

รายการอ้างอิง

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ภาคผนวก

**INTERNATIONAL CONVENTION FOR THE PREVENTION
OF POLLUTION FROM SHIPS, 1973**

THE PARTIES TO THE CONVENTION,

BEING CONSCIOUS of the need to preserve the human environment in general and the marine environment in particular,

RECOGNIZING that deliberate, negligent or accidental release of oil and other harmful substances from ships constitutes a serious source of pollution,

RECOGNIZING ALSO the importance of the International Convention for the Prevention of Pollution of the Sea by Oil, 1954, as being the first multilateral instrument to be concluded with the prime objective of protecting the environment, and appreciating the significant contribution which that Convention has made in preserving the seas and coastal environment from pollution,

DESIRING to achieve the complete elimination of intentional pollution of the marine environment by oil and other harmful substances and the minimization of accidental discharge of such substances,

CONSIDERING that this object may best be achieved by establishing rules not limited to oil pollution having a universal purport,

HAVE AGREED as follows:

ARTICLE 1

General Obligations under the Convention

- (1) The Parties to the Convention undertake to give effect to the provisions of the present Convention and those Annexes thereto by which they are bound, in order to prevent the pollution of the marine environment by the discharge of harmful substances or effluents containing such substances in contravention of the Convention.
- (2) Unless expressly provided otherwise, a reference to the present Convention constitutes at the same time a reference to its Protocols and to the Annexes.

ARTICLE 2

Definitions

For the purposes of the present Convention, unless expressly provided otherwise:

- (1) "Regulations" means the Regulations contained in the Annexes to the present Convention.

- (2) "Harmful substance" means any substance which, if introduced into the sea, is liable to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea, and includes any substance subject to control by the present Convention.
- (3) (a) "Discharge", in relation to harmful substances or effluents containing such substances, means any release howsoever caused from a ship and includes any escape, disposal, spilling, leaking, pumping, emitting or emptying;
- (b) "Discharge" does not include:
- (i) dumping within the meaning of the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, done at London on 13 November 1972; or
 - (ii) release of harmful substances directly arising from the exploration, exploitation and associated off-shore processing of sea-bed mineral resources; or
 - (iii) release of harmful substances for purposes of legitimate scientific research into pollution abatement or control.
- (4) "Ship" means a vessel of any type whatsoever operating in the marine environment and includes hydrofoil boats, air-cushion vehicles, submersibles, floating craft and fixed or floating platforms.
- (5) "Administration" means the Government of the State under whose authority the ship is operating. With respect to a ship entitled to fly a flag of any State, the Administration is the Government of that State. With respect to fixed or floating platforms engaged in exploration and exploitation of the sea-bed and subsoil thereof adjacent to the coast over which the coastal State exercises sovereign rights for the purposes of exploration and exploitation of their natural resources, the Administration is the Government of the coastal State concerned.
- (6) "Incident" means an event involving the actual or probable discharge into the sea of a harmful substance, or effluents containing such a substance.
- (7) "Organization" means the Inter-Governmental Maritime Consultative Organization.

ARTICLE 3

Application

- (1) The present Convention shall apply to:
- (a) ships entitled to fly the flag of a Party to the Convention; and
 - (b) ships not entitled to fly the flag of a Party but which operate under the authority of a Party.
- (2) Nothing in the present Article shall be construed as derogating from or extending the sovereign rights of the Parties under international law over the sea-bed and subsoil thereof adjacent to their coasts for the purposes of exploration and exploitation of their natural resources.

(3) The present Convention shall not apply to any 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 Party shall ensure by the adoption of appropriate measures not impairing the operations or operational capabilities of such ships owned or operated by it, that such ships act in a manner consistent, so far as is reasonable and practicable, with the present Convention.

ARTICLE 4

Violation

(1) Any violation of the requirements of the present Convention shall be prohibited and sanctions shall be established therefor under the law of the Administration of the ship concerned wherever the violation occurs. If the Administration is informed of such a violation and is satisfied that sufficient evidence is available to enable proceedings to be brought in respect of the alleged violation, it shall cause such proceedings to be taken as soon as possible, in accordance with its law.

(2) Any violation of the requirements of the present Convention within the jurisdiction of any Party to the Convention shall be prohibited and sanctions shall be established therefor under the law of that Party. Whenever such a violation occurs, that Party shall either:

- (a) cause proceedings to be taken in accordance with its law; or
- (b) furnish to the Administration of the ship such information and evidence as may be in its possession that a violation has occurred.

(3) Where information or evidence with respect to any violation of the present Convention by a ship is furnished to the Administration of that ship, the Administration shall promptly inform the Party which has furnished the information or evidence, and the Organization, of the action taken.

(4) The penalties specified under the law of a Party pursuant to the present Article shall be adequate in severity to discourage violations of the present Convention and shall be equally severe irrespective of where the violations occur.

ARTICLE 5

Certificates and Special Rules on Inspection of Ships

(1) Subject to the provisions of paragraph (2) of the present Article a certificate issued under the authority of a Party to the Convention in accordance with the provisions of the Regulations shall be accepted by the other Parties and regarded for all purposes covered by the present Convention as having the same validity as a certificate issued by them.

(2) A ship required to hold a certificate in accordance with the provisions of the Regulations is subject, while in the ports or off-shore terminals under the jurisdiction of a Party, to inspection by officers duly authorized by that Party. Any such inspection shall be limited to verifying that there is on board a valid certificate, unless there are clear grounds for believing that the condition of the ship or its equipment

does not correspond substantially with the particulars of that certificate. In that case, or if the ship does not carry a valid certificate, the Party carrying out the inspection shall take such steps as will ensure that the ship shall not sail until it can proceed to sea without presenting an unreasonable threat of harm to the marine environment. That Party may, however, grant such a ship permission to leave the port or off-shore terminal for the purpose of proceeding to the nearest appropriate repair yard available.

(3) If a Party denies a foreign ship entry to the ports or off-shore terminals under its jurisdiction or takes any action against such a ship for the reason that the ship does not comply with the provisions of the present Convention, the Party shall immediately inform the consul or diplomatic representative of the Party whose flag the ship is entitled to fly, or if this is not possible, the Administration of the ship concerned. Before denying entry or taking such action the Party may request consultation with the Administration of the ship concerned. Information shall also be given to the Administration when a ship does not carry a valid certificate in accordance with the provisions of the Regulations.

(4) With respect to the ships of non-Parties to the Convention, Parties shall apply the requirements of the present Convention as may be necessary to ensure that no more favourable treatment is given to such ships.

ARTICLE 6

Detection of Violations and Enforcement of the Convention

(1) Parties to the Convention shall co-operate in the detection of violations and the enforcement of the provisions of the present Convention, using all appropriate and practicable measures of detection and environmental monitoring, adequate procedures for reporting and accumulation of evidence.

(2) A ship to which the present Convention applies may, in any port or off-shore terminal of a Party, be subject to inspection by officers appointed or authorized by that Party for the purpose of verifying whether the ship has discharged any harmful substances in violation of the provisions of the Regulations. If an inspection indicates a violation of the Convention, a report shall be forwarded to the Administration for any appropriate action.

(3) Any Party shall furnish to the Administration evidence, if any, that the ship has discharged harmful substances or effluents containing such substances in violation of the provisions of the Regulations. If it is practicable to do so, the competent authority of the former Party shall notify the Master of the ship of the alleged violation.

(4) Upon receiving such evidence, the Administration so informed shall investigate the matter, and may request the other Party to furnish further or better evidence of the alleged contravention. If the Administration is satisfied that sufficient evidence is available to enable proceedings to be brought in respect of the alleged violation, it shall cause such proceedings to be taken in accordance with its law as soon as possible. The Administration shall promptly inform the Party which has reported the alleged violation, as well as the Organization, of the action taken.

(5) A Party may also inspect a ship to which the present Convention applies when it enters the ports or off-shore terminals under its jurisdiction, if a request for an

investigation is received from any Party together with sufficient evidence that the ship has discharged harmful substances or effluents containing such substances in any place. The report of such investigation shall be sent to the Party requesting it and to the Administration so that the appropriate action may be taken under the present Convention.

ARTICLE 7

Undue Delay to Ships

- (1) All possible efforts shall be made to avoid a ship being unduly detained or delayed under Article 4, 5 or 6 of the present Convention.
- (2) When a ship is unduly detained or delayed under Article 4, 5 or 6 of the present Convention, it shall be entitled to compensation for any loss or damage suffered.

ARTICLE 8

Reports on Incidents Involving Harmful Substances

- (1) A report of an incident shall be made without delay to the fullest extent possible in accordance with the provisions of Protocol I to the present Convention.
- (2) Each Party to the Convention shall:
 - (a) make all arrangements necessary for an appropriate officer or agency to receive and process all reports on incidents; and
 - (b) notify the Organization with complete details of such arrangements for circulation to other Parties and Member States of the Organization.
- (3) Whenever a Party receives a report under the provisions of the present Article, that Party shall relay the report without delay to:
 - (a) the Administration of the ship involved; and
 - (b) any other State which may be affected.
- (4) Each Party to the Convention undertakes to issue instructions to its maritime inspection vessels and aircraft and to other appropriate services, to report to its authorities any incident referred to in Protocol I to the present Convention. That Party shall, if it considers it appropriate, report accordingly to the Organization and to any other party concerned.

ARTICLE 9

Other Treaties and Interpretation

- (1) Upon its entry into force, the present Convention supersedes the International Convention for the Prevention of Pollution of the Sea by Oil, 1954, as amended, as between Parties to that Convention.

(2) Nothing in the present Convention shall prejudice the codification and development of the law of the sea by the United Nations Conference on the Law of the Sea convened pursuant to Resolution 2750 C(XXV) of the General Assembly of the United Nations nor the present or future claims and legal views of any State concerning the law of the sea and the nature and extent of coastal and flag State jurisdiction.

(3) The term "jurisdiction" in the present Convention shall be construed in the light of international law in force at the time of application or interpretation of the present Convention.

ARTICLE 10

Settlement of Disputes

Any dispute between two or more Parties to the Convention concerning the interpretation or application of the present Convention shall, if settlement by negotiation between the Parties involved has not been possible, and if these Parties do not otherwise agree, be submitted upon request of any of them to arbitration as set out in Protocol II to the present Convention.

ARTICLE 11

Communication of Information

(1) The Parties to the Convention undertake to communicate to the Organization:

- (a) the text of laws, orders, decrees and regulations and other instruments which have been promulgated on the various matters within the scope of the present Convention;
- (b) a list of non-governmental agencies which are authorized to act on their behalf in matters relating to the design, construction and equipment of ships carrying harmful substances in accordance with the provisions of the Regulations;
- (c) a sufficient number of specimens of their certificates issued under the provisions of the Regulations;
- (d) a list of reception facilities including their location, capacity and available facilities and other characteristics;
- (e) official reports or summaries of official reports in so far as they show the results of the application of the present Convention; and
- (f) an annual statistical report, in a form standardized by the Organization, of penalties actually imposed for infringement of the present Convention.

(2) The Organization shall notify Parties of the receipt of any communications under the present Article and circulate to all Parties any information communicated to it under sub-paragraphs (1)(b) to (f) of the present Article.

ARTICLE 12*Casualties to Ships*

- (1) Each Administration undertakes to conduct an investigation of any casualty occurring to any of its ships subject to the provisions of the Regulations if such casualty has produced a major deleterious effect upon the marine environment.
- (2) Each Party to the Convention undertakes to supply the Organization with information concerning the findings of such investigation, when it judges that such information may assist in determining what changes in the present Convention might be desirable.

ARTICLE 13*Signature, Ratification, Acceptance, Approval and Accession*

- (1) The present Convention shall remain open for signature at the Headquarters of the Organization from 15 January 1974 until 31 December 1974 and shall thereafter remain open for accession. States may become Parties to the present Convention by:
 - (a) signature without reservation as to ratification, acceptance or approval; or
 - (b) signature subject to ratification, acceptance or approval, followed by ratification, acceptance or approval; or
 - (c) accession.
- (2) Ratification, acceptance, approval or accession shall be effected by the deposit of an instrument to that effect with the Secretary-General of the Organization.
- (3) The Secretary-General of the Organization shall inform all States which have signed the present Convention or acceded to it of any signature or of the deposit of any new instrument of ratification, acceptance, approval or accession and the date of its deposit.

ARTICLE 14*Optional Annexes*

- (1) A State may at the time of signing, ratifying, accepting, approving or acceding to the present Convention declare that it does not accept any one or all of Annexes III, IV and V (hereinafter referred to as "Optional Annexes") of the present Convention. Subject to the above, Parties to the Convention shall be bound by any Annex in its entirety.
- (2) A State which has declared that it is not bound by an Optional Annex may at any time accept such Annex by depositing with the Organization an instrument of the kind referred to in Article 13(2).
- (3) A State which makes a declaration under paragraph (1) of the present Article in respect of an Optional Annex and which has not subsequently accepted that Annex in accordance with paragraph (2) of the present Article shall not be under any obligation nor entitled to claim any privileges under the present Convention in

respect of matters related to such Annex and all references to Parties in the present Convention shall not include that State in so far as matters related to such Annex are concerned.

(4) The Organization shall inform the States which have signed or acceded to the present Convention of any declaration under the present Article as well as the receipt of any instrument deposited in accordance with the provisions of paragraph (2) of the present Article.

ARTICLE 15

Entry into Force

(1) The present Convention shall enter into force twelve months after the date on which not less than 15 States, the combined merchant fleets of which constitute not less than fifty per cent of the gross tonnage of the world's merchant shipping, have become parties to it in accordance with Article 13.

(2) An Optional Annex shall enter into force twelve months after the date on which the conditions stipulated in paragraph (1) of the present Article have been satisfied in relation to that Annex.

(3) The Organization shall inform the States which have signed the present Convention or acceded to it of the date on which it enters into force and of the date on which an Optional Annex enters into force in accordance with paragraph (2) of the present Article.

(4) For States which have deposited an instrument of ratification, acceptance, approval or accession in respect of the present Convention or any Optional Annex after the requirements for entry into force thereof have been met but prior to the date of entry into force, the ratification, acceptance, approval or accession shall take effect on the date of entry into force of the Convention or such Annex or three months after the date of deposit of the instrument whichever is the later date.

(5) For States which have deposited an instrument of ratification, acceptance, approval or accession after the date on which the Convention or an Optional Annex entered into force, the Convention or the Optional Annex shall become effective three months after the date of deposit of the instrument.

(6) After the date on which all the conditions required under Article 16 to bring an amendment to the present Convention or an Optional Annex into force have been fulfilled, any instrument of ratification, acceptance, approval or accession deposited shall apply to the Convention or Annex as amended.

ARTICLE 16

Amendments

(1) The present Convention may be amended by any of the procedures specified in the following paragraphs.

- (v) an amendment to Protocol II to the Convention shall be subject to the same procedures as for the amendments to an Article of the Convention, as provided for in sub-paragraph (f)(i) above;
 - (g) the amendment shall enter into force under the following conditions:
 - (i) in the case of an amendment to an Article of the Convention, to Protocol II, or to Protocol I or to an Annex to the Convention not under the procedure specified in sub-paragraph (f)(iii), the amendment accepted in conformity with the foregoing provisions shall enter into force six months after the date of its acceptance with respect to the Parties which have declared that they have accepted it;
 - (ii) in the case of an amendment to Protocol I, to an Appendix to an Annex or to an Annex to the Convention under the procedure specified in sub-paragraph (f)(iii), the amendment deemed to have been accepted in accordance with the foregoing conditions shall enter into force six months after its acceptance for all the Parties with the exception of those which, before that date, have made a declaration that they do not accept it or a declaration under sub-paragraph (f)(ii), that their express approval is necessary.
- (3) Amendment by a Conference:
- (a) Upon the request of a Party, concurred in by at least one-third of the Parties, the Organization shall convene a Conference of Parties to the Convention to consider amendments to the present Convention.
 - (b) Every amendment adopted by such a Conference by a two-thirds majority of those present and voting of the Parties shall be communicated by the Secretary-General of the Organization to all Contracting Parties for their acceptance.
 - (c) Unless the Conference decides otherwise, the amendment shall be deemed to have been accepted and to have entered into force in accordance with the procedures specified for that purpose in paragraph (2)(f) and (g) above.
- (4)
- (a) In the case of an amendment to an Optional Annex, a reference in the present Article to a "Party to the Convention" shall be deemed to mean a reference to a Party bound by that Annex.
 - (b) Any Party which has declined to accept an amendment to an Annex shall be treated as a non-Party only for the purpose of application of that Amendment.
- (5) The adoption and entry into force of a new Annex shall be subject to the same procedures as for the adoption and entry into force of an amendment to an Article of the Convention.
- (6) Unless expressly provided otherwise, any amendment to the present Convention made under this Article, which relates to the structure of a ship, shall apply only to ships for which the building contract is placed, or in the absence of a building contract, the keel of which is laid, on or after the date on which the amendment comes into force.

- (7) Any amendment to a Protocol or to an Annex shall relate to the substance of that Protocol or Annex and shall be consistent with the Articles of the present Convention.
- (8) The Secretary-General of the Organization shall inform all Parties of any amendments which enter into force under the present Article, together with the date on which each such amendment enters into force.
- (9) Any declaration of acceptance or of objection to an amendment under the present Article shall be notified in writing to the Secretary-General of the Organization. The latter shall bring such notification and the date of its receipt to the notice of the Parties to the Convention.

ARTICLE 17

Promotion of Technical Co-operation

The Parties to the Convention shall promote, in consultation with the Organization and other international bodies, with assistance and co-ordination by the Executive Director of the United Nations Environment Programme, support for those Parties which request technical assistance for:

- (a) the training of scientific and technical personnel;
- (b) the supply of necessary equipment and facilities for reception and monitoring;
- (c) the facilitation of other measures and arrangements to prevent or mitigate pollution of the marine environment by ships; and
- (d) the encouragement of research;

preferably within the countries concerned, so furthering the aims and purposes of the present Convention.

ARTICLE 18

Denunciation

- (1) The present Convention or any Optional Annex may be denounced by any Parties to the Convention at any time after the expiry of five years from the date on which the Convention or such Annex enters into force for that Party.
- (2) Denunciation shall be effected by notification in writing to the Secretary-General of the Organization who shall inform all the other Parties of any such notification received and of the date of its receipt as well as the date on which such denunciation takes effect.
- (3) A denunciation shall take effect twelve months after receipt of the notification of denunciation by the Secretary-General of the Organization or after the expiry of any other longer period which may be indicated in the notification.

ARTICLE 19*Deposit and Registration*

- (1) The present Convention shall be deposited with the Secretary-General of the Organization who shall transmit certified true copies thereof to all States which have signed the present Convention or acceded to it.
- (2) As soon as the present Convention enters into force, the text shall be transmitted by the Secretary-General of the Organization to the Secretary-General of the United Nations for registration and publication, in accordance with Article 102 of the Charter of the United Nations.

ARTICLE 20*Languages*

The present Convention is established in a single copy in the English, French, Russian and Spanish languages, each text being equally authentic. Official translations in the Arabic, German, Italian and Japanese languages shall be prepared and deposited with the signed original.

IN WITNESS WHEREOF the undersigned being duly authorized by their respective Governments for that purpose have signed the present Convention.

DONE AT LONDON this second day of November, one thousand nine hundred and seventy-three.

PROTOCOL OF 1978 RELATING TO THE INTERNATIONAL CONVENTION
FOR THE PREVENTION OF POLLUTION FROM SHIPS, 1973

THE PARTIES TO THE PRESENT PROTOCOL,

RECOGNIZING the significant contribution which can be made by the International Convention for the Prevention of Pollution from Ships, 1973, to the protection of the marine environment from pollution from ships,

RECOGNIZING ALSO the need to improve further the prevention and control of marine pollution from ships, particularly oil tankers,

RECOGNIZING FURTHER the need for implementing the Regulations for the Prevention of Pollution by Oil contained in Annex I of that Convention as early and as widely as possible,

ACKNOWLEDGING HOWEVER the need to defer the application of Annex II of that Convention until certain technical problems have been satisfactorily resolved,

CONSIDERING that these objectives may best be achieved by the conclusion of a Protocol relating to the International Convention for the Prevention of Pollution from Ships, 1973,

HAVE AGREED as follows:

ARTICLE I

General Obligations

1. The Parties to the present Protocol undertake to give effect to the provisions of:
 - (a) the present Protocol and the Annex hereto which shall constitute an integral part of the present Protocol; and
 - (b) the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as "the Convention"), subject to the modifications and additions set out in the present Protocol.
2. The provisions of the Convention and the present Protocol shall be read and interpreted together as one single instrument.

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3. Every reference to the present Protocol constitutes at the same time a reference to the Annex hereto.

ARTICLE II

Implementation of Annex II of the Convention

1. Notwithstanding the provisions of Article 14(1) of the Convention, the Parties to the present Protocol agree that they shall not be bound by the provisions of Annex II of the Convention for a period of three years from the date of entry into force of the present Protocol or for such longer period as may be decided by a two-thirds majority of the Parties to the present Protocol in the Marine Environment Protection Committee (hereinafter referred to as "the Committee") of the Inter-Governmental Maritime Consultative Organization (hereinafter referred to as "the Organization").

2. During the period specified in paragraph 1 of this Article, the Parties to the present Protocol shall not be under any obligations nor entitled to claim any privileges under the Convention in respect of matters relating to Annex II of the Convention and all reference to Parties in the Convention shall not include the Parties to the present Protocol in so far as matters relating to that Annex are concerned.

ARTICLE III

Communication of Information

The text of Article 11(1)(b) of the Convention is replaced by the following:

"a list of nominated surveyors or recognized organizations which are authorized to act on their behalf in the administration of matters relating to the design, construction, equipment and operation of ships carrying harmful substances in accordance with the provisions of the Regulations for circulation to the Parties for information of their officers. The Administration shall therefore notify the Organization of the specific responsibilities and conditions of the authority delegated to nominated surveyors or recognized organizations."

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ARTICLE IV

Signature, Ratification, Acceptance, Approval and Accession

1. The present Protocol shall be open for signature at the Headquarters of the Organization from 1 June 1978 to 31 May 1979 and shall thereafter remain open for accession. States may become Parties to the present Protocol by:
 - (a) signature without reservation as to ratification, acceptance or approval; or
 - (b) signature, subject to ratification, acceptance or approval, followed by ratification, acceptance or approval; or
 - (c) accession.
2. Ratification, acceptance, approval or accession shall be effected by the deposit of an instrument to that effect with the Secretary-General of the Organization.

ARTICLE V

Entry into Force

1. The present Protocol shall enter into force twelve months after the date on which not less than fifteen States, the combined merchant fleets of which constitute not less than fifty per cent of the gross tonnage of the world's merchant shipping, have become Parties to it in accordance with Article IV of the present Protocol.
2. Any instrument of ratification, acceptance, approval or accession deposited after the date on which the present Protocol enters into force shall take effect three months after the date of deposit.
3. After the date on which an amendment to the present Protocol is deemed to have been accepted in accordance with Article 16 of the Convention, any instrument of ratification, acceptance, approval or accession deposited shall apply to the present Protocol as amended.

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ARTICLE VI

Amendments

The procedures set out in Article 16 of the Convention in respect of amendments to the Articles, an Annex and an Appendix to an Annex of the Convention shall apply respectively to amendments to the Articles, the Annex and an Appendix to the Annex of the present Protocol.

ARTICLE VII

Denunciation

1. The present Protocol may be denounced by any Party to the present Protocol at any time after the expiry of five years from the date on which the Protocol enters into force for that Party.
2. Denunciation shall be effected by the deposit of an instrument of denunciation with the Secretary-General of the Organization.
3. A denunciation shall take effect twelve months after receipt of the notification by the Secretary-General of the Organization or after the expiry of any other longer period which may be indicated in the notification.

ARTICLE VIII

Depositary

1. The present Protocol shall be deposited with the Secretary-General of the Organization (hereinafter referred to as "the Depositary").
2. The Depositary shall:
 - (a) inform all States which have signed the present Protocol or acceded thereto of:
 - (i) each new signature or deposit of an instrument of ratification, acceptance, approval or accession, together with the date thereof;
 - (ii) the date of entry into force of the present Protocol;
 - (iii) the deposit of any instrument of denunciation of the present Protocol together with the date on which it was received and the date on which the denunciation takes effect;

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- (iv) any decision made in accordance with Article II(1) of the present Protocol;
 - (b) transmit certified true copies of the present Protocol to all States which have signed the present Protocol or acceded thereto.
3. As soon as the present Protocol enters into force, a certified true copy thereof shall be transmitted by the Depositary to the Secretariat of the United Nations for registration and publication in accordance with Article 102 of the Charter of the United Nations.

ARTICLE IX

Languages

The present Protocol is established in a single original in the English, French, Russian and Spanish languages, each text being equally authentic. Official translations in the Arabic, German, Italian and Japanese languages shall be prepared and deposited with the signed original.

IN WITNESS WHEREOF the undersigned being duly authorized by their respective Governments for that purpose have signed the present Protocol.

DONE AT LONDON this seventeenth day of February one thousand nine hundred and seventy-eight.

ANNEX I

REGULATIONS FOR THE PREVENTION OF POLLUTION BY OIL

CHAPTER I - 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 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) "Oily mixture" means a mixture with any oil content.
- (3) "Oil fuel" means any oil used as fuel in connexion with the propulsion and auxiliary machinery of the ship in which such oil is carried.
- (4) "Oil tanker" means a ship constructed or adapted primarily to carry oil in bulk in its cargo spaces and includes combination carriers and any "chemical tanker" as defined in Annex II of the present Convention when it is carrying a cargo or part cargo of oil in bulk.
- (5) "Combination carrier" means a ship designed to carry either oil or solid cargoes in bulk.
- (6) "New ship" means a ship:
 - (a) for which the building contract is placed after 31 December 1975; or
 - (b) 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
 - (c) the delivery of which is after 31 December 1979; or
 - (d) which has undergone a major conversion:
 - (i) for which the contract is placed after 31 December 1975; or
 - (ii) in the absence of a contract, the construction work of which is begun after 30 June 1976; or
 - (iii) which is completed after 31 December 1979.
- (7) "Existing ship" means a ship which is not a new ship.

- (8) "Major conversion" means a conversion of an existing ship:
- (a) which substantially alters the dimensions or carrying capacity of the ship; or
 - (b) which changes the type of the ship; or
 - (c) the intent of which in the opinion of the Administration is substantially to prolong its life; or
 - (d) which otherwise so alters the ship that if it were a new ship, it would become subject to relevant provisions of the present Convention not applicable to it as an existing ship.

(9) "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' South, longitude 142°08' East to a point in latitude 10°35' South, longitude 141°55' East — thence to a point latitude 10°00' South, longitude 142°00' East, thence to a point latitude 9°10' South, longitude 143°52' East, thence to a point latitude 9°00' South, longitude 144°30' East, thence to a point latitude 13°00' South, longitude 144°00' East, thence to a point latitude 15°00' South, longitude 146°00' East, thence to a point latitude 18°00' South, longitude 147°00' East, thence to a point latitude 21°00' South, longitude 153°00' East, thence to a point on the coast of Australia in latitude 24°42' South, longitude 153°15' East.

- (10) "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. Special areas shall include those listed in Regulation 10 of this Annex.
- (11) "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.
- (12) "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.
- (13) "Wing tank" means any tank adjacent to the side shell plating.
- (14) "Centre tank" means any tank inboard of a longitudinal bulkhead.
- (15) "Slop tank" means a tank specifically designated for the collection of tank drainings, tank washings and other oily mixtures.
- (16) "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.

(17) "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 substances as variously defined in the Annexes of the present Convention.

(18) "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.

(19) "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.

(20) "Amidships" is at the middle of the length (L).

(21) "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.

(22) "Deadweight" (DW) means the difference in metric tons between the displacement of a ship in water of a specific gravity of 1.025 at the load waterline corresponding to the assigned summer freeboard and the lightweight of the ship.

(23) "Lightweight" means the displacement of a ship in metric tons without cargo, oil fuel, lubricating oil, ballast water, fresh water and feedwater in tanks, consumable stores, passengers and their effects.

(24) "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.

(25) "Volumes" and "areas" in a ship shall be calculated in all cases to moulded lines.

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 9, 10, 14, 15(1), (2) and (3), 18, 20 and 24(4) 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 15(4) of this Annex may apply in lieu of Regulation 15(1), (2) and (3).
- (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) (a) Any hydrofoil, air-cushion vehicle and other new type of vessel (near-surface craft, submarine craft, etc.) whose constructional features are such as to render the application of any of the provisions of Chapters II and III of this Annex relating to construction and equipment unreasonable or impracticable may be exempted by the Administration from such provisions, provided that the construction and equipment of that ship provides equivalent protection against pollution by oil, having regard to the service for which it is intended.
- (b) Particulars of any such exemption granted by the Administration shall be indicated in the Certificate referred to in Regulation 5 of this Annex.
- (c) The Administration which allows any such exemption shall, as soon as possible, but not more than ninety days thereafter, communicate to the Organization particulars of same and the reasons therefor, which the Organization shall circulate to the Parties to the Convention for their information and appropriate action, if any.

Regulation 3

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, as an alternative to that required by this Annex shall communicate to the Organization for circulation to the Parties to the Convention particulars thereof, for their information and appropriate action, if any.

Regulation 4

Surveys

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

- (a) An initial survey before the ship is put in service or before the Certificate required under Regulation 5 of this Annex is issued for the first time, which shall include a complete survey of its structure, equipment, 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, fittings, arrangements and material fully comply with the applicable requirements of this Annex.
 - (b) Periodical surveys at intervals specified by the Administration, but not exceeding five years, which shall be such as to ensure that the structure, equipment, fittings, arrangements and material fully comply with the applicable requirements of this Annex. However, where the duration of the International Oil Pollution Prevention Certificate (1973) is extended as specified in Regulation 8(3) or (4) of this Annex, the interval of the periodical survey may be extended correspondingly.
 - (c) Intermediate surveys at intervals specified by the Administration but not exceeding thirty months, which shall be such as to ensure that the equipment and associated pump and piping systems, including oil discharge monitoring and control 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 International Oil Pollution Prevention Certificate (1973) issued under Regulation 5 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) Surveys of the ship as regards 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. In every case the Administration concerned fully guarantees the completeness and efficiency of the surveys.
 - (4) After any survey of the ship under this Regulation has been completed, no significant change shall be made in the structure, equipment, fittings, arrangements or material covered by the survey without the sanction of the Administration, except the direct replacement of such equipment or fittings.

Regulation 5

Issue of Certificate

- (1) An International Oil Pollution Prevention Certificate (1973) shall be issued, after survey in accordance with the provisions of Regulation 4 of this Annex, to any oil tanker of 150 tons gross tonnage and above and any other ships of 400 tons gross tonnage and above which are engaged in voyages to ports or off-shore terminals under the jurisdiction of other Parties to the Convention. In the case of existing ships this requirement shall apply twelve months after the date of entry into force of the present Convention.
- (2) Such Certificate shall be issued 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 6*Issue of a Certificate by another Government*

- (1) The Government of a Party to the 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 (1973) to 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 5 of this Annex.
- (4) No International Oil Pollution Prevention Certificate (1973) shall be issued to a ship which is entitled to fly the flag of a State which is not a Party.

Regulation 7*Form of Certificate*

The International Oil Pollution Prevention Certificate (1973) shall be drawn up in an official language of the issuing country in the form corresponding to the model given in Appendix II to this Annex. If the language used is neither English nor French, the text shall include a translation into one of these languages.

Regulation 8*Duration of Certificate*

- (1) An International Oil Pollution Prevention Certificate (1973) shall be issued for a period specified by the Administration, which shall not exceed five years from the date of issue, except as provided in paragraphs (2), (3) and (4) of this Regulation.
- (2) If a ship at the time when the Certificate expires is not in a port or off-shore terminal under the jurisdiction of the Party to the Convention whose flag the ship is entitled to fly, the Certificate may be extended by the Administration, but such extension shall be granted only for the purpose of allowing the ship to complete its voyage to the State whose flag the ship is entitled to fly or in which it is to be surveyed and then only in cases where it appears proper and reasonable to do so.
- (3) No Certificate shall be thus extended for a period longer than five months and a ship to which such extension is granted shall not on its arrival in the State whose flag it is entitled to fly or the port in which it is to be surveyed, be entitled by virtue of such extension to leave that port or State without having obtained a new Certificate.

- (4) A Certificate which has not been extended under the provisions of paragraph (2) 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.
- (5) A Certificate shall cease to be valid if significant alterations have taken place in the construction, equipment, fittings, arrangements, or material required without the sanction of the Administration, except the direct replacement of such equipment or fittings, or if intermediate surveys as specified by the Administration under Regulation 4(1)(c) of this Annex are not carried out.
- (6) A Certificate issued to a ship shall cease to be valid upon transfer of such a ship to the flag of another State, except as provided in paragraph (7) of this Regulation.
- (7) Upon transfer of a ship to the flag of another Party, the Certificate shall remain in force for a period not exceeding five months provided that it would not have expired before the end of that period, or until the Administration issues a replacement Certificate, whichever is earlier. As soon as possible after the transfer has taken place the Government of the Party whose flag the ship was formerly entitled to fly shall transmit to the Administration a copy of the Certificate carried by the ship before the transfer and, if available, a copy of the relevant survey report.

CHAPTER II - REQUIREMENTS FOR CONTROL OF
OPERATIONAL POLLUTION

Regulation 9

Control of Discharge of Oil

- (1) Subject to the provisions of Regulations 10 and 11 of this Annex and paragraph (2) of this Regulation, any discharge into the sea of oil or oily mixtures from ships to which this Annex applies shall be prohibited except when all the following conditions are satisfied:
- (a) for an oil tanker, except as provided for in sub-paragraph (b) of this paragraph:
 - (i) the tanker is not within a special area;
 - (ii) the tanker is more than 50 nautical miles from the nearest land;
 - (iii) the tanker is proceeding en route;
 - (iv) the instantaneous rate of discharge of oil content does not exceed 60 litres per nautical mile;
 - (v) the total quantity of oil discharged into the sea does not exceed for existing tankers 1/15,000 of the total quantity of the particular cargo of which the residue formed a part, and for new tankers 1/30,000 of the total quantity of the particular cargo of which the residue formed a part; and

- (vi) the tanker has in operation, except as provided for in Regulation 15(3) of this Annex, an oil discharge monitoring and control system and a slop tank arrangement as required by Regulation 15 of this Annex;
- (b) from a ship of 400 tons gross tonnage and above other than an oil tanker and from machinery space bilges excluding cargo pump room bilges of an oil tanker unless mixed with oil cargo residue:
- (i) the ship is not within a special area;
 - (ii) the ship is more than 12 nautical miles from the nearest land;
 - (iii) the ship is proceeding en route;
 - (iv) the oil content of the effluent is less than 100 parts per million; and
 - (v) the ship has in operation an oil discharge monitoring and control system, oily-water separating equipment, oil filtering system or other installation as required by Regulation 16 of this Annex.
- (2) In the case of a ship of less than 400 tons gross tonnage other than an oil tanker whilst outside the special area, the Administration shall ensure that it is equipped as far as practicable and reasonable with installations to ensure the storage of oil residues on board and their discharge to reception facilities or into the sea in compliance with the requirements of paragraph (1)(b) of this Regulation.
- (3) 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 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 or Regulation 10 of this Annex. 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.
- (4) The provisions of paragraph (1) of this Regulation shall not apply to the discharge of clean or segregated ballast. The provisions of sub-paragraph (1)(b) of this Regulation shall not apply to the discharge of oily mixture which without dilution has an oil content not exceeding 15 parts per million.
- (5) 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.
- (6) The oil residues which cannot be discharged into the sea in compliance with paragraphs (1), (2) and (4) of this Regulation shall be retained on board or discharged to reception facilities.

Regulation 10

Methods for the Prevention of Oil Pollution from Ships while operating in Special Areas

- (1) For the purposes of this Annex the special areas are the Mediterranean Sea area, the Baltic Sea area, the Black Sea area, the Red Sea area and the "Gulfs area" which are defined as follows:

- (a) 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 5°36'W.
 - (b) 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.
 - (c) The Black Sea area means the Black Sea proper with the boundary between the Mediterranean and the Black Sea constituted by the parallel 41°N.
 - (d) 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°8.5'N, 43°19.6'E) and Husn Murad (12°40.4'N, 43°30.2'E).
 - (e) The Gulfs area means the sea area located north west of the rhumb line between Ras al Hadd (22°30'N, 59°48'E) and Ras Al FasteH (25°04'N, 61°25'E).
- (2) (a) Subject to the provisions of Regulation 11 of this Annex, any discharge into the sea of oil or oily mixture from any oil tanker and any ship of 400 tons gross tonnage and above other than an oil tanker shall be prohibited, while in a special area.
 - (b) Such ships while in a special area shall retain on board all oil drainage and sludge, dirty ballast and tank washing waters and discharge them only to reception facilities.
- (3) (a) Subject to the provisions of Regulation 11 of this Annex, any discharge into the sea of oil or oily mixture from a ship of less than 400 tons gross tonnage, other than an oil tanker, shall be prohibited while in a special area, except when the oil content of the effluent without dilution does not exceed 15 parts per million or alternatively when all of the following conditions are satisfied:
 - (i) the ship is proceeding en route;
 - (ii) the oil content of the effluent is less than 100 parts per million; and
 - (iii) the discharge is made as far as practicable from the land, but in no case less than 12 nautical miles from the nearest land.
 - (b) 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.
 - (c) The oil residues which cannot be discharged into the sea in compliance with sub-paragraph (a) of this paragraph shall be retained on board or discharged to reception facilities.
- (4) The provisions 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 Regulation 9 of this Annex.

(6) 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 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 or Regulation 9 of this Annex. 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.

(7) Reception facilities within special areas:

(a) Mediterranean Sea, Black Sea and Baltic Sea areas:

- (i) The Government of each Party to the Convention, the coastline of which borders on any given special area undertakes to ensure that not later than 1 January 1977 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.
- (ii) The Government of each Party having under its jurisdiction entrances to seawater courses with low depth contour which might require a reduction of draught by the discharge of ballast undertakes to ensure the provision of the facilities referred to in sub-paragraph (a)(i) of this paragraph but with the proviso that ships required to discharge slops or dirty ballast could be subject to some delay.
- (iii) During the period between the entry into force of the present Convention (if earlier than 1 January 1977) and 1 January 1977 ships while navigating in the special areas shall comply with the requirements of Regulation 9 of this Annex. However, the Governments of Parties the coastlines of which border any of the special areas under this sub-paragraph may establish a date earlier than 1 January 1977, but after the date of entry into force of the present Convention, from which the requirements of this Regulation in respect of the special areas in question shall take effect:
 - (1) if all the reception facilities required have been provided by the date so established; and
 - (2) provided that the Parties concerned notify the Organization of the date so established at least six months in advance, for circulation to other Parties.
- (iv) After 1 January 1977, or the date established in accordance with sub-paragraph (a)(iii) of this paragraph if earlier, each Party shall

notify the Organization for transmission to the Contracting Governments concerned of all cases where the facilities are alleged to be inadequate.

(b) Red Sea area and Gulfs area:

- (i) The Government of each Party the coastline of which borders on the special areas undertakes to ensure that as soon as possible all oil loading terminals and repair ports within these special areas are provided with facilities adequate for the reception and treatment of all the dirty ballast and tank washing water from 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.
- (ii) The Government of each Party 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 undertake to ensure the provision of the facilities referred to in sub-paragraph (b)(i) of this paragraph but with the proviso that ships required to discharge slops or dirty ballast could be subject to some delay.
- (iii) Each Party concerned shall notify the Organization of the measures taken pursuant to provisions of sub-paragraph (b)(i) and (ii) of this paragraph. Upon receipt of sufficient notifications the Organization shall establish a date from which the requirements of this Regulation 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.
- (iv) 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 Regulation 9 of this Annex.
- (v) 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 this Regulation. 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.
- (vi) 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.
- (vii) At least the reception facilities as prescribed in Regulation 12 of this Annex shall be provided by 1 January 1977 or one year after the date of entry into force of the present Convention, whichever occurs later.

Regulation 11*Exceptions*

Regulations 9 and 10 of this Annex shall not apply to:

- (a) 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
- (b) the discharge into the sea of oil or oily mixture resulting from damage to a ship or its equipment:
 - (i) 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
 - (ii) 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
- (c) 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 12*Reception Facilities*

(1) Subject to the provisions of Regulation 10 of this Annex, the Government of each Party 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:

- (a) 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;
- (b) all ports and terminals in which oil other than crude oil in bulk is loaded at an average quantity of more than 1,000 metric tons per day;
- (c) all ports having ship repair yards or tank cleaning facilities;
- (d) all ports and terminals which handle ships provided with the sludge tank(s) required by Regulation 17 of this Annex;
- (e) all ports in respect of oily bilge waters and other residues, which cannot be discharged in accordance with Regulation 9 of this Annex; and

- (f) all loading ports for bulk cargoes in respect of oil residues from combination carriers which cannot be discharged in accordance with Regulation 9 of this Annex.
- (3) The capacity for the reception facilities shall be as follows:
- (a) 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 9(1)(a) of this Annex from all oil tankers on voyages as described in paragraph (2)(a) of this Regulation.
 - (b) Loading ports and terminals referred to in paragraph (2)(b) 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 9(1)(a) of this Annex from oil tankers which load oil other than crude oil in bulk.
 - (c) 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.
 - (d) All facilities provided in ports and terminals under paragraph (2)(d) of this Regulation shall be sufficient to receive all residues retained according to Regulation 17 of this Annex from all ships that may reasonably be expected to call at such ports and terminals.
 - (e) 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 9 of this Annex.
 - (f) The facilities provided in loading ports for bulk cargoes shall take into account the special problems of combination carriers as appropriate.
- (4) The reception facilities prescribed in paragraphs (2) and (3) of this Regulation shall be made available no later than one year from the date of entry into force of the present Convention or by 1 January 1977, whichever occurs later.
- (5) 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.

Regulation 13.

Segregated Ballast Oil Tankers

- (1) Every new oil tanker of 70,000 tons deadweight and above shall be provided with segregated ballast tanks and shall comply with the requirements 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 oil tanks for water ballast except as provided for in paragraph (3) 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 each of the following requirements:

- (a) the moulded draught amidships (dm) in metres (without taking into account any ship's deformation) shall not be less than:

$$dm = 2.0 + 0.02L;$$

- (b) the draughts at the forward and after perpendiculars shall correspond to those determined by the draught amidships (dm), as specified in subparagraph (a) of this paragraph, in association with the trim by the stern of not greater than 0.015L; and
- (c) 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 oil tanks except in weather conditions so severe that, in the opinion of the Master, it is necessary to carry additional ballast water in oil tanks for the safety of the ship. Such additional ballast water shall be processed and discharged in compliance with Regulation 9 and in accordance with the requirements of Regulation 15 of this Annex, and entry shall be made in the Oil Record Book referred to in Regulation 20 of this Annex.

(4) Any oil tanker which is not required to be provided with segregated ballast tanks in accordance with paragraph (1) of this Regulation may, however, be qualified as a segregated ballast tanker, provided that in the case of an oil tanker of 150 metres in length and above it fully complies with the requirements of paragraphs (2) and (3) of this Regulation and in the case of an oil tanker of less than 150 metres in length the segregated ballast conditions shall be to the satisfaction of the Administration.

Regulation 14

Segregation of Oil and Water Ballast

(1) Except as provided in paragraph (2) of this Regulation, in new ships of 4,000 tons gross tonnage and above other than oil tankers, and in new oil tankers of 150 tons gross tonnage and above, no ballast water shall be carried in any oil fuel tank.

(2) Where abnormal conditions or 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 9 using the equipment specified in Regulation 16(2) of this Annex, and an entry shall be made in the Oil Record Book to this effect.

(3) All other ships shall comply with the requirements of paragraph (1) of this Regulation as far as reasonable and practicable.

Regulation 15

Retention of Oil on Board

- (1) Subject to the provisions of paragraphs (5) and (6) of this Regulation, oil tankers of 150 tons gross tonnage and above shall be provided with arrangements in accordance with the requirements of paragraphs (2) and (3) of this Regulation, provided that in the case of existing tankers the requirements for oil discharge monitoring and control systems and slop tank arrangements shall apply three years after the date of entry into force of the present Convention.
- (2) (a) Adequate means shall be provided for cleaning the cargo tanks and transferring the dirty ballast residue and tank washings from the cargo tanks into a slop tank approved by the Administration. In existing oil tankers, any cargo tank may be designated as a slop tank.
- (b) 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 9 of this Annex.
- (c) The arrangements of the slop tank or combination of slop tanks shall have a capacity necessary to retain the slops generated by tank washing, oil residues and dirty ballast residues but the total shall be not less than 3 per cent of the oil carrying capacity of the ship, except that, where segregated ballast tanks are provided in accordance with Regulation 13 of this Annex, or where arrangements such as eductors involving the use of water additional to the washing water are not fitted, the Administration may accept 2 per cent. New oil tankers over 70,000 tons dead-weight shall be provided with at least two slop tanks.
- (d) 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) (a) An oil discharge monitoring and control system approved by the Administration shall be fitted. 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 monitor 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 9(1)(a) of this Annex. Any failure of this monitoring and control system shall stop the discharge

* Reference is made to the Recommendation on International Performance Specifications for Oily-Water Separating Equipment and Oil Content Meters adopted by the Organization by Resolution A.233(VII).

and be noted in the Oil Record Book. A manually operated alternative method shall be provided and may be used in the event of such failure, but the defective unit shall be made operable before the oil tanker commences its next ballast voyage unless it is proceeding to a repair port. Existing oil tankers shall comply with all of the provisions specified above except that the stopping of the discharge may be performed manually and the rate of discharge may be estimated from the pump characteristic.

- (b) Effective oil/water interface detectors approved by the Administration shall be provided 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.
 - (c) 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 9 of this Annex.*
- (4) The requirements of paragraphs (1), (2) and (3) of this Regulation shall not apply to oil tankers of less than 150 tons gross tonnage, for which the control of discharge of oil under Regulation 9 of this Annex 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 recorded in the Oil Record Book. This total quantity 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 Regulation 9 of this Annex are complied with.
- (5) The Administration may waive the requirements of paragraphs (1), (2) and (3) of this Regulation for any oil tanker which engages exclusively on voyages both of 72 hours or less in duration and within 50 miles from the nearest land, provided that the oil tanker is not required to hold and does not hold an International Oil Pollution Prevention Certificate (1973). 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.
- (6) Where in the view of the Organization equipment required by Regulation 9(1)(a)(vi) of this Annex and specified in sub-paragraph (3)(a) of this Regulation is not obtainable for the monitoring of discharge of light refined products (white oils), the Administration may waive compliance with such requirement, provided that discharge shall be permitted only in compliance with procedures established by the Organization which shall satisfy the conditions of Regulation 9(1)(a) of this Annex except the obligation to have an oil discharge monitoring and control system in operation. The Organization shall review the availability of equipment at intervals not exceeding twelve months.

* Reference is made to "Clean Seas Guide for Oil Tankers", published by the International Chamber of Shipping and the Oil Companies International Marine Forum.

(7) The requirements of paragraphs (1), (2) and (3) of this Regulation shall not apply to oil tankers carrying asphalt, for which the control of discharge of asphalt under Regulation 9 of this Annex shall be effected by the retention of asphalt residues on board with discharge of all contaminated washings to reception facilities.

Regulation 16

Oil Discharge Monitoring and Control System and Oily-Water Separating Equipment

(1) Any ship of 400 tons gross tonnage and above shall be fitted with an oily-water separating equipment or filtering system complying with the provisions of paragraph (6) of this Regulation. Any such ship which carries large quantities of oil fuel shall comply with paragraph 2 of this Regulation or paragraph (1) of Regulation 14.

(2) Any ship of 10,000 tons gross tonnage and above shall be fitted:

(a) in addition to the requirements of paragraph (1) of this Regulation with an oil discharge monitoring and control system complying with paragraph (5) of this Regulation; or

(b) as an alternative to the requirements of paragraph (1) and subparagraph (2)(a) of this Regulation, with an oily-water separating equipment complying with paragraph (6) of this Regulation and an effective filtering system, complying with paragraph (7) of this Regulation.

(3) The Administration shall ensure that ships of less than 400 tons 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 9(1)(b) of this Annex.

(4) For existing ships the requirements of paragraphs (1), (2) and (3) of this Regulation shall apply three years after the date of entry into force of the present Convention.

(5) An oil discharge monitoring and control system shall be of a design approved by the Administration. In considering the design of the oil content meter to be incorporated into 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 oil content in parts per million. This record shall be identifiable as to time and date and shall be kept for at least three years. The 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 oil content of effluent exceeds that permitted by Regulation 9(1)(b) of this Annex. Any failure of this monitoring and control system shall stop the discharge and be noted in the

* Reference is made to the Recommendation on International Performance Specifications for Oily-Water Separating Equipment and Oil Content Meters adopted by the Organization by Resolution A.233(VII).

Oil Record Book. The defective unit shall be made operable before the ship commences its next voyage unless it is proceeding to a repair port. Existing ships shall comply with all of the provisions specified above except that the stopping of the discharge may be performed manually.

(6) Oily-water separating equipment or an oil filtering system 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 separator or filtering systems shall have an oil content of not more than 100 parts per million. In considering the design of such equipment, the Administration shall have regard to the specification recommended by the Organization.*

(7) The oil filtering system referred to in paragraph (2)(b) of this Regulation shall be of a design approved by the Administration and shall be such that it will accept the discharge from the separating system and produce an effluent the oil content of which does not exceed 15 parts per million. It shall be provided with alarm arrangements to indicate when this level cannot be maintained.

Regulation 17

Tanks for Oil Residues (Sludge)

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

(2) In new ships, such tanks shall be designed and constructed so as to facilitate their cleaning and the discharge of residues to reception facilities. Existing ships shall comply with this requirement as far as is reasonable and practicable.

Regulation 18

Pumping, Piping and Discharge Arrangements of Oil Tankers

(1) In every oil tanker, a discharge manifold for connexion 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, pipelines for the discharge to the sea of effluent which may be permitted under Regulation 9 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 (4)(a) and (b) of this Regulation may be accepted.

* Reference is made to the Recommendation on International Performance Specifications for Oily-Water Separating Equipment and Oil Content Meters adopted by the Organization by Resolution A.233(VII).

(3) In new oil tankers means shall be provided for stopping the discharge of effluent into the sea from a position on upper deck or above located so that the manifold in use referred to in paragraph (1) of this Regulation and the effluent 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 telephone or radio system is provided between the observation position and the discharge control position.

(4) All discharges shall take place above the waterline except as follows:

- (a) Segregated ballast and clean ballast may be discharged below the waterline in ports or at offshore terminals.
- (b) Existing ships which, without modification, are not capable of discharging segregated ballast above the waterline may discharge segregated ballast below the waterline provided that an examination of the tank immediately before the discharge has established that no contamination with oil has taken place.

Regulation 19

Standard Discharge Connection

To enable pipes of reception facilities to be connected with the ship's discharge pipeline for residues from machinery bilges, 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 oilproof material, shall be suitable for a service pressure of 6 kg/cm ² . | |

Regulation 20*Oil Record Book*

(1) Every oil tanker of 150 tons gross tonnage and above and every ship of 400 tons gross tonnage and above other than an oil tanker shall be provided with an Oil Record Book, whether as part of the ship's official log book or otherwise, in the form specified in Appendix III to this Annex.

(2) The Oil Record Book shall be completed on each occasion, on a tank-to-tank basis, whenever any of the following operations take place in the ship:

(a) For oil tankers

- (i) loading of oil cargo;
- (ii) internal transfer of oil cargo during voyage;
- (iii) opening or closing before and after loading and unloading operations of valves or similar devices which inter-connect cargo tanks;
- (iv) opening or closing of means of communication between cargo piping and seawater ballast piping;
- (v) opening or closing of ships' side valves before, during and after loading and unloading operations;
- (vi) unloading of oil cargo;
- (vii) ballasting of cargo tanks;
- (viii) cleaning of cargo tanks;
- (ix) discharge of ballast except from segregated ballast tanks;
- (x) discharge of water from slop tanks;
- (xi) disposal of residues;
- (xii) discharge overboard of bilge water which has accumulated in machinery spaces whilst in port, and the routine discharge at sea of bilge water which has accumulated in machinery spaces.

(b) For ships other than oil tankers

- (i) ballasting or cleaning of fuel oil tanks or oil cargo spaces;
- (ii) discharge of ballast or cleaning water from tanks referred to under (i) of this sub-paragraph;
- (iii) disposal of residues;
- (iv) discharge overboard of bilge water which has accumulated in machinery spaces whilst in port, and the routine discharge at sea of bilge water which has accumulated in machinery spaces.

(3) In the event of such discharge of oil or oily mixture as is referred to in Regulation 11 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 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 so that all the entries in the book appropriate to that operation are completed. Each section of the book shall be signed by the officer or officers in charge of the operations concerned and shall be countersigned by the Master of the ship. The entries in the Oil Record Book shall be in an official language of the State whose flag the ship is entitled to fly, and, for ships holding an International Oil Pollution Prevention Certificate (1973), in English or French. The entries in an official national language of the State whose flag the ship is entitled to fly shall prevail in case of a dispute or discrepancy.

(5) 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.

(6) The competent authority of the Government of a Party to the Convention may inspect the Oil Record Book 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 shall be made admissible in any judicial proceedings as evidence of the facts stated in the entry. The inspection of an Oil Record Book 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.

Regulation 21

Special Requirements for Drilling Rigs and other Platforms

Fixed and floating drilling rigs 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 tons gross tonnage and above other than oil tankers, except that:

- (a) they shall be equipped as far as practicable with the installations required in Regulations 16 and 17 of this Annex;
- (b) they shall keep a record of all operations involving oil or oily mixture discharges, in a form approved by the Administration; and
- (c) in any special area and subject to the provisions of Regulation 11 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.

CHAPTER III - REQUIREMENTS FOR MINIMIZING OIL POLLUTION FROM
OIL TANKERS DUE TO SIDE AND BOTTOM DAMAGES

Regulation 22

Damage Assumptions

(1) For the purpose of calculating hypothetical oil outflow from oil tankers, 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.

(a) *Side damage*

- (i) Longitudinal extent (ℓ_c): $\frac{1}{3}L^{\frac{2}{3}}$ or 14.5 metres,
whichever is less
- (ii) Transverse extent (t_c): $\frac{B}{5}$ or 11.5 metres,
whichever is less
(inboard from the ship's side at right angles to the centre-line at the level corresponding to the assigned summer free-board)
- (iii) Vertical extent (v_c): from the base line upwards without limit

(b) *Bottom damage*

- | | For 0.3L from the forward perpendicular of the ship | Any other part of the ship |
|---|--|---|
| (i) Longitudinal extent (ℓ_s): | $\frac{L}{10}$ | $\frac{L}{10}$ or 5 metres, whichever is less |
| (ii) Transverse extent (t_s): | $\frac{B}{6}$ or 10 metres, whichever is less but not less than 5 metres | 5 metres |
| (iii) Vertical extent from the base line (v_s): | $\frac{B}{15}$ 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 23

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 22 of this Annex.

(a) for side damages:

$$O_c = \sum W_i + \sum K_i C_i \quad (I)$$

(b) for bottom damages:

$$O_s = \frac{1}{3}(\sum Z_i W_i + \sum Z_i C_i) \quad (II)$$

where: W_i = volume of a wing tank in cubic metres assumed to be breached by the damage as specified in Regulation 22 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 22 of this Annex; C_i for a segregated ballast tank may be taken equal to zero,

$K_i = 1 - \frac{b_i}{t_c}$ when b_i is equal to or greater than t_c , K_i shall be taken equal to zero,

$Z_i = 1 - \frac{h_i}{v_s}$ 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 22 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 a collision the value of the actual full volume.

$$S_i = 1 - \frac{\ell_i}{\ell_c}$$

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

- (3) (a) 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.
- (b) 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.
- (c) 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 connexion 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

$$O_s = \frac{1}{4}(\sum Z_i W_i + \sum Z_i C_i) \quad \text{(III)}$$

- (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.

Regulation 24

Limitation of Size and Arrangement of Cargo Tanks

- (1) Every new oil tanker shall comply with the provision of this Regulation. Every existing oil tanker shall be required, within two years after the date of entry into force of the present Convention, to comply with the provisions of this Regulation if such a tanker falls into either of the following categories:

- (a) a tanker, the delivery of which is after 1 January 1977; or
- (b) a tanker to which both the following conditions apply:
 - (i) delivery is not later than 1 January 1977; and
 - (ii) 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.

(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 23 of this Annex anywhere in the length of the ship does not exceed 30,000 cubic metres or $400 \sqrt[3]{DWT}$, 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 seventy-five 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 13 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 metres or one of the following values, whichever is the greater:

- (a) where no longitudinal bulkhead is provided:

$$0.1L$$

- (b) where a longitudinal bulkhead is provided at the centreline only:

$$0.15L$$

- (c) where two or more longitudinal bulkheads are provided:

- (i) for wing tanks:

$$0.2L$$

- (ii) for centre tanks:

- (1) if $\frac{b_i}{B}$ is equal to or greater than $\frac{1}{5}$:

$$0.2L$$

- (2) if $\frac{b_i}{B}$ is less than $\frac{1}{5}$:

– where no centreline longitudinal bulkhead is provided:

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

– where a centreline longitudinal bulkhead is provided:

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

(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 inter-connects 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.

Regulation 25

Subdivision and Stability

(1) Every new oil tanker 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 specific gravities of the cargo. Such damage shall be applied to all conceivable locations along the length of the ship as follows:

- (a) in tankers of more than 225 metres in length, anywhere in the ship's length;
- (b) 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;
- (c) 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:

- (a) The extent of side or bottom damage shall be as specified in Regulation 22 of this Annex, except that the longitudinal extent of bottom damage within $0.3L$ from the forward perpendicular shall be the same as for side damage, as specified in Regulation 22(1)(a)(i) of this Annex. If any damage of lesser extent results in a more severe condition such damage shall be assumed.

- (b) Where the damage involving transverse bulkheads is envisaged as specified in sub-paragraphs (1)(a) and (b) of this Regulation, transverse watertight bulkheads shall be spaced at least at a distance equal to the longitudinal extent of assumed damage specified in sub-paragraph (a) of this paragraph in order to be considered effective. Where transverse bulkheads 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.
 - (c) Where the damage between adjacent transverse watertight bulkheads is envisaged as specified in sub-paragraph (1)(c) of this Regulation, no main transverse bulkhead or a transverse bulkhead bounding side tanks or double bottom tanks shall be assumed damaged, unless:
 - (i) the spacing of the adjacent bulkheads is less than the longitudinal extent of assumed damage specified in sub-paragraph (a) of this paragraph; or
 - (ii) there is a step or a 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 tank top shall not be regarded as a step for the purpose of this Regulation.
 - (d) 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:
- (a) 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 side scuttles of the non-opening type.
 - (b) In the final stage of flooding, the angle of heel due to unsymmetrical flooding shall not exceed 25 degrees, provided that this angle may be increased up to 30 degrees if no deck edge immersion occurs.
 - (c) 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 degrees beyond the position of equilibrium in association with a maximum residual righting lever of at least 0.1 metre. The Administration shall give consideration to the potential hazard presented by protected or unprotected openings which may become temporarily immersed within the range of residual stability.
 - (d) The Administration shall be satisfied that the stability is sufficient during intermediate stages of flooding.

(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, specific gravities and the free surface effect of liquids. The calculations shall be based on the following:

- (a) Account shall be taken of any empty or partially filled tank, the specific gravity of cargoes carried, as well as any outflow of liquids from damaged compartments.
- (b) The permeabilities are assumed as follows:

| <i>Spaces</i> | <i>Permeability</i> |
|---------------------------------|---------------------|
| Appropriated to stores | 0.60 |
| Occupied by accommodation | 0.95 |
| Occupied by machinery | 0.85 |
| Voids | 0.95 |
| Intended for consumable liquids | 0 or 0.95* |
| Intended for other liquids | 0 to 0.95** |

* Whichever results in the more severe requirements.

** The permeability of partially filled compartments shall be consistent with the amount of liquid carried.

- (c) 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 sub-paragraph (3)(a) of this Regulation in respect of these intact spaces are complied with. Hinged watertight doors may be acceptable in watertight bulkheads in the superstructure.
 - (d) The free surface effect shall be calculated at an angle of heel of 5 degrees for each individual compartment. The Administration may require or allow the free surface corrections to be calculated at an angle of heel greater than 5 degrees for partially filled tanks.
 - (e) 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 surfaces is the greatest.
- (5) The Master of every oil tanker and the person in charge of a non-self-propelled oil tanker to which this Annex applies shall be supplied in an approved form with:
- (a) information relative to loading and distribution of cargo necessary to ensure compliance with the provisions of this Regulation; and
 - (b) 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 sub-paragraph (1)(c) of this Regulation.

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

Reformats

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

* The list of oils shall not necessarily be considered as comprehensive.

Appendix II

FORM OF CERTIFICATE

INTERNATIONAL OIL POLLUTION PREVENTION CERTIFICATE (1973)

Issued under the Provisions of the International Convention for the Prevention of Pollution from Ships, 1973, 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 International Convention for the Prevention of Pollution from Ships, 1973)

| Name of Ship | Distinctive Number or Letter | Port of Registry | Gross Tonnage |
|--------------|------------------------------|------------------|---------------|
| | | | |

Type of ship:

- Oil tanker, including combination carrier*
- Asphalt carrier*
- 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*

New/existing ship*

Date of building or major conversion contract

Date on which keel was laid or ship was at a similar stage of construction or on which major conversion was commenced

Date of delivery or completion of major conversion.

* Delete as appropriate.

PART A ALL SHIPS

The ship is equipped with:

for ships of 400 tons gross tonnage and above:

- (a) oily-water separating equipment* (capable of producing the effluent with an oil content not exceeding 100 parts per million) or
- (b) an oil filtering system* (capable of producing the effluent with an oil content not exceeding 100 parts per million)

for ships of 10,000 tons gross tonnage and above:

- (c) an oil discharge monitoring and control system* (additional to (a) or (b) above) or
- (d) oily-water separating equipment and an oil filtering system* (capable of producing the effluent with an oil content not exceeding 15 parts per million) in lieu of (a) or (b) above.

Particulars of requirements from which exemption is granted under Regulation 2(2) and 2(4)(a) of Annex I of the Convention:

.....
.....

Remarks:

* Delete as appropriate.

PART B OIL TANKER^{1 2}

Deadweight metric tons. Length of ship metres.

It is certified that this ship is:

- (a) required to be constructed according to and complies with³
- (b) not required to be constructed according to³
- (c) not required to be constructed according to, but complies with³

the requirements of Regulation 24 of Annex I of the Convention.

The capacity of segregated ballast tanks is cubic metres and complies with the requirements of Regulation 13 of Annex I of the Convention.

The segregated ballast is distributed as follows:

| Tank | Quantity | Tank | Quantity |
|------|----------|------|----------|
| | | | |

¹ This Part should be completed for oil tankers including combination carriers and asphalt carriers, and those entries which are applicable should be completed for ships other than oil tankers which are constructed and utilized to carry oil in bulk of an aggregate capacity of 200 cubic metres or above.

² This page need not be reproduced on a Certificate issued to any ship other than those referred to in footnote 1.

³ Delete as appropriate.

THIS IS TO CERTIFY:

That the ship has been surveyed in accordance with Regulation 4 of Annex I of the International Convention for the Prevention of Pollution from Ships, 1973, concerning the prevention of pollution by oil; and

That the survey shows that the structure, equipment, 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 intermediate survey(s) at intervals of

Issued at
(place of issue of Certificate)

..... 19 ..
(Signature of duly authorized official
issuing the Certificate)

(Seal or stamp of the issuing Authority, as appropriate)

Endorsement for existing ships⁴

This is to certify that this ship has been so equipped as to comply with the requirements of the International Convention for the Prevention of Pollution from Ships, 1973 as relating to existing ships three years from the date of entry into force of the Convention.

Signed
(Signature of duly authorized official)

Place of endorsement

Date of endorsement

(Seal or stamp of the Authority, as appropriate)

⁴ This entry need not be reproduced on a Certificate other than the first Certificate issued to any ship.

Intermediate, survey

This is to certify that at an intermediate survey required by Regulation 4(1)(c) of Annex I of the Convention, this ship and the condition thereof are found to comply with the relevant provisions of the Convention.

Signed
(Signature of duly authorized official)

Place

Date

(Seal or stamp of the Authority, as appropriate)

Signed
(Signature of duly authorized official)

Place

Date

(Seal or stamp of the Authority, as appropriate)

Under the provisions of Regulation 8(2) and (4) of Annex I of the Convention the validity of this Certificate is extended until

.....

Signed
(Signature of duly authorized official)

Place

Date

(Seal or stamp of the Authority, as appropriate)

Appendix III**FORM OF OIL RECORD BOOK****OIL RECORD BOOK****I – FOR OIL TANKERS¹**

Name of ship

Total cargo carrying capacity of ship in cubic metres

Voyage from(date)..... to.....(date).....

(a) Loading of oil cargo

| | | | |
|---|--|--|--|
| 1. Date and place of loading | | | |
| 2. Types of oil loaded | | | |
| 3. Identity of tank(s) loaded | | | |
| 4. Closing of applicable cargo tank valves and applicable line cut-off valves on completion of loading ² | | | |

The undersigned certifies that in addition to the above, all sea valves, overboard discharge valves, cargo tank and pipeline connections and inter-connections, were secured on completion of loading oil cargo.

Date of entry Officer in charge

Master

¹ This Part should be completed for oil tankers including combination carriers and asphalt carriers, and those entries which are applicable shall be completed for ships other than oil tankers which are constructed and utilized to carry oil in bulk of an aggregate capacity of 200 cubic metres or above. This Part need not be reproduced on an Oil Record Book issued to any ship other than those referred to above.

² Applicable valves and similar devices are those referred to in Regulations 20(2)(a)(iii), 23 and 24 of Annex I of the Convention.

(b) Internal transfer of oil cargo during voyage

| | | | | |
|---------------------------------------|------|------|--|--|
| 5. Date of internal transfer | | | | |
| 6. Identity of tank(s) | (i) | From | | |
| | (ii) | To | | |
| 7. Was(were) tank(s) in 6(i) emptied? | | | | |

The undersigned certifies that in addition to the above, all sea valves, over-board discharge valves, cargo tank and pipeline connections and inter-connections, were secured on completion of internal transfer of oil cargo.

Date of entry Officer in charge
Master

(c) Unloading of oil cargo

| | | | |
|--|--|--|--|
| 8. Date and place of unloading | | | |
| 9. Identity of tank(s) unloaded | | | |
| 10. Was(were) tank(s) emptied? | | | |
| 11. Opening of applicable cargo tank valves and applicable line cut-off valves prior to cargo unloading ² | | | |
| 12. Closing of applicable cargo tank valves and applicable line cut-off valves on completion of unloading ² | | | |

The undersigned certifies that in addition to the above, all sea valves, over-board discharge valves, cargo tank and pipeline connections and inter-connections, were secured on completion of unloading of oil cargo.

Date of entry Officer in charge
Master

(d) Ballasting of cargo tanks

| | | | |
|--|--|--|--|
| 13. Identity of tank(s) ballasted | | | |
| 14. Date and position of ship at start of ballasting | | | |
| 15. If valves connecting cargo lines and segregated ballast lines were used give time, date and position of ship when valves were (a) opened, and (b) closed | | | |

The undersigned certifies that in addition to the above all sea valves, overboard discharge valves, cargo tank and pipeline connections and inter-connections, were secured on completion of ballasting.

Date of entry Officer in charge
 Master

(e) Cleaning of cargo tanks

| | | | |
|--------------------------------------|--|--|--|
| 16. Identity of tank(s) cleaned | | | |
| 17. Date and duration of cleaning | | | |
| 18. Methods of cleaning ³ | | | |

Date of entry Officer in charge
 Master

³ Hand hosing, machine washing and/or chemical cleaning. Where chemically cleaned, the chemical concerned and the amount used should be stated.

(f) Discharge of dirty ballast

| | | | |
|---|--|--|--|
| 19. Identity of tank(s) | | | |
| 20. Date and position of ship at start of discharge to sea | | | |
| 21. Date and position of ship at finish of discharge to sea | | | |
| 22. Ship's speed(s) during discharge | | | |
| 23. Quantity discharged to sea | | | |
| 24. Quantity of polluted water transferred to slop tank(s) (identify slop tank(s)) | | | |
| 25. Date and port of discharge into shore reception facilities (if applicable) | | | |
| 26. Was any part of the discharge conducted during darkness, if so, for how long? | | | |
| 27. Was a regular check kept on the effluent and the surface of the water in the locality of the discharge? | | | |
| 28. Was any oil observed on the surface of the water in the locality of the discharge? | | | |

Date of entry Officer in charge

Master

(g) Discharge of water from slop tanks

| | | | |
|---|--|--|--|
| 29. Identity of slop tank(s) | | | |
| 30. Time of settling from last entry of residues, or | | | |
| 31. Time of settling from last discharge | | | |
| 32. Date, time and position of ship at start of discharge | | | |
| 33. Sounding of total contents at start of discharge | | | |
| 34. Sounding of oil/water interface at start of discharge | | | |
| 35. Bulk quantity discharged and rate of discharge | | | |
| 36. Final quantity discharged and rate of discharge | | | |
| 37. Date, time and position of ship at end of discharge | | | |
| 38. Ship's speed(s) during discharge | | | |
| 39. Sounding of oil/water interface at end of discharge | | | |
| 40. Was any part of the discharge conducted during darkness, if so, for how long? | | | |
| 41. Was a regular check kept on the effluent and the surface of the water in the locality of the discharge? | | | |
| 42. Was any oil observed on the surface of the water in the locality of the discharge? | | | |

Date of entry Officer in charge

Master

(h) Disposal of residues

| | | | |
|---|--|--|--|
| 43. Identity of tank(s) | | | |
| 44. Quantity disposed from each tank | | | |
| 45. Method of disposal of residue: (a) Reception facilities (b) Mixed with cargo (c) Transferred to another (other) tank(s) (identify tank(s)) (d) Other method (state which) | | | |
| 46. Date and port of disposal of residue | | | |

Date of entry Officer in charge

Master

(i) Discharge of clean ballast contained in cargo tanks

| | | | |
|---|--|--|--|
| 47. Date and position of ship at commencement of discharge of clean ballast | | | |
| 48. Identity of tank(s) discharged | | | |
| 49. Was(were) the tank(s) empty on completion? | | | |
| 50. Position of vessel on completion if different from 47 | | | |
| 51. Was any part of the discharge conducted during darkness, if so, for how long? | | | |
| 52. Was a regular check kept on the effluent and the surface of the water in the locality of the discharge? | | | |
| 53. Was any oil observed on the surface of the water in the locality of the discharge? | | | |

Date of entry Officer in charge

Master

- (j) Discharge overboard of bilge water containing oil which has accumulated in machinery spaces whilst in port⁴

| | | | |
|---|--|--|--|
| 54. Port | | | |
| 55. Duration of stay | | | |
| 56. Quantity disposed | | | |
| 57. Date and place of disposal | | | |
| 58. Method of disposal (state whether a separator was used) | | | |

Date of entry Officer in charge
Master

- (k) Accidental or other exceptional discharges of oil

| | | | |
|--|--|--|--|
| 59. Date and time of occurrence | | | |
| 60. Place or position of ship at time of occurrence | | | |
| 61. Approximate quantity and type of oil | | | |
| 62. Circumstances of discharge or escape, the reasons therefor and general remarks | | | |

Date of entry Officer in charge
Master

⁴ Where the pump starts automatically and discharges through a separator at all times it will be sufficient to enter each day "Automatic discharge from bilges through a separator".

(1) Has the oil monitoring and control system been out of operation at any time when discharging overboard? If so, give time and date of failure and time and date of restoration and confirm that this was due to equipment failure and state reason if known

.....
.....

Date of entry Officer in charge
Master

(m) Additional operational procedures and general remarks
.....
.....
.....

For oil tankers of less than 150 tons gross tonnage operating in accordance with Regulation 15(4) of Annex I of the Convention, an appropriate oil record book should be developed by the Administration.

For asphalt carriers, a separate oil record book may be developed by the Administration utilizing sections (a), (b), (c), (e), (h), (j), (k) and (m) of this form of oil record book.

II – FOR SHIPS OTHER THAN OIL TANKERS

Name of ship

Operations from (date), to (date)

(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. Date and position of ship at start of cleaning | | | |
| 4. Date and position of ship at start of ballasting | | | |

Date of entry Officer in charge

Master

(b) Discharge of dirty ballast or cleaning water from tanks referred to under section (a)

| | | | |
|---|--|--|--|
| 5. Identity of tank(s) | | | |
| 6. Date and position of ship at start of discharge | | | |
| 7. Date and position of ship at finish of discharge | | | |
| 8. Ship's speed(s) during discharge | | | |
| 9. Method of discharge (state whether to reception facility or through installed equipment) | | | |
| 10. Quantity discharged | | | |

Date of entry Officer in charge

Master

(c) Disposal of residues

| | | | |
|---|--|--|--|
| 11. Quantity of residue retained on board | | | |
| 12. Methods of disposal of residue: (a) reception facilities (b) mixed with next bunkering (c) transferred to another (other) tank (d) other method (state which) | | | |
| 13. Date and port of disposal of residue | | | |

Date of entry Officer in charge

Master

(d) Discharge overboard of bilge water containing oil which has accumulated in machinery spaces whilst in port⁵

| | | | |
|--|--|--|--|
| 14. Port | | | |
| 15. Duration of stay | | | |
| 16. Quantity discharged | | | |
| 17. Date and place of discharge | | | |
| 18. Method of discharge: (a) through oily-water separating equipment; (b) through oil filtering system; (c) through oily-water separating equipment and an oil filtering system; (d) to reception facilities | | | |

Date of entry Officer in charge

Master

⁵ Where the pump starts automatically and discharges through a separator at all times it will be sufficient to enter each day "Automatic discharge from bilges through a separator".

(e) Accidental or other exceptional discharges of oil

| | | | |
|--|--|--|--|
| 19. Date and time of occurrence | | | |
| 20. Place or position of ship at time of occurrence | | | |
| 21. Approximate quantity and type of oil | | | |
| 22. Circumstances of discharge or escape, the reasons therefor and general remarks | | | |

Date of entry Officer in charge
 Master

(f) Has the required oil monitoring and control system been out of operation at any time when discharging overboard? If so, state time and date of failure and time and date of restoration, and confirm that this was due to equipment failure, and state reason if known

Date of entry Officer in charge
 Master

(g) New ships of 4,000 tons gross tonnage and above: has dirty ballast been carried in oil fuel tanks?
 Yes/No

If so, state which tanks were so ballasted and method of discharge of the dirty ballast

Date of entry Officer in charge
 Master

(h) Additional operational procedures and general remarks

Date of entry Officer in charge
 Master

ANNEX II

REGULATIONS FOR THE CONTROL OF POLLUTION BY
NOXIOUS LIQUID SUBSTANCES IN BULK

Regulation 1

Definitions

For the purposes of this Annex:

- (1) "Chemical tanker" means a ship constructed or adapted primarily to carry a cargo of noxious liquid substances in bulk and includes an "oil tanker" as defined in Annex I of the present Convention when carrying a cargo or part cargo of noxious liquid substances in bulk.
- (2) "Clean ballast" means ballast carried in a tank which, since it was last used to carry a cargo containing a substance in Category A, B, C or D has been thoroughly cleaned and the residues resulting therefrom have been discharged and the tank emptied in accordance with the appropriate requirements of this Annex.
- (3) "Segregated ballast" means ballast water introduced into a tank 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, and which is completely separated from the cargo and oil fuel system.
- (4) "Nearest land" is as defined in Regulation 1(9) of Annex I of the present Convention.
- (5) "Liquid substances" are those having a vapour pressure not exceeding 2.8 kp/cm^2 at a temperature of 37.8°C .
- (6) "Noxious liquid substance" means any substance designated in Appendix II to this Annex or provisionally assessed under the provisions of Regulation 3(4) as falling into Category A, B, C or D.
- (7) "Special area" means a sea area where for recognized technical reasons in relation to its oceanographic and ecological condition and to its peculiar transportation traffic the adoption of special mandatory methods for the prevention of sea pollution by noxious liquid substances is required.
Special areas shall be:
 - (a) The Baltic Sea Area, and
 - (b) The Black Sea Area.
- (8) "Baltic Sea Area" is as defined in Regulation 10(1)(b) of Annex I of the present Convention.
- (9) "Black Sea Area" is as defined in Regulation 10(1)(c) of Annex I of the present Convention.

Regulation 2*Application*

- (1) Unless expressly provided otherwise the provisions of this Annex shall apply to all ships carrying noxious liquid substances in bulk.
- (2) Where a cargo subject to the provisions of Annex I of the present Convention is carried in a cargo space of a chemical tanker, the appropriate requirements of Annex I of the present Convention shall also apply.
- (3) Regulation 13 of this Annex shall apply only to ships carrying substances which are categorized for discharge control purposes in Category A, B or C.

Regulation 3*Categorization and Listing of Noxious Liquid Substances*

- (1) For the purpose of the Regulations of this Annex, except Regulation 13, noxious liquid substances shall be divided into four categories as follows:
 - (a) Category A – Noxious liquid substances which if discharged into the sea from tank cleaning or deballasting operations would present a major hazard to either marine resources or human health or cause serious harm to amenities or other legitimate uses of the sea and therefore justify the application of stringent anti-pollution measures.
 - (b) Category B – Noxious liquid substances which if discharged into the sea from tank cleaning or deballasting operations would present a hazard to either marine resources or human health or cause harm to amenities or other legitimate uses of the sea and therefore justify the application of special anti-pollution measures.
 - (c) Category C – Noxious liquid substances which if discharged into the sea from tank cleaning or deballasting operations would present a minor hazard to either marine resources or human health or cause minor harm to amenities or other legitimate uses of the sea and therefore require special operational conditions.
 - (d) Category D – Noxious liquid substances which if discharged into the sea from tank cleaning or deballasting operations would present a recognizable hazard to either marine resources or human health or cause minimal harm to amenities or other legitimate uses of the sea and therefore require some attention in operational conditions.
- (2) Guidelines for use in the categorization of noxious liquid substances are given in Appendix I to this Annex.
- (3) The list of noxious liquid substances carried in bulk and presently categorized which are subject to the provisions of this Annex is set out in Appendix II to this Annex.

(4) Where it is proposed to carry a liquid substance in bulk which has not been categorized under paragraph (1) of this Regulation or evaluated as referred to in Regulation 4(1) of this Annex, the Governments of Parties to the Convention involved in the proposed operation shall establish and agree on a provisional assessment for the proposed operation on the basis of the guidelines referred to in paragraph (2) of this Regulation. Until full agreement between the Governments involved has been reached, the substance shall be carried under the most severe conditions proposed. As soon as possible, but not later than ninety days after its first carriage, the Administration concerned shall notify the Organization and provide details of the substance and the provisional assessment for prompt circulation to all Parties for their information and consideration. The Government of each Party shall have a period of ninety days in which to forward its comments to the Organization, with a view to the assessment of the substance.

Regulation 4

Other Liquid Substances

- (1) The substances listed in Appendix III to this Annex have been evaluated and found to fall outside the Categories A, B, C and D, as defined in Regulation 3(1) of this Annex because they are presently considered to present no harm to human health, marine resources, amenities or other legitimate uses of the sea, when discharged into the sea from tank cleaning or deballasting operations.
- (2) The discharge of bilge or ballast water or other residues or mixtures containing only substances listed in Appendix III to this Annex shall not be subject to any requirement of this Annex.
- (3) The discharge into the sea of clean ballast or segregated ballast shall not be subject to any requirement of this Annex.

Regulation 5

Discharge of Noxious Liquid Substances

Categories A, B and C Substances outside Special Areas and Category D Substances in all Areas

Subject to the provisions of Regulation 6 of this Annex,

- (1) The discharge into the sea of substances in Category A as defined in Regulation 3(1)(a) of this Annex or of those provisionally assessed as such or ballast water, tank washings, or other residues or mixtures containing such substances shall be prohibited. If tanks containing such substances or mixtures are to be washed, the resulting residues shall be discharged to a reception facility until the concentration of the substance in the effluent to such facility is at or below the residual concentration prescribed for that substance in column III of Appendix II to this Annex and until the tank is empty. Provided that the residue then remaining in the tank is subsequently diluted by the addition of a volume of water of not less than 5 per cent of the total volume of the tank, it may be discharged into the sea when all the following conditions are also satisfied:

- (a) the ship is proceeding en route at a speed of at least 7 knots in the case of self-propelled ships or at least 4 knots in the case of ships which are not self-propelled;
 - (b) the discharge is made below the waterline, taking into account the location of the seawater intakes; and
 - (c) the discharge is made at a distance of not less than 12 nautical miles from the nearest land and in a depth of water of not less than 25 metres.
- (2) The discharge into the sea of substances in Category B as defined in Regulation 3(1)(b) of this Annex or of those provisionally assessed as such, or ballast water, tank washings, or other residues or mixtures containing such substances shall be prohibited except when all the following conditions are satisfied:
- (a) the ship is proceeding en route at a speed of at least 7 knots in the case of self-propelled ships or at least 4 knots in the case of ships which are not self-propelled;
 - (b) the procedures and arrangements for discharge are approved by the Administration. Such procedures and arrangements shall be based upon standards developed by the Organization and shall ensure that the concentration and rate of discharge of the effluent is such that the concentration of the substance in the wake astern of the ship does not exceed 1 part per million;
 - (c) the maximum quantity of cargo discharged from each tank and its associated piping system does not exceed the maximum quantity approved in accordance with the procedures referred to in subparagraph (b) of this paragraph, which shall in no case exceed the greater of 1 cubic metre or 1/3,000 of the tank capacity in cubic metres;
 - (d) the discharge is made below the waterline, taking into account the location of the seawater intakes; and
 - (e) the discharge is made at a distance of not less than 12 nautical miles from the nearest land and in a depth of water of not less than 25 metres.
- (3) The discharge into the sea of substances in Category C as defined in Regulation 3(1)(c) of this Annex or of those provisionally assessed as such, or ballast water, tank washings, or other residues or mixtures containing such substances shall be prohibited except when all the following conditions are satisfied:
- (a) the ship is proceeding en route at a speed of at least 7 knots in the case of self-propelled ships or at least 4 knots in the case of ships which are not self-propelled;
 - (b) the procedures and arrangements for discharge are approved by the Administration. Such procedures and arrangements shall be based upon standards developed by the Organization and shall ensure that the concentration and rate of discharge of the effluent is such that the concentration of the substance in the wake astern of the ship does not exceed 10 parts per million;

- (c) the maximum quantity of cargo discharged from each tank and its associated piping system does not exceed the maximum quantity approved in accordance with the procedures referred to in subparagraph (b) of this paragraph, which shall in no case exceed the greater of 3 cubic metres or 1/1,000 of the tank capacity in cubic metres;
 - (d) the discharge is made below the waterline, taking into account the location of the seawater intakes; and
 - (e) the discharge is made at a distance of not less than 12 nautical miles from the nearest land and in a depth of water of not less than 25 metres.
- (4) The discharge into the sea of substances in Category D as defined in Regulation 3(1)(d) of this Annex, or of those provisionally assessed as such, or ballast water, tank washings, or other residues or mixtures containing such substances shall be prohibited except when all the following conditions are satisfied:
- (a) the ship is proceeding en route at a speed of at least 7 knots in the case of self-propelled ships or at least 4 knots in the case of ships which are not self-propelled;
 - (b) such mixtures are of a concentration not greater than one part of the substance in ten parts of water; and
 - (c) the discharge is made at a distance of not less than 12 nautical miles from the nearest land.
- (5) Ventilation procedures approved by the Administration may be used to remove cargo residues from a tank. Such procedures shall be based upon standards developed by the Organization. If subsequent washing of the tank is necessary, the discharge into the sea of the resulting tank washings shall be made in accordance with paragraph (1), (2), (3) or (4) of this Regulation, whichever is applicable.
- (6) The discharge into the sea of substances which have not been categorized, provisionally assessed, or evaluated as referred to in Regulation 4(1) of this Annex, or of ballast water, tank washings, or other residues or mixtures containing such substances shall be prohibited.

Categories A, B and C Substances within Special Areas

Subject to the provisions of Regulation 6 of this Annex,

- (7) The discharge into the sea of substances in Category A as defined in Regulation 3(1)(a) of this Annex or of those provisionally assessed as such, or ballast water, tank washings, or other residues or mixtures containing such substances shall be prohibited. If tanks containing such substances or mixtures are to be washed the resulting residues shall be discharged to a reception facility which the States bordering the special area shall provide in accordance with Regulation 7 of this Annex, until the concentration of the substance in the effluent to such facility is at or below the residual concentration prescribed for that substance in column IV of Appendix II to this Annex and until the tank is empty. Provided that the residue then remaining in the tank is subsequently diluted by the addition of a volume of water of not less than 5 per cent of the total volume of the tank, it may be discharged into the sea when all the following conditions are also satisfied:

- (a) the ship is proceeding en route at a speed of at least 7 knots in the case of self-propelled ships or at least 4 knots in the case of ships which are not self-propelled;
 - (b) the discharge is made below the waterline, taking into account the location of the seawater intakes; and
 - (c) the discharge is made at a distance of not less than 12 nautical miles from the nearest land and in a depth of water of not less than 25 metres.
- (8) The discharge into the sea of substances in Category B as defined in Regulation 3(1)(b) of this Annex or of those provisionally assessed as such, or ballast water, tank washings, or other residues or mixtures containing such substances shall be prohibited except when all the following conditions are satisfied:
- (a) the tank has been washed after unloading with a volume of water of not less than 0.5 per cent of the total volume of the tank, and the resulting residues have been discharged to a reception facility until the tank is empty;
 - (b) the ship is proceeding en route at a speed of at least 7 knots in the case of self-propelled ships or at least 4 knots in the case of ships which are not self-propelled;
 - (c) the procedures and arrangements for discharge and washings are approved by the Administration. Such procedures and arrangements shall be based upon standards developed by the Organization and shall ensure that the concentration and rate of discharge of the effluent is such that the concentration of the substance in the wake astern of the ship does not exceed 1 part per million;
 - (d) the discharge is made below the waterline, taking into account the location of the seawater intakes; and
 - (e) the discharge is made at a distance of not less than 12 nautical miles from the nearest land and in a depth of water of not less than 25 metres.
- (9) The discharge into the sea of substances in Category C as defined in Regulation 3(1)(c) of this Annex or of those provisionally assessed as such, or ballast water, tank washings, or other residues or mixtures containing such substances shall be prohibited except when all the following conditions are satisfied:
- (a) the ship is proceeding en route at a speed of at least 7 knots in the case of self-propelled ships or at least 4 knots in the case of ships which are not self-propelled;
 - (b) the procedures and arrangements for discharge are approved by the Administration. Such procedures and arrangements shall be based upon standards developed by the Organization and shall ensure that the concentration and rate of discharge of the effluent is such that the concentration of the substance in the wake astern of the ship does not exceed 1 part per million;

- (c) the maximum quantity of cargo discharged from each tank and its associated piping system does not exceed the maximum quantity approved in accordance with the procedures referred to in subparagraph (b) of this paragraph which shall in no case exceed the greater of 1 cubic metre or 1/3,000 of the tank capacity in cubic metres;
 - (d) the discharge is made below the waterline, taking into account the location of the seawater intakes; and
 - (e) the discharge is made at a distance of not less than 12 nautical miles from the nearest land and in a depth of water of not less than 25 metres.
- (10) Ventilation procedures approved by the Administration may be used to remove cargo residues from a tank. Such procedures shall be based upon standards developed by the Organization. If subsequent washing of the tank is necessary, the discharge into the sea of the resulting tank washings shall be made in accordance with paragraph (7), (8) or (9) of this Regulation, whichever is applicable.
- (11) The discharge into the sea of substances which have not been categorized, provisionally assessed or evaluated as referred to in Regulation 4(1) of this Annex, or of ballast water, tank washings, or other residues or mixtures containing such substances shall be prohibited.
- (12) Nothing in this Regulation shall prohibit a ship from retaining on board the residues from a Category B or C cargo and discharging such residues into the sea outside a special area in accordance with paragraph (2) or (3) of this Regulation, respectively.
- (13) (a) The Governments of Parties to the Convention, the coastlines of which border on any given special area, shall collectively agree and establish a date by which time the requirement of Regulation 7(1) of this Annex will be fulfilled and from which the requirements of paragraphs (7), (8), (9) and (10) of this Regulation in respect of that area shall take effect and notify the Organization of the date so established at least six months in advance of that date. The Organization shall then promptly notify all Parties of that date.
- (b) If the date of entry into force of the present Convention is earlier than the date established in accordance with subparagraph (a) of this paragraph, the requirements of paragraphs (1), (2) and (3) of this Regulation shall apply during the interim period.

Regulation 6

Exceptions

Regulation 5 of this Annex shall not apply to:

- (a) the discharge into the sea of noxious liquid substances or mixtures containing such substances necessary for the purpose of securing the safety of a ship or saving life at sea; or

- (b) the discharge into the sea of noxious liquid substances or mixtures containing such substances resulting from damage to a ship or its equipment:
 - (i) 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
 - (ii) 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
- (c) the discharge into the sea of noxious liquid substances or mixtures containing such substances, 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 7

Reception Facilities

- (1) The Government of each Party to the Convention undertakes to ensure the provision of reception facilities according to the needs of ships using its ports, terminals or repair ports as follows:
 - (a) cargo loading and unloading ports and terminals shall have facilities adequate for reception without undue delay to ships of such residues and mixtures containing noxious liquid substances as would remain for disposal from ships carrying them as a consequence of the application of this Annex; and
 - (b) ship repair ports undertaking repairs to chemical tankers shall have facilities adequate for the reception of residues and mixtures containing noxious liquid substances.
- (2) The Government of each Party shall determine the types of facilities provided for the purpose of paragraph (1) of this Regulation at each cargo loading and unloading port, terminal and ship repair port in its territories and notify the Organization thereof.
- (3) Each Party shall notify the Organization, for transmission to the Parties concerned, of any case where facilities required under paragraph (1) of this Regulation are alleged to be inadequate.

Regulation 8

Measures of Control

- (1) The Government of each Party to the Convention shall appoint or authorize surveyors for the purpose of implementing this Regulation.

Category A Substances in all Areas

- (2) (a) If a tank is partially unloaded or unloaded but not cleaned, an appropriate entry shall be made in the Cargo Record Book.
- (b) Until that tank is cleaned every subsequent pumping or transfer operation carried out in connexion with that tank shall also be entered in the Cargo Record Book.
- (3) If the tank is to be washed:
- (a) the effluent from the tank washing operation shall be discharged from the ship to a reception facility at least until the concentration of the substance in the discharge, as indicated by analyses of samples of the effluent taken by the surveyor, has fallen to the residual concentration specified for that substance in Appendix II to this Annex. When the required residual concentration has been achieved, remaining tank washings shall continue to be discharged to the reception facility until the tank is empty. Appropriate entries of these operations shall be made in the Cargo Record Book and certified by the surveyor; and
- (b) after diluting the residue then remaining in the tank with at least 5 per cent of the tank capacity of water, this mixture may be discharged into the sea in accordance with the provisions of sub-paragraphs (1)(a), (b) and (c) or 7(a), (b) and (c), whichever is applicable, of Regulation 5 of this Annex. Appropriate entries of these operations shall be made in the Cargo Record Book.
- (4) Where the Government of the receiving Party is satisfied that it is impracticable to measure the concentration of the substance in the effluent without causing undue delay to the ship, that Party may accept an alternative procedure as being equivalent to sub-paragraph (3)(a) provided that:
- (a) a precleaning procedure for that tank and that substance, based on standards developed by the Organization, is approved by the Administration and that Party is satisfied that such procedure will fulfil the requirements of paragraph (1) or (7), whichever is applicable, of Regulation 5 of this Annex with respect to the attainment of the prescribed residual concentrations;
- (b) a surveyor duly authorized by that Party shall certify in the Cargo Record Book that:
- (i) the tank, its pump and piping system have been emptied, and that the quantity of cargo remaining in the tank is at or below the quantity on which the approved precleaning procedure referred to in sub-paragraph (ii) of this paragraph has been based;
- (ii) precleaning has been carried out in accordance with the precleaning procedure approved by the Administration for that tank and that substance; and
- (iii) the tank washings resulting from such precleaning have been discharged to a reception facility and the tank is empty;

- (c) the discharge into the sea of any remaining residues shall be in accordance with the provisions of paragraph (3)(b) of this Regulation and an appropriate entry is made in the Cargo Record Book.

Category B Substances outside Special Areas and Category C Substances in all Areas

(5) Subject to such surveillance and approval by the authorized or appointed surveyor as may be deemed necessary by the Government of the Party, the Master of a ship shall, with respect to a Category B substance outside special areas or a Category C substance in all areas, ensure compliance with the following:

- (a) If a tank is partially unloaded or unloaded but not cleaned, an appropriate entry shall be made in the Cargo Record Book.
- (b) If the tank is to be cleaned at sea:
- (i) the cargo piping system serving that tank shall be drained and an appropriate entry made in the Cargo Record Book;
 - (ii) the quantity of substance remaining in the tank shall not exceed the maximum quantity which may be discharged into the sea for that substance under Regulation 5(2)(c) of this Annex outside special areas in the case of Category B substances, or under Regulations 5(3)(c) and 5(9)(c) outside and within special areas respectively in the case of Category C substances. An appropriate entry shall be made in the Cargo Record Book;
 - (iii) where it is intended to discharge the quantity of substance remaining into the sea the approved procedures shall be complied with, and the necessary dilution of the substance satisfactory for such a discharge shall be achieved. An appropriate entry shall be made in the Cargo Record Book; or
 - (iv) where the tank washings are not discharged into the sea, if any internal transfer of tank washings takes place from that tank an appropriate entry shall be made in the Cargo Record Book; and
 - (v) any subsequent discharge into the sea of such tank washings shall be made in accordance with the requirements of Regulation 5 of this Annex for the appropriate area and Category of substance involved.
- (c) If the tank is to be cleaned in port:
- (i) the tank washings shall be discharged to a reception facility and an appropriate entry shall be made in the Cargo Record Book; or
 - (ii) the tank washings shall be retained on board the ship and an appropriate entry shall be made in the Cargo Record Book indicating the location and disposition of the tank washings.
- (d) If after unloading a Category C substance within a special area, any residues or tank washings are to be retained on board until the ship is outside the special area, the Master shall so indicate by an appropriate entry in the Cargo Record Book and in this case the procedures set out in Regulation 5(3) of this Annex shall be applicable.

Category B Substances within Special Areas

(6) Subject to such surveillance and approval by the authorized or appointed surveyor as may be deemed necessary by the Government of the Party, the Master of a ship shall, with respect to a Category B substance within a special area, ensure compliance with the following:

- (a) If a tank is partially unloaded or unloaded but not cleaned, an appropriate entry shall be made in the Cargo Record Book.
- (b) Until that tank is cleaned every subsequent pumping or transfer operation carried out in connexion with that tank shall also be entered in the Cargo Record Book.
- (c) If the tank is to be washed, the effluent from the tank washing operation, which shall contain a volume of water not less than 0.5 per cent of the total volume of the tank, shall be discharged from the ship to a reception facility until the tank, its pump and piping system are empty. An appropriate entry shall be made in the Cargo Record Book.
- (d) If the tank is to be further cleaned and emptied at sea, the Master shall:
 - (i) ensure that the approved procedures referred to in Regulation 5(8)(c) of this Annex are complied with and that the appropriate entries are made in the Cargo Record Book; and
 - (ii) ensure that any discharge into the sea is made in accordance with the requirements of Regulation 5(8) of this Annex and an appropriate entry is made in the Cargo Record Book.
- (e) If after unloading a Category B substance within a special area, any residues or tank washings are to be retained on board until the ship is outside the special area, the Master shall so indicate by an appropriate entry in the Cargo Record Book and in this case the procedures set out in Regulation 5(2) of this Annex shall be applicable.

Category D Substances in all Areas

(7) The Master of a ship shall, with respect to a Category D substance, ensure compliance with the following:

- (a) If a tank is partially unloaded or unloaded but not cleaned, an appropriate entry shall be made in the Cargo Record Book.
- (b) If the tank is to be cleaned at sea:
 - (i) the cargo piping system serving that tank shall be drained and an appropriate entry made in the Cargo Record Book;
 - (ii) where it is intended to discharge the quantity of substance remaining into the sea, the necessary dilution of the substance satisfactory for such a discharge shall be achieved. An appropriate entry shall be made in the Cargo Record Book; or
 - (iii) where the tank washings are not discharged into the sea, if any internal transfer of tank washings takes place from that tank an appropriate entry shall be made in the Cargo Record Book; and

- (iv) any subsequent discharge into the sea of such tank washings shall be made in accordance with the requirements of Regulation 5(4) of this Annex.
- (c) If the tank is to be cleaned in port:
 - (i) the tank washings shall be discharged to a reception facility and an appropriate entry shall be made in the Cargo Record Book; or
 - (ii) the tank washings shall be retained on board the ship and an appropriate entry shall be made in the Cargo Record Book indicating the location and disposition of the tank washings.

Discharge from a Slop Tank

- (8) Any residues retained on board in a slop tank, including those from pump room bilges, which contain a Category A substance, or within a special area either a Category A or a Category B substance, shall be discharged to a reception facility in accordance with the provisions of Regulation 5(1), (7) or (8) of this Annex, whichever is applicable. An appropriate entry shall be made in the Cargo Record Book.
- (9) Any residues retained on board in a slop tank, including those from pump room bilges, which contain a quantity of a Category B substance outside a special area or a Category C substance in all areas in excess of the aggregate of the maximum quantities specified in Regulation 5(2)(c), (3)(c) or (9)(c) of this Annex, whichever is applicable, shall be discharged to a reception facility. An appropriate entry shall be made in the Cargo Record Book.

Regulation 9

Cargo Record Book

- (1) Every ship to which this Annex applies shall be provided with a Cargo Record Book, whether as part of the ship's official log book or otherwise, in the form specified in Appendix IV to this Annex.
- (2) The Cargo Record Book shall be completed, on a tank-to-tank basis, whenever any of the following operations with respect to a noxious liquid substance take place in the ship:
- (i) loading of cargo;
 - (ii) unloading of cargo;
 - (iii) transfer of cargo;
 - (iv) transfer of cargo, cargo residues or mixtures containing cargo to a slop tank;
 - (v) cleaning of cargo tanks;
 - (vi) transfer from slop tanks;
 - (vii) ballasting of cargo tanks;
 - (viii) transfer of dirty ballast water;
 - (ix) discharge into the sea in accordance with Regulation 5 of this Annex.

(3) In the event of any discharge of the kind referred to in Article 7 of the present Convention and Regulation 6 of this Annex of any noxious liquid substance or mixture containing such substance, whether intentional or accidental, an entry shall be made in the Cargo Record Book stating the circumstances of, and the reason for, the discharge.

(4) When a surveyor appointed or authorized by the Government of the Party to the Convention to supervise any operations under this Annex has inspected a ship, then that surveyor shall make an appropriate entry in the Cargo Record Book.

(5) Each operation referred to in paragraphs (2) and (3) of this Regulation shall be fully recorded without delay in the Cargo Record Book so that all the entries in the Book appropriate to that operation are completed. Each entry shall be signed by the officer or officers in charge of the operation concerned and, when the ship is manned, each page shall be signed by the Master of the ship. The entries in the Cargo Record Book shall be in an official language of the State whose flag the ship is entitled to fly, and, for ships holding an International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk (1973) in English or French. The entries in an official national language of the State whose flag the ship is entitled to fly shall prevail in case of a dispute or discrepancy.

(6) The Cargo Record Book shall be kept in such a place as to be readily available for inspection and, except in the case of unmanned ships under tow, shall be kept on board the ship. It shall be retained for a period of two years after the last entry has been made.

(7) The competent authority of the Government of a Party may inspect the Cargo Record Book on board any ship to which this Annex applies while the ship is in its port, 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 Cargo Record Book shall be made admissible in any judicial proceedings as evidence of the facts stated in the entry. The inspection of a Cargo Record Book 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.

Regulation 10

Surveys

(1) Ships which are subject to the provisions of this Annex and which carry noxious liquid substances in bulk shall be surveyed as follows:

- (a) An initial survey before a ship is put into service or before the certificate required by Regulation 11 of this Annex is issued for the first time, which shall include a complete inspection of its structure, equipment, fittings, arrangements and material in so far as the ship is covered by this Annex. The survey shall be such as to ensure full compliance with the applicable requirements of this Annex.

- (b) Periodical surveys at intervals specified by the Administration which shall not exceed five years and which shall be such as to ensure that the structure, equipment, fittings, arrangements and material fully comply with the applicable requirements of this Annex. However, where the duration of the International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk (1973) is extended as specified in Regulation 12(2) or (4) of this Annex, the interval of the periodical survey may be extended correspondingly.
 - (c) Intermediate surveys at intervals specified by the Administration which shall not exceed thirty months and which shall be such as to ensure that the equipment and associated pump and piping systems, fully comply with the applicable requirements of this Annex and are in good working order. The survey shall be endorsed on the International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk (1973) issued under Regulation 11 of this Annex.
- (2) Surveys of a ship with respect to 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. In every case the Administration concerned shall fully guarantee the completeness and efficiency of the surveys.
- (3) After any survey of a ship under this Regulation has been completed, no significant change shall be made in the structure, equipment, fittings, arrangements or material, covered by the survey without the sanction of the Administration, except the direct replacement of such equipment and fittings for the purpose of repair or maintenance.

Regulation 11

Issue of Certificate

- (1) An International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk (1973) shall be issued to any ship carrying noxious liquid substances which is engaged in voyages to ports or offshore terminals under the jurisdiction of other Parties to the Convention after survey of such ship in accordance with the provisions of Regulation 10 of this Annex.
- (2) Such Certificate shall be issued either by the Administration or by a person or organization duly authorized by it. In every case the Administration shall assume full responsibility for the Certificate.
- (3) (a) The Government of a Party 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 a Certificate to the ship in accordance with this Annex.
- (b) A copy of the Certificate and a copy of the survey report shall be transmitted as soon as possible to the requesting Administration.
- (c) A Certificate so issued shall contain a statement to the effect that it has been issued at the request of the Administration and shall have the same force and receive the same recognition as a certificate issued under paragraph (1) of this Regulation.

- (d) No International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk (1973) shall be issued to any ship which is entitled to fly the flag of a State which is not a Party.
- (4) The Certificate shall be drawn up in an official language of the issuing country in a form corresponding to the model given in Appendix V to this Annex. If the language used is neither English nor French, the text shall include a translation into one of these languages.

Regulation 12

Duration of Certificate

- (1) An International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk (1973) shall be issued for a period specified by the Administration, which shall not exceed five years from the date of issue, except as provided in paragraphs (2) and (4) of this Regulation.
- (2) If a ship at the time when the Certificate expires is not in a port or offshore terminal under the jurisdiction of the Party to the Convention whose flag the ship is entitled to fly, the Certificate may be extended by the Administration, but such extension shall be granted only for the purpose of allowing the ship to complete its voyage to the State whose flag the ship is entitled to fly or in which it is to be surveyed and then only in cases where it appears proper and reasonable to do so.
- (3) No Certificate shall be thus extended for a period longer than five months and a ship to which such extension is granted shall not on its arrival in the State whose flag it is entitled to fly or the port in which it is to be surveyed, be entitled by virtue of such extension to leave that port or State without having obtained a new Certificate.
- (4) A Certificate which has not been extended under the provisions of paragraph (2) 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.
- (5) A Certificate shall cease to be valid if significant alterations have taken place in the structure, equipment, fittings, arrangements and material required by this Annex without the sanction of the Administration, except the direct replacement of such equipment or fitting for the purpose of repair or maintenance or if intermediate surveys as specified by the Administration under Regulation 10(1)(c) of this Annex are not carried out.
- (6) A Certificate issued to a ship shall cease to be valid upon transfer of such a ship to the flag of another State, except as provided in paragraph (7) of this Regulation.
- (7) Upon transfer of a ship to the flag of another Party, the Certificate shall remain in force for a period not exceeding five months provided that it would not have expired before the end of that period, or until the Administration issues a replacement Certificate, whichever is earlier. As soon as possible after the transfer has taken place the Government of the Party whose flag the ship was formerly entitled to fly shall transmit to the Administration a copy of the Certificate carried by the ship before the transfer and, if available, a copy of the relevant survey report.

Regulation 13*Requirements for Minimizing accidental Pollution*

- (1) The design, construction, equipment and operation of ships carrying noxious liquid substances in bulk which are subject to the provisions of this Annex shall be such as to minimize the uncontrolled discharge into the sea of such substances.
- (2) Pursuant to the provisions of paragraph (1) of this Regulation, the Government of each Party shall issue, or cause to be issued, detailed requirements on the design, construction, equipment and operation of such ships.
- (3) In respect of chemical tankers, the requirements referred to in paragraph (2) of this Regulation shall contain at least all the provisions given in the Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk adopted by the Assembly of the Organization in Resolution A.212(VII) and as may be amended by the Organization, provided that the amendments to that Code are adopted and brought into force in accordance with the provisions of Article 16 of the present Convention for amendment procedures to an Appendix to an Annex.

Appendix I

GUIDELINES FOR THE CATEGORIZATION OF
NOXIOUS LIQUID SUBSTANCES

- Category A** Substances which are bioaccumulated and liable to produce a hazard to aquatic life or human health; or which are highly toxic to aquatic life (as expressed by a Hazard Rating 4, defined by a TLm less than 1 ppm); and additionally certain substances which are moderately toxic to aquatic life (as expressed by a Hazard Rating 3, defined by a TLm of 1 or more, but less than 10 ppm) when particular weight is given to additional factors in the hazard profile or to special characteristics of the substance.
- Category B** Substances which are bioaccumulated with a short retention of the order of one week or less; or which are liable to produce tainting of the sea food; or which are moderately toxic to aquatic life (as expressed by a Hazard Rating 3, defined by a TLm of 1 ppm or more, but less than 10 ppm); and additionally certain substances which are slightly toxic to aquatic life (as expressed by a Hazard Rating 2, defined by a TLm of 10 ppm or more, but less than 100 ppm) when particular weight is given to additional factors in the hazard profile or to special characteristics of the substance.
- Category C** Substances which are slightly toxic to aquatic life (as expressed by a Hazard Rating 2, defined by a TLm of 10 or more, but less than 100 ppm); and additionally certain substances which are practically non-toxic to aquatic life (as expressed by a Hazard Rating 1, defined by a TLm of 100 ppm or more, but less than 1,000 ppm) when particular weight is given to additional factors in the hazard profile or to special characteristics of the substance.
- Category D** Substances which are practically non-toxic to aquatic life, (as expressed by a Hazard Rating 1, defined by a TLm of 100 ppm or more, but less than 1,000 ppm); or causing deposits blanketing the seafloor with a high biochemical oxygen demand (BOD); or highly hazardous to human health, with an LD₅₀ of less than 5 mg/kg; or produce moderate reduction of amenities because of persistency, smell or poisonous or irritant characteristics, possibly interfering with use of beaches; or moderately hazardous to human health, with an LD₅₀ of 5 mg/kg or more, but less than 50 mg/kg and produce slight reduction of amenities.
- Other Liquid Substances** (for the purposes of Regulation 4 of this Annex)
Substances other than those categorized in Categories A, B, C and D above.

Appendix II

LIST OF NOXIOUS LIQUID SUBSTANCES
CARRIED IN BULK

| Substance | UN Number | Pollution Category for operational discharge | Residual concentration (per cent by weight) | |
|--|--------------|---|--|---|
| | | | (Regulation 3 of Annex II) | (Regulation 5(1) of Annex II) |
| | I | II | III <i>Outside special areas</i> | IV <i>Within special areas</i> |
| Acetaldehyde | 1089 | C | | |
| Acetic acid | 1842 | C | | |
| Acetic anhydride | 1715 | C | | |
| Acetone | 1090 | D | | |
| Acetone cyanohydrin | 1541 | A | 0.1 | 0.05 |
| Acetyl chloride | 1717 | C | | |
| Acrolein | 1092 | A | 0.1 | 0.05 |
| Acrylic acid* | - | C | | |
| Acrylonitrile | 1093 | B | | |
| Adiponitrile | - | D | | |
| Alkylbenzene sulfonate (straight chain) | - | C | | |
| (branched chain) | | B | | |
| Allyl alcohol | 1098 | B | | |
| Allyl chloride | 1100 | C | | |
| Alum (15% solution) | - | D | | |
| Aminoethylethanolamine (Hydroxyethyl-ethylene- diamine)* | - | D | | |
| Ammonia (28% aqueous) | 1005 | B | | |
| iso-Amyl acetate | 1104 | C | | |
| n-Amyl acetate | 1104 | C | | |
| n-Amyl alcohol | - | D | | |
| Aniline | 1547 | C | | |

* Asterisk indicates that the substance has been provisionally included in this list and that further data are necessary in order to complete the evaluation of its environmental hazards, particularly in relation to living resources.

| Substance | I | II | III | IV |
|---|------|----|------|-------|
| Benzene | 1114 | C | | |
| Benzyl alcohol | - | D | | |
| Benzyl chloride | 1738 | B | | |
| n-Butyl acetate | 1123 | D | | |
| sec-Butyl acetate | 1124 | D | | |
| n-Butyl acrylate | - | D | | |
| Butyl butyrate* | - | B | | |
| Butylene glycol(s) | - | D | | |
| Butyl methacrylate | - | D | | |
| n-Butyraldehyde | 1129 | B | | |
| Butyric acid | - | B | | |
| Calcium hydroxide (solution) | - | D | | |
| Camphor oil | 1130 | B | | |
| Carbon disulphide | 1131 | A | 0.01 | 0.005 |
| Carbon tetrachloride | 1846 | B | | |
| Caustic potash (Potassium hydroxide) | 1814 | C | | |
| Chloroacetic acid | 1750 | C | | |
| Chloroform | 1888 | B | | |
| Chlorohydrins (crude)* | - | D | | |
| Chloroprene* | 1991 | C | | |
| Chlorosulphonic acid | 1754 | C | | |
| para-Chlorotoluene | - | B | | |
| Citric acid (10%-25%) | - | D | | |
| Creosote | 1334 | A | 0.1 | 0.05 |
| Cresols | 2076 | A | 0.1 | 0.05 |
| Cresylic acid | 2022 | A | 0.1 | 0.05 |
| Crotonaldehyde | 1143 | B | | |
| Cumene | 1918 | C | | |
| Cyclohexane | 1145 | C | | |
| Cyclohexanol | - | D | | |
| Cyclohexanone | 1915 | D | | |
| Cyclohexylamine* | - | D | | |
| para-Cymene (Isopropyltoluene)* | 2046 | D | | |
| Decahydronaphthalene | 1147 | D | | |
| Decane* | - | D | | |

* Asterisk indicates that the substance has been provisionally included in this list and that further data are necessary in order to complete the evaluation of its environmental hazards, particularly in relation to living resources.

| Substance | I | II | III | IV |
|---|------|----|-----|------|
| Diacetone alcohol* | 1148 | D | | |
| Dibenzyl ether* | - | C | | |
| Dichlorobenzenes | 1591 | A | 0.1 | 0.05 |
| Dichloroethyl ether | 1916 | B | | |
| Dichloropropene - Dichloropropane mixture (D.D. Soil fumigant) | 2047 | B | | |
| Diethylamine | 1154 | C | | |
| Diethylbenzene (mixed isomers) | 2049 | C | | |
| Diethyl ether | 1155 | D | | |
| Diethylenetriamine* | 2079 | C | | |
| Diethylene glycol monoethyl ether | - | C | | |
| Diethylketone (3-Pentanone) | 1156 | D | | |
| Diisobutylene* | 2050 | D | | |
| Diisobutyl ketone | 1157 | D | | |
| Diisopropanolamine | - | C | | |
| Diisopropylamine | 1158 | C | | |
| Diisopropyl ether* | 1159 | D | | |
| Dimethylamine (40% aqueous) | 1160 | C | | |
| Dimethylethanolamine (2-Dimethylamino- ethanol)* | 2051 | C | | |
| Dimethylformamide | - | D | | |
| 1,4-Dioxane* | 1165 | C | | |
| Diphenyl/Diphenyloxide, mixtures* | - | D | | |
| Dodecylbenzene | - | C | | |
| Epichlorohydrin | 2023 | B | | |
| 2-Ethoxyethyl acetate* | 1172 | D | | |
| Ethyl acetate | 1173 | D | | |
| Ethyl acrylate | 1917 | D | | |
| Ethyl amyl ketone* | - | C | | |
| Ethylbenzene | 1175 | C | | |
| Ethyl cyclohexane | - | D | | |

* Asterisk indicates that the substance has been provisionally included in this list and that further data are necessary in order to complete the evaluation of its environmental hazards, particularly in relation to living resources.

| Substance | I | II | III | IV |
|---|------|----|-----|----|
| Ethylene chlorohydrin (2-Chloro-ethanol) | 1135 | D | | |
| Ethylene cyanohydrin* | - | D | | |
| Ethylenediamine | 1604 | C | | |
| Ethylene dibromide | 1605 | B | | |
| Ethylene dichloride | 1184 | B | | |
| Ethylene glycol monoethyl ether (Methyl cellosolve) | 1171 | D | | |
| 2-Ethylhexyl acrylate* | - | D | | |
| 2-Ethylhexyl alcohol | - | C | | |
| Ethyl lactate* | 1192 | D | | |
| 2-Ethyl 3-propyl- acrolein* | - | B | | |
| Formaldehyde (37-50% solution) | 1198 | C | | |
| Formic acid | 1779 | D | | |
| Furfuryl alcohol | - | C | | |
| Heptanoic acid* | - | D | | |
| Hexamethylenediamine* | 1783 | C | | |
| Hydrochloric acid | 1789 | D | | |
| Hydrofluoric acid (40% aqueous) | 1790 | B | | |
| Hydrogen peroxide (greater than 60%) | 2015 | C | | |
| Isobutyl acrylate | - | D | | |
| Isobutyl alcohol | 1212 | D | | |
| Isobutyl methacrylate | - | D | | |
| Isobutyraldehyde | 2045 | C | | |
| Isooctane* | - | D | | |
| Isopentane | - | D | | |
| Isophorone | - | D | | |
| Isopropylamine | 1221 | C | | |
| Isopropyl cyclohexane | - | D | | |
| Isoprene | 1218 | D | | |
| Lactic acid | - | D | | |
| Mesityl oxide* | 1229 | C | | |
| Methyl acetate | 1231 | D | | |
| Methyl acrylate | 1919 | C | | |
| Methylamyl alcohol | - | D | | |

* Asterisk indicates that the substance has been provisionally included in this list and that further data are necessary in order to complete the evaluation of its environmental hazards, particularly in relation to living resources.

| Substance | I | II | III | IV |
|---|---------------|----|------|-------|
| Methylene chloride | 1593 | B | | |
| 2-Methyl-5-Ethyl-pyridine* | - | B | | |
| Methyl methacrylate | 1247 | D | | |
| 2-Methylpentene* | - | D | | |
| alpha-Methylstyrene* | - | D | | |
| Monochlorobenzene | 1134 | B | | |
| Monoethanolamine | - | D | | |
| Monoisopropanolamine | - | C | | |
| Monomethyl ethanolamine | - | C | | |
| Mononitrobenzene | - | C | | |
| Monoisopropylamine | - | C | | |
| Morpholine* | 2054 | C | | |
| Naphthalene (molten) | 1334 | A | 0.1 | 0.05 |
| Naphthenic acids* | - | A | 0.1 | 0.05 |
| Nitric acid (90%) | 2031/ 2032 | C | | |
| 2-Nitropropane | - | D | | |
| ortho-Nitrotoluene | 1664 | C | | |
| Nonyl alcohol* | - | C | | |
| Nonylphenol | - | C | | |
| n-Octanol | - | C | | |
| Oleum | 1831 | C | | |
| Oxalic acid (10-25%) | - | D | | |
| Pentachloroethane | 1669 | B | | |
| n-Pentane | 1265 | C | | |
| Perchloroethylene (Tetrachloroethylene) | 1897 | B | | |
| Phenol | 1671 | B | | |
| Phosphoric acid | 1805 | D | | |
| Phosphorus (elemental) | 1338 | A | 0.01 | 0.005 |
| Phthalic anhydride (molten) | - | C | | |
| beta-Propiolactone* | - | B | | |
| Propionaldehyde | 1275 | D | | |
| Propionic acid | 1848 | D | | |
| Propionic anhydride | - | D | | |
| n-Propyl acetate* | 1276 | C | | |

* Asterisk indicates that the substance has been provisionally included in this list and that further data are necessary in order to complete the evaluation of its environmental hazards, particularly in relation to living resources.

| Substance | I | II | III | IV |
|--|------------------------|----|-----|------|
| n-Propyl alcohol | 1274 | D | | |
| n-Propylamine | 1277 | C | | |
| Pyridine | 1282 | B | | |
| Silicon tetrachloride | 1818 | D | | |
| Sodium bichromate (solution) | - | C | | |
| Sodium hydroxide | 1824 | C | | |
| Sodium pentachloro- phenate (solution) | - | A | 0.1 | 0.05 |
| Styrene monomer | 2055 | C | | |
| Sulphuric acid | 1830/ 1831/ 1832 | C | | |
| Tallow | - | D | | |
| Tetraethyl lead | 1649 | A | 0.1 | 0.05 |
| Tetrahydrofuran | 2056 | D | | |
| Tetrahydronaphthalene | 1540 | C | | |
| Tetramethylbenzene | - | D | | |
| Tetramethyl lead | 1649 | A | 0.1 | 0.05 |
| Titanium tetrachloride | 1838 | D | | |
| Toluene | 1294 | C | | |
| Toluene diisocyanate* | 2078 | B | | |
| Trichloroethane | - | C | | |
| Trichloroethylene | 1710 | B | | |
| Triethanolamine | - | D | | |
| Triethylamine | 1296 | C | | |
| Trimethylbenzene* | - | C | | |
| Tritolyl phosphate (Tricresyl phosphate)* | - | B | | |
| Turpentine (wood) | 1299 | B | | |
| Vinyl acetate | 1301 | C | | |
| Vinylidene chloride* | 1303 | B | | |
| Xylenes (mixed isomers) | 1307 | C | | |

* Asterisk indicates that the substance has been provisionally included in this list and that further data are necessary in order to complete the evaluation of its environmental hazards, particularly in relation to living resources.

Appendix III**LIST OF OTHER LIQUID SUBSTANCES CARRIED IN BULK**

| | |
|--|----------------------|
| Acetonitrile (Methyl cyanide) | Olive Oil |
| tert-Amyl alcohol | Polypropylene glycol |
| n-Butyl alcohol | iso-Propyl acetate |
| Butyrolactone | iso-Propyl alcohol |
| Calcium chloride (solution) | Propylene glycol |
| Castor oil | Propylene oxide |
| Citric juices | Propylene tetramer |
| Coconut oil | Propylene trimer |
| Cod liver oil | Sorbitol |
| iso-Decyl alcohol | Sulphur (liquid) |
| n-Decyl alcohol | Tridecanol |
| Decyl octyl alcohol | Triethylene glycol |
| Dibutyl ether | Triethylenetetramine |
| Diethanolamine | Tripropylene glycol |
| Diethylene glycol | Water |
| Dipentene | Wine |
| Dipropylene glycol | |
| Ethyl alcohol | |
| Ethylene glycol | |
| Fatty alcohols (C ₁₂ -C ₂₀) | |
| Glycerine | |
| n-Heptane | |
| Heptene (mixed isomers) | |
| n-Hexane | |
| Ligroin | |
| Methyl alcohol | |
| Methylamyl acetate | |
| Methyl ethyl ketone (2-butanone) | |
| Milk | |
| Molasses | |

Appendix IV**CARGO RECORD BOOK FOR SHIPS CARRYING
NOXIOUS LIQUID SUBSTANCES IN BULK**

Name of ship

Cargo carrying capacity of
each tank in cubic metres

Voyage from to

(a) Loading of cargo

1. Date and place of loading
2. Name and category of cargo(es) loaded
3. Identity of tank(s) loaded

(b) Transfer of cargo

4. Date of transfer
5. Identity of tank(s) (i) From
(ii) To
6. Was(were) tank(s) in 5(i) emptied?
7. If not, quantity remaining

(c) Unloading of cargo

8. Date and place of unloading
9. Identity of tank(s) unloaded
10. Was(were) tank(s) emptied?
11. If not, quantity remaining in tank(s)
12. Is(are) tank(s) to be cleaned?
13. Amount transferred to slop tank
14. Identity of slop tank

(d) Ballasting of cargo tanks

15. Identity of tank(s) ballasted
16. Date and position of ship at start of ballasting

..... Signature of Master

(e) **Cleaning of cargo tanks**

Category A substances

17. Identity of tank(s) cleaned
18. Date and location of cleaning
19. Method(s) of cleaning
20. Location of reception facility used
21. Concentration of effluent when discharge to reception facility stopped
22. Quantity remaining in tank
23. Procedure and amount of water introduced into tank in final cleaning
24. Location, date of discharge into sea
25. Procedure and equipment used in discharge into the sea

Category B, C and D substances

26. Washing procedure used
27. Quantity of water used
28. Date, location of discharge into sea
29. Procedure and equipment used in discharge into the sea

(f) **Transfer of dirty ballast water**

30. Identity of tank(s)
31. Date and position of ship at start of discharge into sea
32. Date and position of ship at finish of discharge into sea
33. Ship's speed(s) during discharge
34. Quantity discharged into sea
35. Quantity of polluted water transferred to slop tank(s) (identify slop tank(s))
36. Date and port of discharge to shore reception facilities (if applicable)

..... Signature of Master

(g) **Transfer from slop tank/disposal of residue**

37. Identity of slop tank(s)
38. Quantity disposed from each tank
39. Method of disposal of residue:
 - (a) Reception facilities
 - (b) Mixed with cargo
 - (c) Transferred to another (other) tank(s) (identify tank(s))
 - (d) Other method
40. Date and port of disposal of residue

(h) **Accidental or other exceptional discharge**

41. Date and time of occurrence
42. Place or position of ship at time of occurrence
43. Approximate quantity, name and category of substance
44. Circumstances of discharge or escape and general remarks.

..... Signature of Master

Appendix V

FORM OF CERTIFICATE

INTERNATIONAL POLLUTION PREVENTION CERTIFICATE FOR THE
CARRIAGE OF NOXIOUS LIQUID SUBSTANCES IN BULK (1973)

(Note: This Certificate shall be supplemented in the case of a chemical tanker by the certificate required pursuant to the provisions of Regulation 13(3) of Annex II of the Convention)

(Official Seal)

Issued under the provisions of the International Convention for the Prevention of Pollution from Ships, 1973, under the authority of the Government of

.....
(full official designation of the country)

by
(full official designation of the competent person or organization authorized under the provisions of the International Convention for the Prevention of Pollution from Ships, 1973)

| Name of Ship | Distinctive Number or Letter | Port of Registry | Gross Tonnage |
|--------------|------------------------------|------------------|---------------|
| | | | |

THIS IS TO CERTIFY:

- 1. That the ship has been surveyed in accordance with the provisions of Regulation 10 of Annex II of the Convention.
- 2. That the survey showed that the design, construction and equipment of the ship are such as to minimize the uncontrolled discharge into the sea of noxious liquid substances.
- 3. That the following arrangements and procedures have been approved by the Administration in connexion with the implementation of Regulation 5 of Annex II of the Convention:

.....
(Continued on the annexed signed and dated sheet(s))

This certificate is valid, until,
 subject to intermediate survey(s) at intervals of

Issued at.....
(place of issue of Certificate)

..... 19 ..
*(Signature of duly authorized official
 issuing the Certificate)*

(Seal or stamp of the issuing Authority, as appropriate)

Intermediate surveys

This is to certify that at an intermediate survey required by Regulation 10(1)(c) of Annex II of the Convention, this ship and the condition thereof are found to comply with the relevant provisions of the Convention.

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

Place

Date

(Seal or stamp of the Authority, as appropriate)

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

Place

Date

(Seal or stamp of the Authority, as appropriate)

Under the provisions of Regulation 12(2) and (4) of Annex II of the Convention the validity of this Certificate is extended until

.....

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

Place

Date

(Seal or stamp of the Authority, as appropriate)

ANNEX III**REGULATIONS FOR THE PREVENTION OF POLLUTION BY
HARMFUL SUBSTANCES CARRIED BY SEA IN PACKAGED FORMS,
OR IN FREIGHT CONTAINERS, PORTABLE TANKS OR
ROAD AND RAIL TANK WAGONS****Regulation 1***Application*

- (1) Unless expressly provided otherwise, the Regulations of this Annex apply to all ships carrying harmful substances in packaged forms, or in freight containers, portable tanks or road and rail tank wagons.
- (2) Such carriage of harmful substances is prohibited except in accordance with the provisions of this Annex.
- (3) To supplement the provisions of this Annex the Government of each Party to the Convention shall issue, or cause to be issued, detailed requirements on packaging, marking and labelling, documentation, stowage, quantity limitations, exceptions and notification, for preventing or minimizing pollution of the marine environment by harmful substances.
- (4) For the purpose of this Annex, empty receptacles, freight containers, portable tanks and road and rail tank wagons which have been used previously for the carriage of harmful substances shall themselves be treated as harmful substances unless adequate precautions have been taken to ensure that they contain no residue that is hazardous to the marine environment.

Regulation 2*Packaging*

Packagings, freight containers, portable tanks and road and rail tank wagons shall be adequate to minimize the hazard to the marine environment having regard to their specific contents.

Regulation 3*Marking and Labelling*

Packages, whether shipped individually or in units or in freight containers, freight containers, portable tanks or road and rail tank wagons containing a harmful substance, shall be durably marked with the correct technical name (trade names shall not be used as the correct technical name), and further marked with a distinctive label or stencil of label, indicating that the contents are harmful. Such identification shall be supplemented where possible by any other means, for example by the use of the United Nations number.

Regulation 4*Documentation*

- (1) In all documents relating to the carriage of harmful substances by sea where such substances are named, the correct technical name of the substances shall be used (trade names shall not be used).
- (2) The shipping documents supplied by the shipper shall include a certificate or declaration that the shipment offered for carriage is properly packed, marked and labelled and in proper condition for carriage to minimize the hazard to the marine environment.
- (3) Each ship carrying harmful substances shall have a special list or manifest setting forth the harmful substances on board and the location thereof. A detailed stowage plan which sets out the location of all harmful substances on board may be used in place of such special list or manifest. Copies of such documents shall also be retained on shore by the owner of the ship or his representative until the harmful substances are unloaded.
- (4) In a case where the ship carries a special list or manifest or a detailed stowage plan, required for the carriage of dangerous goods by the International Convention for the Safety of Life at Sea in force, the documents required for the purpose of this Annex may be combined with those for dangerous goods. Where documents are combined, a clear distinction shall be made between dangerous goods and other harmful substances.

Regulation 5*Stowage*

Harmful substances shall be both properly stowed and secured so as to minimize the hazards to the marine environment without impairing the safety of ship and persons on board.

Regulation 6*Quantity Limitations*

Certain harmful substances which are very hazardous to the marine environment may, for sound scientific and technical reasons, need to be prohibited for carriage or be limited as to the quantity which may be carried aboard any one ship. In limiting the quantity due consideration shall be given to size, construction and equipment of the ship as well as the packaging and the inherent nature of the substance.

Regulation 7*Exceptions*

- (1) Discharge by jettisoning of harmful substances carried in packaged forms, freight containers, portable tanks or road and rail tank wagons shall be prohibited except where necessary for the purpose of securing the safety of the ship or saving life at sea.

(2) Subject to the provisions of the present Convention, appropriate measures based on the physical, chemical and biological properties of harmful substances shall be taken to regulate the washing of leakages overboard provided that compliance with such measures would not impair the safety of the ship and persons on board.

Regulation 8

Notification

With respect to certain harmful substances, as may be designated by the Government of a Party to the Convention, the master or owner of the ship or his representative shall notify the appropriate port authority of the intent to load or unload such substances at least 24 hours prior to such action.

ANNEX IV

REGULATIONS FOR THE PREVENTION OF
POLLUTION BY SEWAGE FROM SHIPS

Regulation 1

Definitions

For the purposes of the present Annex:

- (1) "New ship" means a ship:
 - (a) for which the building contract is placed, or 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 the date of entry into force of this Annex; or
 - (b) the delivery of which is three years or more after the date of entry into force of this Annex.
- (2) "Existing ship" means a ship which is not a new ship.
- (3) "Sewage" means:
 - (a) drainage and other wastes from any form of toilets, urinals, and WC scuppers;
 - (b) drainage from medical premises (dispensary, sick bay, etc.) via wash basins, wash tubs and scuppers located in such premises;
 - (c) drainage from spaces containing living animals; or
 - (d) other waste waters when mixed with the drainages defined above.
- (4) "Holding tank" means a tank used for the collection and storage of sewage.
- (5) "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' South, longitude 142° 08' East to a point in
latitude 10° 35' South,
longitude 141° 55' East – thence to a point latitude 10° 00' South,
longitude 142° 00' East, thence to a point latitude 9° 10' South,
longitude 143° 52' East, thence to a point latitude 9° 00' South,
longitude 144° 30' East, thence to a point latitude 13° 00' South,
longitude 144° 00' East, thence to a point latitude 15° 00' South,
longitude 146° 00' East, thence to a point latitude 18° 00' South,
longitude 147° 00' East, thence to a point latitude 21° 00' South,
longitude 153° 00' East, thence to a point on the coast of Australia
in latitude 24° 42' South, longitude 153° 15' East.

Regulation 2*Application*

The provisions of this Annex shall apply to:

- (a)
 - (i) new ships of 200 tons gross tonnage and above;
 - (ii) new ships of less than 200 tons gross tonnage which are certified to carry more than 10 persons;
 - (iii) new ships which do not have a measured gross tonnage and are certified to carry more than 10 persons; and
- (b)
 - (i) existing ships of 200 tons gross tonnage and above, 10 years after the date of entry into force of this Annex;
 - (ii) existing ships of less than 200 tons gross tonnage which are certified to carry more than 10 persons, 10 years after the date of entry into force of this Annex; and
 - (iii) existing ships which do not have a measured gross tonnage and are certified to carry more than 10 persons, 10 years after the date of entry into force of this Annex.

Regulation 3*Surveys*

(1) Every ship which is required to comply with the provisions of this Annex and which is engaged in voyages to ports or offshore terminals under the jurisdiction of other Parties to the Convention shall be subject to the surveys specified below:

- (a) An initial survey before the ship is put in service or before the Certificate required under Regulation 4 of this Annex is issued for the first time, which shall include a survey of the ship which shall be such as to ensure:
 - (i) when the ship is equipped with a sewage treatment plant the plant shall meet operational requirements based on standards and the test methods developed by the Organization;
 - (ii) when the ship is fitted with a system to comminute and disinfect the sewage, such a system shall be of a type approved by the Administration;
 - (iii) when the ship is equipped with a holding tank the capacity of such tank shall be to the satisfaction of the Administration for the retention of all sewage having regard to the operation of the ship, the number of persons on board and other relevant factors. The holding tank shall have a means to indicate visually the amount of its contents; and
 - (iv) that the ship is equipped with a pipeline leading to the exterior convenient for the discharge of sewage to a reception facility and that such a pipeline is fitted with a standard shore connection in compliance with Regulation 11 of this Annex.

This survey shall be such as to ensure that the equipment, fittings, arrangements and material fully comply with the applicable requirements of this Annex.

- (b) Periodical surveys at intervals specified by the Administration but not exceeding five years which shall be such as to ensure that the equipment, fittings, arrangements and material fully comply with the applicable requirements of this Annex. However, where the duration of the International Sewage Pollution Prevention Certificate (1973) is extended as specified in Regulation 7(2) or (4) of this Annex, the interval of the periodical survey may be extended correspondingly.
- (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 provisions of this Annex are complied with.
- (3) Surveys of the ship as regards 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. In every case the Administration concerned fully guarantees the completeness and efficiency of the surveys.
- (4) After any survey of the ship under this Regulation has been completed, no significant change shall be made in the equipment, fittings, arrangements, or material covered by the survey without the approval of the Administration, except the direct replacement of such equipment or fittings.

Regulation 4

Issue of Certificate

- (1) An International Sewage Pollution Prevention Certificate (1973) shall be issued, after survey in accordance with the provisions of Regulation 3 of this Annex, to any ship which is engaged in voyages to ports or offshore terminals under the jurisdiction of other Parties to the Convention.
- (2) Such Certificate shall be issued 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 5

Issue of a Certificate by another Government

- (1) The Government of a Party to the 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 Sewage Pollution Prevention Certificate (1973) to the ship in accordance with this Annex.
- (2) A copy of the Certificate and a copy of the survey report shall be transmitted as early as possible to the Administration requesting the survey.

(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 4 of this Annex.

(4) No International Sewage Pollution Prevention Certificate (1973) shall be issued to a ship which is entitled to fly the flag of a State, which is not a Party.

Regulation 6

Form of Certificate

The International Sewage Pollution Prevention Certificate (1973) shall be drawn up in an official language of the issuing country in the form corresponding to the model given in the Appendix to this Annex. If the language used is neither English nor French, the text shall include a translation into one of these languages.

Regulation 7

Duration of Certificate

(1) An International Sewage Pollution Prevention Certificate (1973) shall be issued for a period specified by the Administration, which shall not exceed five years from the date of issue, except as provided in paragraphs (2), (3) and (4) of this Regulation.

(2) If a ship at the time when the Certificate expires is not in a port or offshore terminal under the jurisdiction of the Party to the Convention whose flag the ship is entitled to fly, the Certificate may be extended by the Administration, but such extension shall be granted only for the purpose of allowing the ship to complete its voyage to the State whose flag the ship is entitled to fly or in which it is to be surveyed and then only in cases where it appears proper and reasonable to do so.

(3) No Certificate shall be thus extended for a period longer than five months and a ship to which such extension is granted shall not on its arrival in the State whose flag it is entitled to fly or the port in which it is to be surveyed, be entitled by virtue of such extension to leave that port or State without having obtained a new Certificate.

(4) A Certificate which has not been extended under the provisions of paragraph (2) 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.

(5) A Certificate shall cease to be valid if significant alterations have taken place in the equipment, fittings, arrangement or material required without the approval of the Administration, except the direct replacement of such equipment or fittings.

(6) A Certificate issued to a ship shall cease to be valid upon transfer of such a ship to the flag of another State, except as provided in paragraph (7) of this Regulation.

(7) Upon transfer of a ship to the flag of another Party, the Certificate shall remain in force for a period not exceeding five months provided that it would not have expired before the end of that period, or until the Administration issues a replacement Certificate, whichever is earlier. As soon as possible after the transfer has taken place the Government of the Party whose flag the ship was formerly entitled to fly shall transmit to the Administration a copy of the Certificate carried by the ship before the transfer and, if available, a copy of the relevant survey report.

Regulation 8

Discharge of Sewage

(1) Subject to the provisions of Regulation 9 of this Annex, the discharge of sewage into the sea is prohibited, except when:

- (a) the ship is discharging comminuted and disinfected sewage using a system approved by the Administration in accordance with Regulation 3(1)(a) at a distance of more than four nautical miles from the nearest land, or sewage which is not comminuted or disinfected at a distance of more than 12 nautical miles from the nearest land, provided that in any case, the sewage that has been stored in holding tanks shall not be discharged instantaneously but at a moderate rate when the ship is en route and proceeding at not less than 4 knots; the rate of discharge shall be approved by the Administration based upon standards developed by the Organization; or
- (b) the ship has in operation an approved sewage treatment plant which has been certified by the Administration to meet the operational requirements referred to in Regulation 3(1)(a)(i) of this Annex, and
 - (i) the test results of the plant are laid down in the ship's International Sewage Pollution Prevention Certificate (1973);
 - (ii) additionally, the effluent shall not produce visible floating solids in, nor cause discolouration of, the surrounding water; or
- (c) the ship is situated in the waters under the jurisdiction of a State and is discharging sewage in accordance with such less stringent requirements as may be imposed by such State.

(2) When the sewage is mixed with wastes or waste water having different discharge requirements, the more stringent requirements shall apply.

Regulation 9

Exceptions

Regulation 8 of this Annex shall not apply to:

- (a) the discharge of sewage from a ship necessary for the purpose of securing the safety of a ship and those on board or saving life at sea; or

- (b) the discharge of sewage resulting from damage to a ship or its equipment if all reasonable precautions have been taken before and after the occurrence of the damage, for the purpose of preventing or minimizing the discharge.

Regulation 10

Reception Facilities

- (1) The Government of each Party to the Convention undertakes to ensure the provision of facilities at ports and terminals for the reception of sewage, without causing undue delay to ships, adequate to meet the needs of the ships using them.
- (2) The Government of each Party shall notify the Organization for transmission to the Contracting Governments concerned of all cases where the facilities provided under this Regulation are alleged to be inadequate.

Regulation 11

Standard Discharge Connections

To enable pipes of reception facilities to be connected with the ship's discharge pipeline, 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 | 210 mm |
| Inner diameter | According to pipe outside diameter |
| Bolt circle diameter | 170 mm |
| Slots in flange | 4 holes 18 mm in diameter equidistantly placed on a bolt circle of the above diameter, slotted to the flange periphery. The slot width to be 18 mm |
| Flange thickness | 16 mm |
| Bolts and nuts: quantity and diameter | 4, each of 16 mm in diameter and of suitable length |
| The flange is designed to accept pipes up to a maximum internal diameter of 100 mm and shall be of steel or other equivalent material having a flat face. This flange, together with a suitable gasket, shall be suitable for a service pressure of 6 kg/cm ² . | |

For ships having a moulded depth of 5 metres and less, the inner diameter of the discharge connection may be 38 millimetres.

Appendix

FORM OF CERTIFICATE

INTERNATIONAL SEWAGE POLLUTION PREVENTION CERTIFICATE (1973)

Issued under the Provisions of the International Convention for the Prevention of Pollution from Ships, 1973, 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 International Convention for the Prevention of Pollution from Ships, 1973)

| Name of Ship | Distinctive Number or Letter | Port of Registry | Gross Tonnage | Number of persons which the ship is certified to carry |
|--------------|------------------------------|------------------|---------------|--|
| | | | | |

New/existing ship*

Date of building contract

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

Date of delivery

* Delete as appropriate

THIS IS TO CERTIFY THAT:-

- (1) The ship is equipped with a sewage treatment plant/comminuter/holding tank* and a discharge pipeline in compliance with Regulation 3(1)(a)(i) to (iv) of Annex IV of the Convention as follows:
 - * (a) Description of the sewage treatment plant:
 - Type of sewage treatment plant
 - Name of manufacturer
 - The sewage treatment plant is certified by the Administration to meet the following effluent standards:**
 - * (b) Description of comminuter:
 - Type of comminuter
 - Name of manufacturer
 - Standard of sewage after disinfection
 - * (c) Description of holding tank equipment:
 - Total capacity of the holding tank m³
 - Location
 - (d) A pipeline for the discharge of sewage to a reception facility, fitted with a standard shore connection.
- (2) The ship has been surveyed in accordance with Regulation 3 of Annex IV of the International Convention for the Prevention of Pollution from Ships, 1973, concerning the prevention of pollution by sewage and the survey showed that the equipment of the ship and the condition thereof are in all respects satisfactory and the ship complies with the applicable requirements of Annex IV of the Convention.

This Certificate is valid until

Issued at

(place of issue of Certificate)

..... 19 ..

(Signature of official issuing the Certificate)

(Seal or stamp of the Issuing Authority, as appropriate)

Under the provisions of Regulation 7(2) and (4) of Annex IV of the Convention the validity of this Certificate is extended until

.....

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

Place

Date

(Seal or stamp of the Authority, as appropriate)

* Delete as appropriate
** Parameters should be incorporated

ANNEX V**REGULATIONS FOR THE PREVENTION OF POLLUTION
BY GARBAGE FROM SHIPS****Regulation 1***Definitions*

For the purposes of this Annex:

(1) "Garbage" means all kinds of victual, domestic and operational waste excluding fresh fish and parts thereof, generated during the normal operation of the ship and liable to be disposed of continuously or periodically except those substances which are defined or listed in other Annexes to the present Convention.

(2) "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' South, longitude 142°08' East to a point in
latitude 10°35' South,
longitude 141°55' East, thence to a point latitude 10°00' South,
longitude 142°00' East, thence to a point latitude 9°10' South,
longitude 143°52' East, thence to a point latitude 9°00' South,
longitude 144°30' East, thence to a point latitude 13°00' South,
longitude 144°00' East, thence to a point latitude 15°00' South,
longitude 146°00' East, thence to a point latitude 18°00' South,
longitude 147°00' East, thence to a point latitude 21°00' South,
longitude 153°00' East, thence to a point on the coast of Australia
in latitude 24°42' South, longitude 153°15' East.

(3) "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 garbage is required. Special areas shall include those listed in Regulation 5 of this Annex.

Regulation 2*Application*

The provisions of this Annex shall apply to all ships.

Regulation 3

Disposal of Garbage outside Special Areas

- (1) Subject to the provisions of Regulations 4, 5 and 6 of this Annex:
- (a) the disposal into the sea of all plastics, including but not limited to synthetic ropes, synthetic fishing nets and plastic garbage bags is prohibited;
 - (b) the disposal into the sea of the following garbage shall be made as far as practicable from the nearest land but in any case is prohibited if the distance from the nearest land is less than:
 - (i) 25 nautical miles for dunnage, lining and packing materials which will float;
 - (ii) 12 nautical miles for food wastes and all other garbage including paper products, rags, glass, metal, bottles, crockery and similar refuse;
 - (c) disposal into the sea of garbage specified in sub-paragraph (b)(ii) of this Regulation may be permitted when it has passed through a comminuter or grinder and made as far as practicable from the nearest land but in any case is prohibited if the distance from the nearest land is less than 3 nautical miles. Such comminuted or ground garbage shall be capable of passing through a screen with openings no greater than 25 millimetres.
- (2) When the garbage is mixed with other discharges having different disposal or discharge requirements the more stringent requirements shall apply.

Regulation 4

Special Requirements for Disposal of Garbage

- (1) Subject to the provisions of paragraph (2) of this Regulation, the disposal of any materials regulated by this Annex is prohibited from fixed or floating platforms engaged in the exploration, exploitation and associated offshore processing of seabed mineral resources, and from all other ships when alongside or within 500 metres of such platforms.
- (2) The disposal into the sea of food wastes may be permitted when they have been passed through a comminuter or grinder from such fixed or floating platforms located more than 12 nautical miles from land and all other ships when alongside or within 500 metres of such platforms. Such comminuted or ground food wastes shall be capable of passing through a screen with openings no greater than 25 millimetres.

Regulation 5

Disposal of Garbage within Special Areas

- (1) For the purposes of this Annex the special areas are the Mediterranean Sea area, the Baltic Sea area, the Black Sea area, the Red Sea area and the "Gulfs area" which are defined as follows:

- (a) 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 5°36'W.
 - (b) The Baltic Sea area means the Baltic Sea proper with the Gulf of Bothnia and the Gulf of Finland and the entrance to the Baltic Sea bounded by the parallel of the Skaw in the Skagerrak at 57°44.8'N.
 - (c) The Black Sea area means the Black Sea proper with the boundary between the Mediterranean and the Black Sea constituted by the parallel 41°N.
 - (d) 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° 8.5'N, 43° 19.6'E) and Husn Murad (12° 40.4'N, 43° 30.2'E).
 - (e) The "Gulfs area" means the sea area located north west of the rhumb line between Ras al Hadd (22° 30'N, 59° 48'E) and Ras al Fastej (25° 04'N, 61° 25'E).
- (2) Subject to the provisions of Regulation 6 of this Annex:
- (a) disposal into the sea of the following is prohibited:
 - (i) all plastics, including but not limited to synthetic ropes, synthetic fishing nets and plastic garbage bags; and
 - (ii) all other garbage, including paper products, rags, glass, metal, bottles, crockery, dunnage, lining and packing materials;
 - (b) disposal into the sea of food wastes shall be made as far as practicable from land, but in any case not less than 12 nautical miles from the nearest land.
- (3) When the garbage is mixed with other discharges having different disposal or discharge requirements the more stringent requirements shall apply.
- (4) Reception facilities within special areas:
- (a) The Government of each Party to the Convention, the coastline of which borders a special area undertakes to ensure that as soon as possible in all ports within a special area, adequate reception facilities are provided in accordance with Regulation 7 of this Annex, taking into account the special needs of ships operating in these areas.
 - (b) The Government of each Party concerned shall notify the Organization of the measures taken pursuant to sub-paragraph (a) of this Regulation. Upon receipt of sufficient notifications the Organization shall establish a date from which the requirements of this Regulation 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.

- (c) After the date so established, ships calling also at ports in these special areas where such facilities are not yet available, shall fully comply with the requirements of this Regulation.

Regulation 6

Exceptions

Regulations 3, 4 and 5 of this Annex shall not apply to:

- (a) the disposal of garbage from a ship necessary for the purpose of securing the safety of a ship and those on board or saving life at sea; or
- (b) the escape of garbage resulting from damage to a ship or its equipment provided all reasonable precautions have been taken before and after the occurrence of the damage, for the purpose of preventing or minimizing the escape; or
- (c) the accidental loss of synthetic fishing nets or synthetic material incidental to the repair of such nets, provided that all reasonable precautions have been taken to prevent such loss.

Regulation 7

Reception Facilities

- (1) The Government of each Party to the Convention undertakes to ensure the provision of facilities at ports and terminals for the reception of garbage, without causing undue delay to ships, and according to the needs of the ships using them.
- (2) The Government of 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.

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ANNEX

**ADDITION OF ANNEX VI TO THE INTERNATIONAL CONVENTION FOR
THE PREVENTION OF POLLUTION FROM SHIPS, 1973, AS MODIFIED
BY THE PROTOCOL OF 1978 RELATING THERETO**

The following new Annex VI is added after the existing Annex V:

"ANNEX VI**REGULATIONS FOR THE PREVENTION OF AIR POLLUTION FROM SHIPS****CHAPTER I - GENERAL****REGULATION 1****Application**

The provisions of this Annex shall apply to all ships, except where expressly provided otherwise in regulations 3, 5, 6, 13, 15, 18 and 19 of this Annex.

REGULATION 2**Definitions**

For the purpose of this Annex:

- (1) "A similar stage of construction" means the stage at which:
 - (a) construction identifiable with a specific ship begins; and
 - (b) assembly of that ship has commenced comprising at least 50 tonnes or one per cent of the estimated mass of all structural material, whichever is less.
- (2) "Continuous feeding" is defined as the process whereby waste is fed into a combustion chamber without human assistance while the incinerator is in normal operating conditions with the combustion chamber operative temperature between 850°C and 1200°C.
- (3) "Emission" means any release of substances, subject to control by this Annex from ships into the atmosphere or sea.
- (4) "New installations", in relation to regulation 12 of this Annex, means the installation of systems, equipment, including new portable fire extinguishing units, insulation, or other material on a ship after the date on which this Annex enters into force, but excludes repair or recharge of previously installed systems, equipment, insulation, or other material, or recharge of portable fire extinguishing units.

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- (5) "NOx Technical Code" means the Technical Code on Control of Emission of Nitrogen Oxides from Marine Diesel Engines adopted by Conference resolution 2, as may be amended by the Organization, provided that such amendments are adopted and brought into force in accordance with the provisions of article 16 of the present Convention concerning amendment procedures applicable to an appendix to an Annex.
- (6) "Ozone depleting substances" means controlled substances defined in paragraph 4 of article 1 of the Montreal Protocol on Substances that Deplete the Ozone Layer, 1987, listed in Annexes A, B, C or E to the said Protocol in force at the time of application or interpretation of this Annex.
- "Ozone depleting substances" that may be found on board ship include, but are not limited to:
- Halon 1211 Bromochlorodifluoromethane
 - Halon 1301 Bromotrifluoromethane
 - Halon 2402 1,2-Dibromo-1,1,2,2-tetrafluoroethane (also known as Halon 114B2)
 - CFC-11 Trichlorofluoromethane
 - CFC-12 Dichlorodifluoromethane
 - CFC-113 1,1,2-Trichloro-1,2,2-trifluoroethane
 - CFC-114 1,2-Dichloro-1,1,2,2-tetrafluoroethane
 - CFC-115 Chloropentafluoroethane
- (7) "Sludge oil" means sludge from the fuel or lubricating oil separators, waste lubricating oil from main or auxiliary machinery, or waste oil from bilge water separators, oil filtering equipment or drip trays.
- (8) "Shipboard incineration" means the incineration of wastes or other matter on board a ship, if such wastes or other matter were generated during the normal operation of that ship.
- (9) "Shipboard incinerator" means a shipboard facility designed for the primary purpose of incineration.
- (10) "Ships constructed" means ships the keels of which are laid or which are at a similar stage of construction.
- (11) "SOx Emission Control Area" means an area where the adoption of special mandatory measures for SOx emissions from ships is required to prevent, reduce and control air pollution from SOx and its attendant adverse impacts on land and sea areas. SOx Emission Control Areas shall include those listed in regulation 14 of this Annex.
- (12) "Tanker" means an oil tanker as defined in regulation 1(4) of Annex I or a chemical tanker as defined in regulation 1(1) of Annex II of the present Convention.
- (13) "The Protocol of 1997" means the Protocol of 1997 to amend the International Convention for the Prevention of Pollution from Ships, 1973, as amended by the Protocol of 1978 relating thereto.

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REGULATION 3**General Exceptions**

Regulations of this Annex shall not apply to:

- (a) any emission necessary for the purpose of securing the safety of a ship or saving life at sea; or
- (b) any emission resulting from damage to a ship or its equipment:
 - (i) provided that all reasonable precautions have been taken after the occurrence of the damage or discovery of the emission for the purpose of preventing or minimizing the emission; and
 - (ii) except if the owner or the master acted either with intent to cause damage, or recklessly and with knowledge that damage would probably result.

REGULATION 4**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.
- (2) The Administration which allows a fitting, material, appliance or apparatus as an alternative to that required by this Annex shall communicate to the Organization for circulation to the Parties to the present Convention particulars thereof, for their information and appropriate action, if any.

CHAPTER II - SURVEY, CERTIFICATION AND MEANS OF CONTROL**REGULATION 5****Surveys and Inspections**

- (1) Every ship of 400 gross tonnage or above and every fixed and floating drilling rig and other platforms shall be subject to the surveys specified below:
 - (a) an initial survey before the ship is put into service or before the certificate required under regulation 6 of this Annex is issued for the first time. This survey shall be such as to ensure that the equipment, systems, fittings, arrangements and material fully comply with the applicable requirements of this Annex;
 - (b) periodical surveys at intervals specified by the Administration, but not exceeding five years, which shall be such as to ensure that the equipment, systems, fittings, arrangements and material fully comply with the requirements of this Annex; and

- (c) a minimum of one intermediate survey during the period of validity of the certificate which shall be such as to ensure that the equipment and arrangements fully comply with the requirements of this Annex and are in good working order. In cases where only one such intermediate survey is carried out in a single certificate validity period, and where the period of the certificate exceeds 2½ years, it shall be held within six months before or after the halfway date of the certificate's period of validity. Such intermediate surveys shall be endorsed on the certificate issued under regulation 6 of this Annex.
- (2) In the case of ships of less than 400 gross tonnage, the Administration may establish appropriate measures in order to ensure that the applicable provisions of this Annex are complied with.
- (3) Surveys of ships as regards the enforcement of the provisions of this Annex shall be carried out by officers of the Administration. The Administration may, however, entrust the surveys either to surveyors nominated for the purpose or to organizations recognized by it. Such organizations shall comply with the guidelines adopted by the Organization. In every case the Administration concerned shall fully guarantee the completeness and efficiency of the survey.
- (4) The survey of engines and equipment for compliance with regulation 13 of this Annex shall be conducted in accordance with the NOx Technical Code.
- (5) The Administration shall institute arrangements for unscheduled inspections to be carried out during the period of validity of the certificate. Such inspections shall ensure that the equipment remains in all respects satisfactory for the service for which the equipment is intended. These inspections may be carried out by their own inspection service, nominated surveyors, recognized organizations, or by other Parties upon request of the Administration. Where the Administration, under the provisions of paragraph (1) of this regulation, establishes mandatory annual surveys, the above unscheduled inspections shall not be obligatory.
- (6) When a nominated surveyor or recognized organization determines that the condition of the equipment does not correspond substantially with the particulars of the certificate, they shall ensure that corrective action is taken and shall in due course notify the Administration. If such corrective action is not taken, the certificate should be withdrawn by the Administration. 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 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.
- (7) The equipment shall be maintained to conform with the provisions of this Annex and no changes shall be made in the equipment, systems, fittings, arrangements, or material covered by the survey, without the express approval of the Administration. The direct replacement of such equipment and fittings with equipment and fittings that conform with the provisions of this Annex is permitted.
- (8) Whenever an accident occurs to a ship or a defect is discovered, which substantially affects 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, a nominated surveyor, or recognized organization responsible for issuing the relevant certificate.

REGULATION 6**Issue of International Air Pollution Prevention Certificate**

- (1) An International Air Pollution Prevention Certificate shall be issued, after survey in accordance with the provisions of regulation 5 of this Annex, to:
 - (a) any ship of 400 gross tonnage or above engaged in voyages to ports or offshore terminals under the jurisdiction of other Parties; and
 - (b) platforms and drilling rigs engaged in voyages to waters under the sovereignty or jurisdiction of other Parties to the Protocol of 1997.
- (2) Ships constructed before the date of entry into force of the Protocol of 1997 shall be issued with an International Air Pollution Prevention Certificate in accordance with paragraph (1) of this regulation no later than the first scheduled drydocking after entry into force of the Protocol of 1997, but in no case later than 3 years after entry into force of the Protocol of 1997.
- (3) Such certificate shall be issued either by the Administration or by any person or organization duly authorized by it. In every case the Administration assumes full responsibility for the certificate.

REGULATION 7**Issue of a Certificate by another Government**

- (1) The Government of a Party to the Protocol of 1997 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, issue or authorize the issuance of an International Air Pollution Prevention Certificate to 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 a certificate issued under regulation 6 of this Annex.
- (4) No International Air Pollution Prevention Certificate shall be issued to a ship which is entitled to fly the flag of a State which is not a Party to the Protocol of 1997.

REGULATION 8**Form of Certificate**

The International Air Pollution Prevention Certificate shall be drawn up in an official language of the issuing country in the form corresponding to the model given in appendix I to this Annex. If the language used is not English, French, or Spanish, the text shall include a translation into one of these languages.

REGULATION 9**Duration and Validity of Certificate**

- (1) An International Air Pollution Prevention Certificate shall be issued for a period specified by the Administration, which shall not exceed five years from the date of issue.
- (2) No extension of the five-year period of validity of the International Air Pollution Prevention Certificate shall be permitted, except in accordance with paragraph (3).
- (3) If the ship, at the time when the International Air Pollution Prevention Certificate expires, is not in a port of the State whose flag it is entitled to fly or in which it is to be surveyed, the Administration may extend the certificate for a period of no more than 5 months. Such extension shall be granted only for the purpose of allowing the ship to complete its voyage to the State whose flag it is entitled to fly or in which it is to be surveyed, and then only in cases where it appears proper and reasonable to do so. After arrival in the State whose flag it is entitled to fly or in which it is to be surveyed, the ship shall not be entitled by virtue of such extension to leave the port or State without having obtained a new International Air Pollution Prevention Certificate.
- (4) An International Air Pollution Prevention Certificate shall cease to be valid in any of the following circumstances:
 - (a) if the inspections and surveys are not carried out within the periods specified under regulation 5 of this Annex;
 - (b) if significant alterations have taken place to the equipment, systems, fittings, arrangements or material to which this Annex applies without the express approval of the Administration, except the direct replacement of such equipment or fittings with equipment or fittings that conform with the requirements of this Annex. For the purpose of regulation 13, significant alteration shall include any change or adjustment to the system, fittings, or arrangement of a diesel engine which results in the nitrogen oxide limits applied to that engine no longer being complied with; or
 - (c) upon transfer of the ship to the flag of another State. A new certificate shall be issued only when the Government issuing the new certificate is fully satisfied that the ship is in full compliance with the requirements of regulation 5 of this Annex. In the case of a transfer between Parties, if requested within three 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 of the other Party a copy of the International Air Pollution Prevention Certificate carried by the ship before the transfer and, if available, copies of the relevant survey reports.

REGULATION 10**Port State Control on Operational Requirements**

- (1) A ship, when in a port or an offshore terminal under the jurisdiction of another Party to the Protocol of 1997, 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 air pollution from ships.

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- (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 has 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.

REGULATION 11

Detection of Violations and Enforcement

- (1) Parties to this Annex shall co-operate in the detection of violations and the enforcement of the provisions of this Annex, using all appropriate and practicable measures of detection and environmental monitoring, adequate procedures for reporting and accumulation of evidence.
- (2) A ship to which the present Annex applies may, in any port or offshore terminal of a Party, be subject to inspection by officers appointed or authorized by that Party for the purpose of verifying whether the ship has emitted any of the substances covered by this Annex in violation of the provision of this Annex. If an inspection indicates a violation of this Annex, a report shall be forwarded to the Administration for any appropriate action.
- (3) Any Party shall furnish to the Administration evidence, if any, that the ship has emitted any of the substances covered by this Annex in violation of the provisions of this Annex. If it is practicable to do so, the competent authority of the former Party shall notify the master of the ship of the alleged violation.
- (4) Upon receiving such evidence, the Administration so informed shall investigate the matter, and may request the other Party to furnish further or better evidence of the alleged contravention. If the Administration is satisfied that sufficient evidence is available to enable proceedings to be brought in respect of the alleged violation, it shall cause such proceedings to be taken in accordance with its law as soon as possible. The Administration shall promptly inform the Party which has reported the alleged violation, as well as the Organization, of the action taken.
- (5) A Party may also inspect a ship to which this Annex applies when it enters the ports or offshore terminals under its jurisdiction, if a request for an investigation is received from any Party together with sufficient evidence that the ship has emitted any of the substances covered by the Annex in any place in violation of this Annex. The report of such investigation shall be sent to the Party requesting it and to the Administration so that the appropriate action may be taken under the present Convention.
- (6) The international law concerning the prevention, reduction, and control of pollution of the marine environment from ships, including that law relating to enforcement and safeguards, in force at the time of application or interpretation of this Annex, applies, *mutatis mutandis*, to the rules and standards set forth in this Annex.

CHAPTER III - REQUIREMENTS FOR CONTROL OF EMISSIONS FROM SHIPS**REGULATION 12****Ozone Depleting Substances**

- (1) Subject to the provisions of regulation 3, any deliberate emissions of ozone depleting substances shall be prohibited. Deliberate emissions include emissions occurring in the course of maintaining, servicing, repairing or disposing of systems or equipment, except that deliberate emissions do not include minimal releases associated with the recapture or recycling of an ozone depleting substance. Emissions arising from leaks of an ozone depleting substance, whether or not the leaks are deliberate, may be regulated by Parties to the Protocol of 1997.
- (2) New installations which contain ozone depleting substances shall be prohibited on all ships, except that new installations containing hydro-chlorofluorocarbons (HCFCs) are permitted until 1 January 2020.
- (3) The substances referred to in this regulation, and equipment containing such substances, shall be delivered to appropriate reception facilities when removed from ships.

REGULATION 13**Nitrogen Oxides (NO_x)**

- (1) (a) This regulation shall apply to:
 - (i) each diesel engine with a power output of more than 130 kW which is installed on a ship constructed on or after 1 January 2000; and
 - (ii) each diesel engine with a power output of more than 130 kW which undergoes a major conversion on or after 1 January 2000.
- (b) This regulation does not apply to:
 - (i) emergency diesel engines, engines installed in lifeboats and any device or equipment intended to be used solely in case of emergency; and
 - (ii) engines installed on ships solely engaged in voyages within waters subject to the sovereignty or jurisdiction of the State the flag of which the ship is entitled to fly, provided that such engines are subject to an alternative NO_x control measure established by the Administration.
- (c) Notwithstanding the provisions of sub-paragraph (a) of this paragraph, the Administration may allow exclusion from the application of this regulation to any diesel engine which is installed on a ship constructed, or on a ship which undergoes a major conversion, before the date of entry into force of the present Protocol, provided that the ship is solely engaged in voyages to ports or offshore terminals within the State the flag of which the ship is entitled to fly.

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- (2) (a) For the purpose of this regulation, "major conversion" means a modification of an engine where:
- (i) the engine is replaced by a new engine built on or after 1 January 2000, or
 - (ii) any substantial modification, as defined in the NOx Technical Code, is made to the engine, or
 - (iii) the maximum continuous rating of the engine is increased by more than 10%.
- (b) The NOx emission resulting from modifications referred to in the sub-paragraph (a) of this paragraph shall be documented in accordance with the NOx Technical Code for approval by the Administration.
- (3) (a) Subject to the provision of regulation 3 of this Annex, the operation of each diesel engine to which this regulation applies is prohibited, except when the emission of nitrogen oxides (calculated as the total weighted emission of NO_x) from the engine is within the following limits:
- (i) 17.0g/kWh when n is less than 130 rpm
 - (ii) $45.0 \cdot n^{-(0.2)}$ g/kWh when n is 130 or more but less than 2000 rpm
 - (iii) 9.8 g/kWh when n is 2000 rpm or more
- where n = rated engine speed (crankshaft revolutions per minute).
- When using fuel composed of blends from hydrocarbons derived from petroleum refining, test procedure and measurement methods shall be in accordance with the NOx Technical Code, taking into consideration the Test Cycles and Weighting Factors outlined in appendix II to this Annex.
- (b) Notwithstanding the provisions of sub-paragraph (a) of this paragraph, the operation of a diesel engine is permitted when:
- (i) an exhaust gas cleaning system, approved by the Administration in accordance with the NOx Technical Code, is applied to the engine to reduce onboard NOx emissions at least to the limits specified in sub-paragraph (a), or
 - (ii) any other equivalent method, approved by the Administration taking into account relevant guidelines to be developed by the Organization, is applied to reduce onboard NOx emissions at least to the limit specified in sub-paragraph (a) of this paragraph.

REGULATION 14**Sulphur Oxides (SO_x)****General requirements**

- (1) The sulphur content of any fuel oil used on board ships shall not exceed 4.5% m/m.
- (2) The worldwide average sulphur content of residual fuel oil supplied for use on board ships shall be monitored taking into account guidelines to be developed by the Organization.

Requirements within SO_x Emission Control Areas

- (3) For the purpose of this regulation, SO_x Emission Control Areas shall include:
 - (a) the Baltic Sea area as defined in regulation 10(1)(b) of Annex I; and
 - (b) any other sea area, including port areas, designated by the Organization in accordance with criteria and procedures for designation of SO_x Emission Control Areas with respect to the prevention of air pollution from ships contained in appendix III to this Annex.
- (4) While ships are within SO_x Emission Control Areas, at least one of the following conditions shall be fulfilled:
 - (a) the sulphur content of fuel oil used on board ships in a SO_x Emission Control Area does not exceed 1.5% m/m;
 - (b) an exhaust gas cleaning system, approved by the Administration taking into account guidelines to be developed by the Organization, is applied to reduce the total emission of sulphur oxides from ships, including both auxiliary and main propulsion engines, to 6.0 g SO_x/kWh or less calculated as the total weight of sulphur dioxide emission. Waste streams from the use of such equipment shall not be discharged into enclosed ports, harbours and estuaries unless it can be thoroughly documented by the ship that such waste streams have no adverse impact on the ecosystems of such enclosed ports, harbours and estuaries, based upon criteria communicated by the authorities of the port State to the Organization. The Organization shall circulate the criteria to all Parties to the Convention; or
 - (c) any other technological method that is verifiable and enforceable to limit SO_x emissions to a level equivalent to that described in sub-paragraph (b) is applied. These methods shall be approved by the Administration taking into account guidelines to be developed by the Organization.
- (5) The sulphur content of fuel oil referred to in paragraph (1) and paragraph (4)(a) of this regulation shall be documented by the supplier as required by regulation 18 of this Annex.
- (6) Those ships using separate fuel oils to comply with paragraph (4)(a) of this regulation shall allow sufficient time for the fuel oil service system to be fully flushed of all fuels exceeding 1.5% m/m sulphur content prior to entry into a SO_x Emission Control Area. The volume of low sulphur fuel oils (less than or equal to 1.5% sulphur content) in each tank as well as the date, time, and position of the ship when any fuel-changeover operation is completed, shall be recorded in such log-book as prescribed by the Administration.

- (7) During the first twelve months immediately following entry into force of the present Protocol, or of an amendment to the present Protocol designating a specific SO_x Emission Control Area under paragraph (3)(b) of this regulation, ships entering a SO_x Emission Control Area referred to in paragraph (3)(a) of this regulation or designated under paragraph (3)(b) of this regulation are exempted from the requirements in paragraphs (4) and (6) of this regulation and from the requirements of paragraph (5) of this regulation insofar as they relate to paragraph (4)(a) of this regulation.

REGULATION 15

Volatile Organic Compounds

- (1) If the emissions of volatile organic compounds (VOCs) from tankers are to be regulated in ports or terminals under the jurisdiction of a Party to the Protocol of 1997, they shall be regulated in accordance with the provisions of this regulation.
- (2) A Party to the Protocol of 1997 which designates ports or terminals under its jurisdiction in which VOCs emissions are to be regulated, shall submit a notification to the Organization. This notification shall include information on the size of tankers to be controlled, on cargoes requiring vapour emission control systems, and the effective date of such control. The notification shall be submitted at least six months before the effective date.
- (3) The Government of each Party to the Protocol of 1997 which designates ports or terminals at which VOCs emissions from tankers are to be regulated shall ensure that vapour emission control systems, approved by that Government taking into account the safety standards developed by the Organization, are provided in ports and terminals designated, and are operated safely and in a manner so as to avoid undue delay to the ship.
- (4) The Organization shall circulate a list of the ports and terminals designated by the Parties to the Protocol of 1997 to other Parties to the Protocol of 1997 and Member States of the Organization for their information.
- (5) All tankers which are subject to vapour emission control in accordance with the provisions of paragraph (2) of this regulation shall be provided with a vapour collection system approved by the Administration taking into account the safety standards developed by the Organization, and shall use such system during the loading of such cargoes. Terminals which have installed vapour emission control systems in accordance with this regulation may accept existing tankers which are not fitted with vapour collection systems for a period of three years after the effective date identified in paragraph (2).
- (6) This regulation shall only apply to gas carriers when the type of loading and containment systems allow safe retention of non-methane VOCs on board, or their safe return ashore.

REGULATION 16**Shipboard Incineration**

- (1) Except as provided in paragraph (5), shipboard incineration shall be allowed only in a shipboard incinerator.
- (2)
 - (a) Except as provided in sub-paragraph (b) of this paragraph, each incinerator installed on board a ship on or after 1 January 2000 shall meet the requirements contained in appendix IV to this Annex. Each incinerator shall be approved by the Administration taking into account the standard specifications for shipboard incinerators developed by the Organization.
 - (b) The Administration may allow exclusion from the application of sub-paragraph (a) of this paragraph to any incinerator which is installed on board a ship before the date of entry into force of the Protocol of 1997, provided that the ship is solely engaged in voyages within waters subject to the sovereignty or jurisdiction of the State the flag of which the ship is entitled to fly.
- (3) Nothing in this regulation affects the prohibition in, or other requirements of, the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972, as amended, and the 1996 Protocol thereto.
- (4) Shipboard incineration of the following substances shall be prohibited:
 - (a) Annex I, II and III cargo residues of the present convention and related contaminated packing materials;
 - (b) polychlorinated biphenyls (PCBs);
 - (c) garbage, as defined in Annex V of the present Convention, containing more than traces of heavy metals; and
 - (d) refined petroleum products containing halogen compounds.
- (5) Shipboard incineration of sewage sludge and sludge oil generated during the normal operation of a ship may also take place in the main or auxiliary power plant or boilers, but in those cases, shall not take place inside ports, harbours and estuaries.
- (6) Shipboard incineration of polyvinyl chlorides (PVCs) shall be prohibited, except in shipboard incinerators for which IMO Type Approval Certificates have been issued.
- (7) All ships with incinerators subject to this regulation shall possess a manufacturer's operating manual which shall specify how to operate the incinerator within the limits described in paragraph 2 of appendix IV to this Annex.
- (8) Personnel responsible for operation of any incinerator shall be trained and capable of implementing the guidance provided in the manufacturer's operating manual.

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- (9) Monitoring of combustion flue gas outlet temperature shall be required at all times and waste shall not be fed into a continuous-feed shipboard incinerator when the temperature is below the minimum allowed temperature of 850°C. For batch-loaded shipboard incinerators, the unit shall be designed so that the temperature in the combustion chamber shall reach 600°C within 5 minutes after start-up.
- (10) Nothing in this regulation precludes the development, installation and operation of alternative design shipboard thermal waste treatment devices that meet or exceed the requirements of this regulation.

REGULATION 17

Reception Facilities

- (1) The Government of each Party to the Protocol of 1997 undertakes to ensure the provision of facilities adequate to meet the:
 - (a) needs of ships using its repair ports for the reception of ozone depleting substances and equipment containing such substances when removed from ships;
 - (b) needs of ships using its ports, terminals or repair ports for the reception of exhaust gas cleaning residues from an approved exhaust gas cleaning system when discharge into the marine environment of these residues is not permitted under regulation 14 of this Annex;
without causing undue delay to ships, and
 - (c) needs in ship breaking facilities for the reception of ozone depleting substances and equipment containing such substances when removed from ships.
- (2) Each Party to the Protocol of 1997 shall notify the Organization for transmission to the Members of the Organization of all cases where the facilities provided under this regulation are unavailable or alleged to be inadequate.

REGULATION 18

Fuel Oil Quality

- (1) Fuel oil for combustion purposes delivered to and used on board ships to which this Annex applies shall meet the following requirements:
 - (a) except as provided in sub-paragraph (b):
 - (i) the fuel oil shall be blends of hydrocarbons derived from petroleum refining. This shall not preclude the incorporation of small amounts of additives intended to improve some aspects of performance;
 - (ii) the fuel oil shall be free from inorganic acid;
 - (iii) the fuel oil shall not include any added substance or chemical waste which either:

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- (1) jeopardizes the safety of ships or adversely affects the performance of the machinery, or
 - (2) is harmful to personnel, or
 - (3) contributes overall to additional air pollution; and
- (b) fuel oil for combustion purposes derived by methods other than petroleum refining shall not:
 - (i) exceed the sulphur content set forth in regulation 14 of this Annex;
 - (ii) cause an engine to exceed the NOx emission limits set forth in regulation 13(3)(a) of this Annex;
 - (iii) contain inorganic acid; and
 - (iv)
 - (1) jeopardize the safety of ships or adversely affect the performance of the machinery, or
 - (2) be harmful to personnel, or
 - (3) contribute overall to additional air pollution.
- (2) This regulation does not apply to coal in its solid form or nuclear fuels.
- (3) For each ship subject to regulations 5 and 6 of this Annex, details of fuel oil for combustion purposes delivered to and used on board shall be recorded by means of a bunker delivery note which shall contain at least the information specified in appendix V to this Annex.
- (4) The bunker delivery note shall be kept on board the ship in such a place as to be readily available for inspection at all reasonable times. It shall be retained for a period of three years after the fuel oil has been delivered on board.
- (5)
 - (a) The competent authority of the Government of a Party to the Protocol of 1997 may inspect the bunker delivery notes on board any ship to which this Annex applies while the ship is in its port or offshore terminal, may make a copy of each delivery note, and may require the master or person in charge of the ship to certify that each copy is a true copy of such bunker delivery note. The competent authority may also verify the contents of each note through consultations with the port where the note was issued.
 - (b) The inspection of the bunker delivery notes and the taking of certified copies by the competent authority under this paragraph shall be performed as expeditiously as possible without causing the ship to be unduly delayed.
- (6) The bunker delivery note shall be accompanied by a representative sample of the fuel oil delivered taking into account guidelines to be developed by the Organization. The sample is to be sealed and signed by the supplier's representative and the master or officer in charge of the bunker operation on completion of bunkering operations and retained under the ship's control until the fuel oil is substantially consumed, but in any case for a period of not less than twelve months from the time of delivery.

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- (7) Parties to the Protocol of 1997 undertake to ensure that appropriate authorities designated by them:
- (a) maintain a register of local suppliers of fuel oil;
 - (b) require local suppliers to provide the bunker delivery note and sample as required by this regulation, certified by the fuel oil supplier that the fuel oil meets the requirements of regulations 14 and 18 of this Annex;
 - (c) require local suppliers to retain a copy of the bunker delivery note for at least 3 years for inspection and verification by the port State as necessary;
 - (d) take action as appropriate against fuel oil suppliers that have been found to deliver fuel oil that does not comply with that stated on the bunker delivery note;
 - (e) inform the Administration of any ship receiving fuel oil found to be noncompliant with the requirements of regulations 14 or 18 of this Annex; and
 - (f) inform the Organization for transmission to Parties to the Protocol of 1997 of all cases where fuel oil suppliers have failed to meet the requirements specified in regulations 14 or 18 of this Annex.
- (8) In connection with port State inspections carried out by Parties to the Protocol of 1997, the Parties further undertake to:
- (a) inform the Party or non-Party under whose jurisdiction bunker delivery note was issued of cases of delivery of noncompliant fuel oil, giving all relevant information; and
 - (b) ensure that remedial action as appropriate is taken to bring noncompliant fuel oil discovered into compliance.

REGULATION 19

Requirements for Platforms and Drilling Rigs

- (1) Subject to the provisions of paragraphs (2) and (3) of this regulation, fixed and floating platforms and drilling rigs shall comply with the requirements of this Annex.
- (2) Emissions directly arising from the exploration, exploitation and associated offshore processing of sea-bed mineral resources are, consistent with article 2(3)(b)(ii) of the present Convention, exempt from the provisions of this Annex. Such emissions include the following:
- (a) emissions resulting from the incineration of substances that are solely and directly the result of exploration, exploitation and associated offshore processing of sea-bed mineral resources, including but not limited to the flaring of hydrocarbons and the burning of cuttings, muds, and/or stimulation fluids during well completion and testing operations, and flaring arising from upset conditions;
 - (b) the release of gases and volatile compounds entrained in drilling fluids and cuttings;

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- (c) emissions associated solely and directly with the treatment, handling, or storage of sea-bed minerals; and
 - (d) emissions from diesel engines that are solely dedicated to the exploration, exploitation and associated offshore processing of sea-bed mineral resources.
- (3) The requirements of regulation 18 of this Annex shall not apply to the use of hydrocarbons which are produced and subsequently used on site as fuel, when approved by the Administration.

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APPENDIX I

Form of IAPP Certificate
(Regulation 8)

INTERNATIONAL AIR POLLUTION PREVENTION CERTIFICATE

Issued under the provisions of the Protocol of 1997 to amend the International Convention for the Prevention of Pollution from Ships, 1973, as modified of the Protocol of 1978 related thereto (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)

| Name of ship | Distinctive number or letters | IMO number | Port of registry | Gross tonnage |
|--------------|-------------------------------|------------|------------------|---------------|
| | | | | |

Type of ship: tanker
 ships other than a tanker

THIS IS TO CERTIFY:

1. That the ship has been surveyed in accordance with regulation 5 of Annex VI of the Convention; and
2. That the survey shows that the equipment, systems, fittings, arrangements and materials fully comply with the applicable requirements of Annex VI of the Convention.

This certificate is valid until
subject to surveys in accordance with regulation 5 of Annex VI of the Convention.

Issued at
(Place of issue of certificate)

.....
(Date of issue)

.....
(signature of duty authorized official
issuing the certificate)

(Seal or stamp of the authority, as appropriate)

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ENDORSEMENT FOR ANNUAL AND INTERMEDIATE SURVEYS

THIS IS TO CERTIFY that at a survey required by regulation 5 of Annex VI of the Convention the ship was found to comply with the relevant provisions of the Convention:

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

(Seal or stamp of the authority, as appropriate)

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

(Seal or stamp of the authority, as appropriate)

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

(Seal or stamp of the authority, as appropriate)

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

(Seal or stamp of the authority, as appropriate)

* Delete as appropriate

**Supplement to International Air Pollution Prevention Certificate
(IAPP Certificate)**

RECORD OF CONSTRUCTION AND EQUIPMENT

In respect of the provisions of Annex VI 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 Record shall be permanently attached to the IAPP Certificate. The IAPP Certificate shall be available on board the ship at all times.
- 2 If the language of the original Record is not English, French or Spanish, the text shall include a translation into one of these languages.
- 3 Entries in boxes shall be made by inserting either a cross (x) for the answer "yes" and "applicable" or a (-) for the answers "no" and "not applicable" as appropriate.
- 4 Unless otherwise stated, regulations mentioned in this Record refer to regulations of Annex VI of the Convention and resolutions or circulars 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 IMO number
- 1.4 Port of registry
- 1.5 Gross tonnage
- 1.6 Date on which keel was laid or ship was at a similar stage of construction
- 1.7 Date of commencement of major engine conversion (if applicable)(regulation 13) :
.....

2 Control of emissions from ships

- 2.1 Ozone depleting substances (regulation 12)

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- 2.1.1 The following fire extinguishing systems and equipment containing halons may continue in service:

| System Equipment | Location on board |
|------------------|-------------------|
| | |

- 2.1.2 The following systems and equipment containing CFCs may continue in service:

| System Equipment | Location on board |
|------------------|-------------------|
| | |

- 2.1.3 The following systems containing hydro-chlorofluorocarbons (HCFCs) installed before 1 January 2020 may continue in service:

| System Equipment | Location on board |
|------------------|-------------------|
| | |

2.2 Nitrogen oxides (NOx) (regulation 13)

- 2.2.1 The following diesel engines with power output greater than 130 kW, and installed on a ship constructed on or after 1 January 2000, comply with the emission standards of regulation 13(3)(a) in accordance with the NOx Technical Code:

| Manufacturer and Model | Serial Number | Use | Power Output (kW) | Rated Speed (RPM) |
|------------------------|---------------|-----|-------------------|-------------------|
| | | | | |

- 2.2.2 The following diesel engines with power output greater than 130 kW, and which underwent major conversion per regulation 13(2) on or after 1 January 2000, comply with the emission standards of regulation 13(3)(a) in accordance with the NOx Technical Code:

| Manufacturer and Model | Serial number | Use | Power Output (kW) | Rated Speed (RPM) |
|------------------------|---------------|-----|-------------------|-------------------|
| | | | | |

- 2.2.3 The following diesel engines with a power output greater than 130 kW and installed on a ship constructed on or after 1 January 2000, or with a power output greater than 130 kW and which underwent major conversion per regulation 13(2) on or after 1 January 2000, are fitted with an exhaust gas cleaning system or other equivalent methods in accordance with regulation 13(3), and the NOx Technical Code:

| Manufacturer and Model | Serial Number | Use | Power Output (kW) | Rated Speed (RPM) |
|------------------------|---------------|-----|-------------------|-------------------|
| | | | | |

- 2.2.4 The following diesel engines from 2.2.1, 2.2.2 and 2.2.3 above are fitted with NOx emission monitoring and recording devices in accordance with the NOx Technical Code:

| Manufacturer and Model | Serial Number | Use | Power Output (kW) | Rated Speed (RPM) |
|------------------------|---------------|-----|-------------------|-------------------|
| | | | | |

2.3 Sulphur oxides (SOx) (regulation 14)

- 2.3.1 When the ship operates within an SOx Emission Control Area specified in regulation 14(3), the ship uses:

- .1 fuel oil with a sulphur content that does not exceed 1.5% m/m as documented by bunker delivery notes; or

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- .2 an approved exhaust gas cleaning system to reduce SOx emissions below 6.0g SOx/kWh; or
- .3 other approved technology to reduce SOx emissions below 6.0g SOx/kWh. ...
- 2.4 Volatile organic compounds (VOCs) (regulation 15)
- 2.4.1 The tanker has a vapour collection system installed and approved in accordance with MSC/Circ. 585.
- 2.5 The ship has an incinerator:
- .1 which complies with resolution MEPC.76(40) as amended
- .2 installed before 1 January 2000 which does not comply with resolution MEPC.76(40) as amended

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 authority,
as appropriate*

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APPENDIX II
TEST CYCLES AND WEIGHTING FACTORS
(Regulation 13)

The following test cycles and weighing factors should be applied for verification of compliance of marine diesel engines with the NO_x limits in accordance with regulation 13 of this Annex using the test procedure and calculation method as specified in the NO_x Technical Code.

- .1 For constant speed marine engines for ship main propulsion, including diesel electric drive, test cycle E2 should be applied.
- .2 For variable pitch propeller sets test cycle E2 should be applied.
- .3 For propeller law operated main and propeller law operated auxiliary engines the test cycle E3 should be applied.
- .4 For constant speed auxiliary engines test cycle D2 should be applied.
- .5 For variable speed, variable load auxiliary engines, not included above, test cycle C1 should be applied.

Test cycle for "Constant Speed Main Propulsion" Application
(incl. Diesel Electric Drive or Variable Pitch Propeller Installations)

| | | | | | |
|--------------------|------------------|-------|-------|-------|-------|
| Test cycle type E2 | Speed | 100 % | 100 % | 100 % | 100 % |
| | Power | 100 % | 75 % | 50 % | 25 % |
| | Weighting Factor | 0.2 | 0.5 | 0.15 | 0.15 |

Test cycle for "Propeller Law operated Main and Propeller Law operated Auxiliary Engine" Application

| | | | | | |
|--------------------|------------------|-------|------|------|------|
| Test cycle type E3 | Speed | 100 % | 91 % | 80 % | 63 % |
| | Power | 100 % | 75 % | 50 % | 25 % |
| | Weighting Factor | 0.2 | 0.5 | 0.15 | 0.15 |

Test cycle for "Constant Speed Auxiliary Engine" Application

| | | | | | | |
|--------------------|------------------|-------|-------|-------|-------|-------|
| Test cycle type D2 | Speed | 100 % | 100 % | 100 % | 100 % | 100 % |
| | Power | 100 % | 75 % | 50 % | 25 % | 10 % |
| | Weighting Factor | 0.05 | 0.25 | 0.3 | 0.3 | 0.1 |

Test cycle for "Variable Speed and Load Auxiliary Engine" Application

| | | | | | | | | | |
|--------------------|------------------|-------|------|------|------|--------------|------|------|------|
| Test cycle type C1 | Speed | Rated | | | | Intermediate | | | Idle |
| | Torque % | 100 % | 75 % | 50 % | 10 % | 100 % | 75 % | 50 % | 0 % |
| | Weighting Factor | 0.15 | 0.15 | 0.15 | 0.1 | 0.1 | 0.1 | 0.1 | 0.15 |

APPENDIX III

**CRITERIA AND PROCEDURES FOR DESIGNATION
OF SO_x EMISSION CONTROL AREAS
(Regulation 14)****1 OBJECTIVES**

1.1 The purpose of this appendix is to provide the criteria and procedures for the designation of SO_x Emission Control Areas. The objective of SO_x Emission Control Areas is to prevent, reduce, and control air pollution from SO_x emissions from ships and their attendant adverse impacts on land and sea areas.

1.2 A SO_x Emission Control Area should be considered for adoption by the Organization if supported by a demonstrated need to prevent, reduce, and control air pollution from SO_x emissions from ships.

2 PROPOSAL CRITERIA FOR DESIGNATION OF A SO_x EMISSION CONTROL AREA

2.1 A proposal to the Organization for designation of a SO_x Emission Control Area may be submitted only by contracting States to the Protocol of 1997. Where two or more contracting States have a common interest in a particular area, they should formulate a coordinated proposal.

2.2 The proposal shall include:

- .1 a clear delineation of the proposed area of application of controls on SO_x emissions from ships, along with a reference chart on which the area is marked;
- .2 a description of the land and sea areas at risk from the impacts of ship SO_x emissions;
- .3 an assessment that SO_x emissions from ships operating in the proposed area of application of the SO_x emission controls are contributing to air pollution from SO_x, including SO_x deposition, and their attendant adverse impacts on the land and sea areas under consideration. Such assessment shall include a description of the impacts of SO_x emissions on terrestrial and aquatic ecosystems, areas of natural productivity, critical habitats, water quality, human health, and areas of cultural and scientific significance, if applicable. The sources of relevant data including methodologies used, shall be identified;
- .4 relevant information pertaining to the meteorological conditions in the proposed area of application of the SO_x emission controls and the land and sea areas at risk, in particular prevailing wind patterns, or to topographical, geological, oceanographic, morphological, or other conditions that may lead to an increased probability of higher localized air pollution or levels of acidification;
- .5 the nature of the ship traffic in the proposed SO_x Emission Control Area, including the patterns and density of such traffic; and
- .6 a description of the control measures taken by the proposing contracting State or contracting States addressing land-based sources of SO_x emissions affecting the area at risk that are in place and operating concurrent with the consideration of measures to be adopted in relation to provisions of regulation 14 of Annex VI of the present Convention.

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2.3 The geographical limits of an SO_x Emission Control Area will be based on the relevant criteria outlined above, including SO_x emission and deposition from ships navigating in the proposed area, traffic patterns and density, and wind conditions.

2.4 A proposal to designate a given area as an SO_x Emission Control Area should be submitted to the Organization in accordance with the rules and procedures established by the Organization.

3 PROCEDURES FOR THE ASSESSMENT AND ADOPTION OF SO_x EMISSION CONTROL AREAS BY THE ORGANIZATION

3.1 The Organization shall consider each proposal submitted to it by a contracting State or contracting States.

3.2 A SO_x Emission Control Area shall be designated by means of an amendment to this Annex, considered, adopted and brought into force in accordance with article 16 of the present Convention.

3.3 In assessing the proposal, the Organization shall take into account the criteria which are to be included in each proposal for adoption as set forth in section 2 above, and the relative costs of reducing sulphur depositions from ships when compared with land-based controls. The economic impacts on shipping engaged in international trade should also be taken into account.

4 OPERATION OF SO_x EMISSION CONTROL AREAS

4.1 Parties which have ships navigating in the area are encouraged to bring to the Organization any concerns regarding the operation of the area.

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APPENDIX IV

**TYPE APPROVAL AND OPERATING LIMITS
FOR SHIPBOARD INCINERATORS
(Regulation 16)**

(1) Shipboard incinerators described in regulation 16(2) shall possess an IMO type approval certificate for each incinerator. In order to obtain such certificate, the incinerator shall be designed and built to an approved standard as described in regulation 16(2). Each model shall be subject to a specified type approval test operation at the factory or an approved test facility, and under the responsibility of the Administration, using the following standard fuel/waste specification for the type approval test for determining whether the incinerator operates within the limits specified in paragraph (2) of this appendix:

| | |
|----------------------------|--|
| Sludge Oil Consisting of: | 75% SLUDGE OIL FROM HFO; 5% WASTE LUBRICATING OIL; and 20% EMULSIFIED WATER. |
| Solid Waste consisting of: | 50% Food Waste 50% Rubbish Containing Approx. 30% Paper, " 40% Cardboard, " 10% Rags, " 20% Plastic The mixture will have up to 50% moisture and 7% incombustible solids. |

(2) Incinerators described in regulation 16(2) shall operate within the following limits:

| | |
|--|---|
| O ₂ in Combustion Chamber: | 6 - 12 % |
| CO in Flue Gas Maximum Average: | 200 mg/MJ |
| Soot Number Maximum Average: | BACHARACH 3 or RINGELMAN 1 (20% opacity) (A higher soot number is acceptable only during very short periods such as starting up) |
| Unburned Components in Ash Residues: | Maximum 10% by Weight |
| Combustion Chamber Flue Gas Outlet Temperature Range: | 850 - 1200 degrees Celsius |

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APPENDIX V**INFORMATION TO BE INCLUDED IN THE BUNKER DELIVERY NOTE****(Regulation 18(3))**

Name and IMO Number of receiving ship

Port

Date of commencement of delivery

Name, address, and telephone number of marine fuel oil supplier

Product name(s)

Quantity in metric tons

Density at 15°C, kg/m³

Sulphur content (%m/m)

A declaration signed and certified by the fuel oil supplier's representative that the fuel oil supplied is in conformity with regulation 14 (1) or (4)(a) and regulation 18(1) of this Annex.

ประวัติผู้เขียนวิทยานิพนธ์

นายจิตชาย มุสิกบุตร เกิดวันที่ 3 มกราคม พ.ศ. 2514 ที่กรุงเทพมหานคร สำเร็จการศึกษาปริญญาตรีนิติศาสตรบัณฑิต คณะนิติศาสตร์ มหาวิทยาลัยธรรมศาสตร์ ในปีการศึกษา 2534 และเข้าศึกษาต่อในหลักสูตรนิติศาสตรมหาบัณฑิตที่จุฬาลงกรณ์มหาวิทยาลัยเมื่อ พ.ศ. 2549 ปัจจุบันทำงานที่ ฝ่ายกฎหมาย บริษัท ซิน คอร์ปอเรชั่น จำกัด (มหาชน)

