

澳門特別行政區

REGIÃO ADMINISTRATIVA ESPECIAL DE MACAU

行政長官辦公室

GABINETE DO CHEFE DO EXECUTIVO

第 76/2016 號行政長官公告

Aviso do Chefe do Executivo n.º 76/2016

中華人民共和國是國際海事組織的成員國及一九七八年二月十七日訂於倫敦的《1973年國際防止船舶造成污染公約的1978年議定書》的締約國；

上指1978年議定書整合了一九七三年十一月二日在倫敦簽訂的《國際防止船舶造成污染公約》的內容，合併成一份文書稱為《經1978年議定書修訂的〈1973年國際防止船舶造成污染公約〉》，（廣泛地簡稱為“73/78防污公約”）；

中華人民共和國於一九九九年十二月十三日通過照會通知聯合國秘書長，經修正的《73/78防污公約》自一九九九年十二月二十日起繼續適用於澳門特別行政區；

中華人民共和國同時也是一九九七年九月二十六日訂於倫敦的《修正〈經1978年議定書修訂的1973年國際防止船舶造成污染公約〉的1997年議定書》的締約國，（廣泛地簡稱為“防污公約1997年議定書”），並於二零零六年五月二十三日向國際海事組織秘書長交存加入書，該議定書自二零零六年八月二十三日起適用於澳門特別行政區；

無論是《73/78防污公約》還是《防污公約1997年議定書》多年來歷經多次修改，而該等修正案均適用於澳門特別行政區；

國際海事組織海上環境保護委員會及締約國大會由一九八四年九月七日（第MEPC.14（20）號決議）至二零一三年五月十七日（第MEPC.235（65）號決議）通過的、並於二零一四年十月一日或之前對澳門特別行政區生效的《73/78防污公約》修正案的正式文本至今未曾公佈於《澳門特別行政區公報》；

《防污公約1997年議定書》及海上環境保護委員會由二零零五年七月二十二日（第MEPC.132（53）號決議）至二零一一年七月十五日（第MEPC.203（62）號決議）通過的、並於二零一三

Considerando que a República Popular da China é um Estado Membro da Organização Marítima Internacional e um Estado Contratante do Protocolo de 1978 relativo à Convenção Internacional para a Prevenção da Poluição por Navios de 1973, concluído em Londres em 17 de Fevereiro de 1978;

Considerando igualmente que o referido Protocolo de 1978 integrou o conteúdo da Convenção Internacional para a Prevenção da Poluição por Navios, concluída em Londres em 2 de Novembro de 1973, resultando num instrumento combinado designado por Convenção Internacional para a Prevenção da Poluição por Navios, 1973, tal como modificada pelo seu Protocolo de 1978, vulgarmente denominado pelo seu acrónimo «MARPOL 73/78»;

Mais considerando que, por nota datada de 13 de Dezembro de 1999, a República Popular da China notificou o Secretário-Geral das Nações Unidas sobre a continuação da aplicação da MARPOL 73/78, tal como emendada, na Região Administrativa Especial de Macau a partir de 20 de Dezembro de 1999;

Considerando ainda que a República Popular da China é igualmente um Estado Contratante do Protocolo de 1997 que altera a Convenção Internacional para a Prevenção da Poluição por Navios, 1973, tal como modificada pelo Protocolo de 1978 a ela relativo, concluído em Londres em 26 de Setembro de 1997, vulgarmente denominado pelo seu acrónimo «MARPOL PROT 1997», tendo efectuado o depósito do seu instrumento de adesão junto do Secretário-Geral da Organização Marítima Internacional em 23 de Maio de 2006, e que o referido Protocolo é aplicável na Região Administrativa Especial de Macau com efeitos desde 23 de Agosto de 2006;

Mais considerando que tanto a MARPOL 73/78 como o MARPOL PROT 1997 têm vindo a ser, ao longo dos anos, objecto de inúmeras emendas e que tais emendas são aplicáveis na Região Administrativa Especial de Macau;

Considerando ainda que os textos autênticos das emendas à MARPOL 73/78, adoptadas pelo Comité para a Protecção do Meio Marinho da Organização Marítima Internacional (MEPC) e pela Conferência das Partes (CONF) desde 7 de Setembro de 1984 (resolução MEPC.14(20)) até 17 de Maio de 2013 (resolução MEPC.235(65)), as quais produziram efeitos na Região Administrativa de Macau em 1 de Outubro de 2014 ou antes dessa data, não foram até ao momento publicados no *Boletim Oficial* da Região Administrativa Especial de Macau;

Mais considerando que os textos autênticos do MARPOL PROT 1997 e das suas respectivas emendas adoptadas pelo Comité para a Protecção do Meio Marinho desde 22 de Julho de 2005 (resolução MEPC.132(53)) até 15 de Julho de 2011 (resolução MEPC.203(62)), as quais produziram efeitos na Região

年一月一日或之前對澳門特別行政區生效的修正案的正式文本至今未曾公佈於《澳門特別行政區公報》；

基於此，行政長官根據第3/1999號法律《法規的公佈與格式》第六條第一款的規定，命令公佈：

→二零一一年八月一日或之前適用於澳門特別行政區的《73/78防污公約》修正案的英文正式文本：海上環境保護委員會由一九八四年九月七日至一九九二年十月三十日透過第MEPC.14 (20) 號、第MEPC.16 (22) 號、第MEPC.21 (22) 號、第MEPC.29 (25) 號、第MEPC.34 (27) 號、第MEPC.36 (28) 號、第MEPC.39 (29) 號、第MEPC.42 (30) 號、第MEPC.47 (31) 號、第MEPC.48 (31) 號、第MEPC.51 (32) 號、第MEPC.52 (32) 號、第MEPC.57 (33) 號及第MEPC.58 (33) 號決議通過的修正案；《73/78防污公約》締約國大會於一九九四年十一月二日透過決議1、2和3通過的修正案；以及海上環境保護委員會由一九九五年九月十四日至二零一零年三月二十六日透過第MEPC.65 (37) 號、第MEPC.68 (38) 號、第MEPC.75 (40) 號、第MEPC.78 (43) 號、第MEPC.84 (44) 號、第MEPC.89 (45) 號、第MEPC.95 (46) 號、第MEPC.111 (50) 號、第MEPC.115 (51) 號、第MEPC.116 (51) 號、第MEPC.117 (52) 號、第MEPC.118 (52) 號、第MEPC.141 (54) 號、第MEPC.143 (54) 號、第MEPC.154 (55) 號、第MEPC.156 (55) 號、第MEPC.164 (56) 號、第MEPC.186 (59) 號、第MEPC.187 (59) 號及第MEPC.189 (60) 號決議通過的修正案；

→一九九七年九月二十六日訂於倫敦的《修正〈經1978年議定書修訂的1973年國際防止船舶造成污染公約〉的1997年議定書》（“防污公約1997年議定書”）的英文正式文本；

→二零一二年二月一日或之前適用於澳門特別行政區的《防污公約1997年議定書》修正案的英文正式文本：海上環境保護委員會由二零零五年七月二十二日至二零一零年十月一日透過第MEPC.132 (53) 號、第MEPC.176 (58) 號、第MEPC.190 (60) 號及第MEPC.194 (61) 號決議通過的修正案；

→國際海事組織於二零一一年出版的經1997年議定書及1978年議定書修訂的《1973年國際防止船舶造成污染公約》的中文綜合文本，當中含蓋了上指《73/78防污公約》的修正案、《防污公約1997年議定書》及其相應的修正案；以及

→二零一四年十月一日或之前對澳門特別行政區生效的《73/78防污公約》及《防污公約1997年議定書》修正案的中文及英文正式文本：海上環境保護委員會於二零一零年十月一日透過第MEPC.193 (61) 號決議通過的修正案及由二零一一年七月十五日至二零一三年五月十七日透過第MEPC.200 (62) 號、第MEPC.201 (62) 號、第MEPC.202 (62) 號、第MEPC.203 (62)

Administrativa de Macau em 1 de Janeiro de 2013 ou antes dessa data, não foram até ao momento publicados no *Boletim Oficial* da Região Administrativa Especial de Macau;

O Chefe do Executivo manda publicar, nos termos do n.º 1 do artigo 6.º da Lei n.º 3/1999 (Publicação e formulário dos diplomas):

— os textos autênticos em língua inglesa das emendas à MARPOL 73/78, adoptadas pelo Comité para a Protecção do Meio Marinho desde 7 de Setembro de 1984 até 30 de Outubro de 1992 através das suas resoluções MEPC.14(20), MEPC.16(22), MEPC.21(22), MEPC.29(25), MEPC.34(27), MEPC.36(28), MEPC.39(29), MEPC.42(30), MEPC.47(31), MEPC.48(31), MEPC.51(32), MEPC.52(32), MEPC.57(33), MEPC.58(33); das emendas adoptadas pela Conferência das Partes na MARPOL 73/78 em 2 de Novembro de 1994, através das suas resoluções 1, 2 e 3; e das emendas adoptadas pelo Comité para a Protecção do Meio Marinho desde 14 de Setembro de 1995 até 26 de Março de 2010 através das suas resoluções MEPC.65(37), MEPC.68(38), MEPC.75(40), MEPC.78(43), MEPC.84(44), MEPC.89(45), MEPC.95(46), MEPC.111(50), MEPC.115(51), MEPC.116(51), MEPC.117(52), MEPC.118(52), MEPC.141(54), MEPC.143(54), MEPC.154(55), MEPC.156(55), MEPC.164(56), MEPC.186(59), MEPC.187(59) e MEPC.189(60), as quais produziram efeitos na Região Administrativa Especial de Macau em 1 de Agosto de 2011 ou antes dessa data;

— o texto autêntico em língua inglesa do Protocolo de 1997 que altera a Convenção Internacional para a Prevenção da Poluição por Navios, 1973, tal como modificada pelo Protocolo de 1978 a ela relativo, concluído em Londres em 26 de Setembro de 1997 (MARPOL PROT 1997);

— os textos autênticos em língua inglesa das emendas ao MARPOL PROT 1997, adoptadas pelo Comité para a Protecção do Meio Marinho desde 22 de Julho de 2005 até 1 de Outubro de 2010 através das suas resoluções MEPC.132(53), MEPC.176(58), MEPC.190(60) e MEPC.194(61), as quais produziram efeitos na Região Administrativa Especial de Macau em 1 de Fevereiro de 2012 ou antes dessa data;

— o texto consolidado em língua chinesa da Convenção Internacional para a Prevenção da Poluição por Navios, 1973, tal como modificada pelos Protocolos de 1978 e de 1997, editado em 2011 pela Organização Marítima Internacional, e que incorpora as emendas à MARPOL 73/78, o MARPOL PROT 1997 e as respectivas emendas *supra* referidas; e

— os textos autênticos em línguas chinesa e inglesa das emendas à MARPOL 73/78 e ao MARPOL PROT 1997 adoptadas pelo Comité para a Protecção do Meio Marinho em 1 de Outubro de 2010 através da sua resolução MEPC.193(61), e desde 15 de Julho de 2011 até 17 de Maio de 2013, através das suas resoluções MEPC.200(62), MEPC.201(62), MEPC.202(62), MEPC.203(62), MEPC.216(63) e MEPC.235(65), as quais pro-

號、第MEPC.216 (63) 號及第MEPC.235 (65) 號決議通過的修正案。

為了法律效力，所公佈的中文綜合文本不影響對有關規定的正式文本的查閱。

一九七八年二月十七日在倫敦簽訂的《關於1973年國際防止船舶造成污染公約的1978年議定書》的規定須與公約的規定視作獨一文書進行閱讀和解釋，議定書及公約的英文正式文本及相應的葡文譯本公佈於一九九九年十二月六日的《澳門特別行政區公報》第49期第一組。

本公告及透過本公告公佈之內容取代第2/2016號行政長官公告及透過該公告公佈之內容。

二零一六年十一月十日發佈。

行政長官 崔世安

duziram efeitos na Região Administrativa Especial de Macau em 1 de Outubro de 2014 ou antes dessa data.

Para efeitos legais, o texto consolidado em língua chinesa ora publicado não prejudica a consulta dos textos autênticos das disposições em causa.

O texto autêntico em língua inglesa do Protocolo de 1978 relativo à Convenção Internacional para a Prevenção da Poluição por Navios, 1973, feito em Londres em 17 de Fevereiro de 1978, cujas disposições devem ser lidas e interpretadas em conjunto com as disposições da Convenção como um único instrumento, e o texto da Convenção encontram-se publicados no *Boletim Oficial* de Macau n.º 49, I Série, de 6 de Dezembro de 1999, acompanhados da tradução para a língua portuguesa.

Torna-se público que o presente Aviso e as publicações efectuadas através deste substituem integralmente o Aviso do Chefe do Executivo n.º 2/2016, bem como as publicações efectuadas através do mesmo.

Promulgado em 10 de Novembro de 2016.

O Chefe do Executivo, *Chui Sai On*.

RESOLUTION MEPC 14(20)**adopted on 7 September 1984****ADOPTION OF AMENDMENTS TO THE ANNEX OF THE
PROTOCOL OF 1978 RELATING TO THE
INTERNATIONAL CONVENTION FOR THE PREVENTION
OF POLLUTION FROM SHIPS, 1973****THE MARINE ENVIRONMENT PROTECTION COMMITTEE,**

NOTING the functions which Article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the “1973 Convention”) and resolution A.297(VIII) confer on the Marine Environment Protection Committee for the consideration and adoption of amendments to the 1973 Convention,

NOTING FURTHER article VI of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the “1978 Protocol”),

HAVING CONSIDERED at its twentieth session amendments to the 1978 Protocol proposed and circulated in accordance with article 16(2)(a) of the 1973 Convention,

1. ADOPTS in accordance with article 16(2)(d) of the 1973 Convention amendments to the Annex of the 1978 Protocol, the text of which is set out in the Annex to the present resolution;
2. DETERMINES in accordance with article 16(2)(f)(iii) of the 1973 Convention that the amendments shall be deemed to have been accepted on 7 July 1985 unless prior to this date one third or more of the Parties or the Parties, the combined merchant fleets of which constitute fifty per cent or more of the gross tonnage of the world's merchant fleet, have communicated to the Organization their objections to the amendments;
3. INVITES the Parties to note that in accordance with article 16(2)(g)(ii) of the 1973 Convention the amendments shall enter into force on 7 January 1986 upon their acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General in conformity with article 16(2)(e) of the 1973 Convention to transmit to all Parties to the 1978 Protocol certified copies of the present resolution and the text of the amendments contained in the Annex;
5. FURTHER REQUESTS the Secretary-General to transmit to the Members of the Organization which are not Parties to the 1978 Protocol copies of the resolution and its Annex.

ANNEX

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

ANNEX I

REGULATIONS FOR THE PREVENTION OF POLLUTION BY OIL

Regulation 1

Definitions

The existing texts of paragraphs (26) and (27) are replaced by the following:

“(26) Notwithstanding the provisions of paragraph (6) of this Regulation, for the purposes of Regulations 13, 13B, 13E and 18(4) of this Annex, “new oil tanker” means an oil tanker:

- (a) for which the building contract is placed after 1 June 1979; 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 1 January 1980; or
- (c) the delivery of which is after 1 June 1982; or
- (d) which has undergone a major conversion:
 - (i) for which the contract is placed after 1 June 1979; or
 - (ii) in the absence of a contract, the construction work of which is begun after 1 January 1980; or
 - (iii) which is completed after 1 June 1982;

except that, for oil tankers of 70,000 tons deadweight and above, the definition in paragraph (6) of this Regulation shall apply for the purposes of Regulation 13(1) of this Annex.

(27) Notwithstanding the provisions of paragraph (7) of this Regulation, for the purposes of Regulations 13, 13A, 13B, 13C, 13D, 18(5) and 18(6)(c) of this Annex, “existing oil tanker” means an oil tanker which is not a new oil tanker as defined in paragraph (26) of this Regulation.”

Regulation 9*Control of Discharge of Oil*

The existing text of sub-paragraph (1)(a)(vi) is replaced by the following:

- “(vi) the tanker has in operation an oil discharge monitoring and control system and a slop tank arrangement as required by Regulation 15 of this Annex.”

The existing text of sub-paragraph (1)(b)(v) is replaced by the following:

- “(v) the ship has in operation an oil discharge monitoring and control system, oily-water separating equipment, oil filtering equipment or other installation as required by Regulation 16 of this Annex.”

The existing text of paragraph (4) is replaced by the following:

“(4) The provisions of paragraph (1) of this Regulation shall not apply to the discharge of clean or segregated ballast or unprocessed oily mixtures which without dilution have an oil content not exceeding 15 parts per million and which do not originate from cargo pump-room bilges and are not mixed with oil cargo residues. The provisions of sub-paragraph (1)(b) of this Regulation shall not apply to the discharge of the processed oily mixture, provided that all of the following conditions are satisfied:

- (a) the oily mixture does not originate from cargo pump-room bilges;
- (b) the oily mixture is not mixed with oil cargo residues;
- (c) the oil content of the effluent without dilution does not exceed 15 parts per million; and
- (d) the ship has in operation oil filtering equipment complying with Regulation 16(7) of this Annex.”

Regulation 10*Methods for the Prevention of Oil Pollution from
Ships while Operating in Special Areas*

The existing texts of paragraphs (2), (3) and (4) are replaced by the following:

- “(2) Subject to the provisions of Regulation 11 of this Annex:
- (a) 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) 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.
- (3) (a) The provisions of paragraph (2) of this Regulation shall not apply to the discharge of clean or segregated ballast.
- (b) The provisions of sub-paragraph (2)(a) of this Regulation shall not apply to the discharge of processed bilge water from machinery spaces, provided that all the following conditions are satisfied:
- (i) the bilge water does not originate from cargo pump-room bilges;
 - (ii) the bilge water is not mixed with oil cargo residues;
 - (iii) the ship is proceeding en route;
 - (iv) the oil content of the effluent without dilution does not exceed 15 parts per million;
 - (v) the ship has in operation oil filtering equipment complying with Regulation 16(7) of this Annex; and
 - (vi) the filtering system is equipped with a stopping device which will ensure that the discharge is automatically stopped when the oil content of the effluent exceeds 15 parts per million.
- (4) (a) 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.
- (b) The oil residues which cannot be discharged into the sea in compliance with paragraph (2) or (3) of this Regulation shall be retained on board or discharged to reception facilities.”

Regulation 13

Segregated Ballast Tanks, Dedicated Clean Ballast Tanks and Crude Oil Washing

The existing text of paragraph (3) is replaced by the following:

- “(3) In no case shall ballast water be carried in cargo tanks, except:
- (a) on those rare voyages when weather conditions are so severe that, in the opinion of the master, it is necessary to carry additional ballast water in cargo tanks for the safety of the ship;
 - (b) in exceptional cases where the particular character of the operation of an oil tanker renders it necessary to carry ballast water in excess of the

quantity required under paragraph (2) of this Regulation, provided that such operation of the oil tanker falls under the category of exceptional cases as established by the Organization.

Such additional ballast water shall be processed and discharged in compliance with Regulation 9 of this Annex and in accordance with the requirements of Regulation 15 of this Annex and an entry shall be made in the Oil Record Book referred to in Regulation 20 of this Annex.”

Regulation 13A

Requirements for Oil Tankers with Dedicated Clean Ballast Tanks

Paragraph (4)(b) is deleted and paragraph (4)(a) is renumbered as (4).

Regulation 13B

Requirements for Crude Oil Washing

The following words are added to the end of paragraph (3):

“and as may be further amended.”

Paragraph (5)(b) is deleted and paragraph (5)(a) is renumbered as (5).

Regulation 13C

Existing Tankers Engaged in Specific Trades

The first phrase of paragraph (1) is amended to read as follows:

“(1) Subject to the provisions of paragraph (2) of this Regulation, Regulation 13(7) to (10) of this Annex shall not apply to an existing oil tanker solely engaged in specific trades between:”

The existing text of paragraph (2)(a) is replaced by the following:

“(a) subject to the exceptions provided for in Regulation 11 of this Annex, all ballast water, including clean ballast water, and tank washing residues are retained on board and transferred to the reception facilities and the appropriate entry in the Oil Record Book referred to in Regulation 20 of this Annex is endorsed by the competent Port State Authority;”

Paragraph (3) is deleted.

Regulation 14

The title of the Regulation is replaced by the following:

“Segregation of Oil and Water Ballast and Carriage of Oil in Forepeak Tanks”

The following new paragraphs are added to the existing text:

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

(5) All ships other than those subject to paragraph (4) of this Regulation shall comply with the provisions of that paragraph, as far as is reasonable and practicable.”

Regulation 15

Retention of Oil on Board

The existing text of paragraph (2)(c) is replaced by the following:

“(c) The arrangements of the slop tank or combination of slop tanks shall have a capacity necessary to retain the slop generated by tank washings, oil residues and dirty ballast residues. The total capacity of the slop tank or tanks shall not be less than 3 per cent of the oil carrying capacity of the ships, except that the Administration may accept:

- (i) 2 per cent for such oil tankers where the tank washing arrangements are such that once the slop tank or tanks are charged with washing water, this water is sufficient for tank washing and, where applicable, for providing the driving fluid for eductors, without the introduction of additional water into the system;
- (ii) 2 per cent where segregated ballast tanks or dedicated clean ballast tanks are provided in accordance with Regulation 13 of this Annex, or where a cargo tank cleaning system using crude oil washing is fitted in accordance with Regulation 13B of this Annex. This capacity may be further reduced to 1.5 per cent for such oil tankers where the tank washing arrangements are such that once the slop tank or tanks are charged with washing water, this water is sufficient for tank washing and, where applicable, for providing the driving fluid for eductors, without the introduction of additional water into the system;
- (iii) 1 per cent for combination carriers where oil cargo is only carried in tanks with smooth walls. This capacity may be further reduced to 0.8 per cent where the tank washing arrangements are such that once the slop tank or tanks are charged with washing water, this water is sufficient for tank washing and, where applicable, for providing the driving fluid for eductors, without the introduction of additional water into the system.

New oil tankers of 70,000 tons deadweight and above shall be provided with at least two slop tanks.”

The last sentence of the existing text of paragraph (3)(a) is replaced by the following:

- “(a) The oil discharge monitoring and control system shall be designed and installed in compliance with the Guidelines and Specifications for Oil Discharge Monitoring and Control Systems for Oil Tankers developed by the Organization.* Administrations may accept such specific arrangements as detailed in the Guidelines and Specification.”

The following footnote is added to paragraph (3)(a):

* Reference is made to the Guidelines and Specifications for Oil Discharge Monitoring and Control Systems for Oil Tankers adopted by the Organization by resolution A.496(XII).”

The existing text of paragraph (5) is replaced by the following:

- “(5) (a) 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 engaged exclusively in trades between ports or terminals within a State Party to the present Convention. Any such waiver shall be subject to the requirement that the oil tanker shall retain on board all oily mixtures for subsequent discharge to reception facilities and to the determination by the Administration that facilities available to receive such oily mixtures are adequate.
- (b) The Administration may waive the requirements of paragraph (3) of this Regulation for oil tankers other than those referred to in subparagraph (a) of this paragraph in cases where:
- (i) the tanker is an existing oil tanker of 40,000 tons deadweight or above, as referred to in Regulation 13C(1) of this Annex, engaged in specific trades, and the conditions specified in Regulation 13C(2) are complied with; or
 - (ii) the tanker is engaged exclusively in one or more of the following categories of voyages:
 - (1) voyages within special areas; or
 - (2) voyages within 50 miles from the nearest land outside special areas where the tanker is engaged in:
 - (aa) trades between ports or terminals of a State Party to the present Convention; or
 - (bb) restricted voyages as determined by the Administration, and of 72 hours or less in duration;
- provided that all of the following conditions are complied with:
- (3) all oily mixtures are retained on board for subsequent discharge to reception facilities;

- (4) for voyages specified in sub-paragraph (b)(ii)(2) of this paragraph, the Administration has determined that adequate reception facilities are available to receive such oily mixtures in those oil loading ports or terminals the tanker calls at;
- (5) the International Oil Pollution Prevention Certificate, when required, is endorsed to the effect that the ship is exclusively engaged in one or more of the categories of voyages specified in sub-paragraphs (b)(ii)(1) and (b)(ii)(2)(bb) of this paragraph; and
- (6) the quantity, time, and port of the discharge are recorded in the Oil Record Book.”

The existing text of paragraph (7) is replaced by the following:

“(7) The requirements of paragraphs (1), (2) and (3) of this Regulation shall not apply to oil tankers carrying asphalt or other products subject to the provisions of this Annex, which through their physical properties inhibit effective product/water separation and monitoring, for which the control of discharge under Regulation 9 of this Annex shall be effected by the retention of residues on board with discharge of all contaminated washings to reception facilities.”

Regulation 16

The existing text of Regulation 16 is replaced by the following:

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

- (1) Any ship of 400 tons gross tonnage and above but less than 10,000 tons gross tonnage shall be fitted with oily-water separating equipment (100 ppm equipment) complying with 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 either:
 - (a) with oily-water separating equipment (100 ppm equipment) complying with paragraph (6) of this Regulation and with an oil discharge monitoring and control system complying with paragraph (5) of this Regulation; or
 - (b) with oil filtering equipment (15 ppm equipment) complying with paragraph (7) of this Regulation.
- (3) (a) The Administration may waive the requirements of paragraphs (1) and (2) of this Regulation for any ship engaged exclusively on:
 - (i) voyages within special areas; or
 - (ii) voyages within 12 miles of the nearest land outside special areas, provided the ship is in:

- (1) trade between ports or terminals within a State Party to the present Convention; or
- (2) restricted voyages as determined by the Administration;

provided that all of the following conditions are complied with:

- (iii) the ship is fitted with a holding tank having a volume adequate, to the satisfaction of the Administration, for the total retention on board of the oily bilge water;
 - (iv) all oily bilge water is retained on board for subsequent discharge to reception facilities;
 - (v) the Administration has determined that adequate reception facilities are available to receive such oily bilge water in a sufficient number of ports or terminals the ship calls at;
 - (vi) the International Oil Pollution Prevention Certificate, when required, is endorsed to the effect that the ship is exclusively engaged on the voyages specified in sub-paragraph (a)(i) or (a)(ii)(2) of this paragraph; and
 - (vii) the quantity, time, and port of the discharge are recorded in the Oil Record Book.
- (b) 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 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 the system shall stop the discharge and be noted in the 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 referred to in paragraphs (1) and (2)(a) of this Regulation shall be of a design approved by the Administration and shall be such as will ensure that any oily mixture discharged into the sea after passing through the system has an oil content of less 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) Oil filtering equipment referred to in paragraph (2)(b) of this Regulation shall be of a design approved by the Administration and shall be such as will ensure that any oily mixture discharged into the sea after passing through the system or systems has an oil content not exceeding 15 parts per million. It shall be provided with alarm arrangements to indicate when this level cannot be maintained. In considering the design of such equipment, the Administration shall have regard to the specification recommended by the Organization.* In the case of ships less than 10,000 tons gross tonnage, other than those carrying large quantities of oil fuel or those discharging bilge water under Regulation 10(3)(b), which are provided with oil filtering equipment in lieu of oily-water separating equipment, the requirements for the alarm arrangements shall be complied with as far as reasonable and practicable.”

The following footnote is added to paragraphs (5), (6) and (7) of Regulation 16:

“* Reference is made to the Recommendation on International Performance and Test Specifications for Oily-Water Separating Equipment and Oil Content Meters adopted by the Organization by Resolution A.393(X).”

Regulation 18

Pumping, Piping and Discharge Arrangements of Oil Tankers

The existing text of Regulation 18 is replaced by the following:

“(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 ballast water or oil contaminated water from cargo tank areas which may be permitted under Regulation 9 or Regulation 10 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 sub-paragraphs (6)(a) to (e) of this Regulation may be accepted.

(3) In new oil tankers means shall be provided for stopping the discharge into the sea of ballast water or oil contaminated water from cargo tank areas, other than those discharges below the waterline permitted under paragraph (6) of this Regulation, from a position on the upper deck or above located so that the manifold in use referred to in paragraph (1) of this Regulation and the discharge to the sea from the pipelines referred to in paragraph (2) of this Regulation may be visually observed. Means for stopping the discharge need not be provided at the observation position if a positive communication system such as a telephone or radio system is provided between the observation position and the discharge control position.

(4) Every new oil tanker required to be provided with segregated ballast tanks or fitted with a crude oil washing system shall comply with the following requirements:

- (a) it shall be equipped with oil piping so designed and installed that oil retention in the lines is minimized; and
 - (b) means shall be provided to drain all cargo pumps and all oil lines at the completion of cargo discharge, where necessary by connexion to a stripping device. The line and pump drainings shall be capable of being discharged both ashore and to a cargo tank or a slop tank. For discharge ashore a special small diameter line shall be provided and shall be connected outboard of the ship's manifold valves.
- (5) Every existing crude oil tanker required to be provided with segregated ballast tanks, or to be fitted with a crude oil washing system, or to operate with dedicated clean ballast tanks, shall comply with the provisions of paragraph (4)(b) of this Regulation.
- (6) On every oil tanker the discharge of ballast water or oil contaminated water from cargo tank areas shall take place above the waterline, except as follows:
- (a) Segregated ballast and clean ballast may be discharged below the waterline:
 - (i) in ports or at offshore terminals, or
 - (ii) at sea by gravity,provided that the surface of the ballast water has been examined immediately before the discharge to ensure that no contamination with oil has taken place.
 - (b) Existing oil tankers which, without modification, are not capable of discharging segregated ballast above the waterline may discharge segregated ballast below the waterline at sea, provided that the surface of the ballast water has been examined immediately before the discharge to ensure that no contamination with oil has taken place.
 - (c) Existing oil tankers operating with dedicated clean ballast tanks, which without modification are not capable of discharging ballast water from dedicated clean ballast tanks above the waterline, may discharge this ballast below the waterline provided that the discharge of the ballast water is supervised in accordance with Regulation 13A(3) of this Annex.
 - (d) On every oil tanker at sea, dirty ballast water or oil contaminated water from tanks in the cargo area, other than slop tanks, may be discharged by gravity below the waterline, provided that sufficient time has elapsed in order to allow oil/water separation to have taken place and the ballast water has been examined immediately before the discharge with an oil/water interface detector referred to in Regulation 15(3)(b) of this Annex, in order to ensure that the height of the interface is such that the discharge does not involve any increased risk of harm to the marine environment.
 - (e) On existing oil tankers at sea, dirty ballast water or oil contaminated water from cargo tank areas may be discharged below the waterline, subsequent to or in lieu of the discharge by the method referred to in sub-paragraph (d) of this paragraph, provided that:

- (i) a part of the flow of such water is led through permanent piping to a readily accessible location on the upper deck or above where it may be visually observed during the discharge operation; and
- (ii) such part flow arrangements comply with the requirements established by the Administration, which shall contain at least all the provisions of the Specifications for the Design, Installation and Operation of a Part Flow System for Control of Overboard Discharges adopted by the Organization.”

Regulation 20

Oil Record Book

The existing texts of paragraphs (1) and (2) are replaced by the following:

“(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 Part I (Machinery Space Operations). Every oil tanker of 150 tons gross tonnage and above shall also be provided with an Oil Record Book Part II (Cargo/Ballast Operations). The Oil Record Book(s), whether as a part of the ship’s official log book or otherwise, shall be in the Form(s) specified in Appendix III to this Annex.

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

- (a) for machinery space operations (all ships):
 - (i) ballasting or cleaning of oil fuel tanks;
 - (ii) discharge of dirty ballast or cleaning water from tanks referred to under (i) of the sub-paragraph;
 - (iii) disposal of oily residues (sludge);
 - (iv) discharge overboard or disposal otherwise of bilge water which has accumulated in machinery spaces.
- (b) for cargo/ballast operations (oil tankers):
 - (i) loading of oil cargo;
 - (ii) internal transfer of oil cargo during voyage;
 - (iii) unloading of oil cargo;
 - (iv) ballasting of cargo tanks and dedicated clean ballast tanks;
 - (v) cleaning of cargo tanks including crude oil washing;
 - (vi) discharge of ballast except from segregated ballast tanks;
 - (vii) discharge of water from slop tanks;
 - (viii) closing of all applicable valves or similar devices after slop tank discharge operations;

- (ix) closing of valves necessary for isolation of dedicated clean ballast tanks from cargo and stripping lines after slop tank discharge operations;
- (x) disposal of residues.”

The second sentence of paragraph (4) is replaced by the following:

“Each completed operation shall be signed by the officer or officers in charge of the operations concerned and each completed page shall be signed by the master of the ship.”

The following new paragraph is added to the existing text:

“(7) For oil tankers of less than 150 tons gross tonnage operating in accordance with Regulation 15(4) of this Annex an appropriate Oil Record Book should be developed by the Administration.”

Regulation 21

Special Requirements for Drilling Rigs and other Platforms

The following new sub-paragraph is added to the existing text:

- “(d) Outside special areas and more than 12 nautical miles from the nearest land and subject to the provisions of Regulation 11 of this Annex, the discharge from such drilling rigs and platforms when stationary into the sea of oil or oily mixtures shall be prohibited except when the oil content of the discharges without dilution does not exceed 100 parts per million unless there are appropriate national regulations which are more stringent, in which case the appropriate national regulations shall apply.”

Regulation 25

Subdivision and Stability

The existing text of sub-paragraph (a) of paragraph (2) is replaced by the following and sub-paragraphs (b), (c) and (d) are renumbered as (d), (e) and (f):

“(a) Side damage

- | | |
|--|---|
| (i) Longitudinal extent | 1/3(L ^{2/3}) or 14.5 metres,
whichever is less |
| (ii) Transverse extent | B/5 or 11.5 metres,
whichever is less |
| (Inboard from the ship's side
at right angles to the centreline
at the level of the summer
load line) | |

(iii) Vertical extent		From the moulded line of the bottom shell plating at centreline, 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	$1/3(L^{2/3})$ or 14.5 metres, whichever is less	$1/3(L^{2/3})$ or 5 metres, whichever is less
	(ii) Transverse extent	B/6 or 10 metres, whichever is less	B/6 or 5 metres, whichever is less
	(iii) Vertical extent	B/15 or 6 metres, whichever is less, measured from the moulded line of the bottom shell plating at centreline	B/15 or 6 metres, whichever is less, measured from the moulded line of the bottom shell plating at centreline
(c)	If any damage of a lesser extent than the maximum extent of damage specified in sub-paragraphs (a) and (b) of this paragraph would result in a more severe condition, such damage shall be considered.”		

The existing text of sub-paragraph (3)(c) is replaced by the following:

- “(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 within the 20 degrees range; the area under the curve within this range shall not be less than 0.0175 metre radians. Unprotected openings shall not be immersed within this range unless the space concerned is assumed to be flooded. Within this range, the immersion of any of the openings listed in sub-paragraph (a) of this paragraph and other openings capable of being closed weathertight may be permitted.”

The following new sub-paragraph is added to the existing text of paragraph (3):

- “(e) Equalization arrangements requiring mechanical aids such as valves or cross-levelling pipes, if fitted, shall not be considered for the purpose of reducing an angle of heel or attaining the minimum range of residual stability to meet the requirements of sub-paragraphs (a), (b) and (c) of this paragraph and sufficient residual stability shall be maintained during all stages where equalization is used. Spaces which are linked by ducts of a large cross-sectional area may be considered to be common.”

The existing text of paragraph (4)(b) is replaced by the following:

- “(b) The permeabilities assumed for spaces flooded as a result of damage shall be as follows:

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

* The permeability of partially filled compartments shall be consistent with the amount of liquid carried in the compartment. Whenever damage penetrates a tank containing liquids, it shall be assumed that the contents are completely lost from that compartment and replaced by salt water up to the level of the final plane of equilibrium.”

The first phrase of paragraph (5) is amended to read:

“(5) The Master of every new oil tanker and the person in charge of a new non-self-propelled oil tanker to which this Annex applies shall be supplied in an approved form with:”

Appendix II

The existing form of Certificate is replaced by the following forms:

“FORMS OF CERTIFICATE AND SUPPLEMENTS

INTERNATIONAL OIL POLLUTION PREVENTION CERTIFICATE

(Note: This Certificate shall be supplemented by a
Record of Construction and Equipment)

Issued under the provisions of the International Convention for the Prevention of
Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto
(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	Port of registry	Gross tonnage

Type of ship:

Oil tanker*

Ship other than an oil tanker with cargo tanks coming
under Regulation 2(2) of Annex I of the Convention*

Ship other than any of the above*

* Delete as appropriate.

THIS IS TO CERTIFY:

1. That the ship has been surveyed in accordance with Regulation 4 of Annex I of the Convention; and
2. That the survey shows that the structure, equipment, systems, fittings, arrangement and material of the ship and the condition thereof are in all respects satisfactory and that the ship complies with the applicable requirements of Annex I of the Convention.

This Certificate is valid until.....
subject to surveys in accordance with Regulation 4 of Annex I of the Convention.

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

..... 19..
(Date of issue)

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

(Seal or stamp of the Authority, as appropriate)

ENDORSEMENT FOR ANNUAL AND INTERMEDIATE SURVEYS

THIS IS TO CERTIFY that at a survey required by Regulation 4 of Annex I of the Convention the ship was found to comply with the relevant provisions of the Convention:

Annual survey: Signed
(Signature of duly authorized official)

Place

Date

(Seal or stamp of the Authority, as appropriate)

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

Place

Date

(Seal or stamp of the Authority, as appropriate)

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

Place

Date

(Seal or stamp of the Authority, as appropriate)

Annual survey: Signed
(Signature of duly authorized official)

Place

Date

(Seal or stamp of the Authority, as appropriate)

* Delete as appropriate.

FORM A

SUPPLEMENT TO THE
INTERNATIONAL OIL POLLUTION PREVENTION CERTIFICATE
(IOPP CERTIFICATE)

RECORD OF CONSTRUCTION AND EQUIPMENT FOR SHIPS
OTHER THAN OIL TANKERS

in respect of the provisions of Annex I of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (hereinafter referred to as “the Convention”)

Notes:

1. This form is to be used for the third type of ships as categorized in the IOPP Certificate, i.e. “ships other than any of the above”. For oil tankers and ships other than oil tankers with cargo tanks coming under Regulation 2(2) of Annex I of the Convention, Form B shall be used.
2. This Record shall be permanently attached to the IOPP Certificate. The IOPP Certificate shall be available on board the ship at all times.
3. If the language of the original Record is neither English nor French, the text shall include a translation into one of these languages.
4. Entries in boxes shall be made by inserting either a cross (x) for the answers “yes” and “applicable” or a dash (—) for the answers “no” and “not applicable” as appropriate.
5. Regulations mentioned in this Record refer to Regulations of Annex I of the Convention and resolutions refer to those adopted by the International Maritime Organization.

1 PARTICULARS OF SHIP

- 1.1 Name of ship
- 1.2 Distinctive number or letters
- 1.3 Port of registry
- 1.4 Gross tonnage
- 1.5 Date of build:
 - 1.5.1 Date of building contract
 - 1.5.2 Date on which keel was laid or ship was
at a similar stage of construction
 - 1.5.3 Date of delivery

1.6 Major conversion (if applicable):

1.6.1 Date of conversion contract

1.6.2 Date on which conversion was commenced

1.6.3 Date of completion of conversion

1.7 Status of ship:

1.7.1 New ship in accordance with Regulation 1(6) ☐1.7.2 Existing ship in accordance with Regulation 1(7) ☐1.7.3 The ship has been accepted by the Administration
as an “existing ship” under Regulation 1(7)
due to unforeseen delay in delivery ☐2 EQUIPMENT FOR THE CONTROL OF OIL DISCHARGE
FROM MACHINERY SPACE BILGES AND OIL FUEL TANKS
(Regulations 10 and 16)

2.1 Carriage of ballast water in oil fuel tanks:

2.1.1 The ship may under normal conditions carry
ballast water in oil fuel tanks ☐2.1.2 The ship does not under normal conditions
carry ballast water in oil fuel tanks ☐

2.2 Type of separating/filtering equipment fitted:

2.2.1 Equipment capable of producing effluent with
oil content less than 100 ppm; ☐2.2.2 Equipment capable of producing effluent with
oil content not exceeding 15 ppm ☐

2.3 Type of control system:

2.3.1 Discharge monitoring and control system
(Regulation 16(5)).1 with automatic stopping device ☐.2 with manual stopping device ☐2.3.2 15 ppm alarm (Regulation 16(7)) ☐2.3.3 Automatic stopping device for discharges
in special areas (Regulation 10(3)(b)(vi)) ☐

2.3.4 Oil content meter (resolution A.444(XI))

.1 with recording device ☐.2 without recording device ☐

2.4 Approval standards:

2.4.1 The separating/filtering equipment:

- .1 has been approved in accordance with resolution A.393(X) ☐
- .2 has been approved in accordance with resolution A.233(VII) ☐
- .3 has been approved in accordance with national standards not based upon resolution A.393(X) or A.233(VII) ☐
- .4 has not been approved ☐

2.4.2 The process unit has been approved in accordance with resolution A.444(XI) ☐

2.4.3 The oil content meter has been approved in accordance with resolution A.393(X) ☐

2.5 Maximum throughput of the system ism³/h

2.6 Application:

2.6.1 The ship is not required to be fitted with the above equipment until 19 ..*
in accordance with Regulation 16(4) ☐

3 TANKS FOR OIL RESIDUES (SLUDGE) (Regulation 17)

3.1 The ship is provided with oil residue (sludge) tanks with the total capacity ofm³ ☐

3.2 Means for the disposal of oil residue in addition to the provision of sludge tanks..... ☐

4 STANDARD DISCHARGE CONNECTION (Regulation 19)

4.1 The ship is provided with a pipeline for the discharge of residues from machinery bilges to reception facilities, fitted with a standard discharge connection in accordance with Regulation 19 ☐

* Insert the date three years after the date of entry into force of the Convention.

5 EXEMPTION

5.1 Exemptions have been granted by the Administration from the requirements of Chapter II of Annex I of the Convention in accordance with Regulation 2(4)(a) on those items listed under paragraphs(s)
.....
of this Record.

6 EQUIVALENTS (Regulation 3)

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

THIS IS TO CERTIFY that this Record is correct in all respects.

Issued at
(Place of issue of the Record)

..... 19
(Signature of duly authorized officer
issuing the Record)

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

FORM B

SUPPLEMENT TO THE
INTERNATIONAL OIL POLLUTION PREVENTION CERTIFICATE
(IOPP CERTIFICATE)

RECORD OF CONSTRUCTION AND EQUIPMENT
FOR OIL TANKERS

in respect of the provisions of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (hereinafter referred to as “the Convention”)

Notes:

1. This form is to be used for the first two types of ships as categorized in the IOPP Certificate, i.e. oil tankers and ships other than oil tankers with cargo tanks coming under Regulation 2(2) of Annex I of the Convention. For the third type of ships as categorized in the IOPP Certificate, Form A shall be used.
2. This Record shall be permanently attached to the IOPP Certificate. The IOPP Certificate shall be available on board the ship at all times.
3. If the language of the original Record is neither English nor French, the text shall include a translation into one of these languages.
4. Entries in boxes shall be made by inserting either a cross (x) for the answers “yes” and “applicable” or a dash (—) for the answers “no” and “not applicable” as appropriate.
5. Regulations mentioned in this Record refer to Regulations of Annex I of the Convention and resolutions refer to those adopted by the International Maritime Organization.

1 PARTICULARS OF SHIP

- 1.1 Name of ship
- 1.2 Distinctive number or letters
- 1.3 Port of registry
- 1.4 Gross tonnage
- 1.5 Carrying capacity of ship(m³)
- 1.6 Deadweight of ship(metric tons) (Regulation 1(22))
- 1.7 Length of ship(m)(Regulation 1(18))

1.8 Date of build:

1.8.1 Date of building contract

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

1.8.3 Date of delivery

1.9 Major conversion (if applicable):

1.9.1 Date of conversion contract

1.9.2 Date on which conversion was
commenced

1.9.3 Date of completion of conversion

1.10 Status of ship:

1.10.1 New ship in accordance with Regulation 1(6) ☐1.10.2 Existing ship in accordance with Regulation 1(7) ☐1.10.3 New oil tanker in accordance with Regulation 1(26) ☐1.10.4 Existing oil tanker in accordance with Regula-
tion 1(27) ☐1.10.5 The ship has been accepted by the Administration
as an “existing ship” under Regulation 1(7) due to
unforeseen delay in delivery ☐1.10.6 The ship has been accepted by the Administration
as an “existing oil tanker” under Regulation 1(27)
due to unforeseen delay in delivery ☐1.10.7 The ship is not required to comply with the
provisions of Regulation 24 due to the unforeseen
delay in delivery ☐

1.11 Type of ship:

1.11.1 Crude oil tanker ☐1.11.2 Product carrier ☐1.11.3 Crude oil/product carrier ☐1.11.4 Combination carrier ☐1.11.5 Ship, other than an oil tanker, with cargo tanks
coming under Regulation 2(2) of Annex I of the
Convention ☐1.11.6 Oil tanker dedicated to the carriage of products
referred to in Regulation 15(7) ☐

- 1.11.7 The ship, being designated as a “crude oil tanker” operating with COW, is also designated as a “product carrier” operating with CBT, for which a separate IOPP Certificate has also been issued ☐
- 1.11.8 The ship, being designated as a “product carrier” operating with CBT, is also designated as a “crude oil tanker” operating with COW, for which a separate IOPP Certificate has also been issued ☐
- 1.11.9 Chemical tanker carrying oil ☐
- 2 EQUIPMENT FOR THE CONTROL OF OIL DISCHARGE FROM MACHINERY SPACE BILGES AND OIL FUEL TANKS (Regulations 10 and 16)
- 2.1 Carriage of ballast water in oil fuel tanks
- 2.1.1 The ship may under normal conditions carry ballast water in oil fuel tanks ☐
- 2.1.2 The ship does not under normal conditions carry ballast water in oil fuel tanks ☐
- 2.2 Type of separating/filtering equipment fitted:
- 2.2.1 Equipment capable of producing effluent with oil content less than 100 ppm ☐
- 2.2.2 Equipment capable of producing effluent with oil content not exceeding 15 ppm ☐
- 2.3 Type of control system
- 2.3.1 Discharge monitoring and control system (Regulation 16(5))
- .1 with automatic stopping device ☐
- .2 with manual stopping device ☐
- 2.3.2 15 ppm alarm (Regulation 16(7)) ☐
- 2.3.3 Automatic stopping device for discharges in special areas (Regulation 10(3)(b)(vi)) ☐
- 2.3.4 Oil content meter (resolution A.444(XI))
- .1 with recording device ☐
- .2 without recording device ☐
- 2.4 Approval standards:
- 2.4.1 The separating/filtering system:
- .1 has been approved in accordance with resolution A.393(X) ☐

- .2 has been approved in accordance with resolution A.233(VII) ☐
- .3 has been approved in accordance with national standards not based upon resolution A.393(X) or A.233(VII) ☐
- .4 has not been approved ☐
- 2.4.2 The process unit has been approved in accordance with resolution A.444(XI) ☐
- 2.4.3 The oil content meter has been approved in accordance with resolution A.393(X) ☐
- 2.5 Maximum throughput of the system ism³/h
- 2.6 Application:
- 2.6.1 The ship is not required to be fitted with the above equipment until 19 ..* in accordance with Regulation 16(4) ☐
- 3 TANKS FOR OIL RESIDUES (SLUDGE)
(Regulation 17)
- 3.1 The ship is provided with oil residue (sludge) tanks with the total capacity ofm³ ☐
- 3.2 Means for the disposal of oil residue in addition to the provision of sludge tanks ☐
- 4 STANDARD DISCHARGE CONNECTION
(Regulation 19)
- 4.1 The ship is provided with a pipeline for the discharge of residues from machinery bilges to reception facilities, fitted with a standard discharge connection in compliance with Regulation 19 ☐
- 5 CONSTRUCTION (Regulations 13, 24 and 25)
- 5.1 In accordance with the requirements of Regulation 13, the ship is
- 5.1.1 Required to be provided with SBT, PL and COW ☐
- 5.1.2 Required to be provided with SBT and PL ☐
- 5.1.3 Required to be provided with SBT ☐

* Insert the date three years after the date of entry into force of the Convention.

- 5.1.4 Required to be provided with SBT, CBT or COW ☐
- 5.1.5 Required to be provided with SBT or CBT ☐
- 5.1.6 Not required to comply with the requirements of Regulation 13 ☐

5.2 Segregated ballast tanks (SBT)

- 5.2.1 The ship is provided with SBT in compliance with Regulation 13 ☐
- 5.2.2 The ship is provided with SBT which are arranged in protective locations (PL) in compliance with Regulation 13E ☐
- 5.2.3 SBT are distributed as follows:

Tank	Volume (m ³)	Tank	Volume (m ³)
		Total	

5.3 Dedicated clean ballast tanks (CBT)

- 5.3.1 The ship is provided with CBT in compliance with Regulation 13A, and may operate:
- .1 as a product carrier ☐
- .2 as a crude oil tanker until19 ..* ☐
- 5.3.2 CBT are distributed as follows:

Tank	Volume (m ³)	Tank	Volume (m ³)
		Total	

* Insert the date two years or four years after the date of entry into force of the Convention as appropriate.

- 5.3.3 The ship has been supplied with a valid Dedicated Clean Ballast Tank Operation Manual, which is dated ☐
- 5.3.4 The ship has common piping and pumping arrangements for ballasting the CBT and handling cargo oil ☐
- 5.3.5 The ship has separate independent piping and pumping arrangements for ballasting the CBT ☐
- 5.4 Crude oil washing (COW)
- 5.4.1 The ship is equipped with a COW system in compliance with Regulation 13B ☐
- 5.4.2 The ship is equipped with a COW system in compliance with Regulation 13B except that the effectiveness of the system has not been confirmed in accordance with Regulation 13(6) and paragraph 4.2.10 of the Revised COW Specifications (resolution A.446(XI)) ☐
- 5.4.3 The ship has been supplied with a valid Crude Oil Washing Operations and Equipment Manual, which is dated ☐
- 5.4.4 The ship is not required to be but is equipped with COW in compliance with the safety aspects of Revised COW Specifications (resolution A.446(XI)) ☐
- 5.5 Exemption from Regulation 13:
- 5.5.1 The ship is solely engaged in trade between in accordance with Regulation 13C and is therefore exempted from the requirements of Regulation 13 ☐
- 5.5.2 The ship is operating with special ballast arrangements in accordance with Regulation 13D and is therefore exempted from the requirements of Regulation 13 ☐
- 5.6 Limitation of size and arrangements of cargo tanks (Regulation 24)
- 5.6.1 The ship is required to be constructed according to, and complies with, the requirements of Regulation 24 ☐
- 5.6.2 The ship is required to be constructed according to, and complies with, the requirements of Regulation 24(4) (see Regulation 2(2)) ☐

5.7 Subdivision and stability (Regulation 25)

- 5.7.1 The ship is required to be constructed according to, and complies with, the requirements of Regulation 25 ☐
- 5.7.2 Information and data required under Regulation 25(5) in an approved form have been supplied to the ship ☐

6 RETENTION OF OIL ON BOARD (Regulation 15)

6.1 Oil discharge monitoring and control system

- 6.1.1 The ship comes under categoryoil tanker as defined in resolution A.496(XII) ☐
- 6.1.2 The system comprises:
- .1 control unit ☐
 - .2 computing unit ☐
 - .3 calculating unit ☐
- 6.1.3 The system is:
- .1 fitted with a starting interlock ☐
 - .2 fitted with automatic stopping device ☐
- 6.1.4 The oil content meter is approved under the terms of resolution A.393(X) suitable for:
- .1 crude oil ☐
 - .2 black products ☐
 - .3 white products ☐
- 6.1.5 The ship has been supplied with an operations manual for the oil discharge monitoring and control system ☐
- 6.1.6 The ship is not required to be fitted with an oil discharge monitoring and control system, until19..* in accordance with Regulation 15(1) ☐

6.2 Slop tanks

- 6.2.1 The ship is provided withdedicated slop tank(s) with the total capacity ofm³ which is% of the oil carrying capacity, in accordance with: ☐

* Insert the date three years after the date of entry into force of the Convention.

- | | | |
|-------|--|--------------------------|
| .1 | Regulation 15(2)(c) | <input type="checkbox"/> |
| .2 | Regulation 15(2)(c)(i) | <input type="checkbox"/> |
| .3 | Regulation 15(2)(c)(ii) | <input type="checkbox"/> |
| .4 | Regulation 15(2)(c)(iii) | <input type="checkbox"/> |
| 6.2.2 | Cargo tanks have been designated as slop tanks | <input type="checkbox"/> |
| 6.2.3 | The ship is not required to be provided with slop tank arrangements until19..* in accordance with Regulation 15(1) | <input type="checkbox"/> |
| 6.3 | Oil/water interface detectors | |
| 6.3.1 | The ship is provided with oil/water interface detectors approved under the terms of resolution MEPC.5(XIII) | <input type="checkbox"/> |
| 6.4 | Exemptions from Regulation 15 | |
| 6.4.1 | The ship is exempted from the requirements of Regulation 15(1), (2) and (3) in accordance with Regulation 15(7) | <input type="checkbox"/> |
| 6.4.2 | The ship is exempted from the requirements of Regulation 15(1), (2) and (3) in accordance with Regulation 2(2) | <input type="checkbox"/> |
| 7 | PUMPING, PIPING AND DISCHARGE ARRANGEMENTS (Regulation 18) | |
| 7.1 | The overboard discharge outlets for segregated ballast are located: | |
| 7.1.1 | above the waterline | <input type="checkbox"/> |
| 7.1.2 | below the waterline | <input type="checkbox"/> |
| 7.2 | The overboard discharge outlets, other than the discharge manifold, for clean ballast are located:** | |
| 7.2.1 | above the waterline | <input type="checkbox"/> |
| 7.2.2 | below the waterline | <input type="checkbox"/> |
| 7.3 | The overboard discharge outlets, other than the discharge manifold, for dirty ballast are located:** | |
| 7.3.1 | above the waterline | <input type="checkbox"/> |

* Insert the date three years after the date of entry into force of the Convention.

** Only those outlets which can be monitored are to be indicated.

7.3.2 below the waterline in conjunction with the part flow arrangements in compliance with Regulation 18(6)(e) ☐

7.3.3 below the waterline ☐

7.4 Discharge of oil from cargo pumps and oil lines (Regulation 18(4) and (5))

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

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

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

8 EQUIVALENT ARRANGEMENTS FOR CHEMICAL TANKERS CARRYING OIL

8.1 As equivalent arrangements for the carriage of oil by a chemical tanker, the ship is fitted with the following equipment in lieu of slop tanks (paragraph 6.2 above) and oil/water interface detectors (paragraph 6.3 above):

8.1.1 oily-water separating equipment capable of producing effluent with oil content less than 100 ppm, with the capacity ofm³/h ☐

8.1.2 a holding tank with the capacity ofm³ ☐

8.1.3 a tank for collecting tank washings which is:

.1 a dedicated tank ☐

.2 a cargo tank designated as a collecting tank ☐

8.1.4 a permanently installed transfer pump for overboard discharge of effluent containing oil through the oily-water separating equipment ☐

8.2 The oily-water separating equipment has been approved under the terms of resolution A.393(X) and is suitable for the full range of Annex I products ☐

8.3 The ship holds a valid Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk ☐

9 EXEMPTION

9.1 Exemptions have been granted by the Administration from the requirements of Chapters II and III of Annex I of the Convention in accordance with Regulation 2(4)(a) on those items listed under paragraph(s) of this Record.

10 EQUIVALENTS (Regulation 3)

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

THIS IS TO CERTIFY that this Record is correct in all respects.

Issued at
(Place of issue of the Record)

..... 19

(Signature of duly authorized officer
issuing the Record)

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

Appendix III

The existing Forms of Oil Record Books and Supplements are replaced by the following forms:

“FORMS OF OIL RECORD BOOKS**OIL RECORD BOOK****Part I — Machinery space operations**

(All ships)

Name of ship:

Distinctive number
or letters:

Gross tonnage:

Period from: to:

Note: Oil Record Book Part I shall be provided to every oil tanker of 150 tons gross tonnage and above and every ship of 400 tons gross tonnage and above, other than oil tankers, to record relevant machinery space operations. For oil tankers, Oil Record Book Part II shall also be provided to record relevant cargo/ballast operations.

INTRODUCTION

The following pages of this section show a comprehensive list of items of machinery space operations which are, when appropriate, to be recorded in the Oil Record Book in accordance with Regulation 20 of Annex I of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78). The items have been grouped into operational sections, each of which is denoted by a letter code.

When making entries in the Oil Record Book, the date, operational code and item number shall be inserted in the appropriate columns and the required particulars shall be recorded chronologically in the blank spaces.

Each completed operation shall be signed for and dated by the officer or officers in charge. Each completed page shall be signed by the master of the ship.

LIST OF ITEMS TO BE RECORDED**(A) *BALLASTING OR CLEANING OF OIL FUEL TANKS***

1. Identity of tank(s) ballasted.
2. Whether cleaned since they last contained oil and, if not, type of oil previously carried.
3. Position of ship at start of cleaning.
4. Position of ship at start of ballasting.

(B) *DISCHARGE OF DIRTY BALLAST OR CLEANING WATER FROM OIL FUEL TANKS REFERRED TO UNDER SECTION (A)*

5. Identity of tank(s).
6. Position of ship at start of discharge.
7. Position of ship on completion of discharge.
8. Ship's speed(s) during discharge.
9. Method of discharge:
 - .1 Through 100 ppm equipment;
 - .2 Through 15 ppm equipment;
 - .3 To reception facilities.
10. Quantity discharged.

(C) *DISPOSAL OF OIL RESIDUES (SLUDGE)*

11. Quantity of residue retained on board for disposal.
12. Methods of disposal of residue:
 - .1 To reception facilities (identify port);
 - .2 Mixed with bunkers;
 - .3 Transferred to another (other) tank(s) (identify tank(s));
 - .4 Other method (state which).

(D) *NON-AUTOMATIC DISCHARGE OVERBOARD OR DISPOSAL OTHERWISE OF BILGE WATER WHICH HAS ACCUMULATED IN MACHINERY SPACES*

13. Quantity discharged.
14. Time of discharge.

15. Method of discharge or disposal:
 - .1 Through 100 ppm equipment;
 - .2 Through 15 ppm equipment;
 - .3 To reception facilities (identify port);
 - .4 To slop or collecting tank (identify tank).

(E) *AUTOMATIC DISCHARGE OVERBOARD OR DISPOSAL OTHERWISE OF BILGE WATER WHICH HAS ACCUMULATED IN MACHINERY SPACES*

16. Time when the system has been put into automatic mode of operation for discharge overboard.
17. Time when the system has been put into automatic mode of operation for transfer of bilge water to collecting (slop) tank (identify tank).
18. Time when the system has been put to manual operation.
19. Method of discharge overboard:
 - .1 Through 100 ppm equipment;
 - .2 Through 15 ppm equipment.

(F) *CONDITION OF OIL DISCHARGE MONITORING AND CONTROL SYSTEM*

20. Time of system failure.
21. Time when system has been made operational.
22. Reasons for failure.

(G) *ACCIDENTAL OR OTHER EXCEPTIONAL DISCHARGES OF OIL*

23. Time of occurrence.
24. Place or position of ship at time of occurrence.
25. Approximate quantity and type of oil.
26. Circumstances of discharge or escape, the reasons therefor and general remarks.

(H) *ADDITIONAL OPERATIONAL PROCEDURES AND GENERAL REMARKS*

OR LETTERS:

* Delete as appropriate.

OIL RECORD BOOK**Part II — Cargo/ballast operations****(Oil tankers)**

Name of ship:

Distinctive number
or letters:

Gross tonnage:

Period from: to:

Note: Every oil tanker of 150 tons gross tonnage and above shall be provided with Oil Record Book Part II to record relevant cargo/ballast operations. Such a tanker shall also be provided with Oil Record Book Part I to record relevant machinery space operations.

DISTINCTIVE NUMBER
OR LETTERS:[illegible]

(Give the capacity of each tank and the depth of slop tank(s)).

INTRODUCTION

The following pages of this section show a comprehensive list of items of cargo and ballast operations which are, when appropriate, to be recorded in the Oil Record Book in accordance with Regulation 20 of Annex I of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78). The items have been grouped into operational sections, each of which is denoted by a letter code.

When making entries in the Oil Record Book, the date, operational code and item number shall be inserted in the appropriate columns and the required particulars shall be recorded chronologically in the blank spaces.

Each completed operation shall be signed for and dated by the officer or officers in charge. Each completed page shall be countersigned by the master of the ship. In respect of the oil tankers engaged in specific trades in accordance with Regulation 13C of Annex I of MARPOL 73/78, appropriate entry in the Oil Record Book shall be endorsed by the competent Port State Authority.*

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

LIST OF ITEMS TO BE RECORDED**(A) *LOADING OF OIL CARGO***

1. Place of loading.
2. Type of oil loaded and identity of tank(s).
3. Total quantity of oil loaded.

(B) *INTERNAL TRANSFER OF OIL CARGO DURING VOYAGE*

4. Identity of tank(s):
 - .1 From:
 - .2 To:
5. Was (were) tank(s) in 4(1) emptied?

(C) *UNLOADING OF OIL CARGO*

6. Place of unloading.
7. Identity of tank(s) unloaded.
8. Was (were) tank(s) emptied?

(D) *CRUDE OIL WASHING (COW TANKERS ONLY)*

(To be completed for each tank being crude oil washed)

9. Port where crude oil washing was carried out or ship's position if carried out between two discharge ports.
10. Identity of tank(s) washed.¹
11. Number of machines in use.
12. Time of start of washing.
13. Washing pattern employed.²
14. Washing line pressure.
15. Time completed or stopped washing.

¹ When an individual tank has more machines than can be operated simultaneously, as described in the Operations and Equipment Manual, then the section being crude oil washed should be identified, e.g. No. 2 centre, forward section.

² In accordance with the Operations and Equipment Manual, enter whether single-stage or multi-stage method of washing is employed. If multi-stage method is used, give the vertical arc covered by the machines and the number of times that arc is covered for that particular stage of the programme.

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

17. Remarks.³

(E) *BALLASTING OF CARGO TANKS*

18. Identity of tank(s) ballasted.

19. Position of ship at start of ballasting.

(F) *BALLASTING OF DEDICATED CLEAN BALLAST TANKS (CBT TANKERS ONLY)*

20. Identity of tank(s) ballasted.

21. Position of ship when water intended for flushing, or port ballast was taken to dedicated clean ballast tank(s).

22. Position of ship when pump(s) and lines were flushed to slop tank.

23. Quantity of oily water resulting from line flushing transferred to slop tanks (identify slop tank(s)).

24. Position of ship when additional ballast water was taken to dedicated clean ballast tank(s).

25. Time and position of ship when valves separating the dedicated clean ballast tanks from cargo and stripping lines were closed.

26. Quantity of clean ballast taken on board.

(G) *CLEANING OF CARGO TANKS*

27. Identity of tank(s) cleaned.

28. Port or ship's position.

29. Duration of cleaning.

30. Method of cleaning.⁴

31. Tank washings transferred to:

.1 Reception facilities;

.2 Slop tank(s) or cargo tank(s) designated as slop tank(s) (identify tank(s)).

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

⁴ Hand hosing, machine washing and/or chemical cleaning. Where chemically cleaned, the chemical concerned and amount used should be stated.

(H) *DISCHARGE OF DIRTY BALLAST*

32. Identity of tank(s).
33. Position of ship at start of discharge into the sea.
34. Position of ship on completion of discharge into the sea.
35. Quantity discharged into the sea.
36. Ship's speed(s) during discharge.
37. Was the discharge monitoring and control system in operation during the discharge?
38. Was a regular check kept on the effluent and the surface of the water in the locality of the discharge?
39. Quantity of oily water transferred to slop tank(s) (identify slop tank(s)).
40. Discharged to shore reception facilities (identify port if applicable).

(I) *DISCHARGE OF WATER FROM SLOP TANKS INTO THE SEA*

41. Identity of slop tanks.
42. Time of settling from last entry of residues, or
43. Time of settling from last discharge.
44. Time and position of ship at start of discharge.
45. Ullage of total contents at start of discharge.
46. Ullage of oil/water interface at start of discharge.
47. Bulk quantity discharged and rate of discharge.
48. Final quantity discharged and rate of discharge.
49. Time and position of ship on completion of discharge.
50. Was the discharge monitoring and control system in operation during the discharge?
51. Ullage of oil/water interface on completion of discharge.
52. Ship's speed(s) during discharge.
53. Was a regular check kept on the effluent and the surface of the water in the locality of the discharge?
54. Confirm that all applicable valves in the ship's piping system have been closed on completion of discharge from the slop tanks.

(J) *DISPOSAL OF RESIDUES AND OILY MIXTURES NOT OTHERWISE DEALT WITH*

- 55. Identity of tank(s).
- 56. Quantity disposed of from each tank.
- 57. Method of disposal:
 - .1 To reception facilities (identify port);
 - .2 Mixed with cargo;
 - .3 Transferred to another tank(s) (identify tank(s));
 - .4 Other method (state which).

(K) *DISCHARGE OF CLEAN BALLAST CONTAINED IN CARGO TANKS*

- 58. Position of ship at start of discharge of clean ballast.
- 59. Identity of tank(s) discharged.
- 60. Was (were) the tank(s) empty on completion?
- 61. Position of ship on completion if different from 58.
- 62. Was a regular check kept on the effluent and the surface of the water in the locality of the discharge?

(L) *DISCHARGE OF BALLAST FROM DEDICATED CLEAN BALLAST TANKS (CBT TANKERS ONLY)*

- 63. Identity of tank(s) discharged.
- 64. Time and position of ship at start of discharge of clean ballast into the sea.
- 65. Time and position of ship on completion of discharge into the sea.
- 66. Quantity discharged:
 - .1 Into the sea; or
 - .2 To reception facility (identify port).
- 67. Was there any indication of oil contamination of the ballast water before or during discharge into the sea?
- 68. Was the discharge monitored by an oil content meter?
- 69. Time and position of ship when valves separating dedicated clean ballast tanks from the cargo and stripping lines were closed on completion of deballasting.

(M) *CONDITION OF OIL DISCHARGE MONITORING AND CONTROL SYSTEM*

- 70. Time of system failure.
- 71. Time when system has been made operational.
- 72. Reasons for failure.

(N) *ACCIDENTAL OR OTHER EXCEPTIONAL DISCHARGES OF OIL*

- 73. Time of occurrence.
- 74. Port or ship's position at time of occurrence.
- 75. Approximate quantity and type of oil.
- 76. Circumstances of discharge or escape, the reasons therefor and general remarks.

(O) *ADDITIONAL OPERATIONAL PROCEDURES AND GENERAL REMARKS*

TANKERS ENGAGED IN SPECIFIC TRADES

(P) *LOADING OF BALLAST WATER*

- 77. Identity of tank(s) ballasted.
- 78. Position of ship when ballasted.
- 79. Total quantity of ballast loaded in cubic metres.
- 80. Remarks.

(Q) *RE-ALLOCATION OF BALLAST WATER WITHIN THE SHIP*

- 81. Reasons for re-allocation.

(R) *BALLAST WATER DISCHARGE TO RECEPTION FACILITY*

- 82. Port(s) where ballast water was discharged.
- 83. Name or designation of reception facility.
- 84. Total quantity of ballast water discharged in cubic metres.
- 85. Date, signature and stamp of port authority official.

NAME OF SHIP:

DISTINCTIVE NUMBER
OR LETTERS:

CARGO/BALLAST OPERATIONS (OIL TANKERS)*/MACHINERY
SPACE OPERATIONS (ALL SHIPS)*

Date	Code (letter)	Item (number)	Record of operations/signature of officer in charge

* Delete as appropriate.”

Signature of Master

Resolution MEPC 16(22)

ADOPTION OF AMENDMENTS TO THE ANNEX OF THE PROTOCOL OF 1978 RELATING
TO THE INTERNATIONAL CONVENTION FOR THE PREVENTION OF POLLUTION
FROM SHIPS, 1973 (RELATING TO ANNEX II OF THE INTERNATIONAL
CONVENTION FOR THE PREVENTION OF POLLUTION FROM SHIPS, 1973
AS MODIFIED BY THE PROTOCOL OF 1978 RELATING THERETO)

adopted on 5 December 1985

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention of the International Maritime
Organization concerning the function of the Committee conferred upon it by
international conventions for the prevention and control of marine pollution
from ships,

NOTING Article 16 of the International Convention for the Prevention of
Pollution from Ships, 1973 (hereinafter referred to as the "1973 Convention")
and Article VI of the Protocol of 1978 relating to the 1973 Convention
(hereinafter referred to as the "1978 Protocol") which together specify the
amendment procedure of the 1978 Protocol and confers upon the appropriate body
of the Organization the function of considering and adopting amendments to the
1973 Convention, as modified by the 1978 Protocol (MARPOL 73/78),

HAVING CONSIDERED at its twenty-second session amendments to the 1978
Protocol proposed and circulated in accordance with article 16(2)(a) of the
1973 Convention,

1. ADOPTS in accordance with article 16(2)(d) of the 1973 Convention
amendments to the Annex of the 1978 Protocol (relating to Annex II of
MARPOL 73/78), the text of which is set out in the Annex to the present
resolution;

2. DETERMINES in accordance with article 16(2)(f)(iii) of the 1973 Convention that the amendments shall be deemed to have been accepted on 5 October 1986 unless prior to this date one third or more of the Parties or the Parties the combined merchant fleets of which constitute fifty per cent or more of the gross tonnage of the world's merchant fleet, have communicated to the Organization their objections to the amendments;
3. INVITES the Parties to note that in accordance with article 16(2)(g)(ii) of the 1973 Convention the amendments shall enter into force on 6 April 1987 upon their acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General in conformity with article 16(2)(e) of the 1973 Convention to transmit to all Parties to the 1978 Protocol certified copies of the present resolution and the text of the amendments contained in the Annex;
5. FURTHER REQUESTS the Secretary-General to transmit to the Members of the Organization which are not Parties to the 1978 Protocol copies of the resolution and its Annex.

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

ANNEX II

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

Regulation 1

Definitions

The following new paragraphs (10) to (14) are added to the existing text:

"(10) 'International Bulk Chemical Code' means the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk adopted by the Marine Environment Protection Committee of the Organization by resolution MEPC 19(22), 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.

(11) 'Bulk Chemical Code' means the Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk adopted by the Marine Environment Protection Committee of the Organization by resolution MEPC 20(22), 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.

(12) 'Ship constructed' means a ship the keel of which is laid or which is at a similar stage of construction. A ship converted to a chemical tanker, irrespective of the date of construction, shall be treated as a chemical tanker constructed on the date on which such conversion commenced. This conversion provision shall not apply to the modification of a ship which complies with all of the following conditions:

- (a) the ship is constructed before 1 July 1986; and
 - (b) the ship is certified under the Bulk Chemical Code to carry only those products identified by the Code as substances with pollution hazards only.
- (13) '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 tons or one per cent of the estimated mass of all structural material, whichever is less.

Regulation 2

Application

The following new paragraphs (4), (5), and (6) are added to the existing text:

"(4) For ships constructed before 1 July 1986, the provisions of Regulation 5 of this Annex in respect of the requirement to discharge below the waterline and maximum concentration in the wake astern of the ship shall apply as from 1 January 1988.

(5) 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 the substitution of operational methods to effect the control of discharge of noxious liquid substances as equivalent to those design and construction features which are prescribed by Regulations in this Annex.

(6) The Administration which allows a fitting, material, appliance or apparatus as alternative to that required by this Annex, under paragraph (5) of this Regulation, shall communicate to the Organization for circulation to the Parties to the Convention, particulars thereof, for their information and appropriate action, if any."

Regulation 3

Categorization and Listing of Noxious Liquid Substances

In paragraph (1) of the existing text, the phrase "except Regulation 13", is deleted.

Regulation 5

Discharge of Noxious Liquid Substances

In paragraph (1) the existing text of the last sentence before sub-paragraph (a) is replaced by: "Any water subsequently added to the tank may be discharged into the sea when all the following conditions are satisfied:"

In paragraph (5) the existing text of the third sentence is replaced by: "Any water subsequently introduced into the tank shall be regarded as clean and shall not be subject to paragraph (1), (2), (3) or (4) of this Regulation."

In paragraph (7) the existing text of the last sentence before sub-paragraph (a) is replaced by: "Any water subsequently added to the tank may be discharged into the sea when all the following conditions are satisfied:"

In paragraph (8) the existing text of paragraph (a) is replaced by:

"(a) the tank has been prewashed in accordance with the procedure approved by the Administration and based on standards developed by the Organization and the resulting tank washings have been discharged to a reception facility."

In paragraph (10) the third sentence of the existing text is replaced by: "Any water subsequently introduced into the tank shall be regarded as clean and shall not be subject to paragraph (7), (8) or (9) of this Regulation."

The following new Regulation 5A is added to the existing text:

"Regulation 5A

Pumping, Piping and Unloading Arrangements

(1) Every ship constructed on or after 1 July 1986 shall be provided with pumping and piping arrangements to ensure, through testing under favourable pumping conditions, that each tank designated for the carriage of a Category B substance does not retain a quantity of residue in excess of 0.1 cubic metres in the tank's associated piping and in the immediate vicinity of that tank's suction point.

- (2)(a) Subject to the provisions of sub-paragraph (b) of this paragraph, every ship constructed before 1 July 1986 shall be provided with pumping and piping arrangements to ensure, through testing under favourable pumping conditions, that each tank designated for the carriage of a Category B substance does not retain a quantity of residue in excess of 0.3 cubic metres in the tank's associated piping and in the immediate vicinity of that tank's suction point.
- (b) Until 2 October 1994 ships referred to in sub-paragraph (a) of this paragraph if not in compliance with the requirements of that sub-paragraph shall, as a minimum, be provided with pumping and piping arrangements to ensure, through testing under favourable pumping conditions and surface residue assessment, that each tank designated for the carriage of a Category B substance does not retain a quantity of residue in excess of 1 cubic metre or 1/3000 of the tank capacity in cubic metres, whichever is greater, in that tank and the associated piping.
- (3) Every ship constructed on or after 1 July 1986 shall be provided with pumping and piping arrangements to ensure, through testing under favourable pumping conditions, that each tank designated for the carriage of a Category C substance does not retain a quantity of residue in excess of 0.3 cubic metres in the tank's associated piping and in the immediate vicinity of that tank's suction point.
- (4)(a) Subject to the provisions of sub-paragraph (b) of this paragraph, every ship constructed before 1 July 1986 shall be provided with pumping and piping arrangements to ensure, through testing under favourable pumping conditions, that each tank designated for the carriage of a Category C substance does not retain a quantity of residue in excess of 0.9 cubic metres in the tank's associated piping and in the immediate vicinity of that tank's suction point.

(b) Until 2 October 1994 the ships referred to in sub-paragraph (a) of this paragraph if not in compliance with the requirements of that sub-paragraph shall as a minimum, be provided with pumping and piping arrangements to ensure, through testing under favourable pumping conditions and surface residue assessment, that each tank designated for the carriage of a Category C substance does not retain a quantity of residue in excess of 3 cubic metres or 1/1000 of the tank capacity in cubic metres, whichever is greater, in that tank and the associated piping.

(5) Pumping conditions referred to in paragraphs (1), (2), (3) and (4) of this Regulation shall be approved by the Administration and based on standards developed by the Organization. Pumping efficiency tests referred to in paragraphs (1), (2), (3) and (4) of this Regulation shall use water as the test medium and shall be approved by the Administration and based on standards developed by the Organization. The residues on cargo tank surfaces, referred to in paragraphs (2)(b) and (4)(b) of this Regulation shall be determined based on standards developed by the Organization.

(6)(a) Subject to the provision of sub-paragraph (b) of this paragraph, the provisions of paragraphs (2) and (4) of this Regulation need not apply to a ship constructed before 1 July 1986 which is engaged in restricted voyages as determined by the Administration between:

- (i) ports or terminals within a State Party to the present Convention; or
- (ii) ports or terminals of States Parties to the present Convention.

(b) The provisions of sub-paragraph (a) of this paragraph shall only apply to a ship constructed before 1 July 1986 if:

- (i) each time a tank containing Category B or C substances or mixtures is to be washed or ballasted, the tank is washed in accordance with a prewash procedure approved by the Administration and based on Standards developed by the Organization and the tank washings are discharged to a reception facility;
- (ii) subsequent washings or ballast water are discharged to a reception facility or at sea in accordance with other provisions of this Annex;
- (iii) the adequacy of the reception facilities at the ports or terminals referred to above, for the purpose of this paragraph, is approved by the Governments of the States Parties to the present Convention within which such ports or terminals are situated;
- (iv) in the case of ships engaged in voyages to ports or terminals under the jurisdiction of other States Parties to the present Convention, the Administration communicates to the Organization, for circulation to the Parties to the Convention, particulars of the exemption, for their information and appropriate action, if any; and
- (v) the Certificate required under this Annex is endorsed to the effect that the ship is solely engaged in such restricted voyages.

(7) For a ship whose constructional and operational features are such that ballasting of cargo tanks is not required and cargo tank washing is only required for repair or dry-docking, the Administration may allow exemption from the provisions of paragraphs (1), (2), (3) and (4) of this Regulation, provided that all of the following conditions are complied with:

- (a) the design, construction and equipment of the ship are approved by the Administration, having regard to the service for which it is intended;
- (b) any effluent from tank washings which may be carried out before a repair or drydocking is discharged to a reception facility, the adequacy of which is ascertained by the Administration;
- (c) the Certificate required under this Annex indicates:
 - (i) that each cargo tank is certified for the carriage of only one named substance; and
 - (ii) the particulars of the exemption;
- (d) the ship carries a suitable operational manual approved by the Administration; and
- (e) in the case of ships engaged in voyages to ports or terminals under the jurisdiction of other States Parties to the present Convention, the Administration communicates to the Organization, for circulation to the Parties to the Convention, particulars of the exemption, for their information and appropriate action, if any."

Regulation 7

The existing title of this Regulation is replaced by "Reception Facilities and Cargo Unloading Terminal Arrangements"

The following new paragraph (3) is added to the existing text:

"(3) The Government of each Party to the Convention shall undertake to ensure that cargo unloading terminals shall provide arrangements to facilitate stripping of cargo tanks of ships unloading noxious liquid substances at these terminals. Cargo hoses and piping systems of the terminal, containing noxious liquid substances received from ships unloading these substances at the terminal, shall not be drained back to the ship."

The existing text of paragraph (3) is renumbered as (4) and replaced by the following:

"(4) Each Party shall notify the Organization, for transmission to the Parties concerned, of any case where facilities required under paragraph (1) or arrangements required under paragraph (3) of this Regulation are alleged to be inadequate."

The existing text of Regulation 8 is replaced by the following:

"Regulation 8

Measures of Control

- (1)(a) The Government of each Party to the Convention shall appoint or authorize surveyors for the purpose of implementing this Regulation. The surveyors shall execute control in accordance with control procedures developed by the Organization.
- (b) The master of a ship carrying noxious liquid substances in bulk shall ensure that the provisions of Regulation 5 and this Regulation have been complied with and that the Cargo Record Book is completed in accordance with Regulation 9 of this Annex whenever operations as referred to in that Regulation take place.

- (c) An exemption referred to in paragraph (2)(b), (5)(b), (6)(c) or (7)(c) of this Regulation may only be granted by the Government of the receiving Party to a ship engaged in voyages to ports or terminals under the jurisdiction of other States Parties to the present Convention. When such an exemption has been granted, the appropriate entry made in the Cargo Record Book shall be endorsed by the surveyor referred to in sub-paragraph (a) of this paragraph.

Category A substances in all areas

- (2) With respect to Category A substances the following provisions shall apply in all areas:
 - (a) A tank which has been unloaded shall, subject to the provisions of sub-paragraph (b) of this paragraph, be washed in accordance with the requirements of paragraph (3) or (4) of this Regulation before the ship leaves the port of unloading.
 - (b) At the request of the ship's master, the Government of the receiving Party may exempt the ship from the requirements referred to in sub-paragraph (a) of this paragraph, where it is satisfied that:
 - (i) the tank unloaded is to be reloaded with the same substance or another substance compatible with the previous one and that the tank will not be washed or ballasted prior to loading; or
 - (ii) the tank unloaded is neither washed nor ballasted at sea and the provisions of paragraph (3) or (4) of this Regulation are complied with at another port provided that it has been confirmed in writing that a reception facility at that port is available and is adequate for such a purpose; or

- (iii) the cargo residues will be removed by a ventilation procedure approved by the Administration and based on standards developed by the Organization.

(3) If the tank is to be washed in accordance with sub-paragraph (2)(a) of this Regulation, the effluent from the tank washing operation shall be discharged to a reception facility at least until the concentration of the substance in the discharge, as indicated by analyses of samples of the effluent taken 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 endorsed by the surveyor referred to under paragraph (1)(a) of this Regulation.

(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 paragraph (3) of this Regulation provided that:

- (a) The tank is prewashed in accordance with a procedure approved by the Administration and based on standards developed by the Organization; and
- (b) The surveyor referred to under paragraph (1)(a) certifies in the Cargo Record Book that:
 - (i) the tank, its pump and piping systems have been emptied; and
 - (ii) the prewash has been carried out in accordance with the prewash procedure approved by the Administration for that tank and that substance; and

- (iii) the tank washings resulting from such prewash have been discharged to a reception facility and the tank is empty.

Category B and C substances outside Special Areas

(5) With respect to Category B and C substances, the following provisions shall apply outside Special Areas:

- (a) A tank which has been unloaded shall, subject to the provisions of sub-paragraph (b) of this paragraph, be prewashed before the ship leaves the port of unloading, whenever:
 - (i) the substance unloaded is identified in the standards developed by the Organization as resulting in a residue quantity exceeding the maximum quantity which may be discharged into the sea under Regulation 5(2) or (3) of this Annex in case of Category B or C substances respectively; or
 - (ii) the unloading is not carried out in accordance with the pumping conditions for the tank approved by the Administration and based on standards developed by the Organization as referred to under Regulation 5A(5) of this Annex, unless alternative measures are taken to the satisfaction of the surveyor referred to in paragraph (1)(a) of this Regulation, to remove the cargo residues from the ship to quantities specified in Regulation 5A of this Annex as applicable.

The prewash procedure used shall be approved by the Administration and based on standards developed by the Organization and the resulting tank washings shall be discharged to a reception facility at the port of unloading.

- (b) At the request of the ship's master, the Government of the receiving party may exempt the ship from the requirements of sub-paragraph (a) of this paragraph, where it is satisfied that:
- (i) the tank unloaded is to be reloaded with the same substance or another substance compatible with the previous one and that the tank will not be washed nor ballasted prior to loading; or
 - (ii) the tank unloaded is neither washed nor ballasted at sea and the tank is prewashed in accordance with a procedure approved by the Administration and based on standards developed by the Organization and resulting tank washings are discharged to a reception facility at another port, provided that it has been confirmed in writing that a reception facility at that port is available and adequate for such a purpose; or
 - (iii) the cargo residues will be removed by a ventilation procedure approved by the Administration and based on standards developed by the Organization.

Category B substances within Special Areas

- (6) With respect to Category B substances, the following provisions shall apply within Special Areas.
- (a) A tank which has been unloaded shall, subject to the provisions of sub-paragraph (b) and (c), be prewashed before the ship leaves the port of unloading. The prewash procedure used shall be approved by the Administration and based on standards developed by the Organization and the resulting tank washings shall be discharged to a reception facility at the port of unloading.

- (b) The requirements of sub-paragraph (a) of this paragraph do not apply when all the following conditions are satisfied:
- (i) the Category B substance unloaded is identified in the standards developed by the Organization as resulting in a residue quantity not exceeding the maximum quantity which may be discharged into the sea outside Special Areas under Regulation 5(2) of this Annex, and the residues are retained on board for subsequent discharge into the sea outside the Special Area in compliance with Regulation 5(2) of this Annex; and
 - (ii) the unloading is carried out in accordance with the pumping conditions for the tank approved by the Administration and based on standards developed by the Organization as referred to under Regulation 5A(5) of this Annex, or failing to comply with the approved pumping conditions, alternative measures are taken to the satisfaction of the surveyor referred to in paragraph (1)(a) of this Regulation, to remove the cargo residues from the ship to quantities specified in Regulation 5A of this Annex as applicable.
- (c) At the request of the ship's master, the Government of the receiving party may exempt the ship from the requirements of sub-paragraph (a) of this paragraph, where it is satisfied that:
- (i) the tank unloaded is to be reloaded with the same substance or another substance compatible with the previous one and that the tank will not be washed or ballasted prior to loading; or

- (ii) the tank unloaded is neither washed nor ballasted at sea and the tank is prewashed in accordance with a procedure approved by the Administration and based on standards developed by the Organization and resulting tank washings are discharged to a reception facility at another port, provided that it has been confirmed in writing that a reception facility at that port is available and adequate for such a purpose; or
- (iii) the cargo residues will be removed by a ventilation procedure approved by the Administration and based on standards developed by the Organization.

Category C substances within Special Areas

(7) With respect to Category C substances, the following provisions shall apply within Special Areas:

- (a) A tank which has been unloaded shall, subject to the provisions of sub-paragraphs (b) and (c) of this paragraph, be prewashed before the ship leaves the port of unloading, whenever:
 - (i) the Category C substance unloaded is identified in the standards developed by the Organization as resulting in a residue quantity exceeding the maximum quantity which may be discharged into the sea under Regulation 5(9) of this Annex; or
 - (ii) the unloading is not carried out in accordance with the pumping conditions for the tank approved by the Administration and based on standards developed by the Organization as referred to under Regulation 5A(5) of this Annex, unless alternative measures are taken to the satisfaction of the surveyor referred to in paragraph (1)(a) of this Regulation, to remove the cargo residues from the ship to quantities specified in Regulation 5A of this Annex as applicable.

The prewash procedure used shall be approved by the Administration and based on standards developed by the Organization and the resulting tank washings shall be discharged to a reception facility at the port of unloading.

- (b) The requirements of sub-paragraph (a) of this paragraph do not apply when all the following conditions are satisfied:
- (i) the Category C substance unloaded is identified in the standards developed by the Organization as resulting in a residue quantity not exceeding the maximum quantity which may be discharged into the sea outside Special Areas under Regulation 5(3) of this Annex, and the residues are retained on board for subsequent discharge into the sea outside the Special Area in compliance with Regulation 5(3) of this Annex; and
 - (ii) the unloading is carried out in accordance with the pumping conditions for the tank approved by the Administration and based on standards developed by the Organization as referred to under Regulation 5A(5) of this Annex, or failing to comply with the approved pumping conditions, alternative measures are taken to the satisfaction of the surveyor referred to in paragraph (1)(a) of this Regulation, to remove the cargo residues from the ship to quantities specified in Regulation 5A of this Annex as applicable.
- (c) At the request of the ship's master, the Government of the receiving party may exempt the ship from the requirements of sub-paragraph (a) of this paragraph, where it is satisfied that:
- (i) the tank unloaded is to be reloaded with the same substance or another substance compatible with the previous one and that the tank will not be washed or ballasted prior to loading; or

- (ii) the tank unloaded is neither washed nor ballasted at sea and the tank is prewashed in accordance with a procedure approved by the Administration and based on standards developed by the Organization and resulting tank washings are discharged to a reception facility at another port, provided that it has been confirmed in writing that a reception facility at that port is available and adequate for such a purpose; or
- (iii) the cargo residues will be removed by a ventilation procedure approved by the Administration and based on standards developed by the Organization.

Category D substances in all areas

(8) With respect to Category D substances, a tank which has been unloaded shall either be washed and the resulting tank washings shall be discharged to a reception facility, or the remaining residues in the tank shall be diluted and discharged into the sea in accordance with Regulation 5(4) of this Annex.

Discharge from a slop tank

(9) Any residues retained on board in a slop tank, including those from cargo 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."

Regulation 9Cargo Record Book

The existing text of sub-paragraph (2)(i) to (ix) is replaced by the following:

- "(i) loading of cargo;
- (ii) internal transfer of cargo;
- (iii) unloading of cargo;
- (iv) cleaning of cargo tanks;
- (v) ballasting of cargo tanks;
- (vi) discharge of ballast from cargo tanks;
- (vii) disposal of residues to reception facilities;
- (viii) discharge into the sea or removal by ventilation of residues in accordance with Regulation 5 of this Annex."

In the existing text of paragraph (3), reference to "Article 7" is replaced by "Article 8".

In the second sentence of the existing text of paragraph (5), the words "when the ship is manned" are deleted.

In the third sentence of the existing text of paragraph (5), "(1973)" is deleted and the words "or a Certificate referred to in Regulation 12A of this Annex" are inserted.

In the second sentence of the existing text of paragraph (6), the word "two" is replaced by the word "three".

The existing texts of Regulations 10 to 12 is replaced by the following:

"Regulation 10

Surveys

(1) Ships carrying noxious liquid substances in bulk 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 11 of this Annex is issued for the first time, and which shall include a complete survey of its structure, equipment, systems, fittings, arrangements and material in so far as the ship is covered by this Annex. This survey shall be such as to ensure that the structure, equipment, systems, fittings, arrangements and material fully comply with the applicable requirements of this Annex.
- (b) Periodical surveys at intervals specified by the Administration, but not exceeding five years, and which shall be such as to ensure that the structure, equipment, systems, fittings, arrangements and material fully comply with the requirements of this Annex.
- (c) A minimum of one intermediate survey during the period of validity of the Certificate 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. In cases where only one such intermediate survey is carried out in any one Certificate validity period, it shall be held not before six months prior to, nor later than six months after the half-way date of the Certificate's period of validity. Such intermediate surveys shall be endorsed on the Certificate issued under Regulation 11 of this Annex.

- (d) An annual survey within 3 months before or after the day and the month of the date of issue of the Certificate and which shall include a general examination to ensure that the structure, fittings, arrangements and materials remain in all respects satisfactory for the service for which the ship is intended. Such annual surveys shall be endorsed on the Certificate issued under Regulation 11 of this Annex.
- (2) (a) 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.
- (b) An Administration nominating surveyors or recognizing organizations to conduct surveys and inspections as set forth in sub-paragraph (a) of this paragraph, shall as a minimum empower any nominated surveyor or recognized organization to:
 - (i) require repairs to a ship; and
 - (ii) carry out surveys and inspections if requested by the appropriate authorities of a port State.

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

- (c) When a nominated surveyor or recognized organization determines that the condition of the ship or its equipment does not correspond substantially with the particulars of the Certificate, or is such that the ship is not fit to proceed to sea without presenting an unreasonable threat of harm to the marine environment, such surveyor or organization shall immediately ensure that corrective action is taken and shall in

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

- (d) In every case, the Administration concerned shall fully guarantee the completeness and efficiency of the survey and inspection and shall undertake to ensure the necessary arrangements to satisfy this obligation.
- (3) (a) The condition of the ship and its equipment shall be maintained to conform with the provisions of the present Convention to ensure that the ship in all respects will remain fit to proceed to sea without presenting an unreasonable threat of harm to the marine environment.
- (b) After any survey of the ship under paragraph (1) of this Regulation has been completed, no change shall be made in the structure, equipment, systems, fittings, arrangements or material covered by the survey, without the sanction of the Administration, except the direct replacement of such equipment and fittings.

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

Regulation 11

Issue of Certificate

- (1) An International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk shall be issued, after survey in accordance with the provisions of Regulation 10 of this Annex, to any ship carrying noxious liquid substances in bulk and which is engaged in voyages to ports or terminals under the jurisdiction of other Parties to the Convention.
- (2) 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.
- (3) (a) 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 Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk 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 it shall have the same force and receive the same recognition as the Certificate issued under paragraph (1) of this Regulation.
- (d) No International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk shall be issued to a ship which is entitled to fly the flag of a State which is not a Party.

(4) The International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk shall be drawn up in an official language of the issuing country in the 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 shall be issued for a period specified by the Administration, which shall not exceed five years from the date of issue.
- (2) A Certificate shall cease to be valid if significant alterations have taken place in the construction, equipment, systems, fittings, arrangements or material required without the sanction of the Administration, except the direct replacement of such equipment or fittings, or if intermediate or annual surveys as specified by the Administration under Regulation 10(1)(c) or (d) of this Annex are not carried out.

(3) A Certificate issued to a ship shall also cease to be valid 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 10(3)(a) and (b) 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 transmit as soon as possible 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."

The following new Regulation 12A is added to the existing text:

"Regulation 12A

Survey and Certification of Chemical Tankers

Notwithstanding the provisions of Regulations 10, 11 and 12 of this Annex, chemical tankers which have been surveyed and certified by States Parties to the present Convention in accordance with the provisions of the International Bulk Chemical Code or the Bulk Chemical Code, as applicable, shall be deemed to have complied with the provisions of the said Regulations, and the Certificate issued under that Code shall have the same force and receive the same recognition as the Certificate issued under Regulation 11 of this Annex."

Regulation 13

Requirements for Minimizing Accidental Pollution

The existing text of Regulation 13 is replaced by the following:

"(1) The design, construction, equipment and operation of ships carrying noxious liquid substances of Category A, B or C in bulk, shall be such as to minimize the uncontrolled discharge into the sea of such substances.

(2) Chemical tankers constructed on or after 1 July 1986 shall comply with the requirements of the International Bulk Chemical Code.

(3) Chemical tankers constructed before 1 July 1986 shall comply with the following requirements:

- (a) The following chemical tankers shall comply with the requirements of the Bulk Chemical Code as applicable to ships referred to in 1.7.2 of that Code:
 - (i) ships for which the building contract is placed on or after 2 November 1973 and which are engaged on voyages to ports or terminals under the jurisdiction of other States Parties to the Convention; and
 - (ii) ships constructed on or after 1 July 1983 which are engaged solely on voyages between ports or terminals within the State the flag of which the ship is entitled to fly;
- (b) The following chemical tankers shall comply with the requirements of the Bulk Chemical Code as applicable to ships referred to in 1.7.3 of that Code:
 - (i) ships for which the building contract is placed before 2 November 1973 and which are engaged on voyages to ports or terminals under the jurisdiction of other States Parties to the Convention; and
 - (ii) ships constructed before 1 July 1983 which are engaged on voyages between ports or terminals within the State the flag of which the ship is entitled to fly, except that for ships of less than 1,600 tons gross tonnage compliance with the Code in respect of construction and equipment shall take effect not later than 1 July 1994.

(4) In respect of ships other than chemical tankers carrying noxious liquid substances of Category A, B or C in bulk, the Administration shall establish appropriate measures based on the Guidelines developed by the Organization in order to ensure that the provisions of paragraph (1) of this Regulation are complied with."

The following new Regulation 14 is added to the existing text:

"Regulation 14

Carriage and Discharge of Oil-like Substances

Notwithstanding the provisions of other Regulations of this Annex, noxious liquid substances designated in Appendix II of this Annex as falling under Category C or D and identified by the Organization as oil-like substances under the criteria developed by the Organization, may be carried on an oil tanker as defined in Annex I of the Convention and discharged in accordance with the provisions of Annex I of the present Convention, provided that all of the following conditions are complied with:

- (a) the ship complies with the provisions of Annex I of the present Convention as applicable to product carriers as defined in that Annex;
- (b) the ship carries an International Oil Pollution Prevention Certificate and its Supplement B and the Certificate is endorsed to indicate that the ship may carry oil-like substances in conformity with this Regulation and the endorsement includes a list of oil-like substances the ship is allowed to carry;
- (c) in the case of Category C substances the ship complies with the ship type 3 damage stability requirements of:

- (i) the International Bulk Chemical Code in the case of a ship constructed on or after 1 July 1986; or
- (ii) the Bulk Chemical Code, as applicable under Regulation 13 of this Annex, in the case of a ship constructed before 1 July 1986; and
- (d) the oil content meter in the oil discharge monitoring and control system of the ship is approved by the Administration for use in monitoring the oil-like substances to be carried."

APPENDIX II

LIST OF NOXIOUS LIQUID SUBSTANCES CARRIED IN BULK

Existing list is replaced by the following:

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)
			(Regulation 5(7) of Annex II)	
		I	II	III Outside special areas
				IV Within special areas
Acetaldehyde	1089	C		
Acetic acid	2789* 2790*	C		
Acetic anhydride	1715	C		
Acetone cyanohydrin	1541	A	0.1	0.05
Acetophenone		D		
Acetyl chloride	1717	C		
Acrylamide solution (50% or less)	2074	D		
Acrylic acid	2218	D		
Acrylonitrile	1093	B		
Adiponitrile	2205	D		

Pollution Category in brackets 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. Until the hazard evaluation is completed the Pollution Category assigned shall be used.

* UN Number 2789 refers to more than 80% solution and 2790 between 10% and 80% solution.

	I	II	III	IV
Alcohols, C ₄ , C ₅ , C ₆ mixtures		D		
Alcohols, C ₅ , C ₆ as individual alcohols		D		
Alcohols C ₇ , C ₈ , C ₉ as individuals and mixtures		C		
Alcohols C ₁₀ , C ₁₁ , C ₁₂ as individuals and mixtures		B		
Alcohol ethoxylate (higher secondary)		D		
Alcohol (C ₁₃ /C ₁₅) poly(3-11)ethoxylates		B		
Alkyl acrylate vinyl pyridine copolymer in toluene		(C)		
Alkylamine mixtures		C		
Alkyl (C ₉ -C ₁₇) benzene mixtures (straight or branched chain)		D		
Alkyl benzene sulphonate (branched chain)		B		
Alkyl benzene sulphonate (straight chain)		C		
Alkyl benzene sulphonic acid	2584 2586	C		
Allyl alcohol	1098	B		
Allyl chloride	1100	B		
2-(2-Aminoethoxy)ethanol	3055	D		
Aminoethylethanolamine		(D)		
N-Aminoethylpiperazine	2815	D		
Ammonia aqueous (28% or less)	2672*	C		

* UN number refers to 10-35%

	I	II	III	IV
Ammonium nitrate solution (93% or less)	2426	D		
Ammonium sulphate solution		D		
Ammonium sulphide solution (45% or less)	2683	B		
Amyl acetate, commercial	1104	C		
n-Amyl acetate	1104	C		
sec-Amyl acetate	1104	C		
n-Amyl alcohol	1105	D		
sec-Amyl alcohol	1105	D		
Amyl alcohol, primary	1105	D		
Aniline	1547	C		
Benzaldehyde		C		
Benzene and mixtures having 10% benzene or more	1114*	C		
Benzene sulphonyl chloride	2225	D		
Benzyl acetate		C		
Benzyl alcohol		C		
Benzyl chloride	1738	B		
Butene oligomer		D		
n-Butyl acetate	1123	C		
sec-Butyl acetate	1123	D		
n-Butyl acrylate	2348	D		
Butylamine (all isomers)	1125 (normal) 1214 (iso)	C		

* UN number 1114 applies to Benzene

	I	II	III	IV
Butyl benzyl phthalate		A	0.1	0.05
n-Butyl butyrate		(B)		
Butyl/Decyl/Cetyl/Eicosyl methacrylate mixture		D		
Butylene glycol		D		
1,2-Butylene oxide	3022	C		
n-Butyl ether	1149	C		
Butyl lactate		D		
Butyl methacrylate		D		
n-Butyraldehyde	1129	B		
Butyric acid	2820	B		
gamma-Butyrolactone		D		
Calcium alkyl salicylate		D		
Calcium chloride solution		D		
Calcium hydroxide solution		D		
Calcium hypochlorite solution		B		
Calcium naphthenate in mineral oil		A	0.1	0.05
Camphor oil	1130	B		
Caprolactam		D		
Carbolic oil		A	0.1	0.05
Carbon disulphide	1131	A	0.01	0.005
Carbon tetrachloride	1846	B		

	I	II	III	IV
Cashew nut shell oil (untreated)		D		
Castor oil		D		
Chloroacetic acid	1750	C		
Chloroacetone	1695	C		
Chlorobenzene	1134	B		
Chloroform	1888	B		
1-Chloroheptane		A	0.1	0.05
Chlorohydrins, crude		(D)		
o-Chloronitrobenzene	1578	B		
2-Chloropropionic acid	2511	(C)		
3-Chloropropionic acid		(C)		
Chlorosulphonic acid	1754	C		
m-Chlorotoluene	2238	B		
o-Chlorotoluene	2238	A	0.1	0.05
p-Chlorotoluene	2238	B		
Chlorotoluene (mixed isomers)	2238	A	0.1	0.05
Choline chloride solution		D		
Citric acid		D		
Coal tar naphtha solvent		B		
Cobalt naphthenate in solvent naphtha		A	0.1	0.05
Coconut oil		D		
Coconut oil, fatty acid methyl ester		D		
Cod liver oil		D		

	I	II	III	IV
Corn oil		D		
Cotton seed oil		D		
Creosote (coal tar)		(C)		
Creosote (wood)		A	0.1	0.05
Cresol (mixed isomers)	2076	A	0.1	0.05
Cresyl diphenyl phosphate		A	0.1	0.05
Cresylic acid	2022	A	0.1	0.05
Crotonaldehyde	1143	B		
Cycloheptane	2241	D		
Cyclohexane	1145	C		
Cyclohexane/Cyclo- hexanol mixture		C		
Cyclohexanol		C		
Cyclohexanone	1915	D		
Cyclohexylamine	2357	C		
p-Cymene	2046	C		
Decahydronaphthalene	1147	(D)		
n-Decaldehyde		B		
Decane		(D)		
Decene		B		
Decyl acrylate		A	0.1	0.05
Decyl alcohol (all isomers)		B		
Diacetone alcohol	1148	D		

	I	II	III	IV
Dialkyl (C ₇ -C ₉) phthalates		(D)		
Dialkyl (C ₉ -C ₁₃) phthalates		D		
Dibenzyl ether		(C)		
Dibutylamine		C		
Dibutyl phthalate		A	0.1	0.05
m-Dichlorobenzene		B		
o-Dichlorobenzene	1591	B		
1,1-Dichloroethane	2362	B		
1,2-Dichloroethylene	1150	(D)		
Dichloroethyl ether	1916	B		
1,6-Dichlorohexane		B		
2,2-Dichloroisopropyl ether	2490	C		
Dichloromethane	1593	D		
2,4-Dichlorophenol	2021	A	0.1	0.05
2,4-Dichlorophenoxy- acetic acid		(A)	0.1	0.05
2,4-Dichlorophenoxy- acetic acid, diethanol- amine salt solution		(A)	0.1	0.05
2,4-Dichlorophenoxy- acetic acid, dimethyl- amine salt (70% or less) solution		(A)	0.1	0.05
2,4-Dichlorophenoxy- acetic acid, triiso- propanolamine salt solution		(A)	0.1	0.05
1,1-Dichloropropane		B		
1,2-Dichloropropane	1279	B		
1,3-Dichloropropane		B		

	I	II	III	IV
1,3-Dichloropropene	2047	B		
Dichloropropene/ Dichloropropane mixtures		B		
2,2-Dichloropropionic acid		D		
Dichloropropyl ether		(B)		
Diethylamine	1154	C		
Diethylaminoethanol	2686	C		
Diethylbenzene	2049	C		
Diethyl carbonate	2366	D		
Diethylene glycol dibutyl ether		D		
Diethylene glycol butyl ether acetate		(D)		
Diethylene glycol ethyl ether acetate		(D)		
Diethylene glycol methyl ether		C		
Diethylene glycol methyl ether acetate		(D)		
Diethylenetriamine	2079	(D)		
Di(2-ethylhexyl) adipate		D		
Di(2-ethylhexyl) phosphoric acid	1902	C		
Di(2-ethylhexyl) phthalate		D		
Diethyl malonate		C		
Diethyl phthalate		C		
Diethyl sulphate	1594	(B)		

	I	II	III	IV
Diglycidyl ether of Bisphenol A		B		
1,4-Dihydro-9,10-dihydroxy anthracene, disodium salt solution		D		
Diisobutylamine	2361	(C)		
Diisobutylene	2050	B		
Diisobutyl ketone	1157	D		
Diisobutyl phthalate		B		
Diisodecyl phthalate		D		
Diisononyl adipate		(D)		
Diisononyl phthalate		D		
Diisopropanolamine		C		
Diisopropylamine	1158	C		
Diisopropylbenzene (all isomers)		A	0,1	0.05
Diisopropyl naphthalene		D		
Dimethyl acetamide		(B)		
Dimethylamine solution (45% or less)	1160	C		
Dimethylamine solution (greater than 45% but not greater than 55%)	1160	C		
Dimethylamine solution (greater than 55% but not greater than 65%)	1160	C		
N,N-Dimethylcyclohexylamine	2264	C		
Dimethylethanolamine	2051	D		
Dimethylformamide	2265	D		

	I	II	III	IV
Dimethyl phthalate		C		
Dinitrotoluene (molten)	1600	B		
Dinonyl phthalate		D		
1,4-Dioxane	1165	D		
Dipentene	2052	C		
Diphenyl/Diphenyl oxide mixtures		A	0.1	0.05
Diphenyl ether		A	0.1	0.05
Diphenylmethane diisocyanate	2489	(B)		
Diphenyl oxide/Diphenyl phenyl ether mixture		A	0.1	0.05
Di-n-propylamine	2383	C		
Dipropylene glycol methyl ether		(D)		
Ditridecyl phthalate		D		
Diundecyl phthalate		D		
Divinyl acetylene		(D)		
Dodecane		(D)		
Dodecene (all isomers)		B		
Dodecyl alcohol		B		
Dodecylbenzene		C		
Dodecyl diphenyl oxide disulphonate solution		B		
Dodecylphenol		A	0.1	0.05
Epichlorohydrin	2023	C		
Ethanolamine	2491	D		

	I	II	III	IV
2-Ethoxyethanol	1171	D		
2-Ethoxyethyl acetate	1172	C		
Ethyl acetate	1173	D		
Ethyl acetoacetate		(D)		
Ethyl acrylate	1917	B		
Ethylamine	1036	C		
Ethylamine solutions (72% or less)	2270	C		
Ethyl amyl ketone	2271	C		
Ethylbenzene	1175	C		
N-Ethylbutylamine		(C)		
Ethylcyclohexane		D		
N-Ethylcyclohexylamine		D		
Ethylene chlorohydrin	1135	C		
Ethylene cyanohydrin		(D)		
Ethylenediamine	1604	C		
Ethylenediamine, tetraacetic acid, tetrasodium salt solution		D		
Ethylene dibromide	1605	B		
Ethylene dichloride	1184	B		
Ethylene glycol		D		
Ethylene glycol methyl butyl ether		D		
Ethylene glycol acetate		(D)		
Ethylene glycol butyl ether acetate		D		

	I	II	III	IV
Ethylene glycol methyl ether	1188	D		
Ethylene glycol methyl ether acetate	1189	D		
Ethylene glycol phenyl ether		D		
Ethylene glycol phenyl ether/Diethylene glycol phenyl ether mixture		D		
Ethylene oxide/Propylene oxide mixtures with an ethylene oxide content of not more than 30% by weight	2983	D		
2-Ethylhexanoic acid		D		
2-Ethylhexyl acrylate		D		
2-Ethylhexylamine	2276	B		
Ethylidene norbornene		B		
Ethyl lactate	1192	D		
Ethyl methacrylate	2277	(D)		
o-Ethyl phenol		(A)	0.1	0.05
2-Ethyl-3-propylacrolein		B		
Ethyltoluene		(B)		
Fatty alcohols (C ₁₂ -C ₂₀)		B		
Ferric chloride solution	2582	C		
Ferric hydroxyethyl ethylenediamine triacetic acid, trisodium salt solution		D		
Fish oil		D		

	I	II	III	IV
Formaldehyde solutions (45% or less)	1198 2209	C		
Formamide		D		
Formic acid	1779	D		
Fumaric adduct of rosin, water dispersion		B		
Furfural	1199	C		
Furfuryl alcohol	2874	C		
Glutaraldehyde solutions (50% or less)		D		
Glycidyl ester of C ₁₀ trialkyl acetic acid		B		
Ground nut oil		D		
Heptanoic acid		(D)		
Heptanol (all isomers)		C		
Heptene (mixed isomers)		C		
Heptyl acetate		(B)		
Hexahydrocymene		(C)		
Hexamethylenediamine solution	1783	C		
Hexamethylenediamine adipate (50% in water)		D		
Hexamethyleneimine	2493	C		
1-Hexanol	2282	D		
1-Hexene	2370	C		
Hexyl acetate	1233	B		
Hydrochloric acid	1789	D		
Hydrogen peroxide solutions (over 60% but not over 70%)	2015	C		

	I	II	III	IV
Hydrogen peroxide solutions (over 8% but not over 60%)	2014 2984	C		
2-Hydroxyethyl acrylate		B		
N-(Hydroxyethyl)ethylene diamine triacetic acid, trisodium salt solution		D		
Iron chloride, Copper chloride mixture		A	0.1	0.05
Isoamyl acetate	1104	C		
Isoamyl alcohol	1105	D		
Isobutyl acetate	1213	C		
Isobutyl acrylate	2527	D		
Isobutyl formate	2393	D		
Isobutyl formate/ Isobutanol mixtures		(C)		
Isobutyl methacrylate	2283	D		
Isobutyraldehyde	2045	C		
Isodecaldehyde		C		
Isodecyl acrylate		A	0.1	0.05
Isononanoic acid		D		
Isooctane	1262	(D)		
Isopentane	1265	D		
Isophorone		D		
Isophorone diamine	2289	D		
Isophorone diisocyanate	2290	B		
Isoprene	1218	C		
Isopropanolamine		C		

	I	II	III	IV
Isopropylamine	1221	C		
Isopropylbenzene	1918	B		
Isopropyl cyclohexane		D		
Isopropyl ether	1159	D		
Isovaleraldehyde	2058	C		
Lactic acid		D		
Lactonitrile solution (80% or less)		B		
Latex (ammonia inhibited)		D		
Linseed oil		D		
Maleic anhydride	2215	D		
Mercaptobenzothiazol, sodium salt solution		(B)		
Mesityl oxide	1229	D		
Methacrylic acid	2531	D		
Methacrylic resin in 1,2-Dichloroethane solution		(D)		
Methacrylonitrile		(B)		
Methanethiol		A	0.1	0.05
3-Methoxybutyl acetate	2708	D		
Methyl acrylate	1919	C		
Methylamine solutions (42% or less)	1235	C		
Methylamyl acetate	1233	(C)		
Methylamyl alcohol	2053	(C)		
Methyl amyl ketone	1110	(C)		
Methyl benzoate	2938	B		

	I	II	III	IV
Methyl tert-butyl ether	2398	D		
2-Methyl butyraldehyde		(C)		
4,4'-Methylene dianiline and its higher molecular weight polymers/ o-Dichlorobenzene mixtures		B		
Methylethanolamine		C		3
2-Methyl-6-ethylaniline		C		
Methyl ethyl ketone	1193	D		
2-Methyl-5-ethyl pyridine	2300	(B)		
Methyl formate	1243	D		
Methyl isobutyl ketone	1245	D		
Methyl methacrylate	1247	D		
alpha-Methylnaphthalene		A	0.1	0.05
beta-Methylnaphthalene		(A)	0.1	0.05
Methyl naphthalene		A	0.1	0.05
2-Methyl-1-pentene	2288	C		
Methylpropyl ketone	1249	D		
2-Methylpyridine	2313	B		
4-Methylpyridine	2313	B		
N-Methyl-2-pyrrolidone		B		
Methyl salicylate		(B)		
alpha-Methylstyrene	2303	A	0.1	0.05
Morpholine	2054	D		

	I	II	III	IV
Motor fuel anti-knock compounds	1649	A	0.1	0.05
Naphthalene (molten)	2304	A	0.1	0.05
Naphthenic acids		(A)	0.1	0.05
Neodecanoic acid		(B)		
Nitrating acid (mixture of sulphuric and nitric acids)	1796	(C)		
Nitric acid (less than 70%)	2031	C		
Nitric acid, (70% and over)	2031 2032	C		
Nitrilotriacetic acid, trisodium salt solution		D		
Nitrobenzene	1662	B		
Nitroethane	2842	(D)		
Nitromethane	1261	(D)		
o-Nitrophenol (molten)	1663	B		
1- or 2-Nitropropane	2608	D		
Nitropropane (60%)/Nitroethane (40%) mixture	1993	D		
Nitrotoluenes	1664	C		
Nonane	1920	(D)		
Nonanoic acid		D		
Nonene		B		
Nonyl alcohol		C		
Nonylphenol		A	0.1	0.05

	I	II	III	IV
Nonylphenol poly(4-12) ethoxylates		B		
9,12-Octadecadienoic acid (Linoleic acid)		D		
9,12,15-Octadecatrienoic acid (Linolenic acid)		D		
Octane	1262	(D)		
Octanol (all isomers)		C		
Octene (all isomers)		B		
n-Octyl acetate		(D)		
Octyl decyl phthalate		D		
Olefins, straight chain, mixtures		B		
Olefins (C ₆ -C ₈ mixtures)		B		
alpha-Olefins (C ₆ -C ₁₈ mixtures)		B		
Oleic acid		(D)		
Oleum	1831	C		
Olive oil		D		
Oxalic acid (10-25%)		D		
Palm nut oil		D		
Palm oil		D		
Palm oil, methyl ester		D		
Palm stearin		D		
n-Paraffins (C ₁₀ -C ₂₀)		(D)		
Paraldehyde	1264	C		
Pentachloroethane	1669	B		

	I	II	III	IV
1,3-Pentadiene		C		
Pentaethylenhexamine/ Tetraethylenepentamine mixture		D		
n-Pentane	1265	C		
1-Pentanol	1105	D		
2-Pentanol	1105	(D)		
3-Pentanol	1105	(D)		
Pentene (all isomers)		C		
Perchloroethylene	1897	B		
Phenol	2312	B		
1-Phenyl-1-xylyl ethane		C		
Phosphoric acid	1805	D		
Phosphorus, yellow or white	2447	A	0.01	0.005
Phosphorus oxychloride	1810	D		
Phosphorus trichloride	1809	D		
Phthalic anhydride	2214	C		
Pinene	2368	A	0.1	0.05
Polyalkylene glycol butyl ether		(D)		
Polyethylene polyamines	2734 2735	(C)		
Polymethylene polyphenyl isocyanate	2206 2207	D		
Polypropylene glycols		D		
Potassium hydroxide solution	1814	C		
Potassium silicate solution		(D)		

	I	II	III	IV
n-Propanolamine		C		
beta-Propiolactone		D		
Propionaldehyde	1275	D		
Propionic acid	1848	D		
Propionic anhydride	2496	C		
Propionitrile	2404	C		
n-Propyl acetate	1276	D		
n-Propyl alcohol	1274	D		
n-Propylamine	1277	C		
n-Propyl benzene	2364	(C)		
n-Propyl chloride	1278	B		
Propylene dimer		(C)		
Propylene glycol ethyl ether		(D)		
Propylene glycol methyl ether		(D)		
Propylene oxide	1280	D		
Propylene trimer	2057	B		
Pyridine	1282	B		
Rape seed oil		D		
Rice bran oil		D		
Rosin		A	0.1	0.05
Rosin soap (disproportionated) solution		B		
Safflower oil		D		
Sesame oil		D		

	I	II	III	IV
Silicon tetrachloride	1818	D		
Sodium aluminate solution	1819	C		
Sodium borohydride (15% or less)/Sodium hydroxide solution		C		
Sodium dichromate solution (70% or less)		B		
Sodium hydrogen sulphite solution	2693	D		
Sodium hydrosulphide solution (45% or less)	2949	B		
Sodium hydrosulphide/ Ammonium sulphide solution		B		
Sodium hydroxide solution	1824	D		
Sodium hypochlorite solution (15% or less)	1791	B		
Sodium nitrite solution	1577	B		
Sodium silicate solution		D		
Sodium sulphide solution	1849	B		
Sodium sulphite solution		(C)		
Soya bean oil		D		
Sperm oil		D		
Styrene monomer	2055	B		
Sulphuric acid	1830	C		
Sulphuric acid, spent	1832	C		
Sulphurous acid	1833	(C)		
Sunflower oil		D		

	I	II	III	IV
Tall oil, crude and distilled		A	0.1	0.05
Tall oil fatty acid (resin acids less than 20%)		(C)		
Tall oil soap (disproportionated) solution		B		
Tallow		D		
Tannic acid		C		
Tetrachloroethane	1702	B		
Tetraethylenepentamine	2320	D		
Tetrahydrofuran	2056	D		
Tetrahydronaphthalene		C		
1,2,3,5-Tetramethyl benzene		(C)		
Titanium tetrachloride	1838	D		
Toluene	1294	C		
Toluenediamine	1709	C		
Toluene diisocyanate	2078	C		
o-Toluidine	1708	C		
Tributyl phosphate		B		
1,2,4-Trichlorobenzene	2321	B		
1,1,1-Trichloroethane	2831	B		
1,1,2-Trichloroethane		B		
Trichloroethylene	1710	B		
1,2,3-Trichloropropane		B		
1,1,2-Trichloro-1,2,2-trifluoroethane		C		

	I	II	III	IV
Tricresyl phosphate (containing less than 1% ortho-isomer)		A	0.1	0.05
Tricresyl phosphate (containing 1% or more ortho-isomer)	2574*	A	0.1	0.05
Triethanolamine		D		
Triethylamine	1296	C		
Triethylbenzene		A	0.1	0.05
Triethylene glycol methyl ether		(D)		
Triethylenetetramine	2259	D		
Triethyl phosphate		D		
Triisopropanolamine		D		
Trimethylacetic acid		D		
Trimethylamine		C		
1,2,3-Trimethylbenzene		(B)		
1,2,4-Trimethylbenzene		B		
1,3,5-Trimethylbenzene	2325	(B)		
Trimethylhexamethylene diamine (2,2,4- and 2,4,4- isomers)	2327	D		
Trimethylhexamethylene diisocyanate (2,2,4- and 2,4,4- isomers)	2328	B		
Trimethylol propane polyethoxylate		D		

* UN number 2574 applies to Tricresyl phosphate containing more than 3% ortho-isomer.

	I	II	III	IV
2,2,4-Trimethyl-1,3-pentanediol-1-iso-butyrate		C		
Tripropylene glycol methyl ether		(D)		
Trixylyl phosphate		A	0.1	0.05
Tung oil		D		
Turpentine	1299	B		
Undecane	2330	(D)		
1-Undecene		B		
Undecyl alcohol		B		
Urea, Ammonium nitrate solution		D		
Urea, Ammonium phosphate solution		D		
Urea, Ammonium solution (containing aqua Ammonia)		C		
n-Valeraldehyde	2058	D		
Vinyl acetate	1301	C		
Vinyl ethyl ether	1302	C		
Vinylidene chloride	1303	B		
Vinyl neodecanoate		C		
Vinyl toluene	2618	A	0.1	0.05
White spirit, low (15-20%) aromatic	1300	(B)		
Xylene	1307	C		
Xylenol	2261	B		

APPENDIX III

LIST OF OTHER LIQUID SUBSTANCES

Existing list is replaced by the following:

Substance	UN Number
Acetone	1090
Acetonitrile	1648
Alcohols, C ₁ , C ₂ , C ₃ as individuals and mixtures	
Alcohols, C ₄	
Alcohols, C ₁₃ and above as individuals and mixtures	
Alum (15% solution)	
tert-Amyl alcohol	1105
n-Butyl alcohol	1120
sec-Butyl alcohol	1120
tert-Butyl alcohol	1120
Butyl stearate	
Calcium bromide solution	
Cetyl/Eicosyl methacrylate mixture	
Citric juice	
Dextrose solution	
Dibutyl sebacate	
Dicyclopentadiene	2048
Diethanolamine	
Diethylene glycol	
Diethylene glycol diethyl ether	
Diethylene glycol butyl ether	
Diethylene glycol ethyl ether	

Substance	UN Number
Diethylenetriamine pentaacetic acid, pentasodium salt solution	
Diethyl ether	1155
Diethyl ketone	1156
Diheptyl phthalate	
Dihexyl phthalate	
Diisooctyl phthalate	
Dioctyl phthalate	
Dipropylene glycol	
Dodecyl methacrylate	
Dodecyl/Pentadecyl methacrylate mixture	
Ethyl alcohol	1170
Ethylene carbonate	
Ethylene glycol butyl ether	2369
Ethylene glycol tertiary butyl ether	
Ethylene-vinylacetate copolymer (emulsion)	
Glycerin	
Glycine sodium salt solution	
1-Heptadecene	
n-Heptane	1206
1-Hexadecene	
n-Hexane	1208
Hexylene glycol	
Isobutyl alcohol	1212
Isopropyl acetate	1220
Isopropyl alcohol	1219
Lard	

Substance	UN Number
Latex (carboxylated styrene/butadiene copolymer)	
Lignin sulphonic acid, salt (low COD) solution	
Magnesium chloride solution	
Magnesium hydroxide slurry	
3-Methoxy-1-butanol	
Methyl acetate	1231
Methyl alcohol	1230
2-Methyl-2-hydroxy-3-butyne	
3-Methyl-3-methoxy butanol	
3-Methyl-3-methoxy butyl acetate	
2-Methylpentane*	1208
Milk	
Molasses	
1-Octadecanol	
Olefins (C ₁₃ and above, all isomers)	
Paraffin wax	
1-Pentadecene	
Petroleum spirit	1271
Polyaluminium chloride solution	
Polybutene	
Polyethylene glycols	
Polyethylene glycol dimethyl ether	

* 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	UN Number
Polypropylene glycol methyl ether	
Polysiloxane	
1,2-Propylene glycol	
Propylene tetramer	2850
Sodium alumino silicate slurry	
Sodium chlorate solution (50% or less)	2428
Sodium salicylate	
Sorbitol	
Sulpholane*	
Sulphur (molten)	2448
1-Tetradecanol	
Tetradecene	
Tridecanol	
Tridecene	
Triethylene glycol	
Triethylene glycol butyl ether	
Triisobutylene	2324
Tripropylene glycol	
Urea solution	
Urea resin solution	
Vegetable protein solution (hydrolyzed)	
Wine	

* 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 IV

CARGO RECORD BOOK FOR SHIPS CARRYING
NOXIOUS LIQUID SUBSTANCES IN BULK

The existing Appendix IV is replaced by the following:

"Appendix IV

FORM OF CARGO RECORD BOOK

CARGO RECORD BOOK FOR SHIPS CARRYING
NOXIOUS LIQUID SUBSTANCES IN BULK

Name of ship :

Distinctive number
or letters :

Gross tonnage :

Period from: to:

Note: Every ship carrying noxious liquid substances in bulk shall be provided with a Cargo Record Book to record relevant cargo/ballast operations.

NAME OF SHIP:

DISTINCTIVE NUMBER
OR LETTERS:

PLAN VIEW OF CARGO AND SLOP TANKS
(to be completed on board)

INTRODUCTION

The following pages show a comprehensive list of items of cargo and ballast operations which are, when appropriate, to be recorded in the Cargo Record Book on a tank-to-tank basis in accordance with paragraph 2 of Regulation 9 of Annex II of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto, as amended. The items have been grouped into operational sections, each of which is denoted by a letter.

When making entries in the Cargo Record Book, the date, operational code and item number shall be inserted in the appropriate columns and the required particulars shall be recorded chronologically in the blank spaces.

Each completed operation shall be signed for and dated by the officer or officers in charge and, if applicable, by a surveyor authorized by the competent authority of the State in which the ship is unloading. Each completed page shall be countersigned by the master of the ship.

Entries in the Cargo Record Book are required only for operations involving Categories A, B, C and D substances.

LIST OF ITEMS TO BE RECORDED

Entries are required only for operations involving Categories A, B, C and D substances.

(A) LOADING OF CARGO

1. Place of loading
2. Identify tank(s), name of substance(s) and category(ies).

(B) INTERNAL TRANSFER OF CARGO

3. Name and category of cargo(es) transferred.
4. Identity of tanks.
 - .1 From:
 - .2 To:
5. Was (were) tank(s) in 4.1 emptied?
6. If not, quantity remaining in tank(s).

(C) UNLOADING OF CARGO

7. Place of unloading
8. Identity of tank(s) unloaded.
9. Was (were) tank(s) emptied?
 - .1 If yes, confirm that the procedure for emptying and stripping has been performed in accordance with the ship's Procedures and Arrangements Manual (i.e., list, trim, stripping temperature).
 - .2 If not, quantity remaining in tank(s).
10. Does the ship's Procedures and Arrangements Manual require a prewash with subsequent disposal to reception facilities?
11. Failure of pumping and/or stripping system.
 - .1 Time and nature of failure.
 - .2 Reasons for failure.
 - .3 Time when system has been made operational.

(D) MANDATORY PREWASH IN ACCORDANCE WITH THE SHIP'S PROCEDURES AND ARRANGEMENTS MANUAL

12. Identify tank(s), substance(s) and category(ies).

13. Washing method:

- .1 Number of washing machines per tank.
- .2 Duration of wash/washing cycles.
- .3 Hot/cold wash.

14. Prewash slops transferred to:

- .1 Reception facility in unloading port (identify port).
- .2 Reception facility otherwise (identify port).

(E) CLEANING OF CARGO TANKS EXCEPT MANDATORY PREWASH (OTHER PREWASH OPERATIONS, FINAL WASH, VENTILATION ETC.

15. State time, identify tank(s), substance(s) and category(ies) and state:

- .1 Washing procedure used.
- .2 Cleaning agent(s) (identify agent(s) and quantities).
- .3 Dilution of cargo residues with water, state how much water used (only Category D substances).
- .4 Ventilation procedure used (state number of fans used, duration of ventilation).

16. Tank washings transferred:

- .1 Into the sea.
- .2 To reception facility (identify port).
- .3 To slops collecting tank (identify tank).

(F) DISCHARGE INTO THE SEA OF TANK WASHINGS

17. Identify tank(s).

- .1 Were tank washings discharged during cleaning of tank(s), if so at what rate?
- .2 Were tank washing(s) discharged from a slops collecting tank. If so, state quantity and rate of discharge.

18. Time commenced and stopped pumping.

19. Ship's speed during discharge.

(G) BALLASTING OF CARGO TANKS

- 20. Identity of tank(s) ballasted.
- 21. Time at start of ballasting.

(H) DISCHARGE OF BALLAST WATER FROM CARGO TANKS.

- 22. Identity of tank(s).
- 23. Discharge of ballast:
 - .1 Into the sea.
 - .2 To reception facilities (identify port).
- 24. Time commenced and stopped ballast discharge.
- 25. Ship's speed during discharge.

(I) ACCIDENTAL OR OTHER EXCEPTIONAL DISCHARGE

- 26. Time of occurrence.
- 27. Approximate quantity, substance(s) and category(ies).
- 28. Circumstances of discharge or escape and general remarks.

(J) CONTROL BY AUTHORIZED SURVEYORS

- 29. Identify port.
- 30. Identify tank(s), substance(s), category(ies) discharged ashore.
- 31. Have tank(s), pump(s), and piping system(s) been emptied?
- 32. Has a prewash in accordance with the ships's Procedures and Arrangements Manual been carried out?
- 33. Have tank washings resulting from the prewash been discharged ashore and is the tank empty?
- 34. An exemption has been granted from mandatory prewash.
- 35. Reasons for exemption.
- 36. Name and signature of authorized surveyor.
- 37. Organization, company, government agency for which surveyor works.

(K) ADDITIONAL OPERATIONAL PROCEDURES AND REMARKS

NAME OF SHIP:

DISTINCTIVE NUMBER
OR LETTERS:

CARGO/BALLAST OPERATIONS

Date	Code (letter)	Item (number)	Record of operations/signature of officer in charge/ name of and signature of authorized surveyor

Signature of Master

APPENDIX V

FORM OF CERTIFICATE

The existing form of the Certificate is replaced by the following:

"INTERNATIONAL POLLUTION PREVENTION CERTIFICATE FOR THE
CARRIAGE OF NOXIOUS LIQUID SUBSTANCES IN BULK

Issued under the provisions of the International Convention for
the Prevention of Pollution from Ships, 1973, as modified by the
Protocol of 1978 relating thereto as amended (hereinafter referred
to as "the Convention") under the authority of the Government of

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

by

.....
(full official designation of the competent
person or organization authorized under the
provisions of the Convention)

Name of ship	Distinctive number or letters	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 structure, equipment, systems, fitting, arrangements and material of the ship and the condition thereof are in all respects satisfactory and that the ship complies with the applicable requirements of Annex II of the Convention.
- 3 That the ship has been provided with a manual in accordance with the standards for procedures and arrangements as called for by Regulation 5, 5A and 8 of Annex II of the Convention, and that the arrangements and equipment of the ship prescribed in the manual are in all respects satisfactory and comply with the applicable requirements of the said Standards.
- 4 That the ship is suitable for the carriage in bulk of the following noxious liquid substances, provided that all relevant operational provisions of Annex II of the Convention are observed.

Noxious liquid substances	Conditions of carriage (tank numbers etc.)
*Continued on additional signed and dated sheets	

* Delete as necessary

This certificate is valid, until
subject to surveys in accordance with Regulation 10 of Annex II of the
Convention

Issued at
(place of issue of Certificate)

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

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

ENDORSEMENT FOR ANNUAL AND INTERMEDIATE SURVEYS

THIS IS TO CERTIFY that at a survey required by Regulation 10 of Annex II of the Convention the ship was found to comply with the relevant provisions of the Convention:

Annual survey: Signed:
(signature of duly authorized official)

Place:

Date:

(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

Resolution MEPC 21(22)

ADOPTION OF AMENDMENTS TO THE PROTOCOL OF 1978 RELATING TO THE
INTERNATIONAL CONVENTION FOR THE PREVENTION OF POLLUTION FROM
SHIPS, 1973 (RELATING TO PROTOCOL I TO THE INTERNATIONAL
CONVENTION FOR THE PREVENTION OF POLLUTION FROM
SHIPS, 1973 AS MODIFIED BY THE PROTOCOL
OF 1978 RELATING THERETO)

adopted on 5 December 1985

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention of the International Maritime
Organization concerning the function of the Committee conferred upon it by
international conventions for the prevention and control of marine pollution
from ships,

NOTING Article 16 of the International Convention for the Prevention of
Pollution from Ships, 1973 (hereinafter referred to as the "1973 Convention")
and Article VI of the Protocol of 1978 relating to the 1973 Convention
(hereinafter referred to as the "1978 Protocol") which together specify the
amendment procedure of the 1978 Protocol and confers upon the appropriate body
of the Organization the function of considering and adopting amendments to the
1973 Convention as modified by the 1978 Protocol (MARPOL 73/78),

HAVING CONSIDERED at its twenty-second session amendments to the 1978
Protocol proposed and circulated in accordance with article 15(2)(a) of the
1973 Convention,

1. ADOPTS in accordance with article 16(2)(d) of the 1973 Convention amendments to the 1978 Protocol (relating to Protocol I of MARPOL 73/78), the text of which is set out in the Annex to the present resolution;
2. DETERMINES in accordance with article 16(2)(r)(iii) of the 1973 Convention that the amendments shall be deemed to have been accepted on 5 October 1986 unless prior to this date one third or more of the Parties or the Parties the combined merchant fleets of which constitute fifty per cent or more of the gross tonnage of the world's merchant fleet, have communicated to the Organization their objections to the amendments;
3. INVITES the Parties to note that in accordance with article 16(2)(g)(ii) of the 1973 Convention the amendments shall enter into force on 6 April 1987 upon their acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General in conformity with article 16(2)(e) of the 1973 Convention to transmit to all Parties to the 1978 Protocol certified copies of the present resolution and the text of the amendments contained in the Annex;
5. FURTHER REQUESTS the Secretary-General to transmit to the Members of the Organization which are not Parties to the 1978 Protocol copies of the resolution and its Annex.

ANNEX

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

PROTOCOL I

PROVISIONS CONCERNING REPORTS ON INCIDENTS INVOLVING
HARMFUL SUBSTANCES

(in accordance with Article 8 of the Convention)

The existing text of Protocol I is replaced by the following:

"Article IDuty to Report

(1) The Master or other person having charge of any ship involved in an incident referred to in Article II of this Protocol shall report the particulars of such incident without delay and to the fullest extent possible in accordance with the provisions of this Protocol.

(2) In the event of the ship referred to in paragraph (1) of this Article being abandoned, or in the event of a report from such a ship being incomplete or unobtainable, the owner, charterer, manager or operator of the ship, or their agent shall, to the fullest extent possible, assume the obligations placed upon the Master under the provisions of this Protocol.

Article IIWhen to Make Reports

- (1) The report shall be made when an incident involves:
- (a) a discharge or probable discharge of oil, or noxious liquid substances carried in bulk, resulting from damage to the ship or its equipment, or for the purpose of securing the safety of a ship or saving life at sea; or
 - (b) a discharge or probable discharge of harmful substances in packaged form, including those in freight containers, portable tanks, road and rail vehicles and shipborne barges; or
 - (c) a discharge during the operation of the ship of oil or noxious liquid substances in excess of the quantity or instantaneous rate permitted under the present Convention.
- (2) For the purposes of this Protocol:
- (a) "Oil" referred to in sub-paragraph 1(a) of this Article means oil as defined in Regulation 1(1) of Annex I of the Convention.
 - (b) "Noxious liquid substances" referred to in sub-paragraph 1(a) of this Article means noxious liquid substances as defined in Regulation 1(6) of Annex II of the Convention.
 - (c) "Harmful substances" in packaged form referred to in sub-paragraph 1(b) of this Article means substances which are identified as marine pollutants in the International Maritime Dangerous Goods (IMDG) Code.

Article IIIContents of Report

Reports shall in any case include:

- (a) identity of ships involved;
- (b) time, type and location of incident;
- (c) quantity and type of harmful substance involved;
- (d) assistance and salvage measures.

Article IVSupplementary Report

Any person who is obliged under the provisions of this Protocol to send a report shall, when possible:

- (a) supplement the initial report, as necessary, and provide information concerning further developments; and
- (b) comply as fully as possible with requests from affected States for additional information.

Article VReporting Procedures

- (1) Reports shall be made by the fastest telecommunications channels available with the highest possible priority to the nearest coastal State.

(2) In order to implement the provisions of this Protocol, Parties to the present Convention shall issue, or cause to be issued, regulations or instructions on the procedures to be followed in reporting incidents involving harmful substances, based on guidelines developed by the Organization."

RESOLUTION MEPC.29(25)

adopted on 1 December 1987

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

(Designation of the Gulf of Aden as a special area)

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

NOTING the functions which article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1973 Convention") and resolution A.297(VIII) confer on the Marine Environment Protection Committee for the consideration and adoption of amendments to the 1973 Convention,

NOTING FURTHER article VI of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1978 Protocol"),

HAVING CONSIDERED, at its twenty-fifth session, amendments to the 1978 Protocol proposed and circulated in accordance with article 16(2)(a) of the 1973 Convention,

1. ADOPTS, in accordance with article 16(2)(d) of the 1973 Convention, amendments to the Annex of the 1978 Protocol, the text of which is set out in the Annex to the present resolution;
2. DETERMINES in accordance with article 16(2)(f)(iii) of the 1973 Convention that the amendments shall be deemed to have been accepted on 1 October 1988 unless prior to this date one third or more of the Parties, or the Parties the combined merchant fleets of which constitute fifty per cent or more of the gross tonnage of the world's merchant fleet, have communicated to the Organization their objections to the amendments;
3. INVITES the Parties to note that in accordance with article 16(2)(g)(ii) of the 1973 Convention the amendments shall enter into force on 1 April 1989 upon their acceptance in accordance with paragraph 2 above;

4. REQUESTS the Secretary-General in conformity with article 16(2)(e) of the 1973 Convention to transmit to all Parties to the 1978 Protocol certified copies of the present resolution and the text of the amendments contained in the Annex;

5. FURTHER REQUESTS the Secretary-General to transmit to the Members of the Organization which are not Parties to the 1978 Protocol copies of the resolution and its Annex.

ANNEX

1987 AMENDMENTS TO THE ANNEX OF THE PROTOCOL OF 1978 RELATING TO
THE INTERNATIONAL CONVENTION FOR THE PREVENTION OF POLLUTION
FROM SHIPS, 1973

ANNEX I

Regulations for the Prevention of Pollution by OilRegulation 10Methods for the Prevention of Oil Pollution from Ships
while operating in Special Areas

The existing text of paragraph (1) is replaced by the following:

"(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, the "Gulfs area" and the Gulf of Aden 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°28.5'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).

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

The introductory phrase of paragraph (7)(b) is replaced by the following:

"(b) Red Sea area, Gulfs area and Gulf of Aden area:".

RESOLUTION MEPC.34(27)

adopted on 17 March 1989

ADOPTION OF AMENDMENTS TO THE ANNEX OF THE PROTOCOL OF 1978
RELATING TO THE INTERNATIONAL CONVENTION FOR THE
PREVENTION OF POLLUTION FROM SHIPS, 1973
(Appendices II and III of Annex II of MARPOL 73/78)

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention on the International Maritime Organization concerning the function of the Committee conferred upon it by International Convention for the Prevention and Control of Marine Pollution,

NOTING article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1973 Convention") and article VI of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1978 Protocol"), which together specify the amendment procedure of the 1978 Protocol and confers upon the appropriate body of the Organization the function of considering and adopting amendments to the 1973 Convention, as modified by the 1978 Protocol (MARPOL 73/78),

BEING DESIROUS of keeping appendices II and III of Annex II of MARPOL 73/78 up to date and compatible with the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code) and the Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (BCH Code),

NOTING FURTHER resolution MEPC.32(27) by which the Committee adopted amendments to the IBC Code,

RECOGNIZING the need to bring the corresponding amendments to appendices II and III of Annex II of MARPOL 73/78 into force on the date on which the amendments to the IBC Code enter into force,

HAVING CONSIDERED, at its twenty-seventh session, the amendments to appendices II and III of Annex II of MARPOL 73/78 proposed by the Sub-Committee on Bulk Chemicals at its eighteenth session and circulated in accordance with article 16(2)(a) of the 1973 Convention,

1. ADOPTS in accordance with article 16(2)(d) of the 1973 Convention amendments to appendices II and III of Annex II of MARPOL 73/78, the text of which is set out in the Annex to the present resolution;
2. DETERMINES, in accordance with article 16(2)(f)(iii) of the 1973 Convention, that the amendments shall be deemed to have been accepted on the date on which the conditions for the entry into force of the amendments to the IBC Code adopted by the Committee by resolution MEPC.32(27) are met, unless prior to that date, not less than one third of the Parties or the Parties, the combined merchant fleets of which constitute not less than fifty per cent of the gross tonnage of the world's merchant fleet, have communicated to the Organization their objections to the amendments;
3. INVITES the Parties to note that in accordance with article 16(2)(g)(ii) of the 1973 Convention the amendments shall enter into force six months after their acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with article 16(2)(e) of the 1973 Convention, to transmit to all Parties to the 1978 Protocol certified copies of the present resolution and the text of the amendments contained in the Annex;
5. REQUESTS FURTHER the Secretary-General to transmit to the Members of the Organization which are not Parties to the 1978 Protocol copies of the resolution and its Annex.

ANNEX**AMENDMENTS TO APPENDICES II AND III
OF ANNEX II OF MARPOL 73/78**

The lists contained in Appendices II and III of Annex II of MARPOL 73/78
are replaced by the following:

APPENDIX II

Substance	I	II	III	IV
Acetaldehyde	1089	C		
Acetic acid	2789	D		
Acetic anhydride		D		
Acetone cyanohydrin	1541	A	0.1	0.05
Acrylamide solution (50% or less)	2074	D		
Acrylic acid	2218	D		
Acrylonitrile	1093	B		
Adiponitrile	2205	D		
Alcohol (C12-C15) poly(1-3) ethoxylates		A	0.1	0.05
Alcohol (C12-C15) poly(3-11) ethoxylates		A	0.1	0.05
Alcohol (C6-C17)(secondary) poly(3-6) ethoxylates		A	0.1	0.05
Alcohol (C6-C17)(secondary) poly(7-12) ethoxylates		B		
Alkyl acrylate-Vinyl pyridine copolymer in toluene		C		
Alkyl (C9-C17) benzenes		(D)		
Alkyl benzene sulphonic acid	2584, 2586	C		
Alkyl benzene sulphonic acid, sodium salt solution		C		
Allyl alcohol	1098	B		
Allyl chloride	1100	B		
Aluminium chloride (30% or less)/Hydrochloric acid (20% or less) solution		D		
Aluminium sulphate solution		D		
2-(2-Aminoethoxy) ethanol	3055	D		
Aminoethyl ethanolamine		(D)		
N-Aminoethylpiperazine	2815	D		
2-Amino-2-methyl-1-propanol (90% or less)		D		
Ammonia aqueous (28% or less)	2672*	C		
Ammonium nitrate solution (93% or less)		D		
Ammonium sulphate solution		D		
Ammonium sulphide solution (45% or less)	2683	B		
Ammonium thiocyanate (25% or less)/Ammonium thiosulphate (20% or less) solution		(C)		
Ammonium thiosulphate solution (60% or less)		(C)		
n-Amyl acetate	1104	C		
sec-Amyl acetate	1104	C		
Amyl acetate, commercial	1104	C		
n-Amyl alcohol	1105	D		
sec-Amyl alcohol	1105	D		
Amyl alcohol, primary	1105	D		
Aniline	1547	C		
Animal and fish oils, n.o.s. including:		D		
Cod liver oil				
Sperm oil				
Aviation alkylates (C8 paraffins and iso-paraffins BPT 95 - 120 °C)		(C)		
Benzene and mixtures having 10% benzene or more	1114**	C		
Benzene sulphonyl chloride	2225	D		
Benzyl acetate		C		

Pollution Category in brackets 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. Until the hazard evaluation is completed the Pollution Category assigned shall be used.

* UN number refers to 10-35%.

** UN number 1114 applies to Benzene.

Substance	I	II	III	IV
Benzyl alcohol		C		
Benzyl chloride	1738	B		
Brake fluid base mix: (Poly(2-8) alkylene(C2-C3) glycols/Polyalkylene(C2-C10) glycols monoalkyl(C1-C4) ethers and their borate esters)		D		
Butene oligomer		B		
n-Butyl acetate	1123	C		
sec-Butyl acetate	1123	D		
n-Butyl acrylate	2348	B		
Butylamine (all isomers)		C		
Butylbenzenes (all isomers)	2709	(A)	0.1	0.05
Butyl benzyl phthalate		A	0.1	0.05
n-Butyl butyrate		(C)		
Butyl/Decyl/Cetyl/Eicosyl methacrylate mixture		D		
Butylene glycol		D		
1,2-Butylene oxide	3022	C		
n-Butyl ether	1149	C		
Butyl lactate		D		
Butyl methacrylate		D		
n-Butyraldehyde	1129	B		
Butyric acid	2820	D		
gamma-Butyrolactone		D		
Calcium alkyl salicylate		C		
Calcium hydroxide slurry		D		
Calcium hypochlorite solution (15% or less)		C		
Calcium hypochlorite solution (more than 15%)		B		
Calcium naphthenate in mineral oil		A	0.1	0.05
Camphor oil	1130	B		
epsilon-Caprolactam (molten or aqueous solutions)		D		
Carbolic oil		A	0.1	0.05
Carbon disulphide	1131	B		
Carbon tetrachloride	1846	B		
Cashew nut shell oil (untreated)		D		
Chlorinated paraffins (C10-C13)		A	0.1	0.05
Chloroacetic acid (80% or less)	1750	C		
Chlorobenzene	1134	B		
Chloroform	1888	B		
Chlorohydrins (crude)		(D)		
o-Chloronitrobenzene	1578	B		
2- or 3-Chloropropionic acid		(C)		
Chlorosulphonic acid	1754	C		
m-Chlorotoluene	2238	B		
o-Chlorotoluene	2238	A	0.1	0.05
p-Chlorotoluene	2238	B		
Chlorotoluenes (mixed isomers)	2238	A	0.1	0.05
Choline chloride solutions		D		
Citric acid		D		

Substance	I	II	III	IV
Coal tar		A	0.1	0.05
Coal tar naphtha solvent		B		
Coal tar pitch (molten)		D		
Cobalt naphthenate in solvent naphtha		A	0.1	0.05
Coconut oil fatty acid		C		
Coconut oil fatty acid methyl ester		D		
Creosote (coal tar)		A	0.1	0.05
Creosote (wood)		A	0.1	0.05
Cresols (all isomers)	2076	A	0.1	0.05
Cresylic acid, sodium salt solution		A	0.1	0.05
Crotonaldehyde	1143	B		
Cycloheptane	2241	(C)		
Cyclohexane	1145	C		
Cyclohexanol		C		
Cyclohexanone	1915	D		
Cyclohexyl acetate		(B)		
Cyclohexylamine	2357	C		
1,3-Cyclopentadiene dimer (molten)		B		
Cyclopentane	1146	(C)		
Cyclopentene		(B)		
p-Cymene	2046	C		
Decahydronaphthalene	1147	(D)		
Decanoic acid		C		
Decene		B		
Decyl acrylate		A	0.1	0.05
Decyl alcohol (all isomers)		B		
Decylbenzene		D		
Diacetone alcohol	1148	D		
Dialkyl (C7-C13) phthalates		D		
Dibutylamine		C		
Dibutyl phthalate		A	0.1	0.05
Dichlorobenzenes (all isomers)	1592	B		
1,1-Dichloroethane	2362	B		
Dichloroethyl ether	1916	B		
1,6-Dichlorohexane		B		
2,2-Dichloroisopropyl ether	2490	C		
Dichloromethane	1593	D		
2,4-Dichlorophenol	2021	A	0.1	0.05
2,4-Dichlorophenoxyacetic acid, diethanolamine salt solution		A	0.1	0.05
2,4-Dichlorophenoxyacetic acid, dimethylamine salt solution (70% or less)		A	0.1	0.05
2,4-Dichlorophenoxyacetic acid, triisopropanolamine salt solution		A	0.1	0.05
1,1-Dichloropropane		B		
1,2-Dichloropropane	1279	B		
1,3-Dichloropropane		B		

Substance	I	II	III	IV
1,3-Dichloropropene	2047	B		
Dichloropropene/Dichloropropane mixtures		B		
2,2-Dichloropropionic acid		D		
Diethylamine	1154	C		
Diethylaminoethanol	2686	C		
Diethylbenzene	2049	C		
Diethylene glycol butyl ether acetate		(D)		
Diethylene glycol dibutyl ether		D		
Diethylene glycol ethyl ether acetate		(D)		
Diethylene glycol methyl ether		C		
Diethylene glycol methyl ether acetate		(D)		
Diethylenetriamine	2079	D		
Di-(2-ethylhexyl) adipate		D		
Di-(2-ethylhexyl) phosphoric acid	1902	C		
Diethyl phthalate		C		
Diethyl sulphate	1594	(B)		
Diglycidyl ether of bisphenol A		B		
Diglycidyl ether of bisphenol F		B		
Di-n-hexyl adipate		B		
1,4-Dihydro-9,10-dihydroxy anthracene, disodium salt solution		D		
Diisobutylamine	2361	(C)		
Diisobutylene	2050	B		
Diisobutyl ketone	1157	D		
Diisobutyl phthalate		B		
Diisodecyl phthalate		D		
Diisononyl adipate		D		
Diisopropanolamine		C		
Diisopropylamine	1158	C		
Diisopropylbenzene (all isomers)		A	0.1	0.05
Diisopropyl naphthalene		D		
N,N-Dimethylacetamide solution (40% or less)		D		
Dimethyl adipate		B		
Dimethylamine solution (45% or less)	1160	C		
Dimethylamine solution (greater than 45% but not greater than 55%)	1160	C		
Dimethylamine solution (greater than 55% but not greater than 65%)	1160	C		
N,N-Dimethylcyclohexylamine	2264	C		
Dimethylethanolamine	2051	D		
Dimethylformamide	2265	D		
Dimethyl glutarate		C		
Dimethyl octanoic acid		(C)		
Dimethyl phthalate		C		
2,2-Dimethylpropane-1,3-diol		(D)		
Dimethyl succinate		C		
Dinitrotoluene (molten)	1600	B		

Substance	I	II	III	IV
Dinonyl phthalate		D		
1,4-Dioxane	1165	D		
Dipentene	2052	C		
Diphenyl		A	0.1	0.05
Diphenyl/Diphenyl ether mixtures		A	0.1	0.05
Diphenyl ether		A	0.1	0.05
Diphenyl ether/Diphenyl phenyl ether mixture		A	0.1	0.05
Diphenylmethane diisocyanate	2489	(B)		
Diphenylol propane-epichlorohydrin resins		B		
Di-n-propylamine	2383	C		
Dipropylene glycol methyl ether		(D)		
Ditridecyl phthalate		D		
Diundecyl phthalate		D		
Dodecene (all isomers)		(B)		
Dodecyl succinic acid, dipotassium salt solution		(D)		
Dodecyl alcohol		B		
Dodecyl diphenyl ether disulphonate solution		B		
Dodecyl phenol		A	0.1	0.05
Drilling brines, containing Zinc salts		(A)	0.1	0.05
Epichlorohydrin	2023	C		
Ethanolamine	2491	D		
2-Ethoxyethanol	1171	D		
2-Ethoxyethyl acetate	1172	C		
Ethyl acetate	1173	D		
Ethyl acetoacetate		(D)		
Ethyl acrylate	1917	A	0.1	0.05
Ethylamine	1036	(C)		
Ethylamine solutions (72% or less)	2270	(C)		
Ethyl amyl ketone	2271	C		
Ethylbenzene	1175	C		
N-Ethylbutylamine		(C)		
Ethyl butyrate	1180	C		
Ethylcyclohexane		(C)		
N-Ethylcyclohexylamine		D		
Ethylene chlorohydrin	1135	C		
Ethylene cyanohydrin		(D)		
Ethylenediamine	1604	C		
Ethylenediamine, Tetraacetic acid, Tetrasodium salt solution		D		
Ethylene dibromide	1605	B		
Ethylene dichloride	1184	B		
Ethylene glycol		D		
Ethylene glycol acetate		(D)		
Ethylene glycol butyl ether acetate		(C)		
Ethylene glycol diacetate		C		
Ethylene glycol isopropyl ether		D		
Ethylene glycol methyl butyl ether		D		

Substance	I	II	III	IV
Ethylene glycol methyl ether	1188	D		
Ethylene glycol methyl ether acetate	1189	D		
Ethylene glycol phenyl ether		D		
Ethylene glycol phenyl ether/Diethylene glycol phenyl ether mixture		D		
Ethylene oxide/Propylene oxide mixture with an Ethylene oxide content of not more than 30% in weight	2983	D		
2-Ethylhexanoic acid		D		
2-Ethylhexyl acrylate		B		
2-Ethylhexylamine	2276	B		
Ethylidene norbornene		B		
Ethyl methacrylate	2277	(D)		
o-Ethylphenol		(A)	0.1	0.05
Ethyl propionate	1195	D		
2-Ethyl-3-propylacrolein		(B)		
Ethyltoluene		(B)		
Ferric chloride solutions	2582	C		
Ferric hydroxyethyl ethylenediamine triacetic acid, trisodium salt solution		D		
Ferric nitrate/Nitric acid solution		C		
Formaldehyde solutions (45% or less)	1198, 2209	C		
Formamide		D		
Formic acid	1779	D		
Fumaric adduct of rosin, water dispersion		B		
Furfural	1199	C		
Furfuryl alcohol	2874	C		
Glutaraldehyde solutions (50% or less)		D		
Glycidyl ester of C10 trialkylacetic acid		B		
Glyoxal solution (40% or less)		D		
Heptane (all isomers)	1206	(C)		
n-Heptanoic acid		(D)		
Heptanol (all isomers)		C		
Heptene (all isomers)		C		
Heptyl acetate		(B)		
Hexamethylenediamine adipate (50% in water)		D		
Hexamethylenediamine solution	1783	C		
Hexamethyleneimine	2493	C		
Hexamethylenetetramine solutions		D		
Hexane (all isomers)	1208	(C)		
Hexanoic acid		D		
Hexanol	2282	D		
Hexene (all isomers)		(C)		
Hexyl acetate	1233	B		
Hydrochloric acid	1789	D		
Hydrogen peroxide solutions (over 8% but not over 60%)	2014, 2984	C		

Substance	I	II	III	IV
Hydrogen peroxide solutions (over 60% but not over 70%)	2015	C		
2-Hydroxyethyl acrylate		B		
N-(Hydroxyethyl) ethylenediamine triacetic acid, trisodium salt solution		D		
Isoamyl acetate	1104	C		
Isoamyl alcohol	1105	D		
Isobutyl acetate	1213	C		
Isobutyl acrylate	2527	B		
Isobutyl formate	2393	D		
Isobutyraldehyde	2045	C		
Isophorone		D		
Isophoronediamine	2289	D		
Isophorone diisocyanate	2290	B		
Isoprene	1218	C		
Isopropanolamine		C		
Isopropylamine	1221	C		
Isopropylbenzene	1918	B		
Isopropylcyclohexane		(C)		
Isopropyl ether	1159	D		
Isovaleraldehyde	2058	C		
Lactic acid		D		
Lactonitrile solution (80% or less)		B		
Latex (ammonia inhibited)		D		
Lauric acid		B		
Maleic anhydride	2215	D		
Mercaptobenzothiazol, sodium salt solution		B		
Mesityl oxide	1229	D		
Metam sodium solution		A	0.1	0.05
Methacrylic acid	2531	D		
Methacrylic resin in 1,2-Dichloroethane solution		B		
Methacrylonitrile	3079	(B)		
3-Methoxybutyl acetate	2708	D		
Methyl acetoacetate		D		
Methyl acrylate	1919	B		
Methylamine solutions (42% or less)	1235	C		
Methylamyl acetate	1233	(C)		
Methylamyl alcohol	2053	(C)		
Methyl amyl ketone	1110	(C)		
Methyl butenol		(D)		
Methyl tert-butyl ether	2398	D		
Methyl butyl ketone		D		
Methyl butynol		D		
Methyl butyrate	1237	(C)		
Methylcyclohexane	2296	(C)		
Methylcyclopentadiene dimer		(B)		
2-Methyl-6-ethyl aniline		C		

Substance	I	II	III	IV
2-Methyl-5-ethyl pyridine	2300	(B)		
Methyl formate	1243	D		
Methyl heptyl ketone		B		
Methyl isobutyl ketone	1245	D		
Methyl methacrylate	1247	D		
Methylnaphthalene		A	0.1	0.05
2-Methyl-1-pentene	2288	C		
Methyl propyl ketone		D		
2-Methylpyridine	2313	B		
4-Methylpyridine	2313	B		
N-Methyl-2-pyrrolidone		B		
Methyl salicylate		(B)		
alpha-Methylstyrene	2303	A	0.1	0.05
Morpholine	2054	D		
Motor fuel anti-knock compounds	1649	A	0.1	0.05
Naphthalene (molten)	2304	A	0.1	0.05
Naphthalene sulphonic acid-formaldehyde copolymer, sodium salt solution		D		
Naphthenic acids		A	0.1	0.05
Neodecanoic acid		C		
Nitrating acid (mixture of sulphuric and nitric acids)	1796	(C)		
Nitric acid (less than 70%)	2031	C		
Nitric acid (70% and over)	2031, 2032	C		
Nitrilotriacetic acid, trisodium salt solution		D		
Nitrobenzene	1662	B		
o-Nitrophenol (molten)	1663	B		
1- or 2-Nitropropane	2608	D		
Nitropropane (60%)/Nitroethane (40%) mixture	1993	D		
o- or p-Nitrotoluenes	1664	C		
Nonane (all isomers)	1920	(C)		
Nonanoic acid (all isomers)		D		
Nonene		B		
Nonyl alcohol (all isomers)		C		
Nonyl methacrylate monomer		(D)		
Nonylphenol		A	0.1	0.05
Nonyl phenol poly(4-12) ethoxylates		B		
Octane (all isomers)	1262	(C)		
Octanoic acid (all isomers)		D		
Octanol (all isomers)		C		
Octene (all isomers)		B		
n-Octyl acetate		D		
Octyl aldehydes		(B)		
Octyl nitrates (all isomers)		A	0.1	0.05
Olefin mixtures (C5-C7)		C		
Olefin mixtures (C5-C15)		B		
alpha-Olefins (C6-C18) mixtures		B		

Substance	I	II	III	IV
Oleic acid		D		
Oleum	1831	C		
Palm nut oil fatty acid		(C)		
Palm oil fatty acid methyl ester		D		
Palm stearin		D		
Paraldehyde	1264	C		
Pentachloroethane	1669	B		
1,3-Pentadiene		C		
Pentaethylenehexamine		D		
Pentane (all isomers)	1265	(C)		
Pentanoic acid		D		
Pentene (all isomers)		C		
Perchloroethylene	1897	B		
Phenol	2312	B		
1-Phenyl-1-xylyl ethane		C		
Phosphoric acid	1805	D		
Phosphorus, yellow or white	1381, 2447	A	0.01	0.005
Phthalic anhydride (molten)	2214	C		
Pinene	2368	B		
Polyalkylene glycol butyl ether		D		
Polyethylene polyamines	2734, 2735	(C)		
Polyferric sulphate solution		(C)		
Polymethylene polyphenyl isocyanate	2207	D		
Polypropylene glycol		D		
Potassium hydroxide solution	1814	C		
n-Propanolamine		C		
beta-Propiolactone		D		
Propionaldehyde	1275	D		
Propionic acid	1848	D		
Propionic anhydride	2496	C		
Propionitrile	2404	C		
n-Propyl acetate	1276	D		
n-Propylamine	1277	C		
n-Propylbenzene	2364	(C)		
n-Propyl chloride		B		
Propylene dimer		(C)		
Propylene glycol ethyl ether		(D)		
Propylene glycol methyl ether		(D)		
Propylene glycol monoalkyl ether		(D)		
Propylene oxide	1280	D		
Propylene tetramer	2850	B		
Propylene trimer	2057	B		
Pyridine	1282	D		
Rosin		B		
Rosin soap (disproportionated) solution		B		
Silicon tetrachloride		D		

Substance	I	II	III	IV
Sodium aluminate solution		C		
Sodium borohydride (15% or less)/Sodium hydroxide solution		C		
Sodium carbonate solution		D		
Sodium dichromate solution (70% or less)		C		
Sodium hydrogen sulphite solution (35% or less)	2693	D		
Sodium hydrosulphide/Ammonium sulphide solution		B		
Sodium hydrosulphide solution (45% or less)	2949	B		
Sodium hydroxide solution	1824	D		
Sodium hypochlorite solution (15% or less)	1791	C		
Sodium nitrite solution	1577	B		
Sodium silicate solution		D		
Sodium sulphide solution		B		
Sodium sulphite solution		C		
Sodium thiocyanate solution (56% or less)		(B)		
Styrene monomer	2055	B		
Sulpholane		D		
Sulphuric acid	1830	C		
Sulphuric acid, spent	1832	C		
Tall oil (crude and distilled)		B		
Tall oil fatty acid (resin acids less than 20%)		(C)		
Tall oil soap (disproportionated) solution		B		
Tallow		D		
Tallow fatty acid		(D)		
Tetrachloroethane	1702	B		
Tetraethylene pentamine	2320	D		
Tetrahydrofuran	2056	D		
Tetrahydronaphthalene		C		
1,2,3,5-Tetramethylbenzene		(C)		
Titanium tetrachloride	1838	D		
Toluene	1294	C		
Toluenediamine	1709	C		
Toluene diisocyanate	2078	C		
o-Toluidine	1708	C		
Tributyl phosphate		B		
1,2,4-Trichlorobenzene	2321	B		
1,1,1-Trichloroethane	2831	B		
1,1,2-Trichloroethane		B		
Trichloroethylene	1710	B		
1,2,3-Trichloropropane		B		
1,1,2-Trichloro-1,2,2-trifluoroethane		C		
Tricresyl phosphate (containing less than 1% ortho-isomer)		A	0.1	0.05
Tricresyl phosphate (containing 1% or more ortho-isomer)	2574*	A	0.1	0.05
Triethanolamine		D		
Triethylamine	1296	C		

* UN number 2574 applies to Tricresyl phosphate containing more than 3% ortho-isomer.

Substance	I	II	III	IV
Triethylbenzene		A	0.1	0.05
Triethylene glycol ethyl ether		(D)		
Triethylene glycol methyl ether		(D)		
Triethylenetetramine	2259	D		
Trimethylacetic acid		D		
Trimethylamine		C		
Trimethyl benzenes (all isomers)		B		
Trimethylhexamethylene diamine (2,2,4- and 2,4,4- isomers)	2327	D		
Trimethylhexamethylene diisocyanate (2,2,4- and 2,4,4- isomers)	2328	B		
Trimethylol propane polyethoxylate		D		
2,2,4-Trimethyl-1,3-pentanediol-1-isobutyrate		C		
Tripropylene glycol methyl ether		(D)		
Trixylyl phosphate		A	0.1	0.05
Turpentine	1299	B		
Undecanoic acid		(C)		
1-Undecene		B		
Undecyl alcohol		B		
Urea/Ammonium mono- and di-hydrogen phosphite/Potassium chloride solution		(D)		
Urea/Ammonium nitrate solution		D		
Urea/Ammonium nitrate solution (containing aqua Ammonia)		C		
Urea/Ammonium phosphate solution		D		
n-Valeraldehyde	2058	D		
Vegetable oil, n.o.s., including:		D		
Castor oil				
Coconut oil				
Corn oil				
Cottonseed oil				
Groundnut oil				
Linseed oil				
Olive oil				
Palm nut oil				
Palm oil				
Rape seed oil				
Rice bran oil				
Safflower oil				
Sesame oil				
Soya bean oil				
Sunflower oil				
Tung oil				
Vinyl acetate	1301	C		
Vinyl ethyl ether	1302	C		
Vinylidene chloride	1303	B		
Vinyl neodecanoate		B		

Substance	I	II	III	IV
Vinyltoluene	2618	A	0.1	0.05
White spirit, low (15-20%) aromatic	1300	(B)		
Xylenes	1307	C		
Xylenol	2261	B		

APPENDIX III

Substance	UN number
Acetone	1090
Acetonitrile	1648
Alcoholic beverages, n.o.s.	
Alcohols (C13 and above)	
Aminoethyldiethanolamine/Aminoethylethanolamine solution	
2-Amino-2-hydroxymethyl-1,3-propanediol solution (40% or less)	
tert-Amyl alcohol	1105
Apple juice	
Behenyl alcohol	
Benzene tricarboxylic acid, trioctyl ester	
n-Butyl alcohol	1120
sec-Butyl alcohol	1120
tert-Butyl alcohol	1120
Butyl stearate	
Calcium carbonate slurry	
Calcium nitrate/Magnesium nitrate/Potassium chloride solution	
Cetyl/Eicosyl methacrylate mixture	
Cetyl/Stearyl alcohol	
Chlorinated paraffins (C14-C17) (with 52% chlorine)	
Clay slurry	
Coal slurry	
Dextrose solution	
Diethanolamine	
Diethyl ether	1155
Diethylene glycol	
Diethylene glycol butyl ether	
Diethylene glycol diethyl ether	
Diethylene glycol ethyl ether	
Diethylenetriamine pentaacetic acid, pentasodium salt solution	
Diheptyl phthalate	
Dihexyl phthalate	
Diisooctyl phthalate	
Dioctyl phthalate	
Dipropylene glycol	
Dodecane (all isomers)	
Dodecyl benzene	
Dodecyl methacrylate	
Dodecyl/Pentadecyl methacrylate mixture	
Drilling brines:	
Calcium bromide solution	
Calcium chloride solution	
Sodium chloride solution	
Ethyl alcohol	1170
Ethylene carbonate	
Ethylene glycol butyl ether	2369
Ethylene glycol tert-butyl ether	
Ethylene-Vinyl acetate copolymer (emulsion)	
Fatty acid (saturated, C13 and above)	

Substance	UN number
Glucose solution	
Glycerine	
Glycerol polyalkoxylate	
Glyceryl triacetate	
Glycine, sodium salt solution	
Hexamethylene glycol	
Hexylene glycol	
Isobutyl alcohol	1212
Isopropyl acetate	1220
Isopropyl alcohol	1219
Kaolin slurry	
Lard	
Latex:	
Carboxylated styrene-Butadiene copolymer	
Styrene-butadiene rubber	
Lignin sulphonic acid, sodium salt solution	
Magnesium chloride solution	
Magnesium hydroxide slurry	
3-Methoxy-1-butanol	
Methyl acetate	1231
Methyl alcohol	1230
Methyl ethyl ketone	
2-Methyl-2-hydroxy-3-butyne	
3-Methyl-3-methoxy butanol	
3-Methyl-3-methoxy butyl acetate	
Molasses	
Octyl decyl adipate	
alpha-Olefins (C13-C18)	
Olefins (C13 and above, all isomers)	
n-Paraffins (C10-C20)	
Paraffin wax	
Petrolatum	
Polyaluminium chloride solution	
Polybutene	
Polyethylene glycol dimethyl ether	
Polyethylene glycols	
Polypropylene glycol methyl ether	
Polysiloxane	
n-Propyl alcohol	
Propylene glycol	
Propylene-butylene copolymer	
Sodium alumino silicate slurry	
Sodium chlorate solution (50% or less)	2428
Sorbitol solution	
Sulphur (molten)	2448
Tetraethylene glycol	
Tridecane	
Tridecanoic acid	

Substance	UN number
Triethylene glycol	
Triethylene glycol butyl ether	
Triisopropanolamine	
Tripropylene glycol	
Urea formaldehyde resin solution	
Urea solution	
Vegetable protein solution (hydrolyzed)	
Water	

RESOLUTION MEPC.36(28)

adopted by the Marine Environment Protection Committee
on 17 October 1989

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

(Amendments to Annex V of MARPOL 73/78)

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Committee,

NOTING article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1973 Convention") and article VI of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1978 Protocol") which confer upon the appropriate body of the Organization the function of considering and adopting amendments to the 1973 Convention, as modified by the 1978 Protocol (MARPOL 73/78),

HAVING CONSIDERED, at its twenty-eighth session, amendments to the 1978 Protocol proposed and circulated in accordance with article 16(2)(a) of the 1973 Convention,

1. ADOPTS, in accordance with article 16(2)(d) of the 1973 Convention, amendments to the Annex of the 1978 Protocol, the text of which is set out in the Annex to the present resolution;
2. DETERMINES, in accordance with article 16(2)(f)(iii) of the 1973 Convention, that the amendments shall be deemed to have been accepted on 17 August 1990, unless prior to this date one third or more of the Parties, or the Parties the combined merchant fleets of which constitute fifty per cent or more of the gross tonnage of the world's merchant fleet, have communicated to the Organization their objections to the amendments;
3. INVITES the Parties to note that, in accordance with article 16(2)(g)(ii) of the 1973 Convention, the amendments shall enter into force on 18 February 1991 upon their acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with article 16(2)(e) of the 1973 Convention, to transmit to all Parties to Annex V of the 1978 Protocol certified copies of the present resolution and the text of the amendments contained in the Annex;
5. FURTHER REQUESTS the Secretary-General to transmit to the Members of the Organization which are not Parties to Annex V of the 1978 Protocol copies of the resolution and its annex.

ANNEX

TEXT OF AMENDMENTS TO REGULATIONS
OF ANNEX V OF MARPOL 73/78

(Regulation 5 - Disposal of Garbage within Special Areas
"Designation of the North Sea as a Special Area"
and Regulation 6 - Exceptions)

Regulation 5 - Disposal of Garbage within Special Areas

The introductory sentence was amended to read as follows:

"(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, the 'Gulfs area' and the North Sea area which are defined as follows:"

New subparagraph (f) was added as follows:

"(f) The North Sea area means the North Sea proper, including seas therein the boundary between:

- (i) the North Sea southwards of latitude 62° N and eastwards of longitude 4° W;
- (ii) the Skagerrak, the southern limit of which is determined east of the Skaw by latitude 57°44.8' N; and
- (iii) the English Channel and its approaches eastwards of longitude 5° W" and northward of latitude 48°30'N."

Regulation 6 - Exceptions

Paragraph (c) was amended to read as follows:

"(c) the accidental loss of synthetic fishing nets, provided that all reasonable precautions have been taken to prevent such loss".

RESOLUTION MEPC.39(29)

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

(Introduction of the Harmonized System of Survey and Certification
to Annexes I and II of MARPOL 73/78)

adopted on 16 March 1990

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38 of the Convention on the International Maritime
Organization concerning the functions of the Committee,

NOTING article 16 of the International Convention for the Prevention of
Pollution from Ships, 1973 (hereinafter referred to as the "1973 Convention"),
and article VI of the Protocol of 1978 relating to the International
Convention for the Prevention of Pollution from Ships, 1973 (hereinafter
referred to as the "1978 Protocol"), which confer upon the appropriate body
of the Organization the function of considering and adopting amendments to
the 1973 Convention, as modified by the 1978 Protocol (MARPOL 73/78),

RECALLING that the International Conference on Tanker Safety and
Pollution Prevention, 1978, by resolution 10, recommended that IMO take the
necessary action to amend the International Convention for the Safety of Life
at Sea, 1974 (the 1974 SOLAS Convention), the International Convention for
the Prevention of Pollution from Ships, 1973, as modified by the 1978 Protocol
relating thereto (MARPOL 73/78), and the International Convention on Load
Lines, 1966 (the 1966 Load Line Convention), with a view to standardizing the
periods of validity of the certificates as well as the intervals of surveys
required by these Conventions,

NOTING FURTHER that the International Conference on the Harmonized
System of Survey and Certification, 1988, had adopted the Protocol of 1988
relating to the International Convention for the Safety of Life at Sea, 1974
(the 1988 SOLAS Protocol), and the Protocol of 1988 relating to the
International Convention on Load Lines, 1966 (the 1988 Load Line Protocol),
which introduce, inter alia, the harmonized system of survey and certification
under the 1974 SOLAS Convention and the 1966 Load Line Convention, and that
the Conference recommended the Maritime Safety Committee and the Marine
Environment Protection Committee to take the necessary action:

- (a) to amend MARPOL 73/78, the IBC Code, the BCH Code and the IGC Code
in order to harmonize their survey and certification requirements
with those of the 1988 SOLAS Protocol and the 1988 Load Line
Protocol and,
- (b) to bring those amendments into force on the same date, or on a date
as close as possible to the date on which the 1988 SOLAS Protocol
and the 1988 Load Line Protocol enter into force.

HAVING CONSIDERED, at its twenty-ninth session, amendments to the 1978 Protocol proposed and circulated in accordance with article 16(2)(a) of the 1973 Convention,

1. ADOPTS, in accordance with article 16(2)(d) of the 1973 Convention, amendments to the Annex of the 1978 Protocol, the text of which is set out in the Annex to the present resolution;
2. REQUESTS the Secretary-General, in conformity with article 16(2)(e) of the 1973 Convention, to transmit to all Parties to the 1978 Protocol certified copies of the present resolution and the text of the amendments contained in the Annex;
3. DETERMINES, in accordance with article 16(2)(f)(ii) and (iii) of the 1973 Convention, that the amendments shall be deemed to have been accepted six months after the date on which the conditions for the entry into force of both the 1988 SOLAS Protocol and the 1988 Load Line Protocol are met, provided that the date of acceptance is not before 1 August 1991, unless prior to that date, objections are communicated to the Organization as provided for in article 16(2)(f)(iii);
4. INVITES the Parties to note that, in accordance with article 16(2)(g)(ii) of the 1973 Convention, the amendments shall enter into force six months after their acceptance in accordance with the preceding paragraph;
5. REQUESTS the Secretary-General to inform all Parties when the conditions for the entry into force of both the 1988 SOLAS Protocol and the 1988 Load Line Protocol are met and, in conformity with article 16(8) of the Convention, when the amendments to the 1978 Protocol contained in the Annex to the present resolution will enter into force;
6. FURTHER REQUESTS the Secretary-General to transmit to the Members of the Organization which are not Parties to the 1978 Protocol copies of the resolution and its Annex and to inform them when the amendments enter into force.

ANNEX

AMENDMENTS TO ANNEXES I AND II OF MARPOL 73/78

1 MARPOL 73/78, ANNEX I

Regulation 1

Definitions

New definition is added as follows:

"(31) "Anniversary date" means the day and the month of each year which will correspond to the date of expiry of the International Oil Pollution Prevention Certificate."

Regulation 4

Surveys and Inspections

The existing title is replaced by the following:

"Surveys"

The existing text is replaced by the following:

"(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, systems, fittings, arrangements and material in so far as the ship is covered by this Annex. This survey shall be such as to ensure that the structure, equipment, systems, fittings, arrangements and material fully comply with the applicable requirements of this Annex.
- (b) A renewal survey at intervals specified by the Administration, but not exceeding 5 years, except where regulation 8(2), 8(5), 8(6) or 8(7) of this Annex is applicable. The renewal survey shall be such as to ensure that the structure, equipment, systems, fittings, arrangements and material fully comply with applicable requirements of this Annex.

- (c) An intermediate survey within 3 months before or after the second anniversary date or within 3 months before or after the third anniversary date of the Certificate which shall take the place of one of the annual surveys specified in paragraph (1)(d) of this regulation. The intermediate survey shall be such as to ensure that the equipment and associated pump and piping systems, including oil discharge monitoring and control systems, crude oil washing systems, oily-water separating equipment and oil filtering systems, fully comply with the applicable requirements of this Annex and are in good working order. Such intermediate surveys shall be endorsed on the Certificate issued under regulation 5 or 6 of this Annex.
 - (d) An annual survey within 3 months before or after each anniversary date of the Certificate, including a general inspection of the structure, equipment, systems, fittings, arrangements and material referred to in paragraph (1)(a) of this regulation to ensure that they have been maintained in accordance with paragraph (4) of this regulation and that they remain satisfactory for the service for which the ship is intended. Such annual surveys shall be endorsed on the Certificate issued under regulation 5 or 6 of this Annex.
 - (e) An additional survey either general or partial, according to the circumstances, shall be made after a repair resulting from investigations prescribed in paragraph (4) of this regulation, or whenever any important repairs or renewals are made. The survey shall be such as to ensure that the necessary repairs or renewals have been effectively made, that the material and workmanship of such repairs or renewals are in all respects satisfactory and that the ship complies in all respects with the requirements of this Annex.
- (2) The Administration shall establish appropriate measures for ships which are not subject to the provisions of paragraph (1) of this regulation in order to ensure that the applicable provisions of this Annex are complied with.
- (3) (a) 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.
- (b) An Administration nominating surveyors or recognizing organizations to conduct surveys as set forth in subparagraph (a) of this paragraph shall, as a minimum, empower any nominated surveyor or recognized organization to:
- (i) require repairs to a ship; and
 - (ii) carry out surveys, if requested by the appropriate authorities of a port State.

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

- (c) When a nominated surveyor or recognized organization determines that the condition of the ship or its equipment does not correspond substantially with the particulars of the Certificate or is such that the ship is not fit to proceed to sea without presenting an unreasonable threat of harm to the marine environment, such surveyor or organization shall immediately ensure that corrective action is taken and shall in due course notify the Administration. If such corrective action is not taken the Certificate should be withdrawn and the Administration shall be notified immediately; and if the ship is in a port of another Party, the appropriate authorities of the port State shall also be notified immediately. When an officer of the Administration, a nominated surveyor or a recognized organization has notified the appropriate authorities of the port State, the Government of the port State concerned shall give such officer, surveyor or organization any necessary assistance to carry out their obligations under this regulation. When applicable, the Government of the port State concerned shall take such steps as will ensure that the ship shall not sail until it can proceed to sea or leave the port for the purpose of proceeding to the nearest appropriate repair yard available without presenting an unreasonable threat of harm to the marine environment.
 - (d) In every case, the Administration concerned shall fully guarantee the completeness and efficiency of the survey and shall undertake to ensure the necessary arrangements to satisfy this obligation.
- (4)
- (a) The condition of the ship and its equipment shall be maintained to conform with the provisions of the present Convention to ensure that the ship in all respects will remain fit to proceed to sea without presenting an unreasonable threat of harm to the marine environment.
 - (b) After any survey of the ship under paragraph (1) of this regulation has been completed, no change shall be made in the structure, equipment, systems, fittings, arrangements or material covered by the survey, without the sanction of the Administration, except the direct replacement of such equipment and fittings.
 - (c) Whenever an accident occurs to a ship or a defect is discovered which substantially affects the integrity of the ship or the efficiency or completeness of its equipment covered by this Annex the master or owner of the ship shall report at the earliest opportunity to the Administration, the recognized organization or the nominated surveyor responsible for issuing the relevant Certificate, who shall cause investigations to be initiated to determine whether a survey as required by paragraph (1) of this regulation is necessary. If the ship is in a port of another Party, the master or owner shall also report immediately to the appropriate authorities of the port State and the nominated surveyor or recognized organization shall ascertain that such report has been made".

Regulation 5

Issue of Certificate

The existing heading is replaced by the following:

"Issue or Endorsement of Certificate"

The existing text is replaced by the following:

- "(1) An International Oil Pollution Prevention Certificate shall be issued, after an initial or renewal 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 offshore terminals under the jurisdiction of other Parties to the Convention.
- (2) Such Certificate shall be issued or endorsed 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.
- (3) Notwithstanding any other provisions of the amendments to this Annex adopted by the Marine Environment Protection Committee (MEPC) by resolution MEPC.39(29), any International Oil Pollution Prevention Certificate, which is current when these amendments enter into force, shall remain valid until it expires under the terms of this Annex prior to the amendments entering into force".

Regulation 6

Issue of Certificate by another Government

The existing heading is replaced by the following:

"Issue or Endorsement of a Certificate by another Government".

The existing text is replaced by the following:

- "(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 to the ship, and where appropriate, endorse or authorize the endorsement of that Certificate on the ship, in accordance with this Annex.
- (2) A copy of the Certificate and a copy of the survey report shall be transmitted as soon as possible to the requesting Administration.
- (3) A Certificate so issued shall contain a statement to the effect that it has been issued at the request of the Administration and it shall have the same force and receive the same recognition as the Certificate issued under regulation 5 of this Annex.
- (4) No International Oil Pollution Prevention Certificate shall be issued to a ship which is entitled to fly the flag of a State which is not a Party".

Regulation 7

Form of Certificate

The existing text is replaced by the following:

"The International Oil Pollution Prevention Certificate shall be drawn up in a 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

The existing heading is replaced by the following:

"Duration and Validity of Certificate".

The existing text is replaced by the following:

- "(1) An International Oil Pollution Prevention Certificate shall be issued for a period specified by the Administration which shall not exceed 5 years.
- (2) (a) Notwithstanding the requirements of paragraph (1) of this regulation, when the renewal survey is completed within 3 months before the expiry date of the existing Certificate, the new Certificate shall be valid from the date of completion of the renewal survey to a date not exceeding 5 years from the date of expiry of the existing Certificate.
- (b) When the renewal survey is completed after the expiry date of the existing Certificate, the new Certificate shall be valid from the date of completion of the renewal survey to a date not exceeding 5 years from the date of expiry of the existing Certificate.
- (c) When the renewal survey is completed more than 3 months before the expiry date of the existing Certificate, the new Certificate shall be valid from the date of completion of the renewal survey to a date not exceeding 5 years from the date of completion of the renewal survey.
- (3) If a Certificate is issued for a period of less than 5 years, the Administration may extend the validity of the Certificate beyond the expiry date to the maximum period specified in paragraph (1) of this regulation, provided that the surveys referred to in regulation 4(1)(c) and 4(1)(d) of this Annex applicable when a Certificate is issued for a period of 5 years are carried out as appropriate.
- (4) If a renewal survey has been completed and a new Certificate cannot be issued or placed on board the ship before the expiry date of the existing Certificate, the person or organization authorized by the Administration may endorse the existing Certificate and such a Certificate shall be accepted as valid for a further period which shall not exceed 5 months from the expiry date.

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

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

(7) In special circumstances, as determined by the Administration, a new Certificate need not be dated from the date of expiry of the existing Certificate as required by paragraph (2)(b), (5) or (6) of this regulation. In these special circumstances, the new Certificate shall be valid to a date not exceeding 5 years from the date of completion of the renewal survey.

(8) If an annual or intermediate survey is completed before the period specified in regulation 4 of this Annex, then:

- (a) the anniversary date shown on the Certificate shall be amended by endorsement to a date which shall not be more than 3 months later than the date on which the survey was completed;
- (b) the subsequent annual or intermediate survey required by regulation 4 of this Annex shall be completed at the intervals prescribed by that regulation using the new anniversary date;
- (c) the expiry date may remain unchanged provided one or more annual or intermediate surveys, as appropriate, are carried out so that the maximum intervals between the surveys prescribed by regulation 4 of this Annex are not exceeded.

(9) A Certificate issued under regulation 5 or 6 of this Annex shall cease to be valid in any of the following cases:

- (a) if the relevant surveys are not completed within the periods specified under regulation 4(1) of this Annex;
- (b) if the Certificate is not endorsed in accordance with regulation 4(1)(c) or 4(1)(d) of this Annex.

- (c) Upon transfer of the ship to the flag of another State. A new Certificate shall only be issued when the Government issuing the new Certificate is fully satisfied that the ship is in compliance with the requirements of regulation 4(4)(a) and 4(4)(b) of this Annex. In the case of a transfer between Parties, if requested within 3 months after the transfer has taken place, the Government of the Party whose flag the ship was formerly entitled to fly shall, as soon as possible, transmit to the Administration copies of the Certificate carried by the ship before the transfer and, if available, copies of the relevant survey reports".

. Appendix II

FORM OF CERTIFICATE

The existing Form of Certificate is replaced by the following:

"INTERNATIONAL OIL POLLUTION PREVENTION CERTIFICATE

(Note: This Certificate shall be supplemented by a
Record of Construction and Equipment)

Issued under the provisions of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto, and as amended by resolution MEPC.39(29), (hereinafter referred to as "the Convention") under the authority of the Government of:

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

by
(full designation of the competent person or organization
authorized under the provisions of the Convention)

Particulars of ship ^{1/}

Name of ship

Distinctive number or letters

Port of registry

Gross tonnage

Deadweight of ship (metric tons)^{2/}

.....

IMO Number^{3/}

Type of ship^{4/}:

Oil tanker

Ship other than an oil tanker with cargo tanks coming under regulation 2(2) of Annex I of the Convention.

Ship other than any of the above.

THIS IS TO CERTIFY:

- 1 That the ship has been surveyed in accordance with regulation 4 of Annex I of the Convention.
- 2 That the survey shows that the structure, equipment, systems, fittings, arrangements and material of the ship and the condition thereof are in all respects satisfactory and that the ship complies with the applicable requirements of Annex I of the Convention.

This Certificate is valid until5/
subject to surveys in accordance with regulation 4 of Annex I of the
Convention.

Issued at
(Place of issue of Certificate)

.....
(Date of issue)	(Signature of authorized official issuing the Certificate)

(Seal or stamp of the authority, as appropriate)

ENDORSEMENT FOR ANNUAL AND INTERMEDIATE SURVEYS

THIS IS TO CERTIFY that, at a survey required by regulation 4 of Annex I of the Convention, the ship was found to comply with the relevant provisions of the Convention:

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

(Seal or stamp of the authority, as appropriate)

Annual/Intermediate^{4/} survey: Signed
(Signature of authorized official)
Place
Date

(Seal or stamp of the authority, as appropriate)

Annual/Intermediate^{4/} survey: Signed
(Signature of authorized official)
Place
Date

(Seal or stamp of the authority, as appropriate)

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

(Seal or stamp of the authority, as appropriate)

Annual/intermediate survey in accordance with regulation 8(8)(c)

THIS IS TO CERTIFY that, at an annual/intermediate^{4/} survey in accordance with regulation 8(8)(c) of Annex I of the Convention, the ship was found to comply with the relevant provisions of the Convention.

Signed
(Signature of authorized official)

Place

Date

(Seal or stamp of the authority, as appropriate)

Endorsement to extend the Certificate if valid for less than 5 years
where regulation 8(3) applies

The ship complies with the relevant provisions of the Convention, and this Certificate shall, in accordance with regulation 8(3) of Annex I of the Convention, be accepted as valid until

Signed
(Signature of authorized official)

Place

Date

(Seal or stamp of the authority, as appropriate)

Endorsement where the renewal survey has been completed and
regulation 8(4) applies

The ship complies with the relevant provisions of the Convention, and
this Certificate shall, in accordance with regulation 8(4) of Annex I of the
Convention, be accepted as valid until

Signed
(Signature of authorized official)

Place

Date

(Seal or stamp of the authority, as appropriate)

Endorsement to extend the validity of the Certificate until reaching the port
of survey or for a period of grace where regulation 8(5) or 8(6) applies

This Certificate shall, in accordance with regulation 8(5) or 8(6)4/ of
Annex I of the Convention, be accepted as valid until

Signed
(Signature of authorized official)

Place

Date

(Seal or stamp of the authority, as appropriate)

Endorsement for advancement of anniversary date where regulation 8(8) applies

In accordance with regulation 8(8) of Annex I of the Convention, the new anniversary date is

Signed
(Signature of authorized official)

Place

Date

(Seal or stamp of the authority, as appropriate)

In accordance with regulation 8(8) of Annex I of the Convention, the new anniversary date is

Signed
(Signature of authorized official)

Place

Date

(Seal or stamp of the authority, as appropriate)".

-
- 1/ Alternatively, the particulars of the ship may be placed horizontally in boxes.
 - 2/ For oil tankers.
 - 3/ In accordance with resolution A.600(15) - IMO Ship Identification Number Scheme, this information may be included voluntarily.
 - 4/ Delete as appropriate.
 - 5/ Insert the date of expiry as specified by the Administration in accordance with regulation 8(1) of Annex I of the Convention. The day and the month of this date correspond to the anniversary date as defined in regulation 1(31) of Annex I of the Convention, unless amended in accordance with regulation 8(8) of Annex I of the Convention.

2 MARPOL 73/78, ANNEX II

Regulation 1

Definitions

New definition is added as follows:

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

Regulation 10

Surveys

The existing text is replaced by the following:

"(1) Ships carrying noxious liquid substances in bulk 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 11 of this Annex is issued for the first time, which shall include a complete survey of its structure, equipment, systems, fittings, arrangements and material in so far as the ship is covered by this Annex. This survey shall be such as to ensure that the structure, equipment, systems, fittings, arrangements and material fully comply with the applicable requirements of this Annex.
- (b) A renewal survey at intervals specified by the Administration, but not exceeding 5 years, except where regulation 12(2), 12(5), 12(6) or 12(7) of this Annex is applicable. The renewal survey shall be such as to ensure that the structure, equipment, systems, fittings, arrangements and material fully comply with applicable requirements of this Annex.
- (c) An intermediate survey within 3 months before or after the second anniversary date or within 3 months before or after the third anniversary date of the Certificate which shall take the place of one of the annual surveys specified in paragraph (1)(d) of this regulation. The intermediate survey 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. Such intermediate surveys shall be endorsed on the Certificate issued under regulation 11 of this Annex.
- (d) An annual survey within 3 months before or after each anniversary date of the Certificate including a general inspection of the structure, equipment, systems, fittings, arrangements and material referred to in paragraph (1)(a) of this regulation to ensure that they have been maintained in accordance with paragraph (3) of this regulation and that they remain satisfactory for the service for which the ship is intended. Such annual surveys shall be endorsed on the Certificate issued under regulation 11 of this Annex.

- (e) An additional survey either general or partial, according to the circumstances, shall be made after a repair resulting from investigations prescribed in paragraph (3) of this regulation, or whenever any important repairs or renewals are made. The survey shall be such as to ensure that the necessary repairs or renewals have been effectively made, that the material and workmanship of such repairs or renewals are in all respects satisfactory and that the ship complies in all respects with the requirements of this Annex.
- (2) (a) 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.
- (b) An Administration nominating surveyors or recognizing organizations to conduct surveys as set forth in subparagraph (a) of this paragraph shall, as a minimum, empower any nominated surveyor or recognized organization to:
 - (i) require repairs to a ship; and
 - (ii) carry out surveys if requested by the appropriate authorities of a port State.

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

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

- (d) In every case, the Administration concerned shall fully guarantee the completeness and efficiency of the survey and shall undertake to ensure the necessary arrangements to satisfy this obligation.
- (3) (a) The condition of the ship and its equipment shall be maintained to conform with the provisions of the present Convention to ensure that the ship in all respects will remain fit to proceed to sea without presenting an unreasonable threat of harm to the marine environment.
- (b) After any survey of the ship under paragraph (1) of this regulation has been completed, no change shall be made in the structure, equipment, systems, fittings, arrangements or material covered by the survey, without the sanction of the Administration, except the direct replacement of such equipment and fittings.
- (c) Whenever an accident occurs to a ship or a defect is discovered which substantially affects the integrity of the ship or the efficiency or completeness of its equipment covered by this Annex, the master or owner of the ship shall report at the earliest opportunity to the Administration, the recognized organization or the nominated surveyor responsible for issuing the relevant Certificate, who shall cause investigations to be initiated to determine whether a survey as required by paragraph (1) of this regulation is necessary. If the ship is in a port of another Party, the master or owner shall also report immediately to the appropriate authorities of the port State and the nominated surveyor or recognized organization shall ascertain that such report has been made."

Regulation 11

Issue of Certificate

The existing heading is replaced by the following:

"Issue or Endorsement of Certificate".

The existing text is replaced by the following:

"(1) An International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk shall be issued, after an initial or renewal survey in accordance with the provisions of regulation 10 of this Annex, to any ship carrying noxious liquid substances in bulk and which is engaged in voyages to ports or terminals under the jurisdiction of other Parties to the Convention.

(2) Such Certificate shall be issued or endorsed 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.

- (3) (a) 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 Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk to the ship and, where appropriate, endorse or authorize the endorsement of that Certificate on 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 it shall have the same force and receive the same recognition as the Certificate issued under paragraph (1) of this regulation.
- (d) No International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk shall be issued to a ship which is entitled to fly the flag of a State which is not a Party.
- (4) The International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk shall be drawn up in the 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.
- (5) Notwithstanding any other provisions of the amendments to this Annex adopted by the Marine Environment Protection Committee (MEPC) by resolution MEPC.39(29), any International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk, which is current when these amendments enter into force, shall remain valid until it expires under the terms of this Annex prior to the amendments entering into force".

Regulation 12

Duration of Certificate

The existing heading is replaced by the following:

"Duration and Validity of Certificate".

The existing text is replaced by the following:

"(1) An International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk shall be issued for a period specified by the Administration which shall not exceed 5 years.

- (2)(a) Notwithstanding the requirements of paragraph (1) of this regulation, when the renewal survey is completed within 3 months before the expiry date of the existing Certificate, the new Certificate shall be valid from the date of completion of the renewal survey to a date not exceeding 5 years from the date of expiry of the existing Certificate.
 - (b) When the renewal survey is completed after the expiry date of the existing Certificate, the new Certificate shall be valid from the date of completion of the renewal survey to a date not exceeding 5 years from the date of expiry of the existing Certificate.
 - (c) When the renewal survey is completed more than 3 months before the expiry date of the existing Certificate, the new Certificate shall be valid from the date of completion of the renewal survey to a date not exceeding 5 years from the date of completion of the renewal survey.
- (3) If a Certificate is issued for a period of less than 5 years, the Administration may extend the validity of the Certificate beyond the expiry date to the maximum period specified in paragraph (1) of this regulation, provided that the surveys referred to in regulation 10(1)(c) and 10(1)(d) of this Annex applicable when a Certificate is issued for a period of 5 years are carried out as appropriate.
- (4) If a renewal survey has been completed and a new Certificate cannot be issued or placed on board the ship before the expiry date of the existing Certificate, the person or organization authorized by the Administration may endorse the existing Certificate and such a Certificate shall be accepted as valid for a further period which shall not exceed 5 months from the expiry date.
- (5) If a ship at the time when a Certificate expires is not in a port in which it is to be surveyed, the Administration may extend the period of validity of the Certificate but this extension shall be granted only for the purpose of allowing the ship to complete its voyage to the port in which it is to be surveyed, and then only in cases where it appears proper and reasonable to do so. No Certificate shall be extended for a period longer than 3 months, and a ship to which an extension is granted shall not, on its arrival in the port in which it is to be surveyed, be entitled by virtue of such extension to leave that port without having a new Certificate. When the renewal survey is completed, the new Certificate shall be valid to a date not exceeding 5 years from the date of expiry of the existing Certificate before the extension was granted.
- (6) A Certificate issued to a ship engaged on short voyages which has not been extended under the foregoing provisions of this regulation may be extended by the Administration for a period of grace of up to one month from the date of expiry stated on it. When the renewal survey is completed, the new Certificate shall be valid to a date not exceeding 5 years from the date of expiry of the existing Certificate before the extension was granted.

- (7) In special circumstances, as determined by the Administration, a new Certificate need not be dated from the date of expiry of the existing Certificate as required by paragraph (2)(b), (5) or (6) of this regulation. In these special circumstances, the new Certificate shall be valid to a date not exceeding 5 years from the date of completion of the renewal survey.
- (8) If an annual or intermediate survey is completed before the period specified in regulation 10 of this Annex, then:
- (a) the anniversary date shown on the Certificate shall be amended by endorsement to a date which shall not be more than 3 months later than the date on which the survey was completed;
 - (b) the subsequent annual or intermediate survey required by regulation 10 of this Annex shall be completed at the intervals prescribed by that regulation using the new anniversary date;
 - (c) the expiry date may remain unchanged provided one or more annual or intermediate surveys, as appropriate, are carried out so that the maximum intervals between the surveys prescribed by regulation 10 of this Annex are not exceeded.
- (9) A Certificate issued under regulation 11 of this Annex shall cease to be valid in any of the following cases:
- (a) if the relevant surveys are not completed within the periods specified under regulation 10(1) of this Annex;
 - (b) if the Certificate is not endorsed in accordance with regulation 10 (1)(c) or 10(1)(d) of this Annex;
 - (c) upon transfer of the ship to the flag of another State. A new Certificate shall only be issued when the Government issuing the new Certificate is fully satisfied that the ship is in compliance with the requirements of regulation 10(4)(a) and 10(4)(b) of this Annex. In the case of a transfer between Parties, if requested within 3 months after the transfer has taken place, the Government of the Party whose flag the ship was formerly entitled to fly shall, as soon as possible, transmit to the Administration copies of the Certificate carried by the ship before the transfer and, if available, copies of the relevant survey reports".

Appendix V

FORM OF CERTIFICATE

The existing Form of Certificate is replaced by the following:

"INTERNATIONAL POLLUTION PREVENTION CERTIFICATE FOR THE
CARRIAGE OF NOXIOUS LIQUID SUBSTANCES IN BULK

Issued under the provisions of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto, and as amended by resolution MEPC.39(29) (hereinafter referred to as "the Convention") under the authority of the Government of:

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

by
(full designation of the competent person or organization
authorized under the provisions of the Convention)

Particulars of ship 1/

Name of ship

Distinctive number or letters

Port of registry

Gross tonnage

IMO Number 2/

THIS IS TO CERTIFY:

- 1 That the ship has been surveyed in accordance with regulation 10 of Annex II of the Convention.
- 2 That the survey showed that the structure, equipment, systems, fittings, arrangements and material of the ship and the condition thereof are in all respects satisfactory and that the ship complies with the applicable requirements of Annex II of the Convention.
- 3 That the ship has been provided with a Manual in accordance with the Standards for the Procedures and Arrangements as called for by regulations 5, 5A and 8 of Annex II of the Convention, and that the arrangements and equipment of the ship prescribed in the Manual are in all respects satisfactory and comply with the applicable requirements of the said Standards.
- 4 That the ship is suitable for the carriage in bulk of the following noxious liquid substances, provided that all relevant operational provisions of Annex II of the Convention are observed.

Noxious liquid substances	Conditions of carriage (tank numbers etc.)
Continued on additional signed and dated sheets <u>3/</u>	

This Certificate is valid until4/
subject to surveys in accordance with regulation 10 of Annex II of the
Convention.

Issued at
(Place of issue of Certificate)

.....

(Date of issue)	(Signature of authorized official issuing the Certificate)
-----------------	---

(Seal or stamp of the authority, as appropriate)

ENDORSEMENT FOR ANNUAL AND INTERMEDIATE SURVEYS

THIS IS TO CERTIFY that, at a survey required by regulation 10 of Annex II of the Convention, the ship was found to comply with the relevant provisions of the Convention:

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

(Seal or stamp of the authority, as appropriate)

Annual/Intermediate^{3/} survey: Signed
(Signature of authorized official)
Place
Date

(Seal or stamp of the authority, as appropriate)

Annual/Intermediate^{3/} survey: Signed
(Signature of authorized official)
Place
Date

(Seal or stamp of the authority, as appropriate)

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

(Seal or stamp of the authority, as appropriate)

Annual/intermediate survey in accordance with regulation 12(8)(c)

THIS IS TO CERTIFY that, at an annual/intermediate^{3/} survey in accordance with regulation 12(8)(c) of Annex II of the Convention, the ship was found to comply with the relevant provisions of the Convention.

Signed
(Signature of authorized official)

Place

Date

(Seal or stamp of the authority, as appropriate)

Endorsement to extend the Certificate if valid for less than 5 years
where regulation 12(3) applies

The ship complies with the relevant provisions of the Convention, and this Certificate shall, in accordance with regulation 12(3) of Annex II of the Convention, be accepted as valid until

Signed
(Signature of authorized official)

Place

Date

(Seal or stamp of the authority, as appropriate)

Endorsement where the renewal survey has been completed and
regulation 12(4) applies

The ship complies with the relevant provisions of the Convention, and
this Certificate shall, in accordance with regulation 12(4) of Annex II of the
Convention, be accepted as valid until

Signed
(Signature of authorized official)

Place

Date

(Seal or stamp of the authority, as appropriate)

Endorsement to extend the validity of the Certificate until reaching the port
of survey or for a period of grace where regulation 12(5) or 12(6) applies

This Certificate shall, in accordance with regulation 12(5) or 12(6)^{3/}
of Annex II of the Convention, be accepted as valid until

Signed
(Signature of authorized official)

Place

Date

(Seal or stamp of the authority, as appropriate)

Endorsement for advancement of anniversary date where regulation 12(8) applies

In accordance with regulation 12(8) of Annex II of the Convention, the new anniversary date is

Signed
(Signature of authorized official)

Place

Date

(Seal or stamp of the authority, as appropriate)

In accordance with regulation 12(8) of Annex II of the Convention, the new anniversary date is

Signed
(Signature of authorized official)

Place

Date

(Seal or stamp of the authority, as appropriate)".

-
- 1/ Alternatively, the particulars of the ship may be placed horizontally in boxes.
- 2/ In accordance with resolution A.600(15) - IMO Ship Identification Number Scheme, this information may be included voluntarily.
- 3/ Delete as appropriate.
- 4/ Insert the date of expiry as specified by the Administration in accordance with regulation 12(1) of Annex II of the Convention. The day and the month of this date correspond to the anniversary date as defined in regulation 1(14) of Annex II of the Convention, unless amended in accordance with regulation 12(8) of Annex II of the Convention.

RESOLUTION MEPC.42(30)

adopted by the Marine Environment Protection Committee
on 16 November 1990

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

(Designation of Antarctic area as a special area under
Annexes I and V of MARPOL 73/78)

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention on the International Maritime
Organization concerning the functions of the Committee,

NOTING article 16 of the International Convention for the Prevention of
Pollution from Ships, 1973 (hereinafter referred to as the "1973 Convention")
and article VI of the Protocol of 1978 relating to the International
Convention for the Prevention of Pollution from Ships, 1973 (hereinafter
referred to as the "1978 Protocol") which confer upon the appropriate body of
the Organization the function of considering and adopting amendments to the
1973 Convention, as modified by the 1978 Protocol (MARPOL 73/78),

HAVING CONSIDERED, at its thirtieth session, amendments to the 1978
Protocol proposed and circulated in accordance with article 16(2)(a) of the
1973 Convention,

HAVING CONSIDERED ALSO the objective that all wastes are to be removed
from the Antarctic area due to the ecological importance of the fragile
ecosystems of the area,

1. ADOPTS, in accordance with article 16(2)(d) of the 1973 Convention,
amendments to the Annex of the 1978 Protocol, the text of which is set out in
the Annex to the present resolution;
2. DETERMINES, in accordance with article 16(2)(f)(iii) of the
1973 Convention, that the amendments shall be deemed to have been accepted
on 16 September 1991 unless, prior to this date, one third or more of the
Parties, or the Parties the combined merchant fleets of which constitute
fifty per cent or more of the gross tonnage of the world's merchant fleet,
have communicated to the Organization their objections to the amendments;
3. INVITES the Parties to note that, in accordance with article 16(2)(g)(ii)
of 1973 Convention, the amendments shall enter into force on 17 March 1992
upon their acceptance in accordance with paragraph 2 above;
4. DECIDES that the requirements of Regulation 10 of Annex I and
Regulation 5 of Annex V of MARPOL 73/78 in respect of the Antarctic area shall
take effect on the day the amendments thereto adopted under this resolution
enter into force, which is expected to be 17 March 1992;

5. REQUESTS the Secretary-General, in conformity with article 16(2)(e) of the 1973 Convention, to transmit to all Parties to Annexes I and V of MARPOL 73/78 certified copies of the present resolution and the text of the amendments contained in Annexes 1 and 2 respectively;

6. FURTHER REQUESTS the Secretary-General to transmit to the Members of the Organization which are not Parties to Annexes I or V of MARPOL 73/78 copies of the resolution and its annexes.

ANNEX 1

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

ANNEX I

REGULATIONS FOR THE PREVENTION OF POLLUTION BY OIL

Regulation 10 is amended to read as follows:

Regulation 10Methods 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, the "Gulfs area", the Gulf of Aden and the Antarctic area, which are defined as follows:

(a) - (f) No change.

(g) "The Antarctic area means the sea area south of 60° south latitude".

(2) Subject to the provisions of Regulation 11 of this Annex:

(a) Any discharge into the sea of oil or oily mixture from any oil tanker, or any ship of 400 tons gross tonnage and above other than an oil tanker, shall be prohibited, while in a special area. In respect of the Antarctic area, any discharge into the sea of oil or oily mixture from any ship shall be prohibited.

(b) Except as provided for in respect of the Antarctic area under paragraph 2(a) of this Regulation, 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:

(2)(b) (i), (ii), (iii) No change.

(3) - (7) No change.

(8) Notwithstanding paragraph (7) of this Regulation, the following rules apply to the Antarctic area:

- (a) The Government of each Party to the Convention whose ports are used by ships departing en route to or arriving from the Antarctic area undertakes to ensure that as soon as practicable adequate facilities are provided for the reception of all sludge, dirty ballast, tank washing water, and other oily residues and mixtures from all ships, without causing undue delay, and according to the needs of the ships using them.
- (b) The Government of each Party to the Convention shall ensure that all ships entitled to fly its flag, before entering the Antarctic area, are fitted with a tank or tanks of sufficient capacity on board for the retention of all sludge, dirty ballast, tank washing water and other oily residues and mixtures while operating in the area and have concluded arrangements to discharge such oily residues at a reception facility after leaving the area.

ANNEX 2

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

ANNEX V

REGULATIONS FOR THE PREVENTION OF POLLUTION
BY GARBAGE FROM SHIPS

Regulation 5 is amended to read as follows:

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, the "Gulfs area", the North Sea area and the Antarctic area, which are defined as follows:

(a) - (f) No change.

(g) The Antarctic area means the sea area south of 60° south latitude.

(2) - (4) No change.

(5) Notwithstanding paragraph 4 of this Regulation, the following rules apply to the Antarctic area:

(a) The Government of each Party to the Convention whose ports are used by ships departing en route to or arriving from the Antarctic area undertakes to ensure that as soon as practicable adequate facilities are provided for the reception of all garbage from all ships, without causing undue delay, and according to the needs of the ships using them.

(b) The Government of each Party to the Convention shall ensure that all ships entitled to fly its flag, before entering the Antarctic area, have sufficient capacity on board for the retention of all garbage while operating in the area and have concluded arrangements to discharge such garbage at a reception facility after leaving the area.

RESOLUTION MEPC.47(31)

adopted on 4 July 1991

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

(New regulation 26 and other amendments to Annex I of MARPOL 73/78)

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Committee,

NOTING article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1973 Convention") and article VI of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1978 Protocol") which confer upon the appropriate body of the Organization the function of considering and adopting amendments to the 1973 Convention, as modified by the 1978 Protocol (MARPOL 73/78),

NOTING ALSO that the Conference on International Co-operation on Oil Pollution Preparedness and Response convened by the Organization in November 1990, has adopted the International Convention on Oil Pollution Preparedness, Response and Co-operation, 1990 which requires, inter alia, all ships to have a shipboard oil pollution emergency plan,

HAVING CONSIDERED, at its thirty-first session, amendments to the 1978 Protocol proposed and circulated in accordance with article 16(2)(a) of the 1973 Convention,

1. ADOPTS, in accordance with article 16(2)(d) of the 1973 Convention, amendments to the Annex of the 1978 Protocol, the text of which is set out in the Annex to the present resolution;
2. DETERMINES, in accordance with article 16(2)(f)(iii) of the 1973 Convention, that the amendments shall be deemed to have been accepted on 4 October 1992, unless prior to this date one third or more of the Parties, or the Parties the combined merchant fleets of which constitute fifty per cent or more of the gross tonnage of the world's merchant fleet, have communicated to the Organization their objections to the amendments;
3. INVITES the Parties to note that, in accordance with article 16(2)(g)(ii) of the 1973 Convention, the amendments shall enter into force on 4 April 1993 upon their acceptance in accordance with paragraph 2 above;

4. REQUESTS the Secretary-General, in conformity with article 16(2)(e) of the 1973 Convention, to transmit to all Parties to MARPOL 73/78 certified copies of the present resolution and the text of the amendments contained in the Annex;

5. FURTHER REQUESTS the Secretary-General to transmit copies of the resolution and its Annex to the Members of the Organization which are not Parties to MARPOL 73/78.

ANNEX

AMENDMENTS TO ANNEX I OF MARPOL 73/78

- 1 The seventh sentence of regulation 15(3)(a) is replaced with the following two sentences:

"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 as soon as possible. The port State authority may allow the tanker with a defective unit to undertake one ballast voyage before proceeding to a repair port".

- 2 New paragraph (3) is added to regulation 17 as follows:

"(3) Piping to and from sludge tanks shall have no direct connection overboard, other than the standard discharge connection referred to in regulation 19".

- 3 The following new chapter IV is added to the existing text:

"CHAPTER IV - PREVENTION OF POLLUTION ARISING FROM AN
OIL POLLUTION INCIDENT

Regulation 26

Shipboard Oil Pollution Emergency Plan

- (1) Every oil tanker of 150 tons gross tonnage and above and every ship other than an oil tanker of 400 tons gross tonnage and above shall carry on board a shipboard oil pollution emergency plan approved by the Administration. In the case of ships built before 4 April 1993 this requirement shall apply 24 months after that date.
- (2) Such a plan shall be in accordance with Guidelines* developed by the Organization and written in the working language of the master and officers. The plan shall consist at least of:
- (a) the procedure to be followed by the master or other persons having charge of the ship to report an oil pollution incident, as required in article 8 and Protocol I of the present Convention, based on the guidelines developed by the Organization**;

* Reference is made to "Guidelines for the development of the shipboard oil pollution emergency plans" to be developed by the Organization.

** Reference is made to "General principles for ship reporting system and ship reporting requirements, including Guidelines for reporting incidents involving dangerous goods, harmful substances and/or marine pollutants" adopted by the Organization by resolution A.648(16).

- (b) the list of authorities or persons to be contacted in the event of an oil pollution incident;
- (c) a detailed description of the action to be taken immediately by persons on board to reduce or control the discharge of oil following the incident; and
- (d) the procedures and point of contact on the ship for co-ordinating shipboard action with national and local authorities in combating the pollution".

Revised Forms of Supplements to the IOPP Certificate

Forms A and B of Supplements to the IOPP Certificate are replaced by those reproduced in the following pages.

FORM A
(Revised 1991)SUPPLEMENT TO THE INTERNATIONAL OIL POLLUTION PREVENTION CERTIFICATE
(IOPP CERTIFICATE)RECORD OF CONSTRUCTION AND EQUIPMENT FOR SHIPS
OTHER THAN OIL TANKERS

in respect of the provisions of Annex I of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (hereinafter referred to as "the Convention").

Notes:

- 1 This form is to be used for the third type of ships as categorized in the IOPP Certificate, i.e. "ships other than any of the above". For oil tankers and ships other than oil tankers with cargo tanks coming under regulation 2(2) of Annex I of the Convention, Form B shall be used.
- 2 This Record shall be permanently attached to the IOPP Certificate. The IOPP Certificate shall be available on board the ship at all times.
- 3 If the language of the original Record is neither English nor French, the text shall include a translation into one of these languages.
- 4 Entries in boxes shall be made by inserting either a cross (x) for the answers "yes" and "applicable" or a dash (-) for the answers "no" and "not applicable" as appropriate.
- 5 Regulations mentioned in this Record refer to regulations of Annex I of the Convention and resolutions refer to those adopted by the International Maritime Organization.

1 PARTICULARS OF SHIP

- 1.1 Name of ship.....
- 1.2 Distinctive number or letters.....
- 1.3 Port of registry.....
- 1.4 Gross tonnage.....

- 1.5 Date of build:
- 1.5.1 Date of building contract.....
- 1.5.2 Date on which keel was laid or ship was at a similar stage of construction.....
- 1.5.3 Date of delivery.....
- 1.6 Major conversion (if applicable):
- 1.6.1 Date of conversion contract.....
- 1.6.2 Date on which conversion was commenced.....
- 1.6.3 Date of completion of conversion.....
- 1.7 Status of ship:
- 1.7.1 New ship in accordance with regulation 1(6) ☐
- 1.7.2 Existing ship in accordance with regulation 1(7) ☐
- 1.7.3 The ship has been accepted by the Administration as an "existing ship" under regulation 1(7) due to unforeseen delay in delivery ☐
- 2 EQUIPMENT FOR THE CONTROL OF OIL DISCHARGE FROM MACHINERY SPACE BILGES AND OIL FUEL TANKS (regulations 10 and 16)
- 2.1 Carriage of ballast water in oil fuel tanks:
- 2.1.1 The ship may under normal conditions carry ballast water in oil fuel tanks ☐
- 2.2 Type of separating/filtering equipment fitted:
- 2.2.1 Oily-water separating equipment (100 ppm equipment) ☐
- 2.2.2 Oil filtering equipment (15 ppm equipment) ☐
- 2.3 Type of control system:
- 2.3.1 Discharge monitoring and control system (regulation 16(5))
- .1 with automatic stopping device ☐
- .2 with manual stopping device ☐
- 2.3.2 15 ppm alarm (regulation 16(7)) ☐
- 2.3.3 Automatic stopping device for discharges in special areas (regulation 10(3)(b)(vi)) ☐

2.3.4 Oil content meter (resolution A.444(XI))

.1 with recording device ☐.2 without recording device ☐

2.4 Approval standards:

2.4.1 The separating/filtering equipment: ☐.1 has been approved in accordance with resolution A.393(X) ☐.2 has been approved in accordance with resolution A.233(VII) ☐.3 has been approved in accordance with national standards not based upon resolution A.393(X) or A.233(VII) ☐.4 has not been approved ☐2.4.2 The process unit has been approved in accordance with resolution A.444(XI) ☐2.4.3 The oil content meter has been approved in accordance with resolution A.393(X) ☐2.5 Maximum throughput of the system ism³/h

2.6 Waiver of regulation 16

2.6.1 The requirements of regulation 16(1) or (2) are waived in respect of the ship in accordance with regulation 16(3)(a). The ship is engaged exclusively on:

.1 Voyages within special area(s): ☐.2 Voyages within 12 miles of the nearest land outside special area(s) restricted to: ☐2.6.2 The ship is fitted with holding tank(s) having a volume ofm³ for the total retention on board of all oily bilge water ☐

3. MEANS FOR RETENTION AND DISPOSAL OF OIL RESIDUES (SLUDGE) (regulation 17)

3.1 The ship is provided with oil residue (sludge) tanks as follows:

Tank identification	Tank Location		Volume m ³
	Frames (from) - (to)	Lateral Position	
Total volumem ³			

3.2 Means for the disposal of residues in addition to the provisions of sludge tanks:

3.2.1 incinerator for oil residues;
capacityl/h ☐3.2.2 auxiliary boiler suitable for burning oil residues ☐3.2.3 tank for mixing oil residues with fuel oil;
capacity m³ ☐3.2.4 other acceptable means:
..... ☐

4 STANDARD DISCHARGE CONNECTION (regulation 19)

- 4.1 The ship is provided with a pipeline for the discharge of residues from machinery bilges to reception facilities, fitted with a standard discharge connection in accordance with regulation 19 ☐

5 SHIPBOARD OIL POLLUTION EMERGENCY PLAN (regulation 26)

- 5.1 The ship is provided with a shipboard oil pollution emergency plan in compliance with regulation 26 ☐

6 EXEMPTION

- 6.1 Exemptions have been granted by the Administration from the requirements of chapter II of Annex I of the Convention in accordance with regulation 2(4)(a) on those items listed under paragraph(s).....
.....
.....of this Record ☐

7 EQUIVALENTS (regulation 3)

- 7.1 Equivalents have been approved by the Administration for certain requirements of Annex I listed under paragraph(s)....
.....
.....of this Record ☐

THIS IS TO CERTIFY that this Record is correct in all respects.

Issued at
(Place of issue of the Record)

.....19.....
(Signature of duly authorized officer
issuing the Record)

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

FORM B
(Revised 1991)

SUPPLEMENT TO INTERNATIONAL OIL POLLUTION PREVENTION CERTIFICATE
(IOPP CERTIFICATE)

RECORD OF CONSTRUCTION AND EQUIPMENT FOR OIL TANKERS

in respect of the provisions of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (hereinafter referred to as "the Convention").

Notes:

- 1 This form is to be used for the first two types of ships as categorized in the IOPP Certificate, i.e. oil tankers and ships other than oil tankers with cargo tanks coming under regulation 2(2) of Annex I of the Convention. For the third type of ships as categorized in the IOPP Certificate, Form A shall be used.
- 2 This Record shall be permanently attached to the IOPP Certificate. The IOPP Certificate shall be available on board the ship at all times.
- 3 If the language of the original Record is neither English nor French, the text shall include a translation into one of these languages.
- 4 Entries in boxes shall be made by inserting either a cross (x) for the answers "yes" and "applicable" or a dash (-) for the answers "no" and "not applicable" as appropriate.
- 5 Unless otherwise stated, regulations mentioned in this Record refer to regulations of Annex I of the Convention and resolutions refer to those adopted by the International Maritime Organization.

1 PARTICULARS OF SHIP

- 1.1 Name of ship
- 1.2 Distinctive number or letters.....
- 1.3 Port of registry.....
- 1.4 Gross tonnage.....
- 1.5 Carrying capacity of ship.....(m³)
- 1.6 Deadweight of ship.....(metric tons) (regulation 1(22))
- 1.7 Length of ship.....(m) (regulation 1(18))

1.8 Date of build:

- 1.8.1 Date of building contract.....
- 1.8.2 Date on which keel was laid or ship was at a similar stage of construction.....
- 1.8.3 Date of delivery.....

1.9 Major conversion (if applicable):

- 1.9.1 Date of conversion contract.....
- 1.9.2 Date on which conversion was commenced.....
- 1.9.3 Date of completion of conversion.....

1.10 Status of ship:

- 1.10.1 New ship in accordance with regulation 1(6) ☐
- 1.10.2 Existing ship in accordance with regulation 1(7) ☐
- 1.10.3 New oil tanker in accordance with regulation 1(26) ☐
- 1.10.4 Existing oil tanker in accordance with regulation 1(27) ☐
- 1.10.5 The ship has been accepted by the Administration as an "existing ship" under regulation 1(7) due to unforeseen delay in delivery ☐
- 1.10.6 The ship has been accepted by the Administration as an "existing oil tanker" under regulation 1(27) due to unforeseen delay in delivery ☐
- 1.10.7 The ship is not required to comply with the provisions of regulation 24 due to the unforeseen delay in delivery ☐

1.11 Type of ship:

- 1.11.1 Crude oil tanker ☐
- 1.11.2 Product carrier ☐
- 1.11.3 Crude oil/product carrier ☐
- 1.11.4 Combination carrier ☐
- 1.11.5 Ship, other than an oil tanker, with cargo tanks coming under regulation 2(2) of Annex I of the Convention ☐

- | | | |
|--------|---|--------------------------|
| 1.11.6 | Oil tanker dedicated to the carriage of products referred to in regulation 15(7) | <input type="checkbox"/> |
| 1.11.7 | The ship, being designated as a "crude oil tanker" operating with COW, is also designated as a "product carrier" operating with CBT, for which a separate IOPP Certificate has also been issued | <input type="checkbox"/> |
| 1.11.8 | The ship, being designated as a "product carrier" operating with CBT, is also designated as a "crude oil tanker" operating with COW, for which a separate IOPP Certificate has also been issued | <input type="checkbox"/> |
| 1.11.9 | Chemical tanker carrying oil | <input type="checkbox"/> |
| 2 | EQUIPMENT FOR THE CONTROL OF OIL DISCHARGE FROM MACHINERY SPACE BILGES AND OIL FUEL TANKS (regulations 10 and 16) | |
| 2.1 | Carriage of ballast water in oil fuel tanks | |
| | The ship may under normal conditions carry ballast water in oil fuel tanks | <input type="checkbox"/> |
| 2.2 | Type of separating/filtering equipment fitted: | |
| 2.2.1 | Oily-water separating equipment (100 ppm equipment) | <input type="checkbox"/> |
| 2.2.2 | Oil filtering equipment (15 ppm equipment) | <input type="checkbox"/> |
| 2.3 | Type of control system | |
| 2.3.1 | Discharge monitoring and control system regulation 16(5)) | <input type="checkbox"/> |
| | .1 with automatic stopping device | <input type="checkbox"/> |
| | .2 with manual stopping device | <input type="checkbox"/> |
| 2.3.2 | 15 ppm alarm (regulation 16(7)) | <input type="checkbox"/> |
| 2.3.3 | Automatic stopping device for discharges in special areas (regulation 10(3)(b)(vi)) | <input type="checkbox"/> |
| 2.3.4 | Oil content meter (resolution A.444(XI)) | <input type="checkbox"/> |
| | .1 with recording device | <input type="checkbox"/> |
| | .2 without recording device | <input type="checkbox"/> |

2.4 Approval standards:

2.4.1 The separating/filtering system:

- .1 has been approved in accordance with resolution A.393(X) ☐
- .2 has been approved in accordance with resolution A.233(VII) ☐
- .3 has been approved in accordance with national standards not based upon resolution A.393(X) or A.233(VII) ☐
- .4 has not been approved ☐

2.4.2 The process unit has been approved in accordance with resolution A.444(XI) ☐

2.4.3 The oil content meter has been approved in accordance with resolution A.393(X) ☐

2.5 Maximum throughput of the system ism³/h

2.6 Waiver of regulation 16

2.6.1 The requirements of regulation 16(1) or (2) are waived in respect of the ship in accordance with regulation 16(3)(a). The ship is engaged exclusively on: ☐

- .1 Voyages within special area(s): ☐
.....
.....
- .2 Voyages within 12 miles of the nearest land outside special area(s) restricted to:..... ☐
.....
.....

2.6.2 The ship is fitted with holding tank(s) having a volume ofm³ for the total retention on board of all oily bilge water ☐

2.6.3 In lieu of the holding tank the ship is provided with arrangements to transfer bilge water to the slop tank ☐

3 MEANS FOR RETENTION AND DISPOSAL OF OIL RESIDUES (SLUDGE) (regulation 17)

3.1 The ship is provided with oil residue (sludge) tanks as follows:

Tank identification	Tank Location		Volume m ³
	Frames (from) - (to)	Lateral Position	
			Total volumem ³

3.2 Means for the disposal of residues in addition to the provisions of sludge tanks:

3.2.1 incinerator for oil residues; ☐
capacityl/h3.2.2 auxilliary boiler suitable for burning oil residues ☐3.2.3 tank for mixing oil residues with fuel oil; ☐
capacity m³3.2.4 other acceptable means: ☐
.....

4 STANDARD DISCHARGE CONNECTION (regulation 19)

4.1 The ship is provided with a pipeline for the discharge of ☐
residues from machinery bilges to reception facilities,
fitted with a standard discharge connection in compliance
with regulation 19

5 CONSTRUCTION (regulations 13, 24 and 25)

5.1 In accordance with the requirements of regulation 13, the ship is

5.1.1 Required to be provided with SBT, PL and COW ☐

- 5.1.2 Required to be provided with SBT and PL ☐
- 5.1.3 Required to be provided with SBT ☐
- 5.1.4 Required to be provided with SBT or COW ☐
- 5.1.5 Required to be provided with SBT or CBT ☐
- 5.1.6 Not required to comply with the requirements of regulation 13 ☐

5.2 Segregated ballast tanks (SBT)

- 5.2.1 The ship is provided with SBT in compliance with regulation 13 ☐
- 5.2.2 The ship is provided with SBT, in compliance with regulation 13, which are arranged in protective locations (PL) in compliance with regulation 13E ☐
- 5.2.3 SBT are distributed as follows:

Tank	Volume (m ³)	Tank	Volume (m ³)
		Total	

5.3 Dedicated clean ballast tanks (CBT)

- 5.3.1 The ship is provided with CBT in compliance with regulation 13A, and may operate as a product carrier ☐
- 5.3.2 CBT are distributed as follows:

Tank	Volume (m ³)	Tank	Volume (m ³)
		Total	

- 5.3.3 The ship has been supplied with a valid Dedicated Clean Ballast Tank Operation Manual, which is dated ☐
- 5.3.4 The ship has common piping and pump arrangements for ballasting the CBT and handling cargo oil ☐
- 5.3.5 The ship has separate independent piping and pumping arrangements for ballasting the CBT ☐
- 5.4 Crude oil washing (COW)
- 5.4.1 The ship is equipped with a COW system in compliance with regulation 13B ☐
- 5.4.2 The ship is equipped with a COW system in compliance with regulation 13B except that the effectiveness of the system has not been confirmed in accordance with regulation 13(6) and paragraph 4.2.10 of the Revised COW specifications (resolution A.446(XI)) ☐
- 5.4.3 The ship has been supplied with a valid Crude Oil Washing Operations and Equipment Manual, which is dated..... ☐
- 5.4.4 The ship is not required to be but is equipped with COW in compliance with the safety aspects of Revised COW Specifications (resolution A.446(XI)) ☐
- 5.5 Exemption from regulation 13:
- 5.5.1 The ship is solely engaged in trade between ☐
.....
in accordance with regulation 13C and is therefore exempted from the requirements of regulation 13
- 5.5.2 The ship is operating with special ballast arrangements in accordance with regulation 13D and is therefore exempted from the requirements of regulation 13 ☐
- 5.6 Limitation of size and arrangements of cargo tanks (regulation 24)
- 5.6.1 The ship is required to be constructed according to, and complies with, the requirements of regulation 24 ☐
- 5.6.2 The ship is required to be constructed according to, and complies with, the requirements of regulation 24(4) (see regulation 2(2)) ☐

5.7 Subdivision and stability (regulation 25)

5.7.1 The ship is required to be constructed according to, and complies with, the requirements of regulation 25 ☐

5.7.2 Information and data required under regulation 25(5) have been supplied to the ship in an approved form ☐

6 RETENTION OF OIL ON BOARD (regulation 15)

6.1 Oil discharge monitoring and control system

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

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

6.1.2 The system comprises:

.1 control unit ☐

.2 computing unit ☐

.3 calculating unit ☐

6.1.3 The system is:

.1 fitted with a starting interlock ☐

.2 fitted with automatic stopping device ☐

6.1.4 The oil content meter is approved under the terms of resolution A.393(X) or A.586(14) (delete as appropriate) suitable for:

.1 crude oil ☐

.2 black products ☐

.3 white products ☐

.4 oil-like noxious liquid substances as listed in the attachment to the Certificate ☐

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

6.2 Slop tanks

6.2.1 The ship is provided with dedicated slop tank(s) with the total capacity ofm³. which is.....% of the oil carrying capacity, in accordance with:



.1 regulation 15(2)(c)



.2 regulation 15(2)(c)(i)



.3 regulation 15(2)(c)(ii)



.4 regulation 15(2)(c)(iii)



6.2.2 Cargo tanks have been designated as slop tanks



6.3 Oil/water interface detectors

6.3.1 The ship is provided with oil/water interface detectors approved under the terms of resolution MEPC.5(XIII)



6.4 Exemptions from regulation 15

6.4.1 The ship is exempted from the requirements of regulation 15(1), (2) and (3) in accordance with regulation 15(7)



6.4.2 The ship is exempted from the requirements of regulation 15(1), (2) and (3) in accordance with regulation 2(2)



6.5 Waiver of regulation 15

6.5.1 The requirements of regulation 15(3) are waived in respect of the ship in accordance with regulation 15(5)(b). The ship is engaged exclusively on:

.1 Specific trade under regulation 13C:



.....

.2 Voyages within special area(s):



.....

.3 Voyages within 50 miles of the nearest land outside special area(s) of 72 hours or less in duration restricted to:



.....

7 PUMPING, PIPING AND DISCHARGE ARRANGEMENTS (regulation 18)

7.1 The overboard discharge outlets for segregated ballast are located:

7.1.1 above the waterline ☐

7.1.2 below the waterline ☐

7.2 The overboard discharge outlets, other than the discharge manifold, for clean ballast are located:*

* Only those outlets which can be monitored are to be indicated.

7.2.1 above the waterline ☐

7.2.2 below the waterline ☐

7.3 The overboard discharge outlets, other than the discharge manifold, for dirty ballast water or oil contaminated water from cargo tank areas are located*:

* Only those outlets which can be monitored are to be indicated.

7.3.1 above the waterline ☐

7.3.2 below the waterline in conjunction with the part flow arrangements in compliance with regulation 18(6)(e) ☐

7.3.3 below the waterline ☐

7.4 Discharge of oil from cargo pumps and oil lines (regulation 18(4) and (5))

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

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

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

8 SHIPBOARD OIL POLLUTION EMERGENCY PLAN (regulation 26)

8.1 The ship is provided with a shipboard oil pollution emergency plan in compliance with regulation 26 ☐

9 EQUIVALENT ARRANGEMENTS FOR CHEMICAL TANKERS CARRYING OIL

9.1 As equivalent arrangements for the carriage of oil by a chemical tanker, the ship is fitted with the following equipment in lieu of slop tanks (paragraph 6.2 above) and oil/water interface detectors (paragraph 6.3 above):

9.1.1 oily-water separating equipment capable of producing effluent with oil content less than 100 ppm, with the capacity ofm³/h ☐

9.1.2 a holding tank with the capacity of.....m³ ☐

9.1.3 a tank for collecting tank washings which is:

.1 a dedicated tank ☐

.2 a cargo tank designated as a collecting tank ☐

9.1.4 a permanently installed transfer pump for overboard discharge of effluent containing oil through the oily-water separating equipment ☐

9.2 The oily-water separating equipment has been approved under the terms of resolution A.393(X) and is suitable for the full range of Annex I products ☐

9.3 The ship holds a valid Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk ☐

10 OIL-LIKE NOXIOUS LIQUID SUBSTANCES

The ship is permitted in accordance with regulation 14 of Annex II of the Convention to carry the oil-like noxious liquid substances specified in the list* attached. ☐

* The list of oil-like noxious substances permitted for carriage, signed, dated and certified by a seal or a stamp of the issuing authority shall be attached.

11 EXEMPTION

Exemptions have been granted by the Administration from the requirements of chapters II and III of Annex I of the Convention in accordance with regulation 2(4)(a) on those items listed under paragraph(s).....
..... of this Record ☐

12 EQUIVALENTS (regulation 3)

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

THIS IS TO CERTIFY that this Record is correct in all respects.

Issued at.....
(Place of issue of the Record)

.....19....

.....
(Signature of duly authorized
officer issuing the Record)

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

Appendix III of Annex I of MARPOL 73/78 is replaced by the following:

"Appendix III

FORM OF OIL RECORD BOOK

OIL RECORD BOOK

Part I - Machinery space operations

(All ships)

Name of ship:

Distinctive number
or letters:

Gross tonnage:

Period from: _____ to: _____

Note: Oil Record Book Part I shall be provided to every oil tanker of 150 tons gross tonnage and above and every ship of 400 tons gross tonnage and above, other than oil tankers, to record relevant machinery space operations. For oil tankers, Oil Record Book Part II shall also be provided to record relevant cargo ballast operations.

INTRODUCTION

The following pages of this section show a comprehensive list of items of machinery space operations which are, when appropriate, to be recorded in the Oil Record Book in accordance with regulation 20 of Annex I of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78). The items have been grouped into operational sections, each of which is denoted by a letter code.

When making entries in the Oil Record Book, the date, operational code and item number shall be inserted in the appropriate columns and the required particulars shall be recorded chronologically in the blank spaces.

Each completed operation shall be signed for and dated by the officer or officers in charge. Each completed page shall be signed by the master of the ship.

The Oil Record Book contains many references to oil quantity. The limited accuracy of tank measurement devices, temperature variations and clingage will affect the accuracy of these readings. The entries in the Oil Record Book should be considered accordingly.

LIST OF ITEMS TO BE RECORDED

(A) BALLASTING OR CLEANING OF OIL FUEL TANKS

1. Identity of tank(s) ballasted.
2. Whether cleaned since they last contained oil and, if not, type of oil previously carried.
3. Cleaning process:
 - .1 position of ship and time at the start and completion of cleaning;
 - .2 identify tank(s) in which one or another method has been employed (rinsing through, steaming, cleaning with chemicals; type and quantity of chemicals used);
 - .3 identity of tank(s) into which cleaning water was transferred.
4. Ballasting:
 - .1 position of ship and time at start and end of ballasting;
 - .2 quantity of ballast if tanks are not cleaned;
 - .3 position of ship at start of cleaning;
 - .4 position of ship at start of ballasting.

(B) DISCHARGE OF DIRTY BALLAST OR CLEANING WATER FROM OIL FUEL TANKS REFERRED TO UNDER SECTION (A)

5. Identity of tank(s).
6. Position of ship at start of discharge.
7. Position of ship on completion of discharge.
8. Ship's speed(s) during discharge.
9. Method of discharge:
 - .1 through 100 ppm equipment;
 - .2 through 15 ppm equipment;
 - .3 to reception facilities.
10. Quantity discharged.

(C) COLLECTION AND DISPOSAL OF OIL RESIDUES (SLUDGE)

11. Collection of oil residues

Quantity of oil residues (sludge) retained on board at the end of a voyage, but not more frequently than once a week. When ships are on short voyages, the quantity should be recorded weekly^{1/}:

- .1 separated sludge (sludge resulting from purification of fuel and lubricating oils) and other residues, if applicable:
 - identity of tank(s)
 - capacity of tank(s) m³
 - total quantity of retention m³;
- .2 other residues (such as oil residues resulting from drainages, leakages, exhausted oil, etc., in the machinery spaces), if applicable due to tank arrangement in addition to .1:
 - identity of tank(s)
 - capacity of tank(s) m³
 - total quantity of retention m³.

12. Methods of disposal of residue

State quantity of oil residues disposed of, the tank(s) emptied and the quantity of contents retained:

- .1 to reception facilities (identify port)^{2/};
- .2 transferred to another (other) tank(s) (indicate tank(s) and the total content of tank(s));
- .3 incinerated (indicate total time of operation);
- .4 other method (state which).

^{1/} Only in tanks listed in item 3 of Form A and B of the Supplement to the IOPP Certificate.

^{2/} Ships' masters should obtain from the operator of the reception facilities which include barges and tank trucks a receipt or certificate detailing the quantity of tank washings, dirty ballast, residues or oily mixtures transferred, together with the time and date of the transfer. This receipt or certificate, if attached to the Oil Record Book, may aid the master of the ship in proving that his ship was not involved in an alleged pollution incident. The receipt or certificate should be kept together with the Oil Record Book.

(D) NON-AUTOMATIC DISCHARGE OVERBOARD OR DISPOSAL OTHERWISE OF
BILGE WATER WHICH HAS ACCUMULATED IN MACHINERY SPACES

13. Quantity discharged or disposed of.
14. Time of discharge or disposal (start and stop).
15. Method of discharge or disposal:
 - .1 through 100 ppm equipment (state position at start and end);
 - .2 through 15 ppm equipment (state position at start and end);
 - .3 to reception facilities (identify port)^{2/};
 - .4 transfer to slop tank or holding tank (indicate tank(s); state quantity transferred and the total quantity retained in tank(s)).

(E) AUTOMATIC DISCHARGE OVERBOARD OR DISPOSAL OTHERWISE OF
BILGE WATER WHICH HAS ACCUMULATED IN MACHINERY SPACES

16. Time and position of ship at which the system has been put into automatic mode of operation for discharge overboard.
17. Time when the system has been put into automatic mode of operation for transfer of bilge water to holding tank (identify tank).
18. Time when the system has been put to manual operation.
19. Method of discharge overboard:
 - .1 through 100 ppm equipment;
 - .2 through 15 ppm equipment.

(F) CONDITION OF OIL DISCHARGE MONITORING AND CONTROL SYSTEM

20. Time of system failure.
21. Time when system has been made operational.
22. Reasons for failure.

^{2/} Ships' masters should obtain from the operator of the reception facilities which include barges and tank trucks a receipt or certificate detailing the quantity of tank washings, dirty ballast, residues or oily mixtures transferred, together with the time and date of the transfer. This receipt or certificate, if attached to the Oil Record Book, may aid the master of the ship in proving that his ship was not involved in an alleged pollution incident. The receipt or certificate should be kept together with the Oil Record Book.

(G) ACCIDENTAL OR OTHER EXCEPTIONAL DISCHARGES OF OIL

23. Time of occurrence.
24. Place or position of ship at time of occurrence.
25. Approximate quantity and type of oil.
26. Circumstances of discharge or escape, the reasons therefor and general remarks.

(H) BUNKERING OF FUEL OR BULK LUBRICATING OIL

27. Bunkering
 - .1 Place of bunkering.
 - .2 Time of bunkering.
 - .3 Type and quantity of fuel oil and identity of tank(s)
(state quantity added and total quantity of tank(s)).
 - .4 Type and quantity of lubricating oil and identity of tank(s)
(state quantity added and total content of tank(s)).

(I) ADDITIONAL OPERATIONAL PROCEDURES AND GENERAL REMARKS

OR LETTERS

[illegible]

Signature of master

OIL RECORD BOOK

Part II - Cargo/ballast operations

(Oil tankers)

Name of ship:

Distinctive number
or letters:

Gross tonnage:

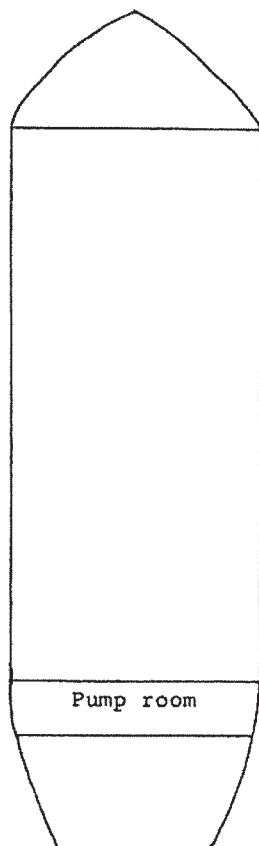
Period from: to:

Note: Every oil tanker of 150 tons gross tonnage and above shall be provided with Oil Record Book Part II to record relevant cargo ballast operations. Such a tanker shall also be provided with Oil Record Book Part I to record relevant machinery space operations.

NAME OF SHIP

DISTINCTIVE NUMBER

OR LETTERS

PLAN VIEW OF CARGO AND SLOP TANKS
(to be completed on board)

Identification of the tanks	Capacity
Depth of slop tank(s):	

(Give the capacity of each tank and
the depth of slop tank(s)).

OIL RECORD BOOK - PART II

INTRODUCTION

The following pages of this section show a comprehensive list of items of cargo and ballast operations which are, when appropriate, to be recorded in the Oil Record Book in accordance with regulation 20 of Annex I of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78). The items have been grouped into operational sections, each of which is denoted by a code letter.

When making entries in the Oil Record Book, the date, operational code and item number shall be inserted in the appropriate columns and the required particulars shall be recorded chronologically in the blank spaces.

Each completed operation shall be signed for and dated by the officer or officers in charge. Each completed page shall be countersigned by the master of the ship. In respect of the oil tankers engaged in specific trades in accordance with regulation 13C of Annex I of MARPOL 73/78, appropriate entry in the Oil Record Book shall be endorsed by the competent Port State authority*.

The Oil Record Book contains many references to oil quantity. The limited accuracy of tank measurement devices, temperature variations and clingage will affect the accuracy of these readings. The entries in the Oil Record Book should be considered accordingly.

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

LIST OF ITEMS TO BE RECORDED

(A) LOADING OF OIL CARGO

1. Place of loading.
2. Type of oil loaded and identity of tank(s).
3. Total quantity of oil loaded (state quantity added and the total content of tank(s)).

(B) INTERNAL TRANSFER OF OIL CARGO DURING VOYAGE

4. Identity of the tank(s)
 - .1 From:
 - .2 To: (state quantity transferred and total quantity of tank(s)).
5. Was (were) the tank(s) in 4.1 emptied? (If not, state the quantity retained)

(C) UNLOADING OF OIL CARGO

6. Place of unloading.
7. Identity of tank(s) unloaded.
8. Was (were) the tank(s) emptied? (If not, state quantity retained)

(D) CRUDE OIL WASHING (COW TANKERS ONLY)

(To be completed for each tank being crude oil washed)

9. Port where crude oil washing was carried out or ship's position if carried out between two discharge ports.
10. Identity of tank(s) washed^{1/}.
11. Number of machines in use.
12. Time of start of washing.
13. Washing pattern employed^{2/}.

^{1/} When an individual tank has more machines than can be operated simultaneously, as described in the Operations and Equipment Manual, then the section being crude oil washed should be identified, e.g. No.2 centre, forward section.

^{2/} In accordance with the Operations and Equipment Manual, enter whether single-stage or multi-stage method of washing is employed. If multi-stage method is used, give the vertical arc covered by the machines and the number of times that arc is covered for that particular stage of the programme.

14. Washing line pressure.
15. Time washing was completed or stopped.
16. State method of establishing that tank(s) was (were) dry.
17. Remarks^{3/}.

(E) BALLASTING OF CARGO TANKS

18. Position of ship at start and end of ballasting.
19. Ballasting process:
 - .1 identity of tank(s) ballasted;
 - .2 time of start and end;
 - .3 quantity of ballast received. Indicate total quantity of ballast for each tank involved in the operation.

(F) BALLASTING OF DEDICATED CLEAN BALLAST TANKS (CBT TANKERS ONLY)

20. Identity of tank(s) ballasted.
21. Position of ship when water intended for flushing, or port ballast was taken to dedicated clean ballast tank(s).
22. Position of ship when pump(s) and lines were flushed to slop tank.
23. Quantity of the oily water which, after line flushing, is transferred to the slop tank(s) or cargo tank(s) in which slop is preliminarily stored (identify tank(s)). State the total quantity.
24. Position of ship when additional ballast water was taken to dedicated clean ballast tank(s).
25. Time and position of ship when valves separating the dedicated clean ballast tanks from cargo and stripping lines were closed.
26. Quantity of clean ballast taken on board.

(G) CLEANING OF CARGO TANKS

27. Identity of tank(s) cleaned.
28. Port or ship's position.
29. Duration of cleaning.

^{3/} If the programmes given in the Operations and Equipment Manual are not followed, then the reasons must be given under Remarks.

30. Method of cleaning^{4/}.
31. Tank washings transferred to:
- .1 reception facilities (state port and quantity^{5/};
 - .2 slop tank(s) or cargo tank(s) designated as slop tank(s) (identify tank(s); state quantity transferred and total quantity).

(H) DISCHARGE OF DIRTY BALLAST

32. Identity of tank(s).
33. Position of ship at start of discharge into the sea.
34. Position of ship on completion of discharge into the sea.
35. Quantity discharged into the sea.
36. Ship's speed(s) during discharge.
37. Was the discharge monitoring and control system in operation during the discharge?
38. Was a regular check kept on the effluent and the surface of the water in the locality of the discharge?
39. Quantity of oily water transferred to slop tank(s) (identify slop tank(s). State total quantity).
40. Discharged to shore reception facilities (identify port and quantity involved)^{5/}.

(I) DISCHARGE OF WATER FROM SLOP TANKS INTO THE SEA

41. Identity of slop tank(s).
42. Time of settling from last entry of residues; or
43. Time of settling from last discharge.

^{4/} Hand-hosing, machine washing and/or chemical cleaning. Where chemically cleaned, the chemical concerned and amount used should be stated.

^{5/} Ships' masters should obtain from the operator of the reception facilities which include barges and tank trucks a receipt or certificate detailing the quantity of tank washings, dirty ballast, residues or oily mixtures transferred, together with the time and date of the transfer. This receipt or certificate, if attached to the Oil Record Book, may aid the master of the ship in proving that his ship was not involved in an alleged pollution incident. The receipt or certificate should be kept together with the Oil Record Book.

44. Time and position of ship at start of discharge.
45. Ullage of total contents at start of discharge.
46. Ullage of oil/water interface at start of discharge.
47. Bulk quantity discharged and rate of discharge.
48. Final quantity discharged and rate of discharge.
49. Time and position of ship on completion of discharge.
50. Was the discharge monitoring and control system in operation during the discharge?
51. Ullage of oil/water interface on completion of discharge.
52. Ship's speed(s) during discharge.
53. Was a regular check kept on the effluent and the surface of the water in the locality of the discharge?
54. Confirm that all applicable valves in the ship's piping system have been closed on completion of discharge from the slop tanks.

(J) DISPOSAL OF RESIDUES AND OILY MIXTURES NOT OTHERWISE DEALT WITH

55. Identity of tank(s).
56. Quantity disposed of from each tank. (State the quantity retained.)
57. Method of the disposal:
 - .1 to reception facilities (identify port and quantity involved)^{5/};
 - .2 mixed with cargo (state quantity);
 - .3 transferred to (an)other tank(s): identify tank(s); state quantity transferred and total quantity in tank(s);
 - .4 other method (state which); state quantity disposed of.

^{5/} Ships' masters should obtain from the operator of the reception facilities which include barges and tank trucks a receipt or certificate detailing the quantity of tank washings, dirty ballast, residues or oily mixtures transferred, together with the time and date of the transfer. This receipt or certificate, if attached to the Oil Record Book, may aid the master of the ship in proving that his ship was not involved in an alleged pollution incident. The receipt or certificate should be kept together with the Oil Record Book.

58. Position of ship at start of discharge of clean ballast.
 59. Identity of tank(s) discharged.
 60. Was (were) the tank(s) empty on completion?
 61. Position of ship on completion if different from 58.
 62. Was a regular check kept on the effluent and the surface of the water in the locality of the discharge?
- (L) DISCHARGE OF BALLAST FROM DEDICATED CLEAN BALLAST TANKS
(CBT TANKERS ONLY)
63. Identity of tank(s) discharged.
 64. Time and position of ship at start of discharge of clean ballast into the sea.
 65. Time and position of ship on completion of discharge into the sea.
 66. Quantity discharged:
 - .1 into the sea; or
 - .2 to reception facility (identify port).
 67. Was there any indication of oil contamination of the ballast water before or during discharge into the sea?
 68. Was the discharge monitored by an oil content meter?
 69. Time and position of ship when valves separating dedicated clean ballast tanks from the cargo and stripping lines were closed on completion of deballasting.
- (M) CONDITION OF OIL DISCHARGE MONITORING AND CONTROL SYSTEM
70. Time of system failure.
 71. Time when system has been made operational.
 72. Reasons for failure.
- (N) ACCIDENTAL OR OTHER EXCEPTIONAL DISCHARGES OF OIL
73. Time of occurrence.
 74. Port or ship's position at time of occurrence.
 75. Approximate quantity and type of oil.
 76. Circumstances of discharge or escape, the reasons therefor and general remarks.

(O) ADDITIONAL OPERATIONAL PROCEDURES AND GENERAL REMARKS

TANKERS ENGAGED IN SPECIFIC TRADES

(P) LOADING OF BALLAST WATER

- 77. Identity of tank(s) ballasted.
- 78. Position of ship when ballasted.
- 79. Total quantity of ballast loaded in cubic metres.
- 80. Remarks.

(Q) RE-ALLOCATION OF BALLAST WATER WITHIN THE SHIP

- 81. Reasons for re-allocation.

(R) BALLAST WATER DISCHARGE TO RECEPTION FACILITY

- 82. Port(s) where ballast water was discharged.
- 83. Name or designation of reception facility.
- 84. Total quantity of ballast water discharged in cubic metres.
- 85. Date, signature and stamp of port authority official.

Signature of master"

RESOLUTION MEPC.48(31)

adopted on 4 July 1991

AMENDMENTS TO THE ANNEX OF THE PROTOCOL OF 1978 RELATING
TO THE INTERNATIONAL CONVENTION FOR THE PREVENTION
OF POLLUTION FROM SHIPS, 1973(Designation of the Wider Caribbean area as a special
area under Annex V of MARPOL 73/78)

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention on the International Maritime
Organization concerning the functions of the Committee,

NOTING article 16 of the International Convention for the Prevention of
Pollution from Ships, 1973 (hereinafter referred to as the "1973 Convention")
and article VI of the Protocol of 1978 relating to the International
Convention for the Prevention of Pollution from Ships, 1973 (hereinafter
referred to as the "1978 Protocol") which confer upon the appropriate body of
the Organization the function of considering and adopting amendments to the
1973 Convention, as modified by the 1978 Protocol (MARPOL 73/78),

HAVING CONSIDERED, at its thirty-first session, amendments to the 1978
Protocol proposed and circulated in accordance with article 16(2)(a) of the
1973 Convention,

1. ADOPTS, in accordance with article 16(2)(d) of the 1973 Convention,
amendments to the Annex of the 1978 Protocol, the text of which is set out in
the Annex to the present resolution;
2. DETERMINES, in accordance with article 16(2)(f)(iii) of the 1973
Convention, that the amendments shall be deemed to have been accepted on
4 October 1992, unless prior to this date one third or more of the Parties, or
the Parties the combined merchant fleets of which constitute fifty per cent or
more of the gross tonnage of the world's merchant fleet, have communicated to
the Organization their objections to the amendments;
3. INVITES the Parties to note that, in accordance with article 16(2)(g)(ii)
of the 1973 Convention, the amendments shall enter into force on 4 April 1993
upon their acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with article 16(2)(e) of
the 1973 Convention, to transmit to all Parties to Annex V of the 1978
Protocol certified copies of the present resolution and the text of the
amendments contained in the Annex;
5. FURTHER REQUESTS the Secretary-General to transmit to the Members of the
Organization which are not Parties to Annex V of the 1978 Protocol copies of
the resolution and its annex.

ANNEX

AMENDMENTS TO REGULATION 5 OF ANNEX V OF MARPOL 73/78
(DESIGNATION OF THE WIDER CARIBBEAN AREA
AS A SPECIAL AREA)

Regulation 5 - Disposal of Garbage within Special Areas

The introductory sentence in paragraph (1) is amended to read as follows:

"(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, the 'Gulfs area', the North Sea area, the Antarctic area and the Wider Caribbean Region, including the Gulf of Mexico and the Caribbean Sea, which are defined as follows:"

New subparagraph (h) is added to paragraph (1) as follows:

"(h) The Wider Caribbean Region, as defined in article 2, paragraph 1 of the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (Cartagena de Indias, 1983), means the Gulf of Mexico and Caribbean Sea proper including the bays and seas therein and that portion of the Atlantic Ocean within the boundary constituted by the 30°N parallel from Florida eastward to 77°30'W meridian, thence a rhumb line to the intersection of 20°N parallel and 59°W meridian, thence a rhumb line to the intersection of 7°20'N parallel and 50°W meridian, thence a rhumb line drawn southwesterly to the eastern boundary of French Guiana."

New subparagraph (b) of paragraph (2) is amended to read as follows:

"(b) except as provided in subparagraph (c) of this paragraph, 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,"

New subparagraph (c) is added to paragraph (2) as follows:

"(c) disposal into the Wider Caribbean Region of food wastes which have been passed through a comminuter or grinder shall be made as far as practicable from land, but in any case not subject to regulation 4 not less than 3 nautical miles from the nearest land. Such comminuted or ground food wastes shall be capable of passing through a screen with openings no greater than 25 millimetres."

RESOLUTION MEPC.51(32)
adopted on 6 March 1992

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

(Discharge criteria of Annex I of MARPOL 73/78)

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Committee,

NOTING article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1973 Convention"), and article VI of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1978 Protocol"), which confer upon the appropriate body of the Organization the function of considering and adopting amendments to the 1973 Convention, as modified by the 1978 Protocol (MARPOL 73/78),

RECALLING the objective of MARPOL 73/78 to achieve the complete elimination of intentional pollution of the marine environment by oil,

DESIRING in this regard to reduce even further operational pollution from ships,

HAVING CONSIDERED, at its thirty-second session, amendments to the 1978 Protocol proposed and circulated in accordance with article 16(2)(a) of the 1973 Convention,

1. ADOPTS, in accordance with article 16(2)(d) of the 1973 Convention, amendments to the Annex of the 1978 Protocol, the text of which is set out in the Annex to the present resolution;
2. DETERMINES, in accordance with article 16(2)(f)(iii) of the 1973 Convention, that the amendments shall be deemed to have been accepted on 6 January 1993, unless prior to this date one third or more of the Parties, or the Parties the combined merchant fleets of which constitute fifty per cent or more of the gross tonnage of the world's merchant fleet, have communicated to the Organization their objections to the amendments;
3. INVITES the Parties to note that, in accordance with article 16(2)(g)(ii) of the 1973 Convention, the amendments shall enter into force on 6 July 1993 upon their acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with article 16(2)(e) of the 1973 Convention, to transmit to all Parties to MARPOL 73/78 certified copies of the present resolution and the text of the amendments contained in the Annex;
5. FURTHER REQUESTS the Secretary-General to transmit copies of the resolution and its Annex to the Members of the Organization which are not Parties to MARPOL 73/78.

ANNEX

AMENDMENTS TO ANNEX I OF MARPOL 73/78

The regulations of Annex I are amended as follows:

1 Regulation 9

- .1 The existing text of paragraph (1)(a)(iv) is replaced by the following:

"(iv) The instantaneous rate of discharge of oil content does not exceed 30 litres per nautical mile".

- .2 The existing text of paragraph (1)(b) is replaced by the following:

"(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 proceeding en route;
- (iii) the oil content of the effluent without dilution does not exceed 15 parts per million; and
- (iv) the ship has in operation equipment as required by regulation 16 of this Annex."

- .3 Paragraph (4) is amended by deleting the entire second sentence, including subitems (a) - (d).

- .4 A new paragraph (7) is added as follows:

"(7) In the case of a ship, referred to in regulation 16(6) of this Annex, not fitted with equipment as required by regulation 16(1) or 16(2) of this Annex, the provisions of paragraph 1(b) of this regulation will not apply until 6 July 1998 or the date on which the ship is fitted with such equipment, whichever is the earlier. Until this date any discharge from machinery space bilges into the sea of oil or oily mixtures from such a ship shall be prohibited except when all the following conditions are satisfied:

- (a) the oily mixture does not originate from the cargo pump-room bilges;
- (b) the oily mixture is not mixed with oil cargo residues;
- (c) the ship is not within a special area;
- (d) the ship is more than 12 nautical miles from the nearest land;
- (e) the ship is proceeding en route;
- (f) the oil content of the effluent is less than 100 parts per million; and

- (g) the ship has in operation oily-water separating equipment of a design approved by the Administration, taking into account the specification recommended by the Organization*."

A footnote should be added to paragraph (7)(g) as follows:

"* 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.393(X)."

2 Regulation 10

.1 Paragraph (2)(b) is amended to read:

"(b) 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".

.2 Paragraph (3)(b)(v) is amended by changing the cross-reference therein from 16(7) to 16(5).

3 Regulation 16

The existing text of this regulation is replaced by the following:

"Regulation 16

Oil discharge monitoring and control system
and oil filtering equipment

- (1) Any ship of 400 tons gross tonnage and above but less than 10,000 tons gross tonnage shall be fitted with oil filtering equipment complying with paragraph (4) 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 provided with oil filtering equipment, and with arrangements for an alarm and for automatically stopping any discharge of oily mixture when the oil content in the effluent exceeds 15 parts per million.
- (3) (a) The Administration may waive the requirements of paragraphs (1) and (2) of this regulation for any ship engaged exclusively on voyages within special areas provided that all of the following conditions are complied with:
 - (i) the ship is fitted with a holding tank having a volume adequate, to the satisfaction of the Administration, for the total retention on board of the oily bilge water;
 - (ii) all oily bilge water is retained on board for subsequent discharge to reception facilities;
 - (iii) the Administration has determined that adequate reception facilities are available to receive such oily bilge water in a sufficient number of ports or terminals the ship calls at;

- (iv) the International Oil Pollution Prevention Certificate, when required, is endorsed to the effect that the ship is exclusively engaged on the voyages within special areas; and
- (v) the quantity, time, and port of the discharge are recorded in the Oil Record Book.
- (b) 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) Oil filtering equipment referred to in paragraph (1) of this regulation shall be of a design approved by the Administration and shall be such as will ensure that any oily mixture discharged into the sea after passing through the system has an oil content not exceeding 15 parts per million. In considering the design of such equipment, the Administration shall have regard to the specification recommended by the Organization*.
- (5) Oil filtering equipment referred to in paragraph (2) of this regulation shall be of a design approved by the Administration and shall be such as will ensure that any oily mixture discharged into the sea after passing through the system or systems has an oil content not exceeding 15 parts per million. It shall be provided with alarm arrangements to indicate when this level cannot be maintained. The system shall also be provided with arrangements such as will ensure that any discharge of oily mixtures is automatically stopped when the oil content of the effluent exceeds 15 parts per million. In considering the design of such equipment and arrangements, the Administration shall have regard to the specification recommended by the Organization*.
- (6) For ships delivered before 6 July 1993 the requirements of this regulation shall apply by 6 July 1998 provided that these ships can operate with oily-water separating equipment (100 ppm equipment)."

A footnote should be added to paragraphs (4) and (5) as follows:

"* 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.393(X)."

4 Regulation 21

- .1 Subparagraph (c) is amended by deleting the first five words, i.e., "in any special area and".
- .2 Subparagraph (d) is deleted.

5 Forms A and B of Supplements to the IOPP Certificate

Items 2.2 and 2.3 in both Forms A and B of Supplements to the IOPP Certificate are replaced by the following:

"2.2 Type of oil filtering equipment fitted:

2.2.1 Oil filtering (15 ppm) equipment
(regulation 16(4))

☐

2.2.2 Oil filtering (15 ppm) equipment with alarm and
automatic stopping device (regulation 16(5))

☐

2.3 The ship is allowed to operate with the existing
equipment until 6 July 1998 (regulation 16(6)) and
fitted with:

2.3.1 Oily-water separating (100 ppm) equipment

☐

2.3.2 Oil filtering (15 ppm) equipment without alarm

☐

2.3.3 Oil filtering (15 ppm) equipment with alarm
and manual stopping device

☐ "

RESOLUTION MEPC.52(32)
adopted on 6 March 1992

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

(New regulations 13F and 13G and related amendments to Annex I
of MARPOL 73/78)

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention on the International Maritime
Organization concerning the functions of the Committee,

NOTING article 16 of the International Convention for the Prevention of
Pollution from Ships, 1973 (hereinafter referred to as the "1973 Convention"),
and article VI of the Protocol of 1978 relating to the International
Convention for the Prevention of Pollution from Ships, 1973 (hereinafter
referred to as the "1978 Protocol"), which confer upon the appropriate body
of the Organization the function of considering and adopting amendments to
the 1973 Convention, as modified by the 1978 Protocol (MARPOL 73/78),

NOTING ALSO resolution A.675(16) on prevention of oil pollution,

RECOGNIZING the severity of marine pollution incidents resulting from
tanker casualties,

DESIRING to improve the requirements for the design and construction of
oil tankers to prevent oil pollution in the event of collision or grounding,

HAVING CONSIDERED, at its thirty-second session, amendments to the
1978 Protocol proposed and circulated in accordance with article 16(2)(a)
of the 1973 Convention,

1. ADOPTS, in accordance with article 16(2)(d) of the 1973 Convention,
amendments to the Annex of the 1978 Protocol, the text of which is set out
in the Annex to the present resolution;
2. DETERMINES, in accordance with article 16(2)(f)(iii) of the
1973 Convention, that the amendments shall be deemed to have been accepted
on 6 January 1993, unless prior to this date one third or more of the Parties,
or the Parties the combined merchant fleets of which constitute fifty per cent
or more of the gross tonnage of the world's merchant fleet, have communicated
to the Organization their objections to the amendments;
3. INVITES the Parties to note that, in accordance with article 16(2)(g)(ii)
of the 1973 Convention, the amendments shall enter into force on 6 July 1993
upon their acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with article 16(2)(e) of
the 1973 Convention, to transmit to all Parties to MARPOL 73/78 certified
copies of the present resolution and the text of the amendments contained in
the Annex;
5. FURTHER REQUESTS the Secretary-General to transmit copies of the
resolution and its Annex to the Members of the Organization which are not
Parties to MARPOL 73/78;

6. AGREES to develop as a matter of urgency:

- (a) guidelines for approval of alternative methods of design and construction of oil tankers as called for in regulation 13F(5);
- (b) guidelines for approval of alternative structural or operational arrangements as called for in regulation 13G(7); and
- (c) guidelines for an enhanced programme of surveys and inspections as called for in regulation 13G(3).

ANNEX

AMENDMENTS TO ANNEX I OF MARPOL 73/78

Regulation 1

Definitions

The following new paragraph (8)(c) is inserted after the existing paragraph (8)(b):

- "(c) Notwithstanding the provisions of subparagraph (a) of this paragraph, conversion of an existing oil tanker to meet the requirements of regulation 13F or 13G of this Annex shall not be deemed to constitute a major conversion for the purpose of this Annex."

New regulations 13F and 13G

The following new regulations 13F and 13G are inserted after the existing regulation 13E:

REGULATION 13F OF ANNEX I OF MARPOL 73/78

Prevention of oil pollution in the event of
collision or stranding

(1) This regulation shall apply to oil tankers of 600 tons deadweight and above:

- (a) for which the building contract is placed on or after 6 July 1993, or
- (b) in the absence of a building contract, the keels of which are laid or which are at a similar stage of construction on or after 6 January 1994, or
- (c) the delivery of which is on or after 6 July 1996, or
- (d) which have undergone a major conversion:
 - (i) for which the contract is placed after 6 July 1993; or
 - (ii) in the absence of a contract, the construction work of which is begun after 6 January 1994; or
 - (iii) which is completed after 6 July 1996.

(2) Every oil tanker of 5,000 tons deadweight and above shall:

- (a) in lieu of regulation 13E, as applicable, comply with the requirements of paragraph (3) unless it is subject to the provisions of paragraphs (4) and (5); and
- (b) comply, if applicable, with the requirements of paragraph (6).

(3) The entire cargo tank length shall be protected by ballast tanks or spaces other than cargo and fuel oil tanks as follows:

(a) Wing tanks or spaces

Wing tanks or spaces shall extend either for the full depth of the ship's side or from the top of the double bottom to the uppermost deck, disregarding a rounded gunwale where fitted. They shall be arranged such that the cargo tanks are located inboard of the moulded line of the side shell plating, nowhere less than the distance w which, as shown in figure 1, is measured at any cross-section at right angles to the side shell, as specified below:

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

$w = 2.0 \text{ m}$, whichever is the lesser.

The minimum value of $w = 1.0 \text{ m}$.

(b) Double bottom tanks or spaces

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

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

$h = 2.0 \text{ m}$, whichever is the lesser.

The minimum value of $h = 1.0 \text{ m}$.

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

When the distances h and w are different, the distance w shall have preference at levels exceeding $1.5 h$ above the baseline as shown in figure 1.

(d) The aggregate capacity of ballast tanks

On crude oil tankers of 20,000 tons deadweight and above and product carriers of 30,000 tons deadweight and above, the aggregate capacity of wing tanks, double bottom tanks, forepeak tanks and afterpeak tanks shall not be less than the capacity of segregated ballast tanks necessary to meet the requirements of regulation 13. Wing tanks or spaces and double bottom tanks used to meet the requirements of regulation 13 shall be located as uniformly as practicable along the cargo tank length. Additional segregated ballast capacity provided for reducing longitudinal hull girder bending stress, trim, etc., may be located anywhere within the ship.

(e) Suction wells in cargo tanks

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

(f) Ballast and cargo piping

Ballast piping and other piping such as sounding and vent piping to ballast tanks shall not pass through cargo tanks. Cargo piping and similar piping to cargo tanks shall not pass through ballast tanks. Exemptions to this requirement may be granted for short lengths of piping, provided that they are completely welded or equivalent.

- (4) (a) Double bottom tanks or spaces as required by paragraph (3)(b) may be dispensed with, provided that the design of the tanker is such that the cargo and vapour pressure exerted on the bottom shell plating forming a single boundary between the cargo and the sea does not exceed the external hydrostatic water pressure, as expressed by the following formula:

$$f \cdot h_c \cdot \rho_c \cdot g + 100\Delta p \leq d_n \cdot \rho_s \cdot g$$

where:

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

ρ_c = maximum cargo density in t/m^3

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

ρ_s = density of sea water in t/m^3

Δp = maximum set pressure of pressure/vacuum valve provided for the cargo tank in bars

f = safety factor = 1.1

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

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

- (c) The location of wing tanks or spaces shall be as defined in paragraph (3)(a) except that, below a level $1.5 h$ above the baseline where h is as defined in paragraph (3)(b), the cargo tank boundary line may be vertical down to the bottom plating, as shown in figure 2.

(5) Other methods of design and construction of oil tankers may also be accepted as alternatives to the requirements prescribed in paragraph (3), provided that such methods ensure at least the same level of protection against oil pollution in the event of collision or stranding and are approved in principle by the Marine Environment Protection Committee based on guidelines developed by the Organization.

(6) For oil tankers of 20,000 tons deadweight and above the damage assumptions prescribed in regulation 25(2)(b) shall be supplemented by the following assumed bottom raking damage:

- (a) longitudinal extent:
- (i) ships of 75,000 tons deadweight and above:
0.6 L measured from the forward perpendicular
 - (ii) ships of less than 75,000 tons deadweight:
0.4 L measured from the forward perpendicular
- (b) transverse extent: B/3 anywhere in the bottom
- (c) vertical extent: breach of the outer hull.
- (7) Oil tankers of less than 5,000 tons deadweight shall:
- (a) at least be fitted with double bottom tanks or spaces having such a depth that the distance h specified in paragraph (3)(b) complies with the following:
$$h = B/15 \text{ (m) with a minimum value of } h = 0.76 \text{ m;}$$

in the turn of the bilge area and at locations without a clearly defined turn of the bilge, the cargo tank boundary line shall run parallel to the line of the mid-ship flat bottom as shown in figure 3; and
 - (b) be provided with cargo tanks so arranged that the capacity of each cargo tank does not exceed 700 m³ unless wing tanks or spaces are arranged in accordance with paragraph (3)(a) complying with the following:
$$w = 0.4 + \frac{2.4 \text{ DW}}{20,000} \text{ (m)}$$

with a minimum value of w = 0.76 m.
- (8) Oil shall not be carried in any space extending forward of a collision bulkhead located in accordance with regulation II-1/11 of the International Convention for the Safety of Life at Sea, 1974, as amended. An oil tanker that is not required to have a collision bulkhead in accordance with that regulation shall not carry oil in any space extending forward of the transverse plane perpendicular to the centreline that is located as if it were a collision bulkhead located in accordance with that regulation.
- (9) In approving the design and construction of oil tankers to be built in accordance with the provisions of this regulation, Administrations shall have due regard to the general safety aspects including the need for the maintenance and inspections of wing and double bottom tanks or spaces.

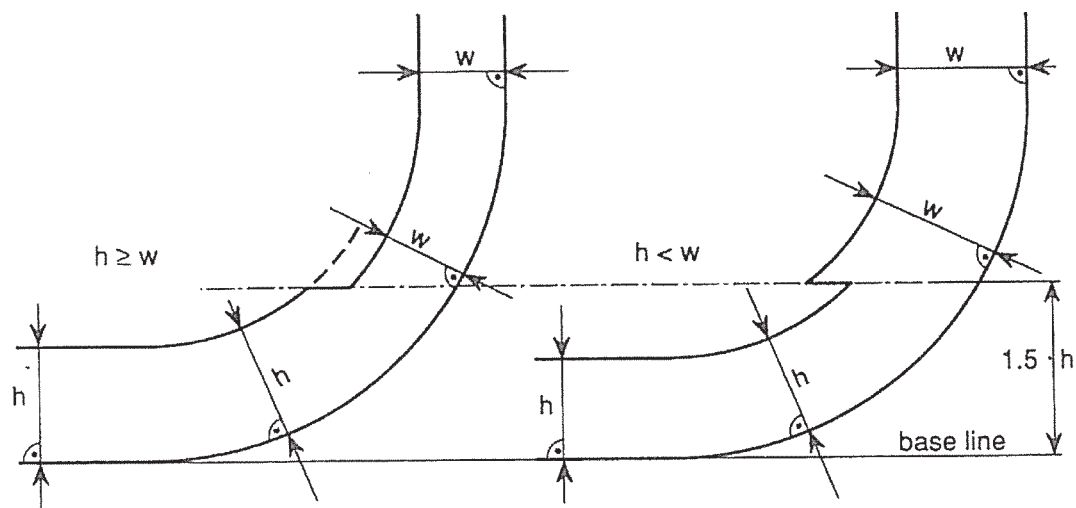


Figure 1

Cargo tank boundary lines for the purpose of paragraph (3)

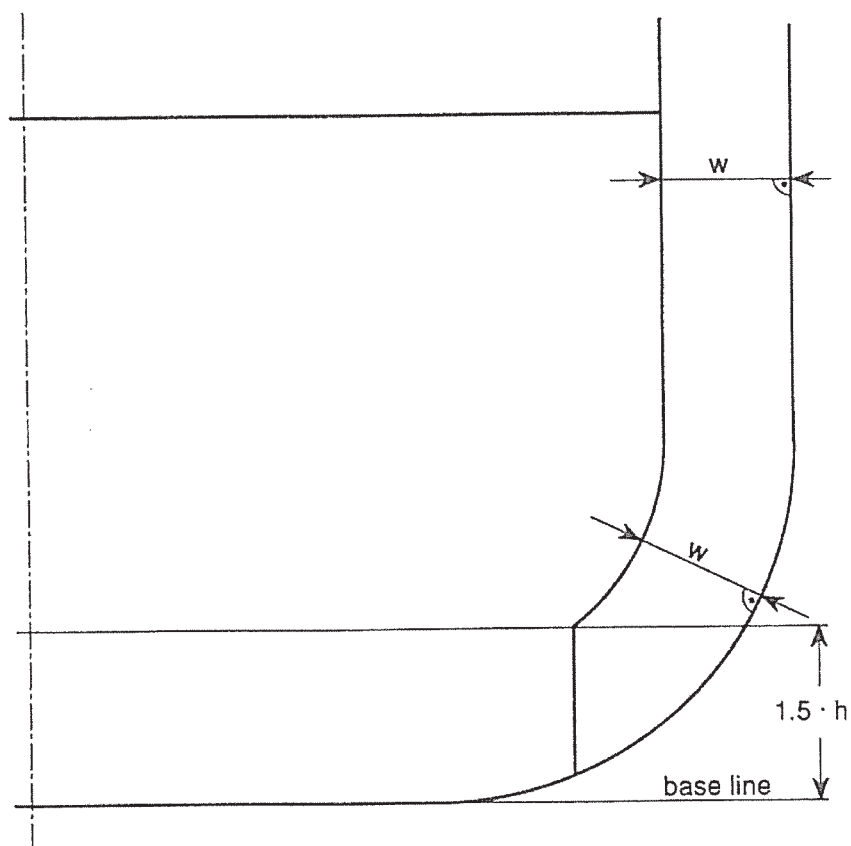


Figure 2

Cargo tank boundary lines for the purpose of paragraph (4)

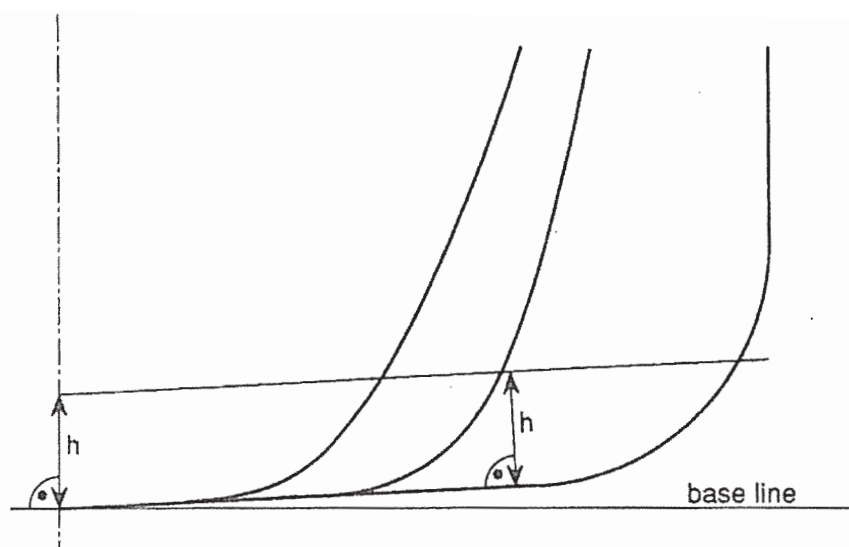


Figure 3

Cargo tank boundary lines for the purpose of paragraph (7)

REGULATION 13G OF ANNEX I OF MARPOL 73/78

Prevention of oil pollution in the event of collision or strandingMeasures for existing tankers

- (1) This regulation shall:
- (a) apply to crude oil tankers of 20,000 tons deadweight and above and to product carriers of 30,000 tons deadweight and above, which are contracted, the keels of which are laid, or which are delivered before the dates specified in regulation 13F(1) of this Annex; and
 - (b) not apply to oil tankers complying with regulation 13F of this Annex, which are contracted, the keels of which are laid, or are delivered before the dates specified in regulation 13F(1) of this Annex; and
 - (c) not apply to oil tankers covered by subparagraph (a) above which comply with regulation 13F(3)(a) and (b) or 13F(4) or 13F(5) of this Annex, except that the requirement for minimum distances between the cargo tank boundaries and the ship side and bottom plating need not be met in all respects. In that event, the side protection distances shall not be less than those specified in the International Bulk Chemical Code for type 2 cargo tank location and the bottom protection shall comply with regulation 13E(4)(b) of this Annex.
- (2) The requirements of this regulation shall take effect as from 6 July 1995.
- (3) (a) An oil tanker to which this regulation applies shall be subject to an enhanced programme of inspections during periodical, intermediate and annual surveys, the scope and frequency of which shall at least comply with the guidelines developed by the Organization.
- (b) An oil tanker over five years of age to which this regulation applies shall have on board, available to the competent authority of any Government of a State Party to the present Convention, a complete file of the survey reports, including the results of all scantling measurement required, as well as the statement of structural work carried out.
- (c) This file shall be accompanied by a condition evaluation report, containing conclusions on the structural condition of the ship and its residual scantlings, endorsed to indicate that it has been accepted by or on behalf of the flag Administration. This file and condition evaluation report shall be prepared in a standard format as contained in the guidelines developed by the Organization.
- (4) An oil tanker not meeting the requirements of a new oil tanker as defined in regulation 1(26) of this Annex shall comply with the requirements of regulation 13F of this Annex not later than 25 years after its date of delivery; unless wing tanks or double bottom spaces, not used for the carriage of oil and meeting the width and height requirements of regulation 13E(4), cover at least 30% of L_t for the full depth of the ship on each side or at least 30% of the projected bottom shell area ΣPA_s within the length L_t , where L_t and the projected bottom shell area ΣPA_s are as defined in regulation 13E(2), in which case compliance with regulation 13F is required not later than 30 years after its date of delivery.

(5) An oil tanker meeting the requirements of a new oil tanker as defined in regulation 1(26) of this Annex shall comply with the requirements of regulation 13F of this Annex not later than 30 years after its date of delivery.

(6) Any new ballast and load conditions resulting from the application of paragraph (4) of this regulation shall be subject to approval of the Administration which shall have regard, in particular, to longitudinal and local strength, intact stability and, if applicable, damage stability.

(7) Other structural or operational arrangements such as hydrostatically balanced loading may be accepted as alternatives to the requirements prescribed in paragraph (4), provided that such alternatives ensure at least the same level of protection against oil pollution in the event of collision or stranding and are approved by the Administration based on guidelines developed by the Organization.

Regulation 24(4)

Limitation of size and arrangement of cargo tanks

The existing text of paragraph (4) is replaced by the following:

"(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 inside the cargo tanks:

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

but not to exceed 0.2 L

(b) Where a centreline longitudinal bulkhead is provided inside the cargo tanks:

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

(c) Where two or more longitudinal bulkheads are provided inside the cargo tanks:

(i) for wing cargo tanks:

$$0.2 L$$

(ii) for centre cargo tanks:

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

$$0.2 L$$

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

- Where no centreline longitudinal bulkhead is provided:

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

- Where a centreline longitudinal bulkhead is provided:

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

(d) "b_i" is the minimum distance from the ship's side to the outer longitudinal bulkhead of the tank in question measured inboard at right angles to the centreline at the level corresponding to the assigned summer freeboard."

AMENDMENTS TO THE RECORD OF CONSTRUCTION AND EQUIPMENT FOR OIL TANKERS (FORM B)

The following new paragraph 5.8 is inserted after the existing paragraph 5.7:

"5.8 Double hull construction

5.8.1 The ship is required to be constructed according to regulation 13F and complies with the requirements of:

- .1 paragraph (3) (double hull construction) ☒
- .2 paragraph (4) (mid-height deck tankers with double side construction) ☒
- .3 paragraph (5) (alternative method approved by the Marine Environment Protection Committee) ☒

5.8.2 The ship is required to be constructed according to and complies with the requirements of regulation 13F(7) (double bottom requirements) ☒

5.8.3 The ship is not required to comply with the requirements of regulation 13F ☒

5.8.4 The ship is subject to regulation 13G and:

- .1 is required to comply with regulation 13F not later than ☒
- .2 is so arranged that the following tanks or spaces are not used for the carriage of oil ☒

5.8.5 The ship is not subject to regulation 13G ☒ "

RESOLUTION MEPC.57(33)
(adopted on 30 October 1992)

AMENDMENTS TO THE ANNEX OF THE PROTOCOL OF 1978 RELATING TO
THE INTERNATIONAL CONVENTION FOR THE PREVENTION OF
POLLUTION FROM SHIPS, 1973
(Designation of the Antarctic area as a special area
and lists of liquid substances in Annex II)

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention on the International Maritime Organization concerning the function of the Committee conferred upon it by international conventions for the prevention and control of marine pollution,

NOTING article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1973 Convention") and article VI of the Protocol of 1978 relating to the 1973 Convention (hereinafter referred to as the "1978 Protocol") which together specify the amendment procedure of the 1978 Protocol and confer upon the appropriate body of the Organization the function of considering and adopting amendments to the 1973 Convention, as modified by the 1978 Protocol (MARPOL 73/78),

NOTING FURTHER resolution MEPC.55(33) by which the Committee adopted amendments to the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code),

HAVING CONSIDERED, at its thirty-third session, amendments to Annex II of MARPOL 73/78 and appendices II and III thereof proposed by the Sub-Committee on Bulk Chemicals at its twenty-first session and circulated in accordance with article 16(2)(a) of the 1973 Convention,

1. ADOPTS in accordance with article 16(2)(d) of the 1973 Convention amendments to Annex II of MARPOL 73/78 and appendices II and III thereof, the texts of these amendments are set out in the annex to the present resolution;
2. DETERMINES, in accordance with article 16(2)(f)(iii) of the 1973 Convention that the amendments shall be deemed to have been accepted on the date on which the conditions for the entry into force of the amendments to the IBC Code adopted by the Committee by resolution MEPC.55(33) are met, unless, prior to that date, not less than one third of the Parties or the Parties, the combined merchant fleets of which constitute not less than fifty per cent of the gross tonnage of the world's merchant fleet, have communicated to the Organization their objections to the amendments;
3. INVITES the Parties to note that, in accordance with article 16(2)(g)(ii) of the 1973 Convention, the amendments shall enter into force six months after their acceptance in accordance with paragraph 2 above;

4. REQUESTS the Secretary-General, in conformity with article 16(2)(e) of the 1973 Convention, to transmit to all Parties to the Convention certified copies of the present resolution and the text of the amendments contained in the annex;

5. REQUESTS FURTHER the Secretary-General to transmit to the Members of the Organization which are not Parties to the 1978 Protocol copies of the resolution and its annex.

ANNEX

TEXT OF AMENDMENTS TO ANNEX II OF MARPOL 73/78
AND APPENDICES II AND III

Regulation 1

The existing text of paragraph (6) is replaced by the following:

'Noxious liquid substance' means any substance referred to 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.

The existing text of the last sentence of paragraph (7) is amended to read as follows:

Special areas shall be:

- (a) the Baltic Sea area, and
- (b) the Black Sea area, and
- (c) the Antarctic area.

A new paragraph (9A) is inserted reading:

- (9A) The Antarctic area means the sea area south of latitude 60° S.

Regulation 2

The following new paragraph (7) is added:

- (7) (a) Where an amendment to this Annex and to the International Bulk Chemical Code and the Bulk Chemical Code involves changes to the structure or equipment and fittings due to the upgrading of the requirements for the carriage of certain substances, the Administration may modify or delay for a specified period the application of such an amendment to ships constructed before the date of entry into force of that amendment, if the immediate application of such an amendment is considered unreasonable or impracticable. Such relaxation shall be determined with respect to each substance, having regard to the guidelines developed by the Organization.*

* Reference is made to Guidelines for the application of amendments to the list of substances in Annex II of MARPOL 73/78 and the IBC Code and BCH Code with respect to pollution hazards approved by the Marine Environment Protection Committee of the Organization and issued under cover of MEPC/Circ.266.

- (b) The Administration allowing a relaxation of the application of an amendment under this paragraph shall submit to the Organization a report giving details of the ship or ships concerned, the cargoes carried, the trade in which each ship is engaged and the justification for the relaxation, for circulation to the Parties to the Convention for their information and appropriate action, if any.

Regulation 3

The existing text of paragraph (3) is replaced by the following:

- (3) Noxious liquid substances carried in bulk which are presently categorized as category A, B, C or D and subject to the provisions of this Annex are referred to in appendix II to this Annex.

Regulation 4

The existing text of paragraph (1) is replaced by the following:

- (1) The substances referred to in appendix III to this Annex have been evaluated and found to fall outside category A, B, C and D, as defined in regulation 3(1) of this Annex because they are at present 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 operation.

The existing text of paragraph (2) is replaced by the following:

- (2) The discharge of bilge or ballast water or other residues or mixtures containing only substances referred to in appendix III to this Annex shall not be subject to any requirement of this Annex.

Regulation 5

The existing text of the wording preceding paragraphs (1) and (7) is amended to read as follows:

Subject to the provisions of paragraph (14) of this regulation and of regulation 6 of this Annex,

The second sentence of the existing text of paragraph (1) is amended to read:

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 0.1% by weight and until the tank is empty, with the exception of phosphorus, yellow or white for which the residual concentration shall be at 0.01% by weight.

The existing text of the second sentence of paragraph (7) is amended to read as follows:

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 0.05% by weight and until the tank is empty, with the exception of phosphorus, yellow or white for which the residual concentration shall be 0.005% by weight.

A new paragraph (14) is added as follows:

- (14) In respect of the Antarctic area any discharge into the sea of noxious liquid substances or mixtures containing such substances shall be prohibited.

Regulation 8

The first and second sentences of the existing text of paragraph (3) is amended to read as follows:

If the tank is to be washed in accordance with subparagraph (2)(a) of this regulation, the effluent from the tank washing operation shall be discharged to a reception facility at least until the concentration of the substance in the discharge, as indicated by analyses of samples of the effluent taken by the surveyor, has fallen to the concentration specified in regulations 5(1) or 5(7), as applicable, of this Annex. When the required concentration has been achieved, remaining tank washings shall continue to be discharged to the reception facility until the tank is empty.

Regulation 14

In the second line the words "designated in Appendix II" are replaced by the words "referred to in appendix II".

Appendix II is replaced by the following:

Appendix II

LIST OF NOXIOUS SUBSTANCES CARRIED IN BULK

Noxious liquid substances carried in bulk and which are presently categorized as category A, B, C or D and subject to the provisions of this Annex, are so indicated in the pollution category column of chapters 17 or 18 of the International Bulk Chemical Code.

Appendix III is replaced by the following:

Appendix III

LIST OF OTHER LIQUID SUBSTANCES

Liquid substances carried in bulk which are identified as falling outside the category A, B, C or D and not subject to the provisions of this Annex are indicated as "III" in the pollution category column of chapters 17 or 18 of the International Bulk Chemical Code.

RESOLUTION MEPC.58(33)
(adopted on 30 October 1992)

AMENDMENTS TO THE ANNEX OF THE PROTOCOL OF 1978 RELATING
TO THE INTERNATIONAL CONVENTION FOR THE PREVENTION
OF POLLUTION FROM SHIPS, 1973
(Revised Annex III)

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention on the International Maritime Organization concerning the function of the Committee conferred upon it by international conventions for the prevention and control of marine pollution,

NOTING article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1973 Convention") and article VI of the Protocol of 1978 relating to the 1973 Convention (hereinafter referred to as the "1978 Protocol") which together specify the amendment procedure of the 1978 Protocol and confer upon the appropriate body of the Organization the function of considering and adopting amendments to the 1973 Convention, as modified by the 1978 Protocol (MARPOL 73/78),

RECALLING ALSO that the Committee adopted resolution MEPC.35(27) on implementation of Annex III of MARPOL 73/78 by which it is stated, inter alia, that the revised provisions of Annex III can be treated as equivalent to the existing provisions and hence nothing in MARPOL 73/78 will prevent Parties to Annex III from giving effect to the revised provisions of Annex III without awaiting the formal entry into force of the revised provisions,

RECALLING FURTHER that the Committee decided to commence action to amend Annex III to MARPOL 73/78 in accordance with article 16 of MARPOL 73/78, immediately upon the entry into force,

NOTING ALSO that the existing provisions of Annex III of MARPOL 73/78 already came into force on 1 July 1992,

HAVING CONSIDERED, the amendments to Annex III of MARPOL 73/78, which were agreed at its twenty-sixth session, modified at its thirtieth and thirty-first sessions and circulated in accordance with article 16(2)(a) of the 1973 Convention,

1. ADOPTS in accordance with article 16(2)(d) of the 1973 Convention amendments to Annex III of MARPOL 73/78, the text of which is set out in the annex to the present resolution;

2. DETERMINES, in accordance with article 16(2)(f)(iii) of the 1973 Convention, that the amendments shall be deemed to have been accepted on 30 August 1993, unless, prior to that date, not less than one third of the Parties or the Parties, the combined merchant fleets of which constitute not less than fifty per cent of the gross tonnage of the world's merchant fleet, have communicated to the Organization their objections to the amendments;
3. INVITES the Parties to note that, in accordance with article 16(2)(g)(ii) of the 1973 Convention, the amendments shall enter into force on 28 February 1994 in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with article 16(2)(e) of the 1973 Convention, to transmit to all Parties to Annex III of the 1978 Protocol certified copies of the present resolution and the text of the amendments contained in the annex;
5. REQUESTS FURTHER the Secretary-General to transmit to the Members of the Organization which are not Parties to Annex III of the 1978 Protocol copies of the resolution and its annex.

ANNEX

The existing text of Annex III is replaced by the following:

ANNEX III

REGULATIONS FOR THE PREVENTION OF POLLUTION BY HARMFUL
SUBSTANCES CARRIED BY SEA IN PACKAGED FORM

Regulation 1

Application

1 Unless expressly provided otherwise, the regulations of this Annex apply to all ships carrying harmful substances in packaged form.

1.1 For the purposes of this Annex, "harmful substances" are those substances which are identified as marine pollutants in the International Maritime Dangerous Goods Code (IMDG Code).*

1.2 Guidelines for the identification of harmful substances in packaged form are given in the appendix to this Annex.

1.3 For the purposes of this Annex, "packaged form" is defined as the forms of containment specified for harmful substances in the IMDG Code.

2 The 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 packing, marking, labelling, documentation, stowage, quantity limitations and exceptions for preventing or minimizing pollution of the marine environment by harmful substances.*

4 For the purposes of this Annex, empty packagings 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 harmful to the marine environment.

5 The requirements of this Annex do not apply to ships' stores and equipment.

* Reference is made to the International Maritime Dangerous Goods Code (IMDG Code) adopted by the Organization by resolution A.716(17) as it has been or may be amended by the Maritime Safety Committee.

Regulation 2

Packing

Packages shall be adequate to minimize the hazard to the marine environment, having regard to their specific contents.

Regulation 3

Marking and labelling

1 Packages containing a harmful substance shall be durably marked with the correct technical name (trade names alone shall not be used) and, further, shall be durably marked or labelled to indicate that the substance is a marine pollutant. Such identification shall be supplemented where possible by any other means, for example, by use of the relevant United Nations number.

2 The method of marking the correct technical name and of affixing labels on packages containing a harmful substance shall be such that this information will still be identifiable on packages surviving at least three months' immersion in the sea. In considering suitable marking and labelling, account shall be taken of the durability of the materials used and of the surface of the package.

3 Packages containing small quantities of harmful substances may be exempted from the marking requirements.*

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 each such substance shall be used (trade names alone shall not be used) and the substance further identified by the addition of the words "MARINE POLLUTANT".

2 The shipping documents supplied by the shipper shall include, or be accompanied by, a signed certificate or declaration that the shipment offered for carriage is properly packaged and marked, labelled or placarded as appropriate 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 the harmful substances on board may be used in place of such special list or manifest.

* Reference is made to the specific exemptions provided for in the International Maritime Dangerous Goods Code (IMDG Code).

** Reference to "documents" in this regulation does not preclude the use of electronic data processing (EDP) and electronic data interchange (EDI) transmission techniques as an aid to paper documentation.

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. A copy of one of these documents shall be made available before departure to the person or organization designated by the port State authority.

4 When 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, 1974, as amended, the documents required by this regulation may be combined with those for dangerous goods. Where documents are combined, a clear distinction shall be made between dangerous goods and harmful substances covered by this Annex.

Regulation 5

Stowage

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

Regulation 6

Quantity limitations

Certain harmful substances 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 substances.

Regulation 7

Exceptions

1 Jettisoning of harmful substances carried in packaged form 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.

AppendixGUIDELINES FOR THE IDENTIFICATION OF HARMFUL
SUBSTANCES IN PACKAGED FORM

For the purposes of this Annex, substances identified by any one of the following criteria are harmful substances:

- bioaccumulated to a significant extent and known to produce a hazard to aquatic life or to human health (hazard rating "+" in column A*); or
- bioaccumulated with attendant risk to aquatic organisms or to human health with a short retention of the order of one week or less (hazard rating "Z" in column A*); or
- liable to produce tainting of seafood (hazard rating "T" in column A*); or
- highly toxic to aquatic life, defined by a LC₅₀/96 hour** less than 1 ppm (hazard rating "4" in column B*).

* Reference is made to the Composite List of Hazard Profiles, prepared by the IMO/FAO/UNESCO/WMO/WHO/IAEA/UN/UNEP Joint Group of Experts on the Scientific Aspects of Marine Pollution (GESAMP) which is circulated annually by the Organization by means of BCH circulars to all IMO Member States.

** The concentration of a substance which will, within the specified time (generally 96 hours), kill 50% of the exposed group of test organisms. LC₅₀ is often specified in mg/l (parts per million (ppm)).

**RESOLUTIONS ADOPTED BY THE CONFERENCE OF PARTIES TO
THE INTERNATIONAL CONVENTION FOR THE PREVENTION
OF POLLUTION FROM SHIPS, 1973, AS MODIFIED BY THE
PROTOCOL OF 1978 RELATING THERETO,
ON 2 NOVEMBER 1994**

RESOLUTION 1

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

**(Amendments to Annexes I and II on port State
control on operational requirements)**

THE CONFERENCE,

RECALLING article 16(3) 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 "MARPOL 73/78") concerning the procedure for amending MARPOL 73/78 by a Conference of Parties,

HAVING CONSIDERED amendments to Annexes I and II of MARPOL 73/78 proposed and circulated to the Members of the Organization and all Parties to MARPOL 73/78,

1. ADOPTS, in accordance with article 16(3) of MARPOL 73/78, amendments to Annexes I and II of MARPOL 73/78, the text of which is set out in the Annex to the present resolution;
2. DETERMINES, in accordance with article 16(3)(c) of MARPOL 73/78, that the amendments shall be deemed to have been accepted on 3 September 1995 unless prior to this date one third or more of the Parties, or the Parties the combined merchant fleets of which constitute fifty per cent or more of the gross tonnage of the world's merchant fleet, have communicated to the Organization their objections to the amendments;
3. INVITES Parties to note that, in accordance with article 16(3)(c) of MARPOL 73/78, the amendments shall enter into force on 3 March 1996 upon their acceptance in accordance with paragraph 2 above.

ANNEX**Amendments to Annexes I and II of MARPOL 73/78**

- 1 The following new regulation 8A is inserted after the existing regulation 8 of Annex I.

"Regulation 8A**Port State control on operational requirements**

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

(2) In the circumstances given in paragraph (1) of this regulation, the Party shall take such steps as will ensure that the ship shall not sail until the situation 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 "

- 2 The following new regulation 15 is added to the existing regulations of Annex II:

"Regulation 15**Port State control on operational requirements**

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

(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."

RESOLUTION 2**AMENDMENTS TO THE ANNEX OF THE PROTOCOL OF 1978
RELATING TO THE INTERNATIONAL CONVENTION FOR THE
PREVENTION OF POLLUTION FROM SHIPS, 1973**

**(Amendments to Annex III on
port State control on operational requirements)**

THE CONFERENCE,

RECALLING article 16(3) 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 "MARPOL 73/78") concerning the procedure for amending MARPOL 73/78 by a Conference of Parties,

HAVING CONSIDERED amendments to Annexes III of MARPOL 73/78 proposed and circulated to the Members of the Organization and all Parties to MARPOL 73/78,

1. ADOPTS, in accordance with article 16(3) of MARPOL 73/78, amendments to Annex III of MARPOL 73/78, the text of which is set out in the Annex to the present resolution;
2. DETERMINES, in accordance with article 16(3)(c) of MARPOL 73/78, that the amendments shall be deemed to have been accepted on 3 September 1995 unless prior to this date one third or more of the Parties, or the Parties the combined merchant fleets of which constitute fifty per cent or more of the gross tonnage of the world's merchant fleet, have communicated to the Organization their objections to the amendments;
3. INVITES Parties to note that, in accordance with article 16(3)(c) of MARPOL 73/78, the amendments shall enter into force on 3 March 1996 upon their acceptance in accordance with paragraph 2 above

ANNEX**Amendments to Annex III of MARPOL 73/78**

The following new regulation 8 is added to the existing regulations of Annex III.

"Regulation 8**Port State control on operational requirements**

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

RESOLUTION 3**AMENDMENTS TO THE ANNEX OF THE PROTOCOL OF 1978
RELATING TO THE INTERNATIONAL CONVENTION FOR THE
PREVENTION OF POLLUTION FROM SHIPS, 1973****(Amendments to Annex V on
port State control on operational requirements)**

THE CONFERENCE,

RECALLING article 16(3) 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 "MARPOL 73/78") concerning the procedure for amending MARPOL 73/78 by a Conference of Parties,

HAVING CONSIDERED amendments to Annex V of MARPOL 73/78 proposed and circulated to the Members of the Organization and all Parties to MARPOL 73/78,

1. ADOPTS, in accordance with article 16(3) of MARPOL 73/78, amendments to Annex V of MARPOL 73/78, the text of which is set out in the Annex to the present resolution;
2. DETERMINES, in accordance with article 16(3)(c) of MARPOL 73/78, that the amendments shall be deemed to have been accepted on 3 September 1995 unless prior to this date one third or more of the Parties, or the Parties the combined merchant fleets of which constitute fifty per cent or more of the gross tonnage of the world's merchant fleet, have communicated to the Organization their objections to the amendments;
3. INVITES Parties to note that, in accordance with article 16(3)(c) of MARPOL 73/78, the amendments shall enter into force on 3 March 1996 upon their acceptance in accordance with paragraph 2 above.

ANNEX**Amendments to Annex V of MARPOL 73/78**

- 4 The following new regulation 8 is added to the existing regulation of Annex V

"Regulation 8**Port State control on operational requirements**

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

RESOLUTION MEPC.65(37)
(adopted on 14 September 1995)

**AMENDMENTS TO THE ANNEX OF THE PROTOCOL OF 1978 RELATING
TO THE INTERNATIONAL CONVENTION FOR THE PREVENTION
OF POLLUTION FROM SHIPS, 1973**
(Amendments to Regulation 2 and new Regulation 9 of Annex V)

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention on the International Maritime Organization concerning the function of the Committee conferred upon it by international conventions for the prevention and control of marine pollution,

NOTING article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1973 Convention") and article VI of the Protocol of 1978 relating to the 1973 Convention (hereinafter referred to as the "1978 Protocol") which together specify the amendment procedure of the 1978 Protocol and confers upon the appropriate body of the Organization the function of considering and adopting amendments to the 1973 Convention, as modified by the 1978 Protocol (MARPOL 73/78),

NOTING ALSO that there is a need to provide for a more effective implementation of Annex V of MARPOL 73/78,

REQUIRING a more systematic approach to the enforcement and control of the requirements of Annex V, MARPOL 73/78,

HAVING CONSIDERED the amendments to Annex V of MARPOL 73/78, agreed at its thirty-sixth session and circulated in accordance with article 16(2)(a) of the 1973 Convention,

1. ADOPTS, in accordance with article 16(2)(b) of the 1973 Convention, amendments to Annex V of MARPOL 73/78, the text of which is set out in the annex to the present resolution;
2. DETERMINES, in accordance with article 16(2)(f)(iii) of the 1973 Convention, that the amendments shall be deemed to have been accepted on 1 January 1997, unless prior to the date, not less than one-third of the Parties or the Parties, the combined merchant fleets of which constitute not less than fifty per cent of the gross tonnage of the world's merchant fleet, have communicated to the Organization their objections to the amendments;
3. INVITES the Parties to note that in accordance with article 16(2)(g)(ii) of the 1973 Convention the amendments shall enter into force on 1 July 1997 in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with article 16(2)(e) of the 1973 Convention, to transmit to all Parties to Annex V of the 1978 Protocol certified copies of the present resolution and the text of the amendments contained in the annex;
5. REQUESTS FURTHER the Secretary-General to transmit to the Members of the Organization which are not Parties to Annex V of the 1978 Protocol copies of the resolution and its annex.

ANNEX**TEXTS OF AMENDMENTS TO ANNEX V OF MARPOL 73/78****Regulation 2****Application**

The existing text of regulation 2 is replaced by the following:

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

New regulation 9 is added as follows:

Regulation 9**Placards, garbage management plans and garbage record-keeping**

- (1)
 - (a) Every ship of 12 metres or more in length overall shall display placards which notify the crew and passengers of the disposal requirements of regulations 3 and 5 of this Annex, as applicable.
 - (b) The placards shall be written in the official language of the State whose flag the ship is entitled to fly and, for ships engaged in voyages to ports or offshore terminals under the jurisdiction of other Parties to the Convention, in English or French.
- (2) Every ship of 400 tons gross tonnage and above, and every ship which is certified to carry 15 persons or more, shall carry a garbage management plan which the crew shall follow. This plan shall provide written procedures for collecting, storing, processing and disposing of garbage, including the use of the equipment on board. It shall also designate the person in charge of carrying out the plan. Such a plan shall be in accordance with the guidelines developed by the Organization and written in the working language of the crew.
- (3) Every ship of 400 tons gross tonnage and above and every ship which is certified to carry 15 persons or more engaged in voyages to ports or offshore terminals under the jurisdiction of other Parties to the Convention and every fixed and floating platform engaged in exploration and exploitation of the sea-bed, shall be provided with a Garbage Record Book. The Garbage Record Book, whether as a part of the ship's official logbook or otherwise, shall be in the form specified in the Appendix to this Annex;
 - (a) each discharge operation, or completed incineration, shall be recorded in the Garbage Record Book and signed for on the date of the incineration or discharge by the officer in charge. Each completed page of the Garbage Record Book shall be signed by the master of the ship. The entries in the Garbage Record Book shall be both in an official language of the State whose flag the ship is entitled to fly, and 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;

- (b) the entry for each incineration or discharge shall include date and time, position of the ship, description of the garbage and the estimated amount incinerated or discharged;
 - (c) the Garbage Record Book shall be kept on board the ship and in such a place as to be available for inspection in a reasonable time. This document shall be preserved for a period of two years after the last entry is made on the record;
 - (d) in the event of discharge, escape or accidental loss referred to in regulation 6 of this Annex an entry shall be made in the Garbage Record Book of the circumstances of, and the reasons for, the loss.
- (4) The Administration may waive the requirements for Garbage Record Books for:
- (i) any ship engaged on voyages of 1 hour or less in duration which is certified to carry 15 persons or more; or
 - (ii) fixed or floating platforms while engaged in exploration and exploitation of the sea-bed.
- (5) The competent authority of the Government of a Party to the Convention may inspect the Garbage Record Book on board any ship to which this regulation applies while the ship is in its ports 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 an 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 Garbage Record Book, shall be admissible in any judicial proceedings as evidence of the facts stated in the entry. The inspection of a Garbage 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.
- (6) In the case of ships built before 1 July 1997, this regulation shall apply as from 1 July 1998.

Appendix is added to the Annex as follows:

APPENDIX

FORM OF GARBAGE RECORD BOOK

Name of ship: _____

Distinctive number or letters _____

IMO No. _____

Period: From: _____ To: _____

1. Introduction

In accordance with Regulation 9 of Annex V of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78) a record is to be kept of each discharge operation or completed incineration. This includes discharges at sea, to reception facilities, or to other ships.

2. Garbage and garbage management:

Garbage includes all kinds of food, domestic and operational waste excluding fresh fish and parts thereof, generated during the normal operation of the vessel and liable to be disposed of continuously or periodically except those substances which are defined or listed in other annexes to MARPOL 73/78 (such as oil, sewage or noxious liquid substances).

The Guidelines for the Implementation of Annex V of MARPOL 73/78 should also be referred to for relevant information.

3 Description of the garbage

The garbage is to be grouped into categories for the purposes of this record book as follows:

1. Plastics
2. Floating dunnage, lining, or packing material
3. Ground-down paper products, rags, glass, metal, bottles, crockery, etc.
4. Paper Products, rags, glass, metal, bottles, crockery, etc.
5. Food waste
6. Incinerator ash

4. Entries in the Garbage Record Book

Entries in the Garbage Record Book shall be made on each of the following occasions:

- (a) When garbage is discharged into the sea:
 - (i) Date and time of discharge
 - (ii) Position of the ship (latitude and longitude)
 - (iii) Category of garbage discharged
 - (iv) Estimated amount discharged for each category in m³
 - (v) Signature of the officer in charge of the operation.
- (b) When garbage is discharged to reception facilities ashore or to other ships:
 - (i) Date and time of discharge
 - (ii) Port or facility, or name of ship
 - (iii) Category of garbage discharged
 - (iv) Estimated amount discharged for each category in m³
 - (v) Signature of officer in charge of the operation
- (c) When garbage is incinerated:
 - (i) Date and time of start and stop of incineration
 - (ii) Position of the ship (latitude and longitude)
 - (iii) Estimated amount incinerated in m³
 - (iv) Signature of the officer in charge of the operation.
- (d) Accidental or other exceptional discharges of garbage
 - (i) Time of occurrence
 - (ii) Port or position of the ship at time of occurrence
 - (iii) Estimated amount and category of garbage
 - (iv) Circumstances of disposal, escape or loss, the reason therefore and general remarks.

4.2 Receipts

The master should obtain from the operator of port reception facilities, or from the master of the ship receiving the garbage, a receipt or certificate specifying the estimated amount of garbage transferred. The receipts or certificates must be kept on board the ship with the Garbage Record Book for two years.

4.3 Amount of garbage

The amount of garbage onboard should be estimated in m³, if possible separately according to category. The Garbage Record Book contains many references to estimated amount of garbage. It is recognized that the accuracy of estimating amounts of garbage is left to interpretation. Volume estimates will differ before and after processing. Some processing procedures may not allow for a usable estimate of volume, e.g. the continuous processing of food waste. Such factors should be taken into consideration when making and interpreting entries made in a record.

RECORD OF GARBAGE DISCHARGES

Ship's Name: _____ Distinctive No., or letters _____ IMO No.: _____

Garbage Categories:

- 1: Plastic.
- 2: Floating dunnage, lining, or packing materials.
- 3: Ground-down paper products, rags, glass, metal, bottles, crockery, etc.
- 4: Paper products, rags, glass, metal, bottles, crockery, etc.
- 5: Food waste.
- 6: Incinerator ash.

NOTE: THE DISCHARGE OF ANY GARBAGE OTHER THAN FOOD WASTE IS PROHIBITED IN SPECIAL AREAS. ONLY GARBAGE DISCHARGED INTO THE SEA MUST BE CATEGORIZED. GARBAGE OTHER THAN CATEGORY 1 DISCHARGED TO RECEPTION FACILITIES NEED ONLY BE LISTED AS A TOTAL ESTIMATED AMOUNT.

Date/time	Position of the Ship	Estimated Amount Discharged into Sea (m³)						Estimated Amount Discharged to Reception Facilities or to other ship (m³)	Estimated Amount Incinerated (m³)	Certification/ Signature
		CAT.2	CAT.3	CAT.4	CAT.5	CAT.6	CAT.1			
							Other			

Master's Signature: _____ Date: _____

RESOLUTION MEPC.68(38)**adopted on 10 July 1996****AMENDMENTS TO THE ANNEX OF THE PROTOCOL OF 1978 RELATING
TO THE INTERNATIONAL CONVENTION FOR THE PREVENTION
OF POLLUTION FROM SHIPS, 1973
(Amendments to Protocol I)**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention on the International Maritime Organization concerning the function of the Committee conferred upon it by international conventions for the prevention and control of marine pollution,

NOTING article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1973 Convention") and article VI of the Protocol of 1978 relating to the 1973 Convention (hereinafter referred to as the "1978 Protocol") which together specify the amendment procedure of the 1978 Protocol and confers upon the appropriate body of the Organization the function of considering and adopting amendments to the 1973 Convention, as modified by the 1978 Protocol (MARPOL 73/78),

NOTING ALSO that there is a need for more precise requirements with regard to when to make reports in article II of Protocol I, Provisions concerning Reports of Incidents Involving Harmful Substances, of the 1973 Convention,

HAVING CONSIDERED the amendments to article II of Protocol I of the 1973 Convention, agreed at its thirty-seventh session and circulated in accordance with article 16(2)(a) of the 1973 Convention,

1. ADOPTS, in accordance with article 16(2)(b) of the 1973 Convention, amendments to Protocol I of MARPOL 73/78, the text of which is set out at Annex to the present resolution;
2. DETERMINES, in accordance with article 16(2)(f)(iii) of the 1973 Convention, that the amendments shall be deemed to have been accepted on 1 July 1997, unless prior to the date, not less than one-third of the Parties or the Parties, the combined merchant fleets of which constitute not less than fifty per cent of the gross tonnage of the world's merchant fleet, have communicated to the Organization their objections to the amendments;
3. INVITES the Parties to note that in accordance with article 16(2)(g)(ii) of the 1973 Convention the amendments shall enter into force on 1 January 1998 in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with article 16(2)(e) of the 1973 Convention, to transmit to all Parties to the 1978 Protocol certified copies of the present resolution and the text of the amendments contained in the Annex; and
5. REQUESTS FURTHER the Secretary-General to transmit to the Members of the Organization which are not Parties to the 1978 Protocol copies of the resolution and its Annex.

ANNEX

TEXT OF AMENDMENTS TO PROTOCOL OF MARPOL 73/78

Existing text of article II(1) shall be replaced by the following:

- "(1) The report shall be made when an incident involves:
- (a) a discharge above the permitted level or probable discharge of oil or of noxious liquid substances for whatever reason including those for the purpose of securing the safety of the ship or for saving life at sea; or
 - (b) a discharge or probable discharge of harmful substances in packaged form, including those in freight containers, portable tanks, road and rail vehicles and shipborne barges; or
 - (c) damage, failure or breakdown of a ship of 15 metres in length or above which:
 - (i) affects the safety of the ship; including but not limited to collision, grounding, fire, explosion, structural failure, flooding, and cargo shifting; or
 - (ii) results to impairment of the safety of navigation; including but not limited to, failure or breakdown of steering gear, propulsion plant, electrical generating system, and essential shipborne navigational aids; or
 - (d) a discharge during the operation of the ship of oil or noxious liquid substances in excess of the quantity or instantaneous rate permitted under the present Convention."

RESOLUTION MEPC.75(40)
adopted on 25 September 1997

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

(Amendments to regulation 10 and new regulation 25A of Annex I of MARPOL 73/78)

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention on the International Maritime Organization concerning the function of the Committee conferred upon it by international conventions for the prevention and control of marine pollution,

NOTING article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1973 Convention") and article VI of the Protocol of 1978 relating to the 1973 Convention (hereinafter referred to as the "1978 Protocol") which together specify the amendment procedure of the 1978 Protocol and confers upon the appropriate body of the Organization the function of considering and adopting amendments to the 1973 Convention, as modified by the 1978 Protocol (MARPOL 73/78),

CONSIDERING the proposal of the littoral States to make North West European waters a special area under Annex I of MARPOL 73/78,

RECOGNIZING that there is a need to specify intact stability criteria for double hull tankers by adding an appropriate regulation to Annex I of MARPOL 73/78,

HAVING CONSIDERED the proposed amendments to regulation 10 and new regulation 25A of Annex I of MARPOL 73/78, which were approved by the thirty-ninth session of the Committee and circulated in accordance with article 16(2)(a) of the 1973 Convention,

1. ADOPTS, in accordance with article 16(2)(d) of the 1973 Convention, amendments to Annex I of MARPOL 73/78, the text of which is set out in the Annex to the present resolution;
2. DETERMINES, in accordance with article 16(2)(f)(iii) of the 1973 Convention, that the amendments shall be deemed to have been accepted on 1 August 1998, unless prior to that date, not less than one-third of the Parties or the Parties, the combined merchant fleets of which constitute not less than fifty per cent of the gross tonnage of the world's merchant fleet, have communicated to the Organization their objections to the amendments;
3. INVITES the Parties to note that, in accordance with article 16(2)(g)(ii) of the 1973 Convention, the amendments shall enter into force on 1 February 1999 upon their acceptance in accordance with paragraph 2 above;

4. REQUESTS the Secretary-General, in conformity with article 16(2)(e) of the 1973 Convention, to transmit to all Parties to MARPOL 73/78 certified copies of the present resolution and the text of the amendments contained in the Annex;
5. REQUESTS FURTHER the Secretary-General to transmit to the Members of the Organization which are not Parties to MARPOL 73/78 copies of the resolution and its Annex.

ANNEX

**AMENDMENTS TO REGULATION 10 AND NEW REGULATION 25A
OF ANNEX I OF MARPOL 73/78**

- 1 The existing text of regulation 10 is amended as follows:

Regulation 10**Methods for the prevention of oil pollution from ships while operating in special areas**

- .1 *The introductory part of paragraph (1) is replaced by the following.*

"(1) For the purpose of this Annex, the special areas are the Mediterranean Sea area, the Baltic Sea area, the Black Sea area, the Red Sea area, the "Gulfs area", the Gulf of Aden area, the Antarctic area and the North West European waters, which are defined as follows:"

- .2 *The following new paragraph (1)(h) is added after existing paragraph (1)(g):*

"(h) The North West European waters include the North Sea and its approaches, the Irish Sea and its approaches, the Celtic Sea, the English Channel and its approaches and part of the North East Atlantic immediately to the west of Ireland. The area is bounded by lines joining the following points:

- (i) 48° 27'N on the French coast
- (ii) 48° 27'N; 6° 25'W
- (iii) 49° 52'N; 7° 44'W
- (iv) 50° 30'N; 12°W
- (v) 56° 30'N; 12°W
- (vi) 62°N; 3°W
- (vii) 62°N on the Norwegian coast
- (viii) 57° 44.8'N on the Danish and Swedish coasts"

- .3 *The introductory part of paragraph (7)(b) is replaced by the following:*

"(b) Red Sea area, Gulfs area, Gulf of Aden area and North West European waters: "

- 2 The following new regulation 25A is added after existing regulation 25:

"Regulation 25A**Intact stability**

- (1) This regulation shall apply to oil tankers of 5,000 tons deadweight and above:

- (a) for which the building contract is placed on or after 1 February 1999, or

- (b) in the absence of a building contract, the keels of which are laid or which are at a similar stage of construction on or after 1 August 1999, or
 - (c) the delivery of which is on or after 1 February 2002, or
 - (d) which have undergone a major conversion:
 - (i) for which the contract is placed after 1 February 1999; or
 - (ii) in the absence of a contract, the construction work of which is begun after 1 August 1999; or
 - (iii) which is completed after 1 February 2002.
- (2) Every oil tanker shall comply with the intact stability criteria specified in subparagraphs (a) and (b) of this paragraph, as appropriate, for any operating draught under the worst possible conditions of cargo and ballast loading, consistent with good operational practice, including intermediate stages of liquid transfer operations. Under all conditions the ballast tanks shall be assumed slack.
- (a) In port, the initial metacentric height GMO , corrected for free surface measured at 0° heel, shall be not less than 0.15 m;
 - (b) At sea, the following criteria shall be applicable:
 - (i) the area under the righting lever curve (GZ curve) shall be not less than 0.055 m.rad up to $\theta = 30^\circ$ angle of heel and not less than 0.09 m.rad up to $\theta = 40^\circ$ or other angle of flooding θ_f if this angle is less than 40° . Additionally, the area under the righting lever curve (GZ curve) between the angles of heel of 30° and 40° or between 30° and θ_f if this angle is less than 40° , shall be not less than 0.03 m.rad;
 - (ii) the righting lever GZ shall be at least 0.20 m at an angle of heel equal to or greater than 30° ;
 - (iii) the maximum righting arm shall occur at an angle of heel preferably exceeding 30° but not less than 25° ; and
 - (iv) the initial metacentric height GMO , corrected for free surface measured at 0° heel, shall be not less than 0.15 m.
- (3) The requirements of paragraph (2) shall be met through design measures. For combination carriers simple supplementary operational procedures may be allowed.
- (4) Simple supplementary operational procedures for liquid transfer operations referred to in paragraph (3) shall mean written procedures made available to the master which:
- (a) are approved by the Administration;

- (b) indicate those cargo and ballast tanks which may, under any specific condition of liquid transfer and possible range of cargo densities, be slack and still allow the stability criteria to be met. The slack tanks may vary during the liquid transfer operations and be of any combination provided they satisfy the criteria;
- (c) will be readily understandable to the officer-in-charge of liquid transfer operations;
- (d) provide for planned sequences of cargo/ballast transfer operations;
- (e) allow comparisons of attained and required stability using stability performance criteria in graphical or tabular form;
- (f) require no extensive mathematical calculations by the officer-in-charge;
- (g) provide for corrective actions to be taken by the officer-in-charge in case of departure from recommended values and in case of emergency situations; and
- (h) are prominently displayed in the approved trim and stability booklet and at the cargo/ballast transfer control station and in any computer software by which stability calculations are performed."

RESOLUTION MEPC.78(43)**adopted on 1 July 1999****AMENDMENTS TO THE ANNEX OF THE PROTOCOL OF 1978 RELATING
TO THE INTERNATIONAL CONVENTION FOR THE PREVENTION
OF POLLUTION FROM SHIPS, 1973****(Amendments to regulations 13G and 26 and IOPP Certificate of Annex I and
addition of new regulation 16 to Annex II of MARPOL 73/78)**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING article 38(a) of the Convention on the International Maritime Organization concerning the function of the Committee conferred upon it by international conventions for the prevention and control of marine pollution,

NOTING article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1973 Convention") and article VI of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1978 Protocol") which together specify the amendment procedure of the 1978 Protocol and confer upon the appropriate body of the Organization the function of considering and adopting amendments to the 1973 Convention, as modified by the 1978 Protocol (MARPOL 73/78),

HAVING CONSIDERED the proposed amendments to make existing oil tankers between 20,000 and 30,000 tons deadweight carrying persistent product oil subject to the same construction requirements for crude oil tankers and the proposed amendments to the Supplement of the International Oil Pollution Prevention Certificate (IOPP Certificate),

HAVING ALSO CONSIDERED the proposed amendments to regulation 26 of Annex I and the proposed new regulation 16 of Annex II of MARPOL 73/78,

1. ADOPTS, in accordance with article 16(2)(d) of the 1973 Convention, the amendments to Annexes I and II of MARPOL 73/78, the text of which is set out at Annex to the present resolution;
2. DETERMINES, in accordance with article 16(2)(f)(iii) of the 1973 Convention, that the amendments shall be deemed to have been accepted on 1 July 2000, unless prior to the date, not less than one-third of the Parties or the Parties the combined merchant fleets of which constitute not less than 50 per cent of the gross tonnage of the world's merchant fleet, have communicated to the Organization their objections to the amendments;
3. INVITES the Parties to note that, in accordance with article 16(2)(g)(ii) of the 1973 Convention, the amendments shall enter into force on 1 January 2001 upon their acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with article 16(2)(e) of the 1973 Convention, to transmit to all Parties to MARPOL 73/78 certified copies of the present resolution and the text of the amendments contained in the Annex; and
5. REQUESTS FURTHER the Secretary-General to transmit to the Members of the Organization which are not Parties to MARPOL 73/78 copies of the resolution and its Annex.

ANNEX

AMENDMENTS TO ANNEXES I AND II OF MARPOL 73/78

I AMENDMENTS TO ANNEX I OF MARPOL 73/78

Amendments to regulation 13G

1 The existing text of paragraph (1) (a) is replaced by the following:

"(1) This regulation shall:

(a) apply to

(i) oil tankers of 20,000 tons deadweight and above carrying crude oil, fuel oil, heavy diesel oil or lubricating oil as cargo; and

(ii) oil tankers of 30,000 tons deadweight and above other than those referred to in subparagraph (i),

which are contracted, the keels of which are laid, or which are delivered before the dates specified in regulation 13F(1) of this Annex; and"

2 The existing text of paragraph (2) is replaced by the following:

"(2) The requirements of this regulation shall take effect as from 6 July 1995, except that the requirements of paragraph (1) (a) applicable to oil tankers of 20,000 tons deadweight and above but less than 30,000 tons deadweight carrying fuel oil, heavy diesel oil or lubricating oil as cargo shall take effect as from 1 January 2003."

3 The following new paragraph (2*bis*) is inserted after paragraph (2):

"(2*bis*) For the purpose of paragraphs (1) and (2) of this regulation:

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

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

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

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

Amendments to regulation 26

- 4 The following new paragraph (3) is added after the existing paragraph (2):

"In the case of ships to which regulation 16 of Annex II of the Convention also apply, such a plan may be combined with the shipboard marine pollution emergency plan for noxious liquid substances required under regulation 16 of Annex II of the Convention. In this case, the title of such a plan shall be "Shipboard marine pollution emergency plan"."

II AMENDMENTS TO THE IOPP CERTIFICATE UNDER ANNEX I OF MARPOL 73/78**1 Amendments to the Supplement to the IOPP Certificate (Form A)**

The existing paragraphs 2.4 to 3.2 is replaced by the following:

"2.4 Approval Standards*:

2.4.1 The separating/filtering equipment:

- | | | |
|----|---|--------------------------|
| .1 | has been approved in accordance with resolution A.393(X) | <input type="checkbox"/> |
| .2 | has been approved in accordance with resolution MEPC.60(33) | <input type="checkbox"/> |
| .3 | has been approved in accordance with resolution A.233(VII) | <input type="checkbox"/> |
| .4 | has been approved in accordance with national standards
not based upon resolution A.393(X) or A.233(VII) | <input type="checkbox"/> |
| .5 | has not been approved. | <input type="checkbox"/> |

2.4.2 The process unit has been approved in accordance with resolution A.444(XI) ☐

2.4.3 The oil content meter:

*Refer to Recommendation on international performance and test specifications of oily-water separating equipment and oil content meters adopted by the Organization on 14 November 1977 by resolution A.393(X), which superseded resolution A.233(VII); see IMO sales publication IMO-608E. Further reference is made to the Guidelines and specifications for pollution prevention equipment for machinery space bilges adopted by the Marine Environment Protection Committee of the Organization by resolution MEPC.60(33), which, effective on 6 July 1993, superseded resolutions A.393(X) and A.444(XI); see IMO sales publication IMO-646E.

1. has been approved in accordance with resolution A.393(X) ☐

2. has been approved in accordance with resolution MEPC.60(33) ☐

2.5 Maximum throughput of the system is m³/h

2.6 Waiver of regulation 16:

2.6.1 The requirements of regulation 16(1) and 16(2) are waived in respect of the ship in accordance with regulation 16(3)(a). The ship is engaged exclusively on voyages within special area(s): ☐

2.6.2 The ship is fitted with holding tank(s) for the total retention on board of all oily bilge water as follows: ☐

Tank identification	Tank location		Volume (m ³)
	Frames (from)-(to)	Lateral position	
Total volume(m ³)			

3 Means for retention and disposal of oil residues (sludge) (regulation 17) and bilge water holding tank(s)*

3.1 The ship is provided with oil residue (sludge) tanks as follows:

Tank identification	Tank location		Volume (m ³)
	Frames (from)-(to)	Lateral position	
Total volume(m ³)			

3.2 Means for the disposal of residues in addition to the provisions of sludge tanks:

* Bilge water holding tank(s) are not required by the Convention, entries in the table under paragraph 3.3 are voluntary.

- 3.2.1 Incinerator for oil residues, capacityl/h ☐
- 3.2.2 Auxiliary boiler suitable for burning oil residues ☐
- 3.2.3 Tank for mixing oil residues with fuel oil, capacity m³ ☐
- 3.2.4 Other acceptable means: ☐
- 3.3 The ship is fitted with holding tank(s) for the retention on board of oily bilge water as follows:

Tank identification	Tank location		Volume (m ³)
	Frames (from)-(to)	Lateral position	
Total volume(m ³)			

2 Amendments to the Supplement to the IOPP Certificate (Form B)

- 2.1 The following is added after the existing paragraph 1.11.2:

"1.11.2bis Product carrier not carrying fuel oil or heavy diesel
oil as referred to in regulation 13G(2bis), or lubricating oil ☐

- 2.2 The existing paragraphs 2.4 to 3.2 is replaced by the following:

"2.4 Approval Standards* :

- 2.4.1 The separating/filtering equipment:

- .1 has been approved in accordance with resolution A.393(X) ☐
- .2 has been approved in accordance with resolution MEPC.60(33) ☐
- .3 has been approved in accordance with resolution A.233(VII) ☐

*Refer to Recommendation on international performance and test specifications of oily-water separating equipment and oil content meters adopted by the Organization on 14 November 1977 by resolution A.393(X), which superseded resolution A.233(VII); see IMO sales publication IMO-608E. Further reference is made to the Guidelines and specifications for pollution prevention equipment for machinery space bilges adopted by the Marine Environment Protection Committee of the Organization by resolution MEPC.60(33), which, effective on 6 July 1993, superseded resolutions A.393(X) and A.444(XI); see IMO sales publication IMO-646E.

- .4 has been approved in accordance with national standards
not based upon resolution A.393(X) or A.233(VII) ☐
- .5 has not been approved ☐
- 2.4.2 The process unit has been approved in accordance with resolution A.444(XI) ☐
- 2.4.3 The oil content meter: ☐
- .1 has been approved in accordance with resolution A.393(X) ☐
- .2 has been approved in accordance with resolution MEPC.60(33) ☐
- 2.5 Maximum throughput of the system is m³/h
- 2.6 Waiver of regulation 16: ☐
- 2.6.1 The requirements of regulation 16(1) and 16(2) are waived in respect of the ship
in accordance with regulation 16(3)(a). The ship is engaged exclusively on
voyages within special area(s):..... ☐
- 2.6.2 The ship is fitted with holding tank(s) for the total retention on board of all oily
bilge water as follows: ☐

Tank identification	Tank location		Volume (m ³)
	Frames (from)-(to)	Lateral position	
			Total volume(m ³)

- 2.6.3 In lieu of the holding tank(s) the ship is provided with arrangements
to transfer bilge water to the slop tank ☐

3 Means for retention and disposal of oil residues (sludge) (regulation 17) and bilge water holding tank(s)*

3.1 The ship is provided with oil residue (sludge) tanks as follows:

Tank identification	Tank location		Volume (m ³)
	Frames (from)-(to)	Lateral position	
Total volume			(m ³)

3.2 Means for the disposal of residues in addition to the provisions of sludge tanks:

3.2.1 Incinerator for oil residues, capacityl/h

☐

3.2.2 Auxiliary boiler suitable for burning oil residues

☐

3.2.3 Tank for mixing oil residues with fuel oil, capacity m³

☐

3.2.4 Other acceptable means:

☐

3.3 The ship is fitted with holding tank(s) for the retention on board of oily bilge water as follows:

Tank identification	Tank location		Volume (m ³)
	Frames (from)-(to)	Lateral position	
Total volume			(m ³)

"

2.3 The following is added after existing paragraph 5.7.2:

"5.7.3 The ship is required to be constructed according to, and complies with the requirements of regulation 25A.

☐

5.7.4 Information and data required under regulation 25A for combination carriers have been supplied to the ship in a written procedure approved by the Administration.

☐

"

*Bilge water holding tank(s) are not required by the Convention, entries in the table under paragraph 3.3 are voluntary.

2.4 The existing paragraph 5.8.4 is replaced by the following:

"5.8.4 The ship is subject to regulation 13G and:

- | | | |
|----|---|----------------------------|
| .1 | is required to comply with regulation 13F not later than | <input type="checkbox"/> |
| .2 | is so arranged that the following tanks or spaces are not used for the carriage of oil | <input type="checkbox"/> |
| .3 | has been accepted in accordance with regulation 13G(7) and resolution MEPC.64(36) | <input type="checkbox"/> |
| .4 | is provided with the operational manual approved on
in accordance with resolution MEPC.64(36). | <input type="checkbox"/> " |

III AMENDMENTS TO ANNEX II OF MARPOL 73/78

The following new regulation 16 is added after the existing regulation 15:

"Regulation 16

Shipboard marine pollution emergency plan for noxious liquid substances

- (1) Every ship of 150 gross tonnage and above certified to carry noxious liquid substances in bulk shall carry on board a shipboard marine pollution emergency plan for noxious liquid substances approved by the Administration. This requirement shall apply to all such ships not later than 1 January 2003.
- (2) Such a plan shall be in accordance with Guidelines* developed by the Organization and written in a working language or languages understood by the master and officers. The plan shall consist at least of:
 - (a) the procedure to be followed by the master or other persons having charge of the ship to report a noxious liquid substances pollution incident, as required in article 8 and Protocol I of the present Convention, based on the Guidelines developed by the Organization**;
 - (b) the list of authorities or persons to be contacted in the event of a noxious liquid substance pollution incident;
 - (c) a detailed description of the action to be taken immediately by persons on board to reduce or control the discharge of noxious liquid substances following the incident; and
 - (d) the procedures and point of contact on the ship for co-ordinating shipboard action with national and local authorities in combating the pollution.

* Refer to "Guidelines for the development of shipboard marine pollution emergency plans for oil and/or noxious liquid substances".

** Refer to General principles for ship reporting systems and ship reporting requirements, including Guidelines for reporting incidents involving dangerous goods, harmful substances and/or marine pollutants adopted by the Organization by resolution A.851(20).

- (3) In the case of ships to which regulation 26 of Annex I of the Convention also apply, such a plan may be combined with the shipboard oil pollution emergency plan required under regulation 26 of Annex I of the Convention. In this case, the title of such a plan shall be "Shipboard marine pollution emergency plan".

RESOLUTION MEPC.84(44)
Adopted on 13 March 2000

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

(Amendments to the Appendix to Annex III of MARPOL 73/78)

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING article 38(a) of the Convention on the International Maritime Organization concerning the function of the Committee conferred upon it by international conventions for the prevention and control of marine pollution,

NOTING article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the “1973 Convention”) and article VI of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the “1978 Protocol”) which together specify the amendment procedure of the 1978 Protocol and confer upon the appropriate body of the Organization the function of considering and adopting amendments to the 1973 Convention, as modified by the 1978 Protocol (MARPOL 73/78),

HAVING CONSIDERED the proposed amendments to the Appendix to Annex III of MARPOL 73/78,

1. ADOPTS, in accordance with article 16(2) (d) of the 1973 Convention, the amendments to the Appendix to Annex III of MARPOL 73/78, the text of which is set out at Annex to the present resolution;
2. DETERMINES, in accordance with article 16(2)(f)(iii) of the 1973 Convention, that the amendments shall be deemed to have been accepted on 1 July 2001, unless prior to that date, not less than one-third of the Parties or the Parties the combined merchant fleets of which constitute not less than 50 per cent of the gross tonnage of the world’s merchant fleet, have communicated to the Organization their objections to the amendments;
3. INVITES the Parties to note that, in accordance with article 16(2)(g)(ii) of the 1973 Convention, the amendments shall enter into force on 1 January 2002 upon their acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with article 16(2)(e) of the 1973 Convention, to transmit to all Parties to MARPOL 73/78 certified copies of the present resolution and the text of the amendments contained in the Annex; and
5. REQUESTS FURTHER the Secretary-General to transmit to the Members of the Organization which are not Parties to MARPOL 73/78 copies of the resolution and its Annex.

ANNEX

AMENDMENTS TO THE APPENDIX TO ANNEX III OF MARPOL 73/78

The clause “-liable to produce tainting of seafood (Hazard Rating “T” in column A*); or” is deleted from the Appendix to Annex III of MARPOL 73/78.

RESOLUTION MEPC.89(45)**Adopted on 5 October 2000****AMENDMENTS TO THE ANNEX OF THE PROTOCOL OF 1978 RELATING TO
THE INTERNATIONAL CONVENTION FOR THE PREVENTION OF
POLLUTION FROM SHIPS, 1973****(Amendments to Annex V of MARPOL 73/78)**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING article 38(a) of the Convention on the International Maritime Organization concerning the function of the Committee conferred upon it by international conventions for the prevention and control of marine pollution,

NOTING article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the “1973 Convention”) and article VI of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973, (hereinafter referred to as the “1978 Protocol”) which together specify the amendment procedure of the 1978 Protocol and confer upon the appropriate body of the Organization the function of considering and adopting amendments to the 1973 Convention, as modified by the 1978 Protocol (MARPOL 73/78),

NOTING ALSO resolution MEPC.87(44) by which the Committee agreed on the use of Spanish under IMO conventions relating to pollution prevention,

HAVING CONSIDERED the proposed amendments to Annex V of MARPOL 73/78, which were approved by the forty-fourth session of the Committee and circulated in accordance with article 16 (2) (a) of the 1973 Convention,

1. ADOPTS, in accordance with article 16(2)(d) of the 1973 Convention, the amendments to Annex V of MARPOL 73/78, the text of which is set out at Annex to the present resolution;
2. DETERMINES, in accordance with article 16(2)(f)(iii) of the 1973 Convention, that the amendments shall be deemed to have been accepted on 1 September 2001, unless prior to the date, not less than one-third of the Parties or the Parties combined merchant fleets of which constitute not less than 50 per cent of the gross tonnage of the world’s merchant fleet, have communicated to the Organization their objections to the amendments;
3. INVITES the Parties to note that, in accordance with article 16(2)(g)(ii) of the 1973 Convention, the amendments shall enter into force on 1 March 2002 upon their acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with article 16(2)(e) of the 1973 Convention, to transmit to all Parties to MARPOL 73/78 certified copies of the present resolution and the text of the amendments contained in the Annex; and
5. REQUESTS FURTHER the Secretary-General to transmit to the Members of the Organization which are not Parties to MARPOL 73/78 copies of the resolution and its Annex.

ANNEX

AMENDMENTS TO ANNEX V OF MARPOL 73/78

- 1 The existing paragraph (2) of regulation 1 is replaced by the following:

“*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 nearest land” off the north-eastern coast of Australia shall mean from a line drawn from a point on the coast of Australia in

latitude 11°00' S, longitude 142°08' E
to a point in latitude 10°35' S, longitude 141°55' E,
thence to a point latitude 10°00' S, longitude 142°00' E,
thence to a point latitude 9°10' S, longitude 143°52' E,
thence to a point latitude 9°00' S, longitude 144°30' E,
thence to a point latitude 10°41' S, longitude 145°00' E,
thence to a point latitude 13°00' S, longitude 145°00' E,
thence to a point latitude 15°00' S, longitude 146°00' E,
thence to a point latitude 17°30' S, longitude 147°00' E,
thence to a point latitude 21°00' S, longitude 152°55' E,
thence to a point latitude 24°30' S, longitude 154°00' E,
thence to a point on the coast of Australia
in latitude 24°42' S, longitude 153°15' E

- 2 The existing paragraph (1)(a) of regulation 3 is replaced by the following:

“the disposal into the sea of all plastics, including but not limited to synthetic ropes, synthetic fishing nets, plastic garbage bags and incinerator ashes from plastic products which may contain toxic or heavy metal residues, is prohibited.”

- 3 The existing paragraph (2)(a)(i) of regulation 5 is replaced by the following:

“all plastics, including but not limited to synthetic ropes, synthetic fishing nets, plastic garbage bags and incinerator ashes from plastic products which may contain toxic or heavy metal residues; and”

- 4 The existing paragraph (1)(b) of regulation 9 is replaced by the following:

“The placards shall be written in the working language of the ship’s personnel and, for ships engaged in voyages to ports or offshore terminals under the jurisdiction of other Parties to the Convention, shall also be in English, French or Spanish.”

- 5 The existing paragraph (3)(a) of regulation 9 is replaced by the following:

“Each discharge operation, or completed incineration, shall be recorded in the Garbage Record Book and signed for on the date of the incineration or discharge by the officer in charge. Each completed page of the Garbage Record Book shall be signed by the master of the ship. The entries in the Garbage Record Book shall be at least in English, French or Spanish. Where the entries are also made in an official language of the State whose flag the ship is entitled to fly are also used, these entries shall prevail in case of a dispute or discrepancy;”

- 6 The existing Record of Garbage Discharges contained in the appendix is replaced by the following:

"RECORD OF GARBAGE DISCHARGES

Ship's name : _____

Distinctive No, or letters : _____

IMO No : _____

Garbage categories :

1. Plastic
2. Floating dunnage, lining or packing materials
3. Ground paper products, rags, glass, metal, bottles, crockery, etc.
4. Paper products, rages, glass, metal, bottles, crockery, etc.
5. Food waste
6. Incinerator ash except from plastic products which may contain toxic or heavy metal residues

NOTE : THE DISCHARGE OF ANY GARBAGE OTHER THAN FOOD WASTE IS PROHIBITED IN SPECIAL AREAS. ONLY GARBAGE DISCHARGED INTO THE SEA MUST BE CATEGORIZED. GARBAGE OTHER THAN CATEGORY 1 DISCHARGED TO RECEPTION FACILITIES NEED ONLY BE LISTED AS A TOTAL ESTIMATED AMOUNT.

Date/time	Position of the ship	Estimated amount discharged into sea (m³)						Estimated amount discharged to reception facilities or to other ship (m³)		Estimated amount incinerated (m³)	Certification/Signature
		Cat. 2	Cat. 3	Cat. 4	Cat. 5	Cat. 6		Cat. 1	Other		

Master's signature: _____

Date : _____

"

RESOLUTION MEPC.95(46)**Adopted on 27 April 2001****AMENDMENTS TO THE ANNEX OF THE PROTOCOL OF 1978 RELATING TO THE
INTERNATIONAL CONVENTION FOR THE PREVENTION OF POLLUTION FROM
SHIPS, 1973****(Amendments to regulation 13G of Annex I to MARPOL 73/78 and to the
Supplement to the IOPP Certificate)**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee (the Committee) conferred upon it by international conventions for the prevention and control of marine pollution,

NOTING article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the “1973 Convention”) and article VI of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the “1978 Protocol”) which together specify the amendment procedure of the 1978 Protocol and confer upon the appropriate body of the Organization the function of considering and adopting amendments to the 1973 Convention, as modified by the 1978 Protocol (MARPOL 73/78),

HAVING CONSIDERED the proposed amendments to regulation 13G of Annex I to MARPOL 73/78, which were approved by the forty-fifth session of the Committee and circulated in accordance with article 16 (2) (a) of the 1973 Convention,

HAVING ALSO CONSIDERED the proposed amendments to the Supplement to the IOPP Certificate which are consequential amendments to the proposed amendments to regulation 13G of Annex I to MARPOL 73/78,

1. ADOPTS, in accordance with article 16(2)(d) of the 1973 Convention, the amendments to regulation 13G of Annex I to MARPOL 73/78 and to the Supplement to the IOPP Certificate, the text of which is set out at annex to the present resolution;
2. DETERMINES, in accordance with article 16(2)(f)(iii) of the 1973 Convention, that the amendments shall be deemed to have been accepted on 1 March 2002, unless prior to that date, not less than one-third of the Parties or Parties the combined merchant fleets of which constitute not less than 50 per cent of the gross tonnage of the world’s merchant fleet, have communicated to the Organization their objection to the amendments;
3. INVITES the Parties to note that, in accordance with article 16(2)(g)(ii) of the 1973 Convention, the said amendments shall enter into force on 1 September 2002 upon their acceptance in accordance with paragraph 2 above;

4. REQUESTS the Secretary-General, in conformity with article 16(2)(e) of the 1973 Convention, to transmit to all Parties to MARPOL 73/78 certified copies of the present resolution and the text of the amendments contained in the Annex; and
5. REQUESTS FURTHER the Secretary-General to transmit to the Members of the Organization which are not Parties to MARPOL 73/78 copies of the present resolution and its annex.

ANNEX

AMENDMENTS TO ANNEX I TO MARPOL 73/78

- 1 *The existing text of regulation 13G is replaced by the following:*

“Regulation 13G**Prevention of oil pollution in the event of collision or stranding -
Measures for existing tankers**

- (1) This regulation shall:
- (a) apply to oil tankers of 5,000 tons deadweight and above, which are contracted, the keels of which are laid, or which are delivered before the dates specified in regulation 13F(1) of this Annex; and
 - (b) not apply to oil tankers complying with regulation 13F of this Annex, which are contracted, the keels of which are laid, or are delivered before the dates specified in regulation 13F(1) of this Annex; and
 - (c) not apply to oil tankers covered by subparagraph (a) above which comply with regulation 13F(3)(a) and (b) or 13F(4) or 13F(5) of this Annex, except that the requirement for minimum distances between the cargo tank boundaries and the ship side and bottom plating need not be met in all respects. In that event, the side protection distances shall not be less than those specified in the International Bulk Chemical Code for type 2 cargo tank location and the bottom protection distances shall comply with regulation 13E(4)(b) of this Annex.
- (2) For the purpose of this regulation:
- (a) “Heavy diesel oil” means diesel oil other than those distillates of which more than 50 per cent by volume distils at a temperature not exceeding 340°C when tested by the method acceptable to the Organization
 - (b) “Fuel oil” means heavy distillates or residues from crude oil or blends of such materials intended for use as a fuel for the production of heat or power of a quality equivalent to the specification acceptable to the Organization.
- (3) For the purpose of this regulation, oil tankers are divided into the following categories:
- (a) “Category 1 oil tanker” means an oil tanker of 20,000 tons deadweight and above carrying crude oil, fuel oil, heavy diesel oil or lubricating oil as cargo, and of 30,000 tons deadweight and above carrying oil other than the above, which does not comply with the requirements for new oil tankers as defined in regulation 1(26) of this Annex;

- (b) “Category 2 oil tanker” means an oil tanker of 20,000 tons deadweight and above carrying crude oil, fuel oil, heavy diesel oil or lubricating oil as cargo, and of 30,000 tons deadweight and above carrying oil other than the above, which complies with the requirements for new oil tankers as defined in regulation 1(26) of this Annex;
- (c) “Category 3 oil tanker” means an oil tanker of 5,000 tons deadweight and above but less than that specified in subparagraph (a) or (b) of this paragraph.
- (4) An oil tanker to which this regulation applies shall comply with the requirements of regulation 13F of this Annex not later than the anniversary of the date of delivery of the ship in the year specified in the following table:

Category of oil tanker	Year
Category 1	2003 for ships delivered in 1973 or earlier 2004 for ships delivered in 1974 and 1975 2005* for ships delivered in 1976 and 1977 2006* for ships delivered in 1978, 1979 and 1980 2007* for ships delivered in 1981 or later
Category 2	2003 for ships delivered in 1973 or earlier 2004 for ships delivered in 1974 and 1975 2005 for ships delivered in 1976 and 1977 2006 for ships delivered in 1978 and 1979 2007 for ships delivered in 1980 and 1981 2008 for ships delivered in 1982 2009 for ships delivered in 1983 2010* for ships delivered in 1984 2011* for ships delivered in 1985 2012* for ships delivered in 1986 2013* for ships delivered in 1987 2014* for ships delivered in 1988 2015* for ships delivered in 1989 or later
Category 3	2003 for ships delivered in 1973 or earlier 2004 for ships delivered in 1974 and 1975 2005 for ships delivered in 1976 and 1977 2006 for ships delivered in 1978 and 1979 2007 for ships delivered in 1980 and 1981 2008 for ships delivered in 1982 2009 for ships delivered in 1983 2010 for ships delivered in 1984 2011 for ships delivered in 1985 2012 for ships delivered in 1986 2013 for ships delivered in 1987 2014 for ships delivered in 1988 2015 for ships delivered in 1989 or later

* Subject to compliance with the provisions of paragraph (7).

- (5) Notwithstanding the provisions of paragraph (4) of this regulation:
- (a) in the case of a Category 2 or 3 oil tanker fitted with only double bottoms or double sides not used for the carriage of oil and extending to the entire cargo tank length or double hull spaces which are not used for the carriage of oil and extend to the entire cargo tank length, but does not fulfil conditions for being exempted from the provisions of paragraph (1)(c) of this regulation, the Administration may allow continued operation of such a ship beyond the date specified in paragraph (4) of this regulation, provided that:
 - (i) the ship was in service on 1 July 2001;
 - (ii) the Administration is satisfied by verification of the official records that the ship complied with the conditions specified above;
 - (iii) the conditions of the ship specified above remain unchanged; and
 - (iv) such continued operation does not go beyond the date on which the ship reaches 25 years after the date of its delivery;
 - (b) in the case of a Category 2 or 3 oil tanker other than that referred to in sub-paragraph (a) of this paragraph which complies with the provisions of paragraph (6)(a) or (b) of this regulation, the Administration may allow continued operation of such a ship beyond the date specified in paragraph (4) of this regulation, provided that such continued operation shall not go beyond the anniversary of the date of delivery of the ship in 2017 or the date on which the ship reaches 25 years after the date of its delivery, whichever is the earlier date.
- (6) A Category 1 oil tanker of 25 years and over after the date of its delivery shall comply with either of the following provisions:
- (a) wing tanks or double bottom spaces, not used for the carriage of oil and meeting the width and height requirements of regulation 13E(4), cover at least 30% of L_t , for the full depth of the ship on each side or at least 30% of the projected bottom shell area within the length L_t , where L_t is as defined in regulation 13E(2); or
 - (b) the tanker operates with hydrostatically balanced loading, taking into account the guidelines developed by the Organization.
- (7) The Administration may allow continued operation of a Category 1 oil tanker beyond the anniversary of the date of delivery of the ship in 2005, and of a Category 2 oil tanker beyond the anniversary of the date of delivery of the ship in 2010, subject to compliance with the Condition Assessment Scheme adopted by the Marine Environment Protection Committee by resolution MEPC.94(46), as may be amended, provided that such amendments shall be adopted, brought into force and take effect in accordance with the provisions of article 16 of the present Convention relating to amendment procedures applicable to an appendix to an Annex.

- (8) (a) The Administration of a State which allows the application of paragraph (5) of this regulation, or allows, suspends, withdraws or declines the application of paragraph (7) of this regulation, to a ship entitled to fly its flag shall forthwith communicate to the Organization for circulation to the Parties to the present Convention particulars thereof, for their information and appropriate action, if any.
- (b) A Party to the present Convention shall be entitled to deny entry of oil tankers operating in accordance with the provisions of paragraph (5) of this regulation into the ports or offshore terminals under its jurisdiction. In such cases, that Party shall communicate to the Organization for circulation to the Parties to the present Convention particulars thereof for their information.”

AMENDMENTS TO APPENDIX II TO ANNEX I TO MARPOL 73/78

Amendments to the Supplement to the IOPP Certificate (Form B)

2 *The existing paragraph 5.8.4 is replaced by the following:*

“5.8.4 The ship is subject to regulation 13G and:

- .1 is required to comply with regulation 13F not later than ☐
- .2 is so arranged that the following tanks or spaces are not used for the carriage of oil ☐
- .3 is provided with the operational manual approved on in accordance with resolution MEPC.64(36) ☐
- .4 is allowed to continue operation in accordance with regulation 13G(5)(a) ☐
- .5 is allowed to continue operation in accordance with regulation 13G(5)(b) ☐
- .6 is allowed to continue operation in accordance with regulation 13G(7) ☐

RESOLUTION MEPC.111(50)
adopted on 4 December 2003

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

**(Amendments to regulation 13G, addition of new regulation 13H and consequential
amendments to the Supplement to the IOPP Certificate of Annex I to MARPOL 73/78)**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee (the Committee) conferred upon it by international conventions for the prevention and control of marine pollution,

NOTING article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the “1973 Convention”) and article VI of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the “1978 Protocol”) which together specify the amendment procedure of the 1978 Protocol and confer upon the appropriate body of the Organization the function of considering and adopting amendments to the 1973 Convention, as modified by the 1978 Protocol (MARPOL 73/78),

HAVING CONSIDERED the proposed amendments to regulation 13G and consequential amendments to the Supplement (Form B) of the IOPP Certificate of Annex I to MARPOL 73/38,

HAVING ALSO CONSIDERED the proposed new regulation 13H of Annex I to MARPOL 73/78,

1. ADOPTS, in accordance with article 16(2)(d) of the 1973 Convention, the amendments to Annex I of MARPOL 73/78, the text of which is set out at annexes 1, 2, 3 and 4 to the present resolution, each of which being subject to separate consideration by the Parties pursuant to Article 16(2)(f)(ii) of the 1973 Convention;
2. DETERMINES, in accordance with article 16(2)(f)(iii) of the 1973 Convention, that the amendments shall be deemed to have been accepted on 4 October 2004 unless, prior to that date, not less than one-third of the Parties or Parties the combined merchant fleets of which constitute not less than 50 per cent of the gross tonnage of the world’s merchant fleet, have communicated to the Organization their objection to the amendments;
3. INVITES the Parties to note that, in accordance with article 16(2)(g)(ii) of the 1973 Convention, the said amendments shall enter into force on 5 April 2005 upon their acceptance in accordance with paragraph 2 above;

4. REQUESTS the Secretary-General, in conformity with article 16(2)(e) of the 1973 Convention, to transmit to all Parties to MARPOL 73/78 certified copies of the present resolution and the text of the amendments contained in the annexes; and
5. REQUESTS FURTHER the Secretary-General to transmit to the Members of the Organization which are not Parties to MARPOL 73/78 copies of the present resolution and its annexes.

ANNEX 1

AMENDMENTS TO ANNEX I OF MARPOL 73/78

The existing regulation 13G is replaced by the following:

“Regulation 13G**Prevention of accidental oil pollution - Measures for existing oil tankers**

- (1) Unless expressly provided otherwise this regulation shall:
- (a) apply to oil tankers of 5,000 tons deadweight and above, which are contracted, the keels of which are laid, or which are delivered before the dates specified in regulation 13F(1) of this Annex; and
 - (b) not apply to oil tankers complying with regulation 13F of this Annex, which are contracted, the keels of which are laid, or are delivered before the dates specified in regulation 13F(1) of this Annex; and
 - (c) not apply to oil tankers covered by subparagraph (a) above which comply with regulation 13F(3)(a) and (b) or 13F(4) or 13F(5) of this Annex, except that the requirement for minimum distances between the cargo tank boundaries and the ship side and bottom plating need not be met in all respects. In that event, the side protection distances shall not be less than those specified in the International Bulk Chemical Code for type 2 cargo tank location and the bottom protection distances at centreline shall comply with regulation 13E(4)(b) of this Annex.
- (2) For the purpose of this regulation:
- (a) “Heavy diesel oil” means diesel oil other than those distillates of which more than 50 per cent by volume distils at a temperature not exceeding 340°C when tested by the method acceptable to the Organization¹.
 - (b) “Fuel oil” means heavy distillates or residues from crude oil or blends of such materials intended for use as a fuel for the production of heat or power of a quality equivalent to the specification acceptable to the Organization².
- (3) For the purpose of this regulation, oil tankers are divided into the following categories:
- (a) “Category 1 oil tanker” means an oil tanker of 20,000 tons deadweight and above carrying crude oil, fuel oil, heavy diesel oil or lubricating oil as cargo, and of 30,000 tons deadweight and above carrying oil other than the above, which does not comply with the requirements for new oil tankers as defined in regulation 1(26) of this Annex;
 - (b) “Category 2 oil tanker” means an oil tanker of 20,000 tons deadweight and above carrying crude oil, fuel oil, heavy diesel oil or lubricating oil as cargo, and of 30,000 tons deadweight and above carrying oil other than the above, which

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

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

complies with the requirements for new oil tankers as defined in regulation 1(26) of this Annex; and

- (c) “Category 3 oil tanker” means an oil tanker of 5,000 tons deadweight and above but less than that specified in subparagraph (a) or (b) of this paragraph.

(4) An oil tanker to which this regulation applies shall comply with the requirements of regulation 13F of this Annex not later than 5 April 2005 or the anniversary of the date of delivery of the ship on the date or in the year specified in the following table:

Category of oil tanker	Date or year
Category 1	5 April 2005 for ships delivered on 5 April 1982 or earlier 2005 for ships delivered after 5 April 1982
Category 2 and Category 3	5 April 2005 for ships delivered on 5 April 1977 or earlier 2005 for ships delivered after 5 April 1977 but before 1 January 1978 2006 for ships delivered in 1978 and 1979 2007 for ships delivered in 1980 and 1981 2008 for ships delivered in 1982 2009 for ships delivered in 1983 2010 for ships delivered in 1984 or later

(5) Notwithstanding the provisions of paragraph (4) of this regulation, in the case of a Category 2 or 3 oil tanker fitted with only double bottoms or double sides not used for the carriage of oil and extending to the entire cargo tank length or double hull spaces which are not used for the carriage of oil and extend to the entire cargo tank length, but which does not fulfil conditions for being exempted from the provisions of paragraph (1)(c) of this regulation, the Administration may allow continued operation of such a ship beyond the date specified in paragraph (4) of this regulation, provided that:

- (a) the ship was in service on 1 July 2001;
- (b) the Administration is satisfied by verification of the official records that the ship complied with the conditions specified above;
- (c) the conditions of the ship specified above remain unchanged; and
- (d) such continued operation does not go beyond the date on which the ship reaches 25 years after the date of its delivery.

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

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

- (8) (a) The Administration of a Party to the present Convention which allows the application of paragraph (5) of this regulation, or allows, suspends, withdraws or declines the application of paragraph (7) of this regulation, to a ship entitled to fly its flag shall forthwith communicate to the Organization for circulation to the Parties to the present Convention particulars thereof, for their information and appropriate action, if any.
- (b) A Party to the present Convention shall be entitled to deny entry into the ports or offshore terminals under its jurisdiction of oil tankers operating in accordance with the provisions of :
 - (i) paragraph (5) of this regulation beyond the anniversary of the date of delivery of the ship in 2015; or
 - (ii) paragraph (7) of this regulation.

In such cases, that Party shall communicate to the Organization for circulation to the Parties to the present Convention particulars thereof for their information.”

ANNEX 2

AMENDMENTS TO ANNEX I OF MARPOL 73/78

The following new regulation is added after regulation 13G:

“Regulation 13H**Prevention of oil pollution from oil tankers carrying heavy grade oil as cargo**

- (1) This regulation shall:
 - (a) apply to oil tankers of 600 tons deadweight and above carrying heavy grade oil as cargo regardless of the date of delivery; and
 - (b) not apply to oil tankers covered by subparagraph (a) above which comply with regulation 13F(3)(a) and (b) or 13F(4) or 13F(5) of this Annex, except that the requirement for minimum distances between the cargo tank boundaries and the ship side and bottom plating need not be met in all respects. In that event, the side protection distances shall not be less than those specified in the International Bulk Chemical Code for type 2 cargo tank location and the bottom protection distances at centreline shall comply with regulation 13E(4)(b) of this Annex.
- (2) For the purpose of this regulation “heavy grade oil” means any of the following:
 - (a) crude oils having a density at 15° C higher than 900 kg/m³;
 - (b) fuel oils having either a density at 15° C higher than 900 kg/m³ or a kinematic viscosity at 50° C higher than 180 mm²/s;
 - (c) bitumen, tar and their emulsions.
- (3) An oil tanker to which this regulation applies shall comply with the provisions of paragraphs (4) to (8) of this regulation in addition to complying with the applicable provisions of regulation 13G.
- (4) Subject to the provisions of paragraphs (5), (6) and (7) of this regulation, an oil tanker to which this regulation applies shall:
 - (a) if 5,000 tons deadweight and above, comply with the requirements of regulation 13F of this Annex not later than 5 April 2005; or
 - (b) if 600 tons deadweight and above but less than 5,000 tons deadweight, be fitted with both double bottom tanks or spaces complying with the provisions of regulation 13F(7)(a) of this Annex, and wing tanks or spaces arranged in accordance with regulation 13F(3)(a) and complying with the requirement for distance *w* as referred to in regulation 13F(7)(b), not later than the anniversary of the date of delivery of the ship in the year 2008.
- (5) In the case of an oil tanker of 5,000 tons deadweight and above, carrying heavy grade oil as cargo fitted with only double bottoms or double sides not used for the carriage of oil and extending to the entire cargo tank length or double hull spaces which are not used for the carriage of oil and extend to the entire cargo tank length, but which does not fulfil conditions for being exempted from the provisions of paragraph (1)(b) of this regulation, the Administration may

allow continued operation of such a ship beyond the date specified in paragraph (4) of this regulation, provided that:

- (a) the ship was in service on 4 December 2003;
 - (b) the Administration is satisfied by verification of the official records that the ship complied with the conditions specified above;
 - (c) the conditions of the ship specified above remain unchanged; and
 - (d) such continued operation does not go beyond the date on which the ship reaches 25 years after the date of its delivery.
- (6) (a) The Administration may allow continued operation of an oil tanker of 5,000 tons deadweight and above, carrying crude oil having a density at 15° C higher than 900 kg/m³ but lower than 945 kg/m³, beyond the date specified in paragraph (4)(a) of this regulation, if satisfactory results of the Condition Assessment Scheme referred to in regulation 13G(6) warrant that, in the opinion of the Administration, the ship is fit to continue such operation, having regard to the size, age, operational area and structural conditions of the ship and provided that the operation shall not go beyond the date on which the ship reaches 25 years after the date of its delivery.
- (b) The Administration may allow continued operation of an oil tanker of 600 tons deadweight and above but less than 5,000 tons deadweight, carrying heavy grade oil as cargo, beyond the date specified in paragraph (4)(b) of this regulation, if, in the opinion of the Administration, the ship is fit to continue such operation, having regard to the size, age, operational area and structural conditions of the ship, provided that the operation shall not go beyond the date on which the ship reaches 25 years after the date of its delivery.
- (7) The Administration of a Party to the present Convention may exempt an oil tanker of 600 tons deadweight and above carrying heavy grade oil as cargo from the provisions of this regulation if the oil tanker:
- (a) either is engaged in voyages exclusively within an area under its jurisdiction, or operates as a floating storage unit of heavy grade oil located within an area under its jurisdiction; or
 - (b) either is engaged in voyages exclusively within an area under the jurisdiction of another Party, or operates as a floating storage unit of heavy grade oil located within an area under the jurisdiction of another Party, provided that the Party within whose jurisdiction the oil tanker will be operating agrees to the operation of the oil tanker within an area under its jurisdiction.
- (8) (a) The Administration of a Party to the present Convention which allows, suspends, withdraws or declines the application of paragraphs (5), (6) or (7) of this regulation to a ship entitled to fly its flag shall forthwith communicate to the Organization for circulation to the Parties to the present Convention particulars thereof, for their information and appropriate action, if any.
- (b) Subject to the provisions of international law, a Party to the present Convention shall be entitled to deny entry of oil tankers operating in accordance with the provisions of paragraph (5) or (6) of this regulation into the ports or offshore terminals under its jurisdiction, or deny ship-to-ship transfer of heavy grade oil in

areas under its jurisdiction, except when this is necessary for the purpose of securing the safety of a ship or saving life at sea. In such cases, that Party shall communicate to the Organization for circulation to the Parties to the present Convention particulars thereof for their information.

ANNEX 3

**AMENDMENTS TO FORM B OF THE SUPPLEMENT TO THE IOPP CERTIFICATE
RELATING TO REVISED REGULATION 13G OF ANNEX I OF MARPOL 73/78**

The existing paragraph 5.8.4 in Form B of the Supplement to the IOPP Certificate is replaced by the following:

“5.8.4 The ship is subject to regulation 13G and:

- .1 is required to comply with regulation 13F not later than ☐
- .2 is so arranged that the following tanks or spaces are not used for
the carriage of oil ☐
- .3 is allowed to continue operation in accordance with regulation 13G(5)
until ☐
- .4 is allowed to continue operation in accordance with regulation 13G(7)
until ☐

ANNEX 4

**AMENDMENTS TO FORM B OF THE SUPPLEMENT TO THE IOPP CERTIFICATE
RELATING TO NEW REGULATION 13H OF ANNEX I OF MARPOL 73/78**

The following new paragraphs are added after paragraph 5.8.5 in the Form B of the Supplement to the IOPP Certificate:

“5.8.6 The ship is subject to regulation 13H and:

- .1 is required to comply with regulation 13H(4) not later than ☐
- .2 is allowed to continue operation in accordance with regulation 13H(5)
until ☐
- .3 is allowed to continue operation in accordance with regulation 13H(6)(a)
until ☐
- .4 is allowed to continue operation in accordance with regulation 13H(6)(b)
until ☐
- .5 is exempted from the provisions of regulation 13H in accordance with
regulation 13H(7)(b) ☐

5.8.7 The ship is not subject to regulation 13H ☐”

RESOLUTION MEPC.115(51)**Adopted on 1 April 2004****AMENDMENTS TO THE ANNEX OF THE PROTOCOL OF 1978 RELATING
TO THE INTERNATIONAL CONVENTION FOR THE PREVENTION OF
POLLUTION FROM SHIPS, 1973****(Revised Annex IV of MARPOL 73/78)**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee (the Committee) conferred upon it by international conventions for the prevention and control of marine pollution,

NOTING article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the “1973 Convention”) and article VI of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the “1978 Protocol”) which together specify the amendment procedure of the 1978 Protocol and confer upon the appropriate body of the Organization the function of considering and adopting amendments to the 1973 Convention, as modified by the 1978 Protocol (MARPOL 73/78),

HAVING CONSIDERED the revised Annex IV of MARPOL 73/78,

1. ADOPTS, in accordance with article 16(2)(d) of the 1973 Convention, the revised Annex IV of MARPOL 73/78, the text of which is set out at annex to the present resolution;
2. DETERMINES, in accordance with article 16(2)(f)(iii) of the 1973 Convention, that the revised Annex IV shall be deemed to have been accepted on 1 February 2005, unless, prior to that date, not less than one third of the Parties to MARPOL 73/78 or by the Parties the combined merchant fleets of which constitute not less than 50 per cent of the gross tonnage of the world's merchant fleet, have notified to the Organization their objections to the amendments;
3. INVITES Parties to MARPOL 73/78 to note that, in accordance with article 16(2)(g)(ii) of the 1973 Convention, the said amendments shall enter into force on 1 August 2005 upon their acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with article 16(2)(e) of the 1973 Convention, to transmit to all Parties to MARPOL 73/78 certified copies of the present resolution and the text of the amendments contained in the annex;
5. REQUESTS FURTHER the Secretary-General to transmit copies of this resolution and its annex to Members of the Organization which are not Parties to MARPOL 73/78.

ANNEX

REVISED ANNEX IV OF MARPOL 73/78

REGULATIONS FOR THE PREVENTION OF POLLUTION BY
SEWAGE FROM SHIPS

Chapter 1 General

Regulation 1

Definitions

For the purposes of this Annex:

- 1 "New ship" means a ship:
 - .1 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
 - .2 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:
 - .1 drainage and other wastes from any form of toilets and urinals;
 - .2 drainage from medical premises (dispensary, sick bay, etc.) via wash basins, wash tubs and scuppers located in such premises;
 - .3 drainage from spaces containing living animals; or
 - .4 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' S, longitude 142°08' E
to a point in latitude 10°35' S, longitude 141°55' E
thence to a point latitude 10°00' S, longitude 142°00' E
thence to a point latitude 9°10' S, longitude 143°52' E
thence to a point latitude 9°00' S, longitude 144°30' E
thence to a point latitude 10°41' S, longitude 145°00' E

thence to a point latitude 13°00' S, longitude 145°00' E
thence to a point latitude 15°00' S, longitude 146°00' E
thence to a point latitude 17°30' S, longitude 147°00' E
thence to a point latitude 21°00' S, longitude 152°55' E
thence to a point latitude 24°30' S, longitude 154°00' E
thence to a point on the coast of Australia
in latitude 24°42' S, longitude 153°15' E

6 "International voyage" means a voyage from a country to which the present Convention applies to a port outside such country, or conversely.

7 "Person" means member of the crew and passengers.

8 "Anniversary date" means the day and the month of each year which will correspond to the date of expiry of the International Sewage Pollution Prevention Certificate.

Regulation 2

Application

1 The provisions of this Annex shall apply to the following ships engaged in international voyages:

- .1 new ships of 400 gross tonnage and above; and
- .2 new ships of less than 400 gross tonnage which are certified to carry more than 15 persons; and
- .3 existing ships of 400 gross tonnage and above, five years after the date of entry into force of this Annex; and
- .4 existing ships of less than 400 gross tonnage which are certified to carry more than 15 persons, five years after the date of entry into force of this Annex.

2 The Administration shall ensure that existing ships, according to subparagraphs 1.3 and 1.4 of this regulation, the keels of which are laid or which are of a similar stage of construction before 2 October 1983 shall be equipped, as far as practicable, to discharge sewage in accordance with the requirements of regulation 11 of the Annex.

Regulation 3

Exceptions

1 Regulation 11 of this Annex shall not apply to:

- .1 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
- .2 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.

Chapter 2 Surveys and certification

Regulation 4

Surveys

1 Every ship which, in accordance with regulation 2, is required to comply with the provisions of this Annex shall be subject to the surveys specified below:

- .1 An initial survey before the ship is put in service or before the Certificate required under regulation 5 of this Annex is issued for the first time, which shall include a complete survey of its structure, equipment, systems, fittings, arrangements and material in so far as the ship is covered by this Annex. This survey shall be such as to ensure that the structure, equipment, systems, fittings, arrangements and material fully comply with the applicable requirements of this Annex.
- .2 A renewal survey at intervals specified by the Administration, but not exceeding five years, except where regulation 8.2, 8.5, 8.6 or 8.7 of this Annex is applicable. The renewal survey shall be such as to ensure that the structure, equipment, systems, fittings, arrangements and material fully comply with applicable requirements of this Annex.
- .3 An additional survey either general or partial, according to the circumstances, shall be made after a repair resulting from investigations prescribed in paragraph 4 of this regulation, or whenever any important repairs or renewals are made. The survey shall be such as to ensure that the necessary repairs or renewals have been effectively made, that the material and workmanship of such repairs or renewals are in all respects satisfactory and that the ship complies in all respects with the requirements of this Annex.

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

3 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.

4 An Administration nominating surveyors or recognizing organizations to conduct surveys as set forth in paragraph 3 of this regulation shall, as a minimum, empower any nominated surveyor or recognized organization to:

- .1 require repairs to a ship; and
- .2 carry out surveys if requested by the appropriate authorities of a Port State.

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

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

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

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

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

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

Regulation 5

Issue or Endorsement of Certificate

1 An international Sewage Pollution Prevention Certificate shall be issued, after an initial or renewal survey in accordance with the provisions of regulation 4 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. In the case of existing ships this requirement shall apply five years after the date of entry into force of this Annex.

2 Such Certificate shall be issued or endorsed 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 or Endorsement 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 to the ship, and where appropriate, endorse or authorize the endorsement of that Certificate on the ship in accordance with this Annex.

2 A copy of the Certificate and a copy of the Survey report shall be transmitted as soon as possible to the 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 5 of this Annex.

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

Regulation 7

Form of Certificate

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

Regulation 8

Duration and validity of Certificate

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

2 .1 Notwithstanding the requirements of paragraph 1 of this regulation, when the renewal survey is completed within three months before the expiry date of the existing Certificate, the new Certificate shall be valid from the date of completion of the renewal survey to a date not exceeding five years from the date of expiry of the existing Certificate.

* Refer to the Guidelines for the authorization of organizations acting on behalf of the Administrations, adopted by the Organization by resolution A.739(18), and the Specifications on the survey and certification functions of recognized organizations acting on behalf of the Administration, adopted by the Organization by resolution A.789(19).

- .2 When the renewal survey is completed after the expiry date of the existing Certificate, the new Certificate shall be valid from the date of completion of the renewal survey to a date not exceeding five years from the date of expiry of the existing Certificate.
 - .3 When the renewal survey is completed more than three months before the expiry date of the existing Certificate, the new Certificate shall be valid from the date of completion of the renewal survey to a date not exceeding five years from the date of completion of the renewal survey.
- 3 If a Certificate is issued for a period of less than five years, the Administration may extend the validity of the Certificate beyond the expiry date to the maximum period specified in paragraph 1 of this regulation.
- 4 If a renewal survey has been completed and a new Certificate cannot be issued or placed on board the ship before the expiry date of the existing Certificate, the person or organization authorized by the Administration may endorse the existing Certificate and such a Certificate shall be accepted as valid for a further period which shall not exceed five months from the expiry date.
- 5 If a ship at the time when a Certificate expires is not in a port in which it is to be surveyed, the Administration may extend the period of validity of the Certificate but this extension shall be granted only for the purpose of allowing the ship to complete its voyage to the port in which it is to be surveyed and then only in cases where it appears proper and reasonable to do so. No Certificate shall be extended for a period longer than three months, and a ship to which an extension is granted shall not, on its arrival in the port in which it is to be surveyed, be entitled by virtue of such extension to leave that port without having a new Certificate. When the renewal survey is completed, the new Certificate shall be valid to a date not exceeding five years from the date of expiry of the existing Certificate before the extension was granted.
- 6 A Certificate issued to a ship engaged on short voyages which has not been extended under the foregoing provisions of this regulation may be extended by the Administration for a period of grace of up to one month from the date of expiry stated on it. When the renewal survey is completed, the new Certificate shall be valid to a date not exceeding five years from the date of expiry of the existing Certificate before the extension was granted.
- 7 In special circumstances, as determined by the Administration, a new Certificate need not be dated from the date of expiry of the existing Certificate as required by paragraph 2.2, 5 or 6 of this regulation. In these special circumstances, the new Certificate shall be valid to a date not exceeding five years from the date of completion of the renewal survey.

8 A Certificate issued under regulation 5 or 6 of this Annex shall cease to be valid in either of the following cases:

- .1 if the relevant surveys are not completed within the periods specified under regulation 4.1 of this Annex; or
- .2 upon transfer of the ship to the flag of another State. A new Certificate shall only be issued when the Government issuing the new Certificate is fully satisfied that the ship is in compliance with the requirements of regulations 4.7 and 4.8 of this Annex. In the case of a transfer between Parties, if requested within 3 months after the transfer has taken place, the Government of the Party whose flag the ship was formerly entitled to fly shall, as soon as possible, transmit to the Administration copies of the Certificate carried by the ship before the transfer and, if available, copies of the relevant survey reports.

Chapter 3 Equipment and control of discharge

Regulation 9

Sewage Systems

1 Every ship which, in accordance with regulation 2, is required to comply with the provisions of this Annex shall be equipped with one of the following sewage systems:

- .1 a sewage treatment plant which shall be of a type approved by the Administration, taking into account the standards and test methods developed by the Organization*, or
- .2 a sewage comminuting and disinfecting system approved by the Administration. Such system shall be fitted with facilities to the satisfaction of the Administration, for the temporary storage of sewage when the ship is less than 3 nautical miles from the nearest land, or
- .3 a holding tank of the capacity 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 be constructed to the satisfaction of the Administration and shall have a means to indicate visually the amount of its contents.

* Refer to the Recommendation on international effluent standards and guidelines for performance tests for sewage treatment plants adopted by the Marine Environment Protection Committee of the Organization by resolution MEPC.2(VI). For existing ships national specifications are acceptable.

Regulation 10

Standard Discharge Connections

1 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 600 kPa.	

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

2 For ships in dedicated trades, i.e. passenger ferries, alternatively the ship's discharge pipeline may be fitted with a discharge connection which can be accepted by the Administration, such as quick connection couplings.

Regulation 11

Discharge of Sewage

1 Subject to the provisions of regulation 3 of this Annex, the discharge of sewage into the sea is prohibited, except when:

- .1 the ship is discharging comminuted and disinfected sewage using a system approved by the Administration in accordance with regulation 9.1.2 of this Annex at a distance of more than 3 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

- .2 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 9.1.1 of this Annex, and
 - .1 the test results of the plant are laid down in the ship's International Sewage Pollution Prevention Certificate; and
 - .2 additionally, the effluent shall not produce visible floating solids nor cause discoloration of the surrounding water.

2 The provisions of paragraph 1 shall not apply to ships operating in the waters under the jurisdiction of a State and visiting ships from other States while they are in these waters and are discharging sewage in accordance with such less stringent requirements as may be imposed by such State.

3 When the sewage is mixed with wastes or waste water covered by other Annexes of MARPOL 73/78, the requirements of those Annexes shall be complied with in addition to the requirements of this Annex.

Chapter 4 Reception facilities

Regulation 12

Reception facilities

1 The Government of each Party to the Convention, which requires ships operating in waters under its jurisdiction and visiting ships while in its waters to comply with the requirements of regulation 11.1, undertakes to ensure the provision of facilities at ports and terminals of the reception of sewage, without causing 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.

Appendix

FORM OF CERTIFICATE

International Sewage Pollution Prevention Certificate

Issued under the provisions of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto, and as amended by resolution MEPC.115(51), (hereinafter referred to as "the Convention") under the authority of the Government of:

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

by
(full designation of the competent person or organization authorized
under the provisions of the Convention)

Particulars of ship¹

Name of ship

Distinctive number or letters

Port of registry

Gross tonnage

Number of persons which the ship is certified to carry

IMO Number².....

New/existing ship*

Date on which keel was laid or ship was at a similar stage of construction or, where applicable, date on which work for a conversion or an alteration or modification of a major character was commenced

¹ Alternatively, the particulars of the ship may be placed horizontally in boxes.

² Refer to the IMO Ship Identification Number Scheme adopted by the Organization by resolution A.600(15).

* Delete as appropriate.

THIS IS TO CERTIFY

- 1 That the ship is equipped with a sewage treatment plant/comminuter/holding tank* and a discharge pipeline in compliance with regulations 9 and 10 of Annex IV of the Convention as follows:

- *1.1 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 effluent standards as provided for in resolution MEPC.2(VI)
- *1.2 Description of comminuter:
 Type of comminuter
 Name of manufacturer
 Standard of sewage after disinfection
- *1.3 Description of holding tank:
 Total capacity of the holding tankm³
 Location
- 1.4 A pipeline for the discharge of sewage to a reception facility, fitted with a standard shore connection

- 2 That the ship has been surveyed in accordance with regulation 4 of Annex IV of the Convention.

- 3 That the survey shows that the structure, equipment, systems, fittings, arrangements and material of the ship and the condition thereof are in all respects satisfactory and that the ship complies with the applicable requirements of Annex IV of the Convention.

This Certificate is valid until³
 subject to surveys in accordance with regulation 4 of Annex IV of the Convention.

Completion date of survey on which this Certificate is based:dd/mm/yyyy
 Issued at:
 (Place of issue of Certificate)

.....
 (Date of issue)

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

(Seal or stamp of the authority, as appropriate)

³ Insert the date of expiry as specified by the Administration in accordance with regulation 8.1 of Annex IV of the Convention. The day and the month of this date correspond to the anniversary date as defined in regulation 1.8 of Annex IV of the Convention.

* Delete as appropriate.

Endorsement to extend the Certificate if valid for less than 5 years where regulation 8.3. applies

The ship complies with the relevant provisions of the Convention, and this Certificate shall, in accordance with regulation 8.3 of Annex IV of the Convention, be accepted as valid until

Signed:
(signature of authorized official)

Place:

Date:

(Seal or stamp of the authority, as appropriate)

Endorsement where the renewal survey has been completed and regulation 8.4 applies

The ship complies with the relevant provisions of the Convention, and this Certificate shall, in accordance with regulation 8.4 of Annex IV of the Convention, be accepted as valid until

Signed:
(signature of authorized official)

Place:

Date:

(Seal or stamp of the authority, as appropriate)

Endorsement to extend the validity of the Certificate until reaching the port of survey or for a period of grace where regulation 8.5 or 8.6 applies

This certificate shall, in accordance with regulation 8.5 or 8.6* of Annex IV of the Convention, be accepted as valid until

Signed:
(signature of authorized official)

Place:

Date:

(Seal or stamp of the authority, as appropriate)

* Delete as appropriate.

RESOLUTION MEPC.116(51)**Adopted on 1 April 2004****AMENDMENTS TO THE ANNEX OF THE PROTOCOL OF 1978 RELATING
TO THE INTERNATIONAL CONVENTION FOR THE PREVENTION OF
POLLUTION FROM SHIPS, 1973****(Amendments to the Appendix to Annex V of MARPOL 73/78)**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee (the Committee) conferred upon it by international conventions for the prevention and control of marine pollution,

NOTING article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the “1973 Convention”) and article VI of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the “1978 Protocol”) which together specify the amendment procedure of the 1978 Protocol and confer upon the appropriate body of the Organization the function of considering and adopting amendments to the 1973 Convention, as modified by the 1978 Protocol (MARPOL 73/78),

HAVING CONSIDERED the proposed amendments to the Appendix to Annex V of MARPOL 73/78,

1. ADOPTS, in accordance with article 16(2)(d) of the 1973 Convention, the amendments to the Appendix to Annex V of MARPOL 73/78, the text of which is set out at annex to the present resolution;
2. DETERMINES, in accordance with article 16(2)(f)(iii) of the 1973 Convention, that the amendments shall be deemed to have been accepted on 1 February 2005, unless, prior to that date, not less than one third of the Parties to MARPOL 73/78 or by the Parties the combined merchant fleets of which constitute not less than 50 per cent of the gross tonnage of the world’s merchant fleet, have notified to the Organization their objections to the amendments;
3. INVITES Parties to MARPOL 73/78 to note that, in accordance with article 16(2)(g)(ii) of the 1973 Convention, the said amendments shall enter into force on 1 August 2005 upon their acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with article 16(2)(e) of the 1973 Convention, to transmit to all Parties to MARPOL 73/78 certified copies of the present resolution and the text of the amendments contained in the annex;
5. REQUESTS FURTHER the Secretary-General to transmit copies of this resolution and its annex to Members of the Organization which are not Parties to MARPOL 73/78.

ANNEX

AMENDMENTS TO THE APPENDIX TO ANNEX V
OF MARPOL 73/78

1 Garbage category “4” in Section 3 of the Form of Garbage Record Book is amended as follows:

“4 Cargo residues, paper products, rags, glass, metal, bottles, crockery, etc.”

2 Paragraph 4.1(a)(ii) of Section 4 in the Form of Garbage Record Book is amended as follows:

“(ii) Position of the ship (latitude and longitude). Note for cargo residue discharges, include discharge start and stop positions.”

3 The **NOTE** included in the Record of Garbage Discharges is amended by adding the following sentence:

“DISCHARGES OF CARGO RESIDUES REQUIRE START AND STOP POSITIONS TO BE RECORDED.”

RESOLUTION MEPC.117(52)**Adopted on 15 October 2004****AMENDMENTS TO THE ANNEX OF THE PROTOCOL OF 1978
RELATING TO THE INTERNATIONAL CONVENTION FOR THE PREVENTION
OF POLLUTION FROM SHIPS, 1973****(Revised Annex I of MARPOL 73/78)**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee (the Committee) conferred upon it by international conventions for the prevention and control of marine pollution,

NOTING article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the “1973 Convention”) and article VI of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the “1978 Protocol”) which together specify the amendment procedure of the 1978 Protocol and confer upon the appropriate body of the Organization the function of considering and adopting amendments to the 1973 Convention, as modified by the 1978 Protocol (MARPOL 73/78),

HAVING CONSIDERED the text of the revised Annex I of MARPOL 73/78,

1. ADOPTS, in accordance with article 16(2)(b), (c) and (d) of the 1973 Convention, the revised Annex I of MARPOL 73/78, the text of which is set out at the annex to the present resolution, each regulation being subject to separate consideration by the Parties pursuant to article 16(2)(f)(ii) of the 1973 Convention;
2. DETERMINES, in accordance with article 16(2)(f)(iii) of the 1973 Convention, that the revised Annex I of MARPOL 73/78 shall be deemed to have been accepted on 1 July 2006, unless, prior to that date, not less than one-third of the Parties or Parties, the combined merchant fleets of which constitute not less than 50 per cent of the gross tonnage of the world’s merchant fleet, have communicated to the Organization their objection to the amendments;
3. INVITES the Parties to note that, in accordance with article 16(2)(g)(ii) of the 1973 Convention, the revised Annex I of MARPOL 73/78 shall enter into force on 1 January 2007 upon its acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with article 16(2)(e) of the 1973 Convention, to transmit to all Parties to MARPOL 73/78 certified copies of the present resolution and the text of the revised Annex I of MARPOL 73/78 contained in the annex; and
5. REQUESTS FURTHER the Secretary-General to transmit copies of the present resolution and its annex to the Members of the Organization which are not Parties to MARPOL 73/78.

ANNEX

CHAPTER 1 - GENERAL

Regulation 1*Definitions*

For the purposes of this Annex:

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

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

- .1 crude oil from which certain distillate fractions may have been removed; and
- .2 crude oil to which certain distillate fractions may have been added.

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

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

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

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

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

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

9 *Major conversion*:

- .1 means a conversion of a ship:
 - .1 which substantially alters the dimensions or carrying capacity of the ship;
or
 - .2 which changes the type of the ship; or
 - .3 the intent of which in the opinion of the Administration is substantially to prolong its life; or

- .4 which otherwise so alters the ship that, if it were a new ship, it would become subject to relevant provisions of the present Convention not applicable to it as an existing ship.
- .2 Notwithstanding the provisions of this definition:
 - .1 conversion of an oil tanker of 20,000 tonnes deadweight and above delivered on or before 1 June 1982, as defined in regulation 1.28.3, to meet the requirements of regulation 18 of this Annex shall not be deemed to constitute a major conversion for the purpose of this Annex; and
 - .2 conversion of an oil tanker delivered before 6 July 1996, as defined in regulation 1.28.5, to meet the requirements of regulation 19 or 20 of this Annex shall not be deemed to constitute a major conversion for the purpose of this Annex.

10 *Nearest land.* The term *from the nearest land* means from the baseline from which the territorial sea of the territory in question is established in accordance with international law, except that, for the purposes of the present Convention "from the nearest land" off the north-eastern coast of Australia shall mean from a line drawn from a point on the coast of Australia in:

latitude 11°00' S, longitude 142°08' E
 to a point in latitude 10°35' S, longitude 141°55' E,
 thence to a point latitude 10°00' S, longitude 142°00' E,
 thence to a point latitude 9°10' S, longitude 143°52' E,
 thence to a point latitude 9°00' S, longitude 144°30' E,
 thence to a point latitude 10°41' S, longitude 145°00' E,
 thence to a point latitude 13°00' S, longitude 145°00' E,
 thence to a point latitude 15°00' S, longitude 146°00' E,
 thence to a point latitude 17°30' S, longitude 147°00' E,
 thence to a point latitude 21°00' S, longitude 152°55' E,
 thence to a point latitude 24°30' S, longitude 154°00' E,
 thence to a point on the coast of Australia
 in latitude 24°42' S, longitude 153°15' E.

11 *Special area* means a sea area where for recognized technical reasons in relation to its oceanographical and ecological condition and to the particular character of its traffic the adoption of special mandatory methods for the prevention of sea pollution by oil is required.

For the purposes of this Annex, the special areas are defined as follows:

- .1 *the Mediterranean Sea area* means the Mediterranean Sea proper including the gulfs and seas therein with the boundary between the Mediterranean and the Black Sea constituted by the 41° N parallel and bounded to the west by the Straits of Gibraltar at the meridian of 005°36' W;
- .2 *the Baltic Sea area* means the Baltic Sea proper with the Gulf of Bothnia, the Gulf of Finland and the entrance to the Baltic Sea bounded by the parallel of the Skaw in the Skagerrak at 57°44.8' N;
- .3 *the Black Sea area* means the Black Sea proper with the boundary between the Mediterranean Sea and the Black Sea constituted by the parallel 41° N;

- .4 *the Red Sea area* means the Red Sea proper including the Gulfs of Suez and Aqaba bounded at the south by the rhumb line between Ras si Ane (12°28.5' N, 043°19.6' E) and Husn Murad (12°40.4' N, 043°30.2' E);
- .5 *the Gulfs area* means the sea area located north-west of the rhumb line between Ras al Hadd (22°30' N, 059°48' E) and Ras al Fasteh (25°04' N, 061° 25' E);
- .6 *the Gulf of Aden area* means that part of the Gulf of Aden between the Red Sea and the Arabian Sea bounded to the west by the rhumb line between Ras si Ane (12°28.5' N, 043°19.6' E) and Husn Murad (12°40.4' N, 043°30.2' E) and to the east by the rhumb line between Ras Asir (11°50' N, 051°16.9' E) and the Ras Fartak (15°35' N, 052°13.8' E);
- .7 *the Antarctic area* means the sea area south of latitude 60°S; and
- .8 *the North West European waters* include the North Sea and its approaches, the Irish Sea and its approaches, the Celtic Sea, the English Channel and its approaches and part of the North East Atlantic immediately to the west of Ireland. The area is bounded by lines joining the following points:
- 48° 27' N on the French coast
 - 48° 27' N; 006° 25' W
 - 49° 52' N; 007° 44' W
 - 50° 30' N; 012° W
 - 56° 30' N; 012° W
 - 62° N; 003° W
 - 62° N on the Norwegian coast
 - 57° 44.8' N on the Danish and Swedish coasts
- .9 *the Oman area of the Arabian Sea* means the sea area enclosed by the following co-ordinates:
- 22° 30.00' N; 059° 48.00' E
 - 23° 47.27' N; 060° 35.73' E
 - 22° 40.62' N; 062° 25.29' E
 - 21° 47.40' N; 063° 22.22' E
 - 20° 30.37' N; 062° 52.41' E
 - 19° 45.90' N; 062° 25.97' E
 - 18° 49.92' N; 062° 02.94' E
 - 17° 44.36' N; 061° 05.53' E
 - 16° 43.71' N; 060° 25.62' E
 - 16° 03.90' N; 059° 32.24' E
 - 15° 15.20' N; 058° 58.52' E
 - 14° 36.93' N; 058° 10.23' E
 - 14° 18.93' N; 057° 27.03' E
 - 14° 11.53' N; 056° 53.75' E
 - 13° 53.80' N; 056° 19.24' E
 - 13° 45.86' N; 055° 54.53' E
 - 14° 27.38' N; 054° 51.42' E
 - 14° 40.10' N; 054° 27.35' E
 - 14° 46.21' N; 054° 08.56' E

15° 20.74' N; 053° 38.33' E
15° 48.69' N; 053° 32.07' E
16° 23.02' N; 053° 14.82' E
16° 39.06' N; 053° 06.52' E

- 12 *Instantaneous rate of discharge of oil content* means the rate of discharge of oil in litres per hour at any instant divided by the speed of the ship in knots at the same instant.
- 13 *Tank* means an enclosed space which is formed by the permanent structure of a ship and which is designed for the carriage of liquid in bulk.
- 14 *Wing tank* means any tank adjacent to the side shell plating.
- 15 *Centre tank* means any tank inboard of a longitudinal bulkhead.
- 16 *Slop tank* means a tank specifically designated for the collection of tank drainings, tank washings and other oily mixtures.
- 17 *Clean ballast* means the ballast in a tank which since oil was last carried therein, has been so cleaned that effluent therefrom if it were discharged from a ship which is stationary into clean calm water on a clear day would not produce visible traces of oil on the surface of the water or on adjoining shorelines or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines. If the ballast is discharged through an oil discharge monitoring and control system approved by the Administration, evidence based on such a system to the effect that the oil content of the effluent did not exceed 15 parts per million shall be determinative that the ballast was clean, notwithstanding the presence of visible traces.
- 18 *Segregated ballast* means the ballast water introduced into a tank which is completely separated from the cargo oil and oil fuel system and which is permanently allocated to the carriage of ballast or to the carriage of ballast or cargoes other than oil or noxious liquid substances as variously defined in the Annexes of the present Convention.
- 19 *Length (L)* means 96 per cent of the total length on a waterline at 85 per cent of the least moulded depth measured from the top of the keel, or the length from the foreside of the stem to the axis of the rudder stock on that waterline, if that be greater. In ships designed with a rake of keel the waterline on which this length is measured shall be parallel to the designed waterline. The length (*L*) shall be measured in metres.
- 20 *Forward and after perpendiculars* shall be taken at the forward and after ends of the length (*L*). The forward perpendicular shall coincide with the foreside of the stem on the waterline on which the length is measured.
- 21 *Amidships* is at the middle of the length (*L*).
- 22 *Breadth (B)* means the maximum breadth of the ship, measured amidships to the moulded line of the frame in a ship with a metal shell and to the outer surface of the hull in a ship with a shell of any other material. The breadth (*B*) shall be measured in metres.
- 23 *Deadweight (DW)* means the difference in tonnes between the displacement of a ship in water of a relative density of 1.025 at the load waterline corresponding to the assigned summer freeboard and the lightweight of the ship.

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

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

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

27 *Anniversary date* means the day and the month of each year, which will correspond to the date of expiry of the International Oil Pollution Prevention Certificate.

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

- .1 for which the building contract is placed on or before 31 December 1975; or
- .2 in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction on or before 30 June 1976; or
- .3 the delivery of which is on or before 31 December 1979; or
- .4 which has undergone a major conversion:
 - .1 for which the contract is placed on or before 31 December 1975; or
 - .2 in the absence of a contract, the construction work of which is begun on or before 30 June 1976; or
 - .3 which is completed on or before 31 December 1979.

28.2 *ship delivered after 31 December 1979* means a ship:

- .1 for which the building contract is placed after 31 December 1975; or
- .2 in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction after 30 June 1976; or
- .3 the delivery of which is after 31 December 1979; or
- .4 which has undergone a major conversion:
 - .1 for which the contract is placed after 31 December 1975; or
 - .2 in the absence of a contract, the construction work of which is begun after 30 June 1976; or
 - .3 which is completed after 31 December 1979.

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

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

- .2 in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction on or before 1 January 1980; or
 - .3 the delivery of which is on or before 1 June 1982; or
 - .4 which has undergone a major conversion:
 - .1 for which the contract is placed on or before 1 June 1979; or
 - .2 in the absence of a contract, the construction work of which is begun on or before 1 January 1980; or
 - .3 which is completed on or before 1 June 1982
- 28.4 *oil tanker delivered after 1 June 1982* means an oil tanker:
- .1 for which the building contract is placed after 1 June 1979; or
 - .2 in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction after 1 January 1980; or
 - .3 the delivery of which is after 1 June 1982; or
 - .4 which has undergone a major conversion:
 - .1 for which the contract is placed after 1 June 1979; or
 - .2 in the absence of a contract, the construction work of which is begun after 1 January 1980; or
 - .3 which is completed after 1 June 1982.
- 28.5 *oil tanker delivered before 6 July 1996* means an oil tanker:
- .1 for which the building contract is placed before 6 July 1993; or
 - .2 in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction before 6 January 1994; or
 - .3 the delivery of which is before 6 July 1996; or
 - .4 which has undergone a major conversion:
 - .1 for which the contract is placed before 6 July 1993; or
 - .2 in the absence of a contract, the construction work of which is begun before 6 January 1994; or
 - .3 which is completed before 6 July 1996.
- 28.6 *oil tanker delivered on or after 6 July 1996* means an oil tanker:
- .1 for which the building contract is placed on or after 6 July 1993; or

- .2 in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction on or after 6 January 1994; or
- .3 the delivery of which is on or after 6 July 1996; or
- .4 which has undergone a major conversion:
 - .1 for which the contract is placed on or after 6 July 1993; or
 - .2 in the absence of a contract, the construction work of which is begun on or after 6 January 1994; or
 - .3 which is completed on or after 6 July 1996.

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

- .1 for which the building contract is placed on or after 1 February 1999; or
- .2 in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction on or after 1 August 1999; or
- .3 the delivery of which is on or after 1 February 2002; or
- .4 which has undergone a major conversion:
 - .1 for which the contract is placed on or after 1 February 1999; or
 - .2 in the absence of a contract, the construction work of which is begun on or after 1 August 1999; or
 - .3 which is completed on or after 1 February 2002.

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

- .1 for which the building contract is placed on or after 1 January 2007; or
- .2 in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction on or after 1 July 2007; or
- .3 the delivery of which is on or after 1 January 2010; or
- .4 which has undergone a major conversion:
 - .1 for which the contract is placed on or after 1 January 2007; or
 - .2 in the absence of a contract, the construction work of which is begun on or after 1 July 2007; or
 - .3 which is completed on or after 1 January 2010.

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

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

Regulation 2

Application

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

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

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

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

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

- .1 ports or terminals within a State Party to the present Convention; or
- .2 ports or terminals of States Parties to the present Convention, where:
 - .1 the voyage is entirely within a Special Area; or
 - .2 the voyage is entirely within other limits designated by the Organization.

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

- .1 subject to the exceptions provided for in regulation 4 of this Annex, all ballast water, including clean ballast water, and tank washing residues are retained on board and transferred to the reception facilities and the appropriate entry in the Oil Record Book Part II referred to in regulation 36 of this Annex is endorsed by the competent Port State Authority;
- .2 agreement has been reached between the Administration and the Governments of the Port States referred to in paragraphs 5.1 or 5.2 of this regulation concerning the use of an oil tanker delivered on or before 1 June 1982, as defined in regulation 1.28.3, for a specific trade;

- .3 the adequacy of the reception facilities in accordance with the relevant provisions of this Annex at the ports or terminals referred to above, for the purpose of this regulation, is approved by the Governments of the States Parties to the present Convention within which such ports or terminals are situated; and
- .4 the International Oil Pollution Prevention Certificate is endorsed to the effect that the oil tanker is solely engaged in such specific trade.

Regulation 3

Exemptions and waivers

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

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

3 The Administration which allows any such exemption shall, as soon as possible, but not more than 90 days thereafter, communicate to the Organization particulars of same and the reasons therefore, which the Organization shall circulate to the Parties to the present Convention for their information and appropriate action, if any.

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

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

- .1 the tanker is an oil tanker delivered on or before 1 June 1982, as defined in regulation 1.28.3, of 40,000 tonnes deadweight or above, as referred to in regulation 2.5 of this Annex, solely engaged in specific trades, and the conditions specified in regulation 2.6 of this Annex are complied with; or
- .2 the tanker is engaged exclusively in one or more of the following categories of voyages:
 - .1 voyages within special areas; or
 - .2 voyages within 50 nautical miles from the nearest land outside special areas where the tanker is engaged in:
 - .1 trades between ports or terminals of a State Party to the present Convention; or

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

provided that all of the following conditions are complied with:

- .3 all oily mixtures are retained on board for subsequent discharge to reception facilities;
- .4 for voyages specified in paragraph 5.2.2 of this regulation, the Administration has determined that adequate reception facilities are available to receive such oily mixtures in those oil loading ports or terminals the tanker calls at;
- .5 the International Oil Pollution Prevention Certificate, when required, is endorsed to the effect that the ship is exclusively engaged in one or more of the categories of voyages specified in paragraphs 5.2.1 and 5.2.2.2 of this regulation; and
- .6 the quantity, time and port of discharge are recorded in the Oil Record Book.

Regulation 4

Exceptions

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

- .1 the discharge into the sea of oil or oily mixture necessary for the purpose of securing the safety of a ship or saving life at sea; or
- .2 the discharge into the sea of oil or oily mixture resulting from damage to a ship or its equipment:
 - .1 provided that all reasonable precautions have been taken after the occurrence of the damage or discovery of the discharge for the purpose of preventing or minimizing the discharge; and
 - .2 except if the owner or the master acted either with intent to cause damage, or recklessly and with knowledge that damage would probably result; or
- .3 the discharge into the sea of substances containing oil, approved by the Administration, when being used for the purpose of combating specific pollution incidents in order to minimize the damage from pollution. Any such discharge shall be subject to the approval of any Government in whose jurisdiction it is contemplated the discharge will occur.

Regulation 5

Equivalents

1 The Administration may allow any fitting, material, appliance or apparatus to be fitted in a ship as an alternative to that required by this Annex if such fitting, material, appliance or apparatus is at least as effective as that required by this Annex. This authority of the Administration shall not extend to substitution of operational methods to effect the control of

discharge of oil as equivalent to those design and construction features which are prescribed by regulations in this Annex.

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

CHAPTER 2 - SURVEYS AND CERTIFICATION

Regulation 6

Surveys

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

- .1 an initial survey before the ship is put in service or before the Certificate required under regulation 7 of this Annex is issued for the first time, which shall include a complete survey of its structure, equipment, systems, fittings, arrangements and material in so far as the ship is covered by this Annex. This survey shall be such as to ensure that the structure, equipment, systems, fittings, arrangements and material fully comply with the applicable requirements of this Annex;
- .2 a renewal survey at intervals specified by the Administration, but not exceeding 5 years, except where regulation 10.2.2, 10.5, 10.6 or 10.7 of this Annex is applicable. The renewal survey shall be such as to ensure that the structure, equipment, systems, fittings, arrangements and material fully comply with applicable requirements of this Annex;
- .3 an intermediate survey within 3 months before or after the second anniversary date or within 3 months before or after the third anniversary date of the Certificate which shall take the place of one of the annual surveys specified in paragraph 1.4 of this regulation. The intermediate survey shall be such as to ensure that the equipment and associated pump and piping systems, including oil discharge monitoring and control systems, crude oil washing systems, oily-water separating equipment and oil filtering systems, fully comply with the applicable requirements of this Annex and are in good working order. Such intermediate surveys shall be endorsed on the Certificate issued under regulation 7 or 8 of this Annex;
- .4 an annual survey within 3 months before or after each anniversary date of the Certificate, including a general inspection of the structure, equipment, systems, fittings, arrangements and material referred to in paragraph 1.1 of this regulation to ensure that they have been maintained in accordance with paragraphs 4.1 and 4.2 of this regulation and that they remain satisfactory for the service for which the ship is intended. Such annual surveys shall be endorsed on the Certificate issued under regulation 7 or 8 of this Annex; and
- .5 an additional survey either general or partial, according to the circumstances, shall be made after a repair resulting from investigations prescribed in paragraph 4.3 of this regulation, or whenever any important repairs or renewals are made. The survey shall be such as to ensure that the necessary repairs or renewals have been effectively made, that the material and workmanship of such repairs or renewals

are in all respects satisfactory and that the ship complies in all respects with the requirements of this Annex.

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

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

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

- .1 require repairs to a ship; and
- .2 carry out surveys, if requested by the appropriate authorities of a port State.

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

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

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

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

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

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

Regulation 7

Issue or endorsement of certificate

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

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

Regulation 8

Issue or endorsement of certificate by another Government

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

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

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

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

Regulation 9

Form of certificate

The International Oil Pollution Prevention Certificate shall be drawn up in the form corresponding to the model given in appendix II to this Annex and shall be at least in English,

French or Spanish. If an official language of the issuing country is also used, this shall prevail in case of a dispute or discrepancy.

Regulation 10

Duration and validity of certificate

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

2.1 Notwithstanding the requirements of paragraph 1 of this regulation, when the renewal survey is completed within 3 months before the expiry date of the existing certificate, the new certificate shall be valid from the date of completion of the renewal survey to a date not exceeding 5 years from the date of expiry of the existing certificate.

2.2 When the renewal survey is completed after the expiry date of the existing certificate, the new certificate shall be valid from the date of completion of the renewal survey to a date not exceeding 5 years from the date of expiry of the existing certificate.

2.3 When the renewal survey is completed more than 3 months before the expiry date of the existing certificate, the new certificate shall be valid from the date of completion of the renewal survey to a date not exceeding 5 years from the date of completion of the renewal survey.

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

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

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

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

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

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

- .1 the anniversary date shown on the certificate shall be amended by endorsement to a date which shall not be more than 3 months later than the date on which the survey was completed;
- .2 the subsequent annual or intermediate survey required by regulation 6.1 of this Annex shall be completed at the intervals prescribed by that regulation using the new anniversary date; and
- .3 the expiry date may remain unchanged provided one or more annual or intermediate surveys, as appropriate, are carried out so that the maximum intervals between the surveys prescribed by regulation 6.1 of this Annex are not exceeded.

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

- .1 if the relevant surveys are not completed within the periods specified under regulation 6.1 of this Annex;
- .2 if the certificate is not endorsed in accordance with regulation 6.1.3 or 6.1.4 of this Annex; or
- .3 upon transfer of the ship to the flag of another State. A new certificate shall only be issued when the Government issuing the new certificate is fully satisfied that the ship is in compliance with the requirements of regulations 6.4.1 and 6.4.2 of this Annex. In the case of a transfer between Parties, if requested within 3 months after the transfer has taken place, the Government of the Party whose flag the ship was formerly entitled to fly shall, as soon as possible, transmit to the Administration copies of the certificate carried by the ship before the transfer and, if available, copies of the relevant survey reports.

Regulation 11

Port State control on operational requirements

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

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

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

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

CHAPTER 3 - REQUIREMENTS FOR MACHINERY SPACES OF ALL SHIPS**PART A CONSTRUCTION****Regulation 12***Tanks for oil residues (sludge)*

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

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

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

Regulation 13*Standard discharge connection*

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

Standard dimensions of flanges for discharge connections

<i>Description</i>	<i>Dimension</i>
Outside diameter	215 mm
Inner diameter	According to pipe outside diameter
Bolt circle diameter	183 mm
Slots in flange	6 holes 22 mm in diameter equidistantly placed on a bolt circle of the above diameter, slotted to the flange periphery. The slot width to be 22 mm
Flange thickness	20 mm
Bolts and nuts: quantity, diameter	6, each of 20 mm in diameter and of suitable length
The flange is designed to accept pipes up to a maximum internal diameter of 125 mm and shall be of steel or other equivalent material having a flat face. This flange, together with a gasket of oil-proof material, shall be suitable for a service pressure of 600 kPa.	

PART B EQUIPMENT**Regulation 14***Oil filtering equipment*

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

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

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

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

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

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

- .1 any ship engaged exclusively on voyages within special areas, or
- .2 any ship certified under the International Code of Safety for High-Speed Craft (or otherwise within the scope of this Code with regard to size and design) engaged on a scheduled service with a turn-around time not exceeding 24 hours and covering also non-passenger/cargo-carrying relocation voyages for these ships,
- .3 with regard to the provision of subparagraphs .1 and .2 above, the following conditions shall be complied with:
 - .1 the ship is fitted with a holding tank having a volume adequate, to the satisfaction of the Administration, for the total retention on board of the oily bilge water;
 - .2 all oily bilge water is retained on board for subsequent discharge to reception facilities;
 - .3 the Administration has determined that adequate reception facilities are available to receive such oily bilge water in a sufficient number of ports or terminals the ship calls at;
 - .4 the International Oil Pollution Prevention Certificate, when required, is endorsed to the effect that the ship is exclusively engaged on the voyages within special areas or has been accepted as a high-speed craft for the purpose of this regulation and the service is identified; and
 - .5 the quantity, time, and port of the discharge are recorded in the Oil Record Book Part I.

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

million. In considering the design of such equipment, the Administration shall have regard to the specification recommended by the Organization.

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

PART C CONTROL OF OPERATIONAL DISCHARGE OF OIL

Regulation 15

Control of discharge of oil

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

A. Discharges outside special areas

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

- .1 the ship is proceeding en route;
- .2 the oily mixture is processed through an oil filtering equipment meeting the requirements of regulation 14 of this Annex;
- .3 the oil content of the effluent without dilution does not exceed 15 parts per million;
- .4 the oily mixture does not originate from cargo pump room bilges on oil tankers; and
- .5 the oily mixture, in case of oil tankers, is not mixed with oil cargo residues.

B. Discharges in special areas

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

- .1 the ship is proceeding en route;
- .2 the oily mixture is processed through an oil filtering equipment meeting the requirements of regulation 14.7 of this Annex;
- .3 the oil content of the effluent without dilution does not exceed 15 parts per million;
- .4 the oily mixture does not originate from cargo pump room bilges on oil tankers; and

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

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

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

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

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

- .1 the ship is proceeding en route;
- .2 the ship has in operation equipment of a design approved by the Administration that ensures that the oil content of the effluent without dilution does not exceed 15 parts per million;
- .3 the oily mixture does not originate from cargo pump room bilges on oil tankers; and
- .4 the oily mixture, in case of oil tankers, is not mixed with oil cargo residues.

D. General requirements

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

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

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

Regulation 16

Segregation of oil and water ballast and carriage of oil in forepeak tanks

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

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

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

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

Regulation 17

Oil Record Book, Part I - Machinery space operations

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

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

- .1 ballasting or cleaning of oil fuel tanks;
- .2 discharge of dirty ballast or cleaning water from oil fuel tanks;
- .3 collection and disposal of oil residues (sludge and other oil residues);
- .4 discharge overboard or disposal otherwise of bilge water which has accumulated in machinery spaces; and
- .5 bunkering of fuel or bulk lubricating oil.

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

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

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

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

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

CHAPTER 4 - REQUIREMENTS FOR THE CARGO AREA OF OIL TANKERS

PART A CONSTRUCTION

Regulation 18

Segregated Ballast Tanks

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

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

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

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

$$d_m = 2.0 + 0.02L$$

- .2 the draughts at the forward and after perpendiculars shall correspond to those determined by the draught amidships (d_m) as specified in paragraph 2.1 of this regulation, in association with the trim by the stern of not greater than 0.015L; and
- .3 in any case the draught at the after perpendicular shall not be less than that which is necessary to obtain full immersion of the propeller(s).

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

- .1 on those rare voyages when weather conditions are so severe that, in the opinion of the master, it is necessary to carry additional ballast water in cargo tanks for the safety of the ship; and
- .2 in exceptional cases where the particular character of the operation of an oil tanker renders it necessary to carry ballast water in excess of the quantity required under paragraph 2 of this regulation, provided that such operation of the oil tanker falls under the category of exceptional cases as established by the Organization.

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

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

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

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

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

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

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

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

- .1 The product carrier shall have adequate tank capacity, dedicated solely to the carriage of clean ballast as defined in regulation 1.17 of this Annex, to meet the requirements of paragraphs 2 and 3 of this regulation.
- .2 The arrangements and operational procedures for dedicated clean ballast tanks shall comply with the requirements established by the Administration. Such requirements shall contain at least all the provisions of the revised Specifications for Oil Tankers with Dedicated Clean Ballast Tanks adopted by the Organization by resolution A.495(XII).

- .3 The product carrier shall be equipped with an oil content meter, approved by the Administration on the basis of specifications recommended by the Organization, to enable supervision of the oil content in ballast water being discharged.
- .4 Every product carrier operating with dedicated clean ballast tanks shall be provided with a Dedicated Clean Ballast Tank Operation Manual detailing the system and specifying operational procedures. Such a Manual shall be to the satisfaction of the Administration and shall contain all the information set out in the Specifications referred to in subparagraph 8.2 of this regulation. If an alteration affecting the dedicated clean ballast tank system is made, the Operation Manual shall be revised accordingly.

An oil tanker qualified as a segregated ballast oil tanker

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

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

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

- .1 Where an oil tanker delivered on or before 1 June 1982, as defined in regulation 1.28.3, is so constructed or operates in such a manner that it complies at all times with the draught and trim requirements set out in paragraph 2 of this regulation without recourse to the use of ballast water, it shall be deemed to comply with the segregated ballast tank requirements referred to in paragraph 6 of this regulation, provided that all of the following conditions are complied with:
 - .1 operational procedures and ballast arrangements are approved by the Administration;
 - .2 agreement is reached between the Administration and the Governments of the port States Parties to the present convention concerned when the draught and trim requirements are achieved through an operational procedure; and
 - .3 the International Oil Pollution Prevention Certificate is endorsed to the effect that the oil tanker is operating with special ballast arrangements.
- .2 In no case shall ballast water be carried in oil tanks except on those rare voyages when weather conditions are so severe that, in the opinion of the master, it is necessary to carry additional ballast water in cargo tanks for the safety of the ship. Such additional ballast water shall be processed and discharged in compliance with regulation 34 of this Annex and in accordance with the requirements of regulations 29, 31 and 32 of this Annex, and entry shall be made in the Oil Record Book referred to in regulation 36 of this Annex.
- .3 An Administration which has endorsed a Certificate in accordance with subparagraph 10.1.3 of this regulation shall communicate to the Organization the particulars thereof for circulation to the Parties to the present Convention.

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

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

Protective location of segregated ballast

12 Protective location of segregated ballast spaces.

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

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

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

where: PA_c = the side shell area in square metres for each segregated ballast tank or space other than an oil tank based on projected moulded dimensions,

PA_s = the bottom shell area in square metres for each such tank or space based on projected moulded dimensions,

L_t = length in metres between the forward and after extremities of the cargo tanks,

B = maximum breadth of the ship in metres as defined in regulation 1.22 of this Annex,

D = moulded depth in metres measured vertically from the top of the keel to the top of the freeboard deck beam at side amidships. In ships having rounded gunwales, the moulded depth shall be measured to the point of intersection of the moulded lines of the deck and side shell plating, the lines extending as though the gunwale were of angular design

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

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

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

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

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

where:

- a = 0.25 for oil tankers of 200,000 tonnes deadweight,
- a = 0.40 for oil tankers of 300,000 tonnