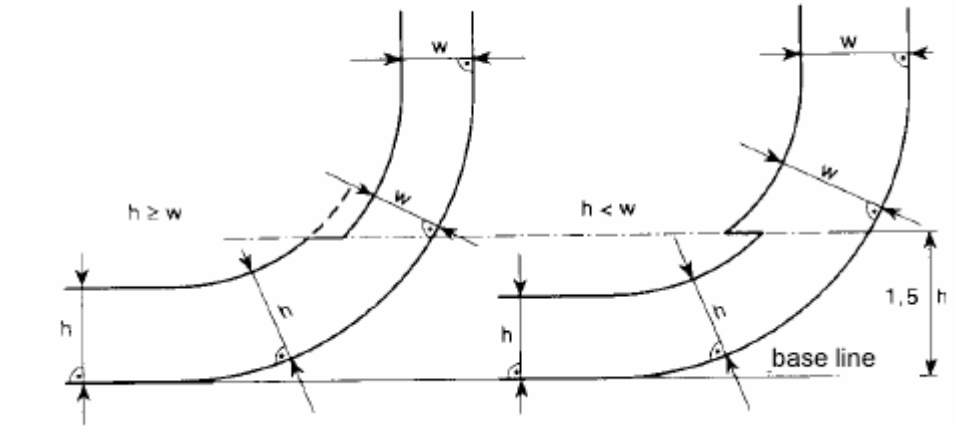


Figure 2 – Oil fuel tank boundary lines for the purpose of paragraphs 7 and 8

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:

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

$O_M \leq 0.010$ $\quad C \geq 5{,}000\ m^3$

Where O_M = mean oil outflow parameter;
C = total oil fuel volume.

.2 The following general assumption 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 (ρ_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
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:

where:

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

$O_{MB(0)}$ = 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:

$$O_{MS} = \sum_{i}^{n} P_{S(i)}\ O_{S(i)} \quad [m^3]$$

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:

.1 $$O_{MB(0)} = \sum_{1}^{n} P_{B(i)} O_{B(i)} C_{DB(i)} \quad [m^3]$$

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.

.2 $$O_{MB(2.5)} = \sum_{1}^{n} P_{B(i)} O_{B(i)} C_{DB(i)} \quad [m^3]$$

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:

$$h_F = \{(d_P + t_C - Z_l)(\rho_S)\}/\rho_n$$

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

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

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.

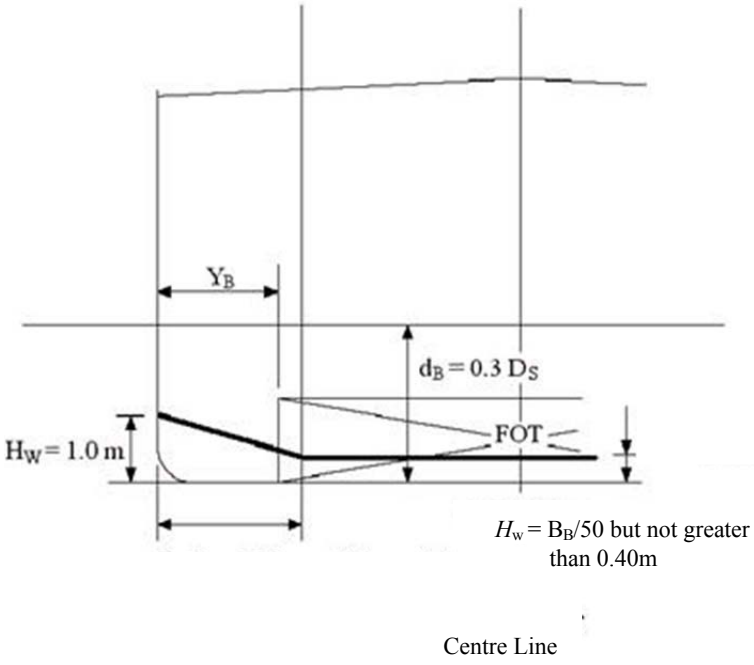


Figure 3 – Dimensions for calculation of the minimum oil outflow for the purpose of subparagraph 11.5.3.3

.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 $P_S = P_{SL} \cdot P_{SV} \cdot P_{ST}$

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;
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} = probability the damage will lie entirely below the tank;

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

P_{Sy} = probability the damage will lie entirely outboard 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 metres[1].

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.

[1] For symmetrical tank arrangements, damages are considered for one side of the ship only, in which case all "y" dimensions are to be measured from that side. For asymmetrical arrangements reference is made to the Explanatory Notes on matters related to the accidental oil outflow performance, adopted by the Organization by resolution MEPC.122(52).

.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} is not to be taken greater than 1.

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

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

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

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

P_{Bz} = 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	.5		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:

$p_{Bz} = (14.5 – 67\ z/D_S)\ (z/D_S)$ for $z/D_S \leq 0.1$
$p_{Bz} = 0.78 + 1.1\ \{(z/D_S - 0.1)\}$ for $z/D_S > 0.1$
p_{Bz} is not to 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.

Regulation 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

Regulation 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 Arctic waters, 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 Arctic waters 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.

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.

PART C CONTROL OF OPERATIONAL DISCHARGE OF OIL

Regulation 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 except in Arctic waters

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 and Arctic waters

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.

Regulation 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.

Regulation 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 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

Regulation 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*.

.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.

---

* 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 built 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).

\+ See resosltuion 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:

$$\Sigma PA_c + \Sigma PA_s \geq J[L_t(B + 2D)]$$

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:

$$J_{reduced} = \left[J - \left(a - \frac{O_C + O_S}{4 O_A} \right) \right]$$ or 0.2 whichever is greater

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.

Regulation 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 28.7.

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

.1 Wing tanks or spaces

Wing tanks or spaces shall extend either for the full depth of the ship's side or from the top of the double bottom to the uppermost deck, disregarding a rounded gunwale where fitted. They shall be arranged 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.

.2 Double bottom tanks or spaces

At any cross-section the depth of each double bottom tank or space shall be such that the distance h between the bottom of the cargo tanks and the moulded line of the bottom shell plating measured at right angles to the bottom shell plating as shown in figure 1 is not less than specified below:

h = B/15 (m) or
h = 2.0 m, whichever is the lesser.
The minimum value of h = 1.0 m.

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

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.

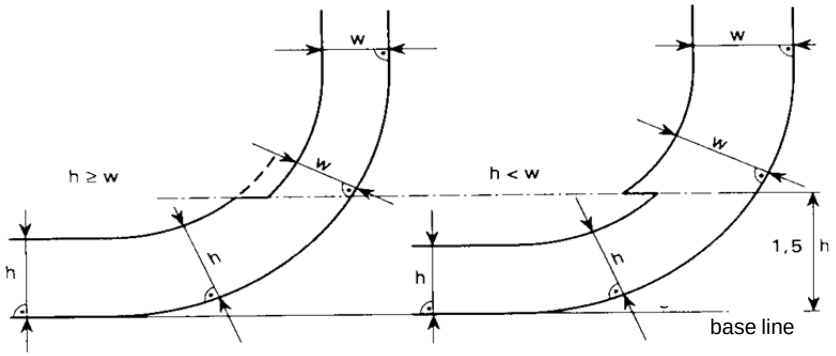


Figure 1 - ***Cargo tank boundary lines for the purpose of paragraph 3***

.4 The aggregate capacity of ballast tanks

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.

.5 Suction wells in cargo tanks

Suction wells in cargo tanks may protrude into the double bottom below the boundary line defined by the distance h provided that such wells are as small as practicable and the distance between the well bottom and bottom shell plating is not less than 0.5h.

.6 Ballast and cargo piping

Ballast piping and other piping such as sounding and vent piping to ballast tanks shall not pass through cargo tanks. Cargo piping and similar piping to cargo tanks shall not pass through ballast tanks. 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:

$$f \; x \; h_c \; x \; \rho_c \, x \; g \; + p \leq d_n \; x \; \rho_s \; x \; g$$

where:

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

ρ_c = maximum cargo density in kg/m^3

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

ρ_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.

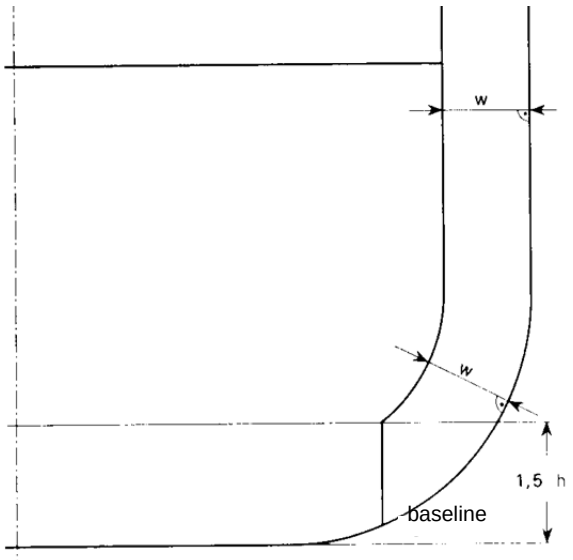


Figure 2 - *Cargo tank boundary lines for the purpose of paragraph 4*

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*.

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 (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:

$$w = 0.4 + \frac{2.4DW}{20000} \quad (m)$$ with a minimum value of w = 0.76 m.

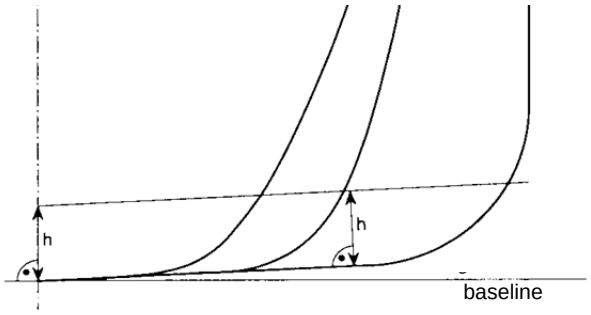


Figure 3 - ***Cargo tank boundary lines for the purpose of paragraph 6***

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.

* 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).

Regulation 20

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 28.7, 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 3400C when tested by the method acceptable to the Organization[+].

.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[ǂ].

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.

+ Refer to the American Society for Testing and Materials' Standard Test Method (Designation D86).

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

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 28.7 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 delivered 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 A 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.

Regulation 21

Prevention of oil pollution from oil tankers carrying heavy grade oil as cargo

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 150C 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; or

.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 150C 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.

Regulation 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.

Regulation 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 $O_M \leq 0.015$.

$O_M \leq 0.021$ 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 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 $\frac{b_i}{B} \geq$ 0.2L : 0.2L

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

- where no centerline longitudinal bulkhead is provided:

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

- where a cetnreline longitudinal bulkhead is provided:

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

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 (ρ_n) shall be calculated as follows:

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

.5 For the purposes of these outflow calculations, the permeability of each space within the cargo block, including cargo tanks, ballast anks 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:

$$O_{MS} = C_3 \sum_{i}^{n} P_{s(i)} O_{s(i)} \qquad (m^3)$$

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:

.1 $$O_{MB(0)} = \sum_{i}^{n} P_{B(i)} O_{B(i)} C_{DB(i)} \ (m^3)$$

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

.2 $$O_{MB(2.5)} = \sum_{i}^{n} P_{B(i)} O_{B(i)} C_{DB(i)}) \ (m^3)$$

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 , 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:

$$h_c = \{(d_s + t_c - Z_l)\,(\rho_s) - (1000\,p) / g\}/\rho_n$$

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;

ρ_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

ρ_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 that same 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), as amended.

.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. Tn 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*.

.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.

* 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), as amended.

Regulation 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.

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:

$$O_c = \Sigma W_i + \Sigma K_i C_i \qquad \text{(I)}$$

.2 For bottom damages:

$$O_s = 1/3\ (\Sigma Z_i W_i + \Sigma Z_i C_i) \qquad \text{(II)}$$

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.

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 h_i 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, h_i shall be taken equal to the double bottom height minus the well height.

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.

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

$$O_s = 1/4 \, (\Sigma \, Z_i W_i + \Sigma \, Z_i C_i) \qquad \text{(III)}$$

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.

Regulation 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 alues, 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:

.1 if $\frac{b_i}{B}$ 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 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.

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.

Regulation 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:

.1 the area under the righting lever curve (GZ curve) shall be not less than 0.055 m.rad up to $\theta = 30°$ angle of heel and not less than 0.09 m.rad up to $\theta = 40°$ or other angle of flooding θ_f* if this angle is less than 40°. Additionally, the area under the righting lever curve (GZ curve) between the angles of heel of 30° and 40° or between 30° and θ_f, if this angle is less than 40°, shall be not less than 0.03 m.rad;

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

* θ_f is the angle of heel at which openings in the hull superstructures or deckhouses which cannot be closed weathtertight immerse. In applying this criterion, small openings through which progressive flooding cannot take place need not be considered as open.

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

.4 the initial metacentric height GMo, corrected for free surface measured at 0° 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.

Regulation 28

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 centerline	$\frac{B}{15}$ or 6 metres, whichever is less, measured from the moulded line of the bottom shell plating at centerline

.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 30° 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 20° beyond the position of equilibrium in association with a maximum residual righting lever of at least 0.1 metre within the 20° 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*

.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 50 for each individual compartment. The Administration may require or allow the free surface corrections to be calculated at an angle of heel greater than 50 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:

---

* 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.

.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 All oil tankers shall be fitted with a stability instrument, capable of verifying compliance with intact and damage stability requirements approved by the Administration having regard to the performance standards recommended by the Organization*:

.1 oil tankers constructed before 1 January 2016 shall comply with this regulation at the first scheduled renewal survey of the ship on or after 1 January 2016 but not later than 1 January 2021;

.2 notwithstanding the requirements of subparagraph .1 a stability instrument fitted on an oil tanker constructed before 1 January 2016 need not be replaced provided it is capable of verifying compliance with intact and damage stability, to the satisfaction of the Administration; and

.3 for the purposes of control under regulation 11, the Administration shall issue a document of approval for the stability instrument.

7 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.

Regulation 29

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.

2.1 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.

---

* Refer to part B, chapter 4, of the International Code on Intact Stability, 2008 (2008 IS Code), as amended; the *Guidelines for the Approval of Stability Instruments* (MSC.1/Circ.1229), annex, section 4, as amended; and the technical standards defined in part 1 of the *Guidelines for verification of damage stability requirements for tankers* (MSC.1/Circ.1461).

2.2 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.

2.3 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.

2.4 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.

Regulation 30

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, Tnstallation and Operation of a Part Flow System for Control of Overboard Discharges adopted by the Organization*.

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

Regulation 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.

* See appendix 4 to Unified Interpreations.

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.

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.

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.

Regulation 32

*Oil/water interface detector*ǂ

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.

---

* 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 built 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).

\+ 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.

ǂ Refer to the Speifications for oil/water interface detectors adopted by the Organization by resolution MEPC.5(XIII).

Regulation 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.

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

Regulation 34

Control of discharge of oil

A. Discharges outside special areas except in Arctic waters

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.

** 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).

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*.

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.

Regulation 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 regulation 38.6.

\+ Refer to the Standard format of the Crude Oil Washing Operation and Equipment Manual adopted by the Marine Environment Protection Committee of the Oganization 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.

Regulation 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

Regulation 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:

.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+;

.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 computerized, shore-based damage stability and residual structural strength calculation programs.

---

* 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).

\+ 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), as amended by resolution MEPC.138(53).

CHAPTER 6 - RECEPTION FACILITIES

Regulation 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.

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 oil residue (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 regulations 15 and 34 of this Annex and paragraph 1.1.1 of part II-A of the Polar Code; and

.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.

---

* See resolution MEPC.83(44) "Guidelines for ensuring the adequacy of port waste reception 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 and paragraph 1.1.1 of part II-A of the Polar Code.

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

3*bis* Small Island Developing States may satisfy the requirements in paragraphs 1 to 3 of this regulation through regional arrangements when, because of those States' unique circumstances, such arrangements are the only practical means to satisfy these requirements. Parties participating in a regional arrangement shall develop a Regional Reception Facilities Plan, taking into account the guidelines developed by the Organization.

The Government of each Party participating in the arrangement shall consult with the Organization, for circulation to the Parties of the present Convention:

.1 how the Regional Reception Plan takes into account the Guidelines;

.2 particulars of the identified Regional Ships Waste Reception Centres; and

.3 particulars of those ports with only limited facilities.

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**.**

4*bis* Small Island Developing States may satisfy the requirements in paragraph 4 of this regulation through regional arrangements when, because of those States' unique circumstances, such arrangements are the only practical means to satisfy these requirements. Parties participating in a regional arrangement shall develop a Regional Reception Facilities Plan, taking into account the guidelines developed by the Organization.

The Government of each Party participating in the arrangement shall consult with the Organization for circulation to the Parties of the present Convention:

.1 how the Regional Reception Facilities Plan takes into account the Guidelines;

.2 particulars of the identified Regional Ships Waste Reception Centres; and

.3 particulars of those ports with only limited 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

Regulation 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.

CHAPTER 8 – PREVENTION OF POLLUTION DURING TRANSFER OF OIL CARGO BETWEEN OIL TANKERS AT SEA

Regulation 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.

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.

Regulation 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 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.

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.

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.

Regulation 42

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.

---

* 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.

** 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 the STS operations Plan.

2 The notification specified in paragraph 1 of this regulation shall include at least the following:

.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;

.3 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, use as ballast, 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 Annex I, regulation 1.11.7.

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.

CHAPTER 10 – VERIFICATION OF COMPLIANCE WITH THE PROVISIONS OF THIS CONVENTION

Regulation 44

Application

Parties shall use the provisions of the Code for Implementation in the execution of their obligations and responsibilities contained in this Annex.

Regulation 45

Verification of compliance

1 Every Party shall be subject to periodic audits by the Organization in accordance with the audit standard to verify compliance with and implementation of this Annex.

2 The Secretary-General of the Organization shall have responsibility for administering the Audit Scheme, based on the guidelines developed by the Organization*.

3 Every Party shall have responsibility for facilitating the conduct of the audit and implementation of a programme of actions to address the fihndings, based on the guidelines developed by the Organization*.

4 Audit of all Parties shall be:

.1 based on an overall schedule developed by the Secretary-Genenal of the Organization, taking into account the guidelines developed by the Organization*; and

.2 conducted at periodic intervals, taking into account the guidelines developed by the Organization*.

---

* Refer to the Framework and Procedures for the IMO Member State Audit Scheme, adopted by the Organization by resolution A.1067(28).

CHAPTER 11 – INTERNATIONAL CODE FOR SHIPS OPERATING IN POLAR WATERS

Regulation 46
Definitions

For the purpose of this Annex,

1 Polar Code means the International Code for Ships Operating in Polar Waters, consisting of an introduction, parts I-A and II-A and parts I-B and II-B, adopted by resolutions MSC.385(94) and MEPC.264(68), as may be amended, provided that:

.1 amendments to the environment-related provisions of the introduction and chapter 1 of part II-A of the Polar Code 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 an appendix to an annex; and

.2 amendments to part II-B of the Polar Code are adopted by the Marine Environment Protection Committee in accordance with its Rules of Procedure.

2 *Arctic waters* means those waters which are located north of a line from the latitude 58º00′.0N and longitude 042º00′.0W to latitude 64º37′.0N, longitude 035º27′.0W and thence by a rhumb line to latitude 67º03′.9 N, longitude 026º33′.4W and thence by a rhumb line to the latitude 70º49′.56N and longitude 008º59′.61W (Sørkapp, Jan Mayen) and by the southern shore of Jan Mayen to 73º31'.6N and 019º01'.0E by the Island of Bjørnøya, and thence by a great circle line to the latitude 68º38′.29 N and longitude 043º23′.08E (Cap Kanin Nos) and hence by the northern shore of the Asian Continent eastward to the Bering Strait and thence from the Bering Strait westward to latitude 60º N as far as Il'pyrskiy and following the 60th North parallel eastward as far as and including Etolin Strait and thence by the northern shore of the North American continent as far south as latitude 60ºN and thence eastward along parallel of latitude 60ºN, to longitude 056º37′.1W and thence to the latitude 58º00′.0N, longitude 042º00′.0 W.

3 *Polar waters* means Arctic waters and/or the Antarctic area.

Regulation 47
Application and requirements

1 This chapter applies to all ships operating in polar waters.

2 Unless expressly provided otherwise, any ship covered by paragraph 1 of this regulation shall comply with the environment-related provisions of the introduction and with chapter 1 of part II-A of the Polar Code, in addition to any other applicable requirements of this Annex.

3 In applying chapter 1 of part II-A of the Polar Code, consideration should be given to the additional guidance in part II-B of the Polar Code.

Appendices to Annex I

APPENDIX I

LIST OF OILS[*]

Asphalt solutions
Blending stocks
Roofers flux
Straight run residue

Oils
Clarified
Crude oil
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

Gasoline blending stocks
Alkylates - fuel
Reformates
Polymer - fuel

Gasolines
Casinghead (natural)
Automotive
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

[*] This list of oils shall not necessarily be considered as comprehensive.

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[t] .....

[**] Alternatively, the particulars of the ship may be placed horizontally in boxes.

[+] For oil tankers

[t] 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 duly 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 (dd/mm/yyyy): .....

(Seal or stamp of the authority, as appropriate)

Annual*/Intermediate survey*: Signed: .....
(Signature of duly authorized official)

Place: .....

Date (dd/mm/yyyy): .....

(Seal or stamp of the authority, as appropriate)

Annual*/Intermediate survey*: Signed: .....
(Signature of duly authorized official)

Place: .....

Date (dd/mm/yyyy): .....

(Seal or stamp of the authority, as appropriate)

Annual survey: Signed: .....
(Signature of duly authorized official)

Place: .....

Date (dd/mm/yyyy): .....

(Seal or stamp of the authority, as appropriate)

* 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 (dd/mm/yyyy): .....

(Seal or stamp of the authority, as appropriate)

ENDORSEMENT TO EXTEND THE CERTIFICATE IF VALID FOR LESS THAN 5 YEARS WHERE REGULATION 10.3 APPLIES

The ship complies with the relevant provisions of the Convention, and this Certificate shall, in accordance with regulation 10.3 of Annex I of the Convention, be accepted as valid until (dd/mm/yyyy): .....

Signed: .....
(Signature of duly authorized official)

Place: .....

Date (dd/mm/yyyy): .....

(Seal or stamp of the authority, as appropriate)

ENDORSEMENT WHERE THE RENEWAL SURVEY HAS BEEN COMPLETED AND REGULATION 10.4 APPLIES

The ship complies with the relevant provisions of the Convention and this Certificate shall, in accordance with regulation 10.4 of Annex I of the Convention, be accepted as valid until (dd/mm/yyyy): .....

Signed: .....
(Signature of duly authorized official)

Place: .....

Date (dd/mm/yyyy): .....

(Seal or stamp of the authority, as appropriate)

* Delete 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 (dd/mm/yyyy): .....

Signed: .....
(Signature of duly authorized official)

Place: .....

Date (dd/mm/yyyy): .....

(Seal or stamp of the authority, as appropriate)

ENDORSEMENT FOR ADVANCEMENT OF ANNIVERSARY DATE WHERE REGULATION 10.8 APPLIES

In accordance with regulation 10.8 of Annex I of the Convention the new anniversary date is (dd/mm/yyyy): .....

Signed: .....
(Signature of duly authorized official)

Place: .....

Date (dd/mm/yyyy): .....

(Seal or stamp of the authority, as appropriate)

In accordance with regulation 10.8 of Annex I of the Convention the new anniversary date is (dd/mm/yyyy): .....

Signed: .....
(Signature of duly authorized official)

Place: .....

Date (dd/mm/yyyy): .....

(Seal or stamp of the authority, as appropriate)

* Delete as appropriate

Appendix

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.

3 The language of the original Record 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.

4 Entries in boxes shall be made by inserting either a cross (x) for the answers "yes" and "applicable" or a dash (-) for the answers "no" and "not applicable" as appropriate.

5 Regulations mentioned in this Record refer to regulations of Annex I of the Convention and resolutions refer to those adopted by the Tnternational Maritime Organization.

1. Particulars of ship

1.1 Name of ship .....

1.2 Distinctive number or letters .....

1.3 Port of registry .....

1.4 Gross tonnage .....

1.5 Date of build:

1.5.1 Date of building contract .....

1.5.2 Date on which keel was laid or ship was at a similar stage of construction .....

1.5.3 Date of delivery .....

1.6 Major conversion (if applicable):

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); □

* 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), the 2011 Guidelines and specifications for add-on equipment for upgrading resolution MEPC.60(33) – compliant oil filtering equipment, adopted by resolution MEPC.205(62), and 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 from 1 January 2005, superseded resolutions MEPC.60(33), A.393(X) and A.444(XI).

.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). □

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 Tnternational 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.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 for retention of oil residues (sludge) on board 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 (sludge) retained in oil residue (sludge) tanks:

3.2.1 Incinerator for oil residues ……. □

3.2.2 Auxiliary boiler suitable for burning oil residues (sludge)……. □

3.2.3 Other acceptable means, state which ……. □

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	

* Oily bilgewater holding tank(s) are not required by the Convention, if such tank(s) are provided they shall be listed in Table 3.3.

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 □

8 Compliance with part II-A – chapter 1 of the Polar Code

8.1 The ship is in compliance with additional requirements in the environment-related provisions of the Introduction and section 1.2 of chapter 1 of part II-A of the Polar Code…….. □

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.

3 The language of the original Record 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.

4 Entries in boxes shall be made by inserting either a cross (x) for the answers "yes" and "applicable" or a dash (-) for the answers "no" and "not applicable" as appropriate.

5 Unless otherwise stated, regulations mentioned in this Record refer to regulations of Annex I of the Convention and resolutions refer to those adopted by the International Maritime Organization.

1. Particulars of ship

1.1 Name of ship .....

1.2 Distinctive number or letters .....

1.3 Port of registry .....

1.4 Gross tonnage .....

1.5 Carrying capacity of ship ..... (m^3)

1.6 Deadweight of ship ..... (tonnes) (regulation 1.23)

1.7 Length of ship ..... (m) (regulation 1.19)

1.8 Date of build:

1.8.1 Date of building contract .....

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. □

* 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), the 2011 Guidelines and specifications for add-on equipment for upgrading resolution MEPC.60(33) – compliant oil filtering equipment, adopted by resolution MEPC.205(62), and 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 from 1 January 2005, superseded resolutions MEPC.60(33), A.393(X) and A.444(XI).

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). □

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.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 oily bilge water holding tank(s)*

3.1 The ship is provided with oil residue (sludge) tanks for retention of oil residues (sludge) on board 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 oil residues (sludge) retained in oil residue (sludge) tanks:

3.2.1 Incinerator for oil residues (sludge) ……. □

3.2.2 Auxiliary boiler suitable for burning oil residues (sludge) …… □

3.2.3 Other acceptable means, state which ……. □

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 □

* Oily bilgewater holding tank(s) are not required by the Convention; if such tank(s) are provided they shall be listed in Table 3.3.

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 □

5.6 Limitation of size and arrangements of cargo tanks (regulation 26):

5.6.1 The ship is required to be constructed according to, and complies with, the requirements of regulation 26 □

5.6.2 The ship is required to be constructed according to and complies with, the requirements of regulation 26.4 (see regulation 2.2) □

5.7 Subdivision and stability (regulation 28):

5.7.1 The ship is required to be constructed according to, and complies with, the requirements of regulation 28 □

5.7.2 Information and data required under regulation 28.5 have been supplied to the ship in an approved form □

5.7.3 The ship is required to be constructed according to, and complies with, the requirements of regulation 27 □

5.7.4 Information and data required under regulation 27 For combination carriers have been supplied to the ship n a written procedure approved by the Administration □

5.7.5 The ship is provided with an Approved Stability Instrument in accordance with regulation 28(6) □

5.7.6 The requirements of regulation 28(6) are waived in respect of the ship in accordance with regulation 3.6. Stability is verified by one or more of the following means:

.1 loading only to approved conditions defined in the stability information provided to the master inaccordancewith regulation 28(5) □

.2 verification is made remotely by a means approved by the Administration □

.3 loading within an approved range of loading conditions defined in the stability information provided to the master in accordance with regulation 28(5) □

.4 loading in accordance with approved limiting KG/GM curves covering all applicable intact and damage stability requirements defined in the stability information provided to the master in accordance with regulation 28(5) □

5.8 Double-hull construction:

5.8.1 The ship is required to be constructed according to regulation 19 and complies with the requirements of:

.1 paragraph (3) (double-hull construction) □

.2 paragraph (4) (mid-height deck tankers with double side construction) □

.3 paragraph (5) (alternative method approved by the Marine Environment Protection Committee) □

5.8.2 The ship is required to be constructed according to and complies with the requirements of regulation 19.6 □

5.8.3 The ship is not required to comply with the requirements of regulation 19 □

5.8.4 The ship is subject to regulation 20 and:

.1 is required to comply with paragraphs 2 to 5, 7 and 8 of regulation 19 and regulation 28 in respect of paragraph 28.7 not later than □

.2 is allowed to continue operation in accordance with regulation 20.5 until □

.3 is allowed to continue operation in accordance with regulation 20.7 until □

5.8.5 The ship is not subject to regulation 20 (check which box(es) apply): □

.1 The ship is less than 5,000 tonnes deadweight □

.2 The ship complies with regulation 20.1.2 □

.3 The ship complies with regulation 20.1.3 □

5.8.6 The ship is subject to regulation 21 and:

.1 is required to comply with regulation 21.4 not later than □

.2 is allowed to continue operation in accordance with regulation 21.5 until □

.3 is allowed to continue operation in accordance with regulation 21.6.1 until □

.4 is allowed to continue operation in accordance with regulation 21.6.2 until □

.5 is exempted from the provisions of regulation 21 in accordance with regulation 21.7.2 □

5.8.7 The ship is not subject to regulation 21 (check which box(es) apply):

.1 The ship is less than 600 tonnes deadweight □

.2 The ship complies with regulation 19 (Deadweight tonnes ≥ 5,000) □

.3 The ship complies with regulation 21.1.2 □

.4 The ship complies with regulation 21.4.2 (600 ≤ Deadweight tonnes < 5,000) □

.5 The ship does not carry “heavy grade oil” as defined in regulation 21.2 of MARPOL Annex I □

5.8.8 The ship is subject to regulation 22 and:

.1 complies with the requirements of regulation 22.2 □

.2 complies with the requirements of regulation 22.3 □

.3 complies with the requirements of regulation 22.5 □

5.8.9 The ship is not subject to regulation 22 □

5.9 Accidental oil outflow performance

5.9.1 The ship complies with the requirements of regulation 23 □

6. Retention of oil on board (regulations 29, 31 and 32)

6.1 Oil discharge monitoring and control system:

6.1.1 The ship comes under category ..... oil tanker as defined in resolution A.496(XII) or A.586(14)* *(delete as appropriate)* □

6.1.2 The oil discharge monitoring and control system has been approved in accordance with resolution MEPC.108(49) □

6.1.3 The system comprises:

.1 control unit □

.2 computing unit □

.3 calculating unit □

6.1.4 The system is:

.1 fitted with a starting interlock □

.2 fitted with automatic stopping device □

6.1.5 The oil content meter is approved under the terms of resolution A.393(X) or A.586(14) or MEPC.108(49)+ *(delete as appropriate)* suitable for:

.1 crude oil □

.2 black products □

.3 white products □

* Oil tankers the keels of which are laid, or which are at a similar stage of construction, on or after 2 October 1986 should be fitted with a system approved under resolution A.586(14).

\+ For oil content meters installed on 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 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 tankers built on or after 1 Januaru 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).

6.1.6 The ship has been supplied with an operations manual for the oil discharge monitoring and control system □

6.2 Slop tanks:

The ship is provided with……..dedicated slop tank(s) with the total capacity of……m^3, which is……% of the oil carrying capacity, in accordance with:

.1 regulation 29.2.3 □

.2 regulation 29.2.3.1 □

.3 regulation 29.2.3.2 □

.4 regulation 29.2.3.3 □

6.2.2 Cargo tanks have been designated as slop tanks □

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: ---------- ---------- □

‡ Refer to the Specification for oil/water interface detectors adopted by the Marine Environment Protection Committee of the Organization by resolution MEPC.5(XIII).

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:

7.3.1 Above the waterline □

7.3.2 Below the waterline in conjunction with the part flow arrangements in compliance with regulation 30.6.5 □

7.3.3 Below the waterline □

7.4 Discharge of oil from cargo pumps and oil lines (regulations 30.4 and 30.5):

7.4.1 Means to drain all cargo pumps and oil lines at the completion of cargo discharge:

.1 drainings capable of being discharged to a cargo tank or slop tank □

.2 for discharge ashore a special small-diameter line is provided □

8. Shipboard oil/marine pollution emergency plan
(regulation 37)

8.1 The ship is provided with a shipboard oil pollution emergency plan in compliance with regulation 37 □

8.2 The ship is provided with a shipboard marine pollution emergency plan in compliance with regulation 37.3 □

[+] Only those outlets which can be monitored are to be indicated.

8A Ship-to-ship oil transfer operations at sea (regulation 41)

8A.1 The oil tanker is provided with an STS operations Plan in compliance with regulation 41 □

9. Exemption

9.1 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

10 Equivalents (regulation 5)

10.1 Equivalents have been approved by the Administration for certain requirements of Annex I on those items listed under paragraph(s)…….of this Record □

11 Compliance with part II-A – chapter 1 of the Polar Code

11.1 The ship is in compliance with additional requirements in the environment-related provisions of the introduction and section 1.2 of chapter 1 of part II-A of the Polar Code.

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)

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 Tnternational 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 and the quantity in m^3.
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, transfer and disposal of oil residues (sludge)

11 Collection of oil residues (sludge).
Quantities of oil residues (sludge) retained on board. The quantity should be recorded weekly[1]: (this means that the quantity must be recorded once a week even if the voyage lasts more than one week):
.1 identity of tank(s)
.2 capacity of tank(s) ..... m^3
.3 total quantity of retention ..... m^3
.4 quantity of residue collected by manual operation ..... m^3
(Operator initiated manual collections where oil residue (sludge) is transferred into the oil residue (sludge) holding tank(s).)

[1] Only those tanks listed in item 3.1 of Forms A and B of the Supplement to the IOPP Certificate used for oil residues (sludge).

12 Methods of transfer or disposal of oil residues (sludge).
State quantity of oil residues transferred or disposed of, the tank(s) emptied and the quantity of contents retained in m^3:
.1 to reception facilities (identify port)[2];
.2 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 starting of discharge overboard, transfer or disposal otherwise of bilge water which has accumulated in machinery spaces

13 Quantity discharged, transferred or disposed of, in m^3.[3]
14 Time of discharge, transfer or disposal (start and stop).
15 Method of discharge, transfer, or disposal:
.1 through 15 ppm equipment (state position at start and end);
.2 to reception facilities (identify port)[2];
.3 to slop tank or holding tank or other tank(s) (indicate tank(s); state quantity retained in tank(s), in m^3).

(E) Automatic starting of discharge overboard, transfer 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[4].
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 therefor and general remarks.

---

[2] The ship's master 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 the 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] 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.

[4] The condition of the oil filtering equipment covers also the alarm and automatic stopping devices, if applicable.

(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: .....

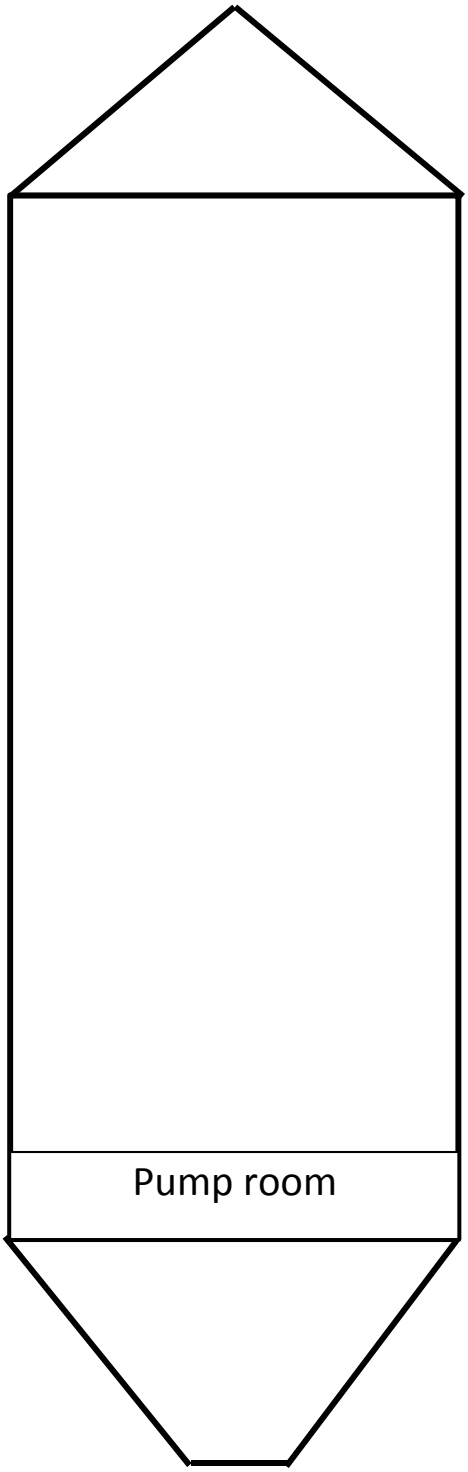
Period from: ..... to: .....

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.*

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.

* This sentence should only be inserted for the Oil Record Book of a tanker engaged in a specific trade.

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^oC 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.[1]

11. Number of machines in use.

12. Time of start of washing.

13. Washing pattern employed.[2]

14. Washing line pressure.

15. Time washing was completed or stopped.

---

[1] 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.

[2] 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 are covered by the machines and the number of times that arc is covered for that particular stage of the programme.

16. State method of establishing that tank(s) was (were) dry.

17. Remarks.[3]

(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.[4]

---

[3] If the programmes given in the Operations and Equipment Manual are not followed, then the reasons must be given under Remarks.

[4] 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)[5]; and

.2 sloptank(s) or cargo tank(s) designated as sloptank(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).[5]

(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.

[5] Ships' masters should obtain from the operator of the reception facilities, which include barges and tank trucks, a receipt or certificate detailing the quantity or tank washings, dirty ballast, residues or oily mixtures transferred together with the time and date or 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.

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 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?

---

[5] Ships' masters should obtain from the operator of the reception facilities, which include barges and tank trucks, a receipt or certificate detailing the quantity or tank washings, dirty ballast, residues or oily mixtures transferred together with the time and date or 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.

(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).[5]

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 therefore and general remarks.

[5] Ships' masters should obtain from the operator of the reception facilities, which include barges and tank trucks, a receipt or certificate detailing the quantity or tank washings, dirty ballast, residues or oily mixtures transferred, together with the time and date or 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.

(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.

83. Name or designation of reception facility.

84. Total quantity of ballast water discharged in cubic metres.

85. Date, signature and stamp of port authority official.

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**

Signature of master .....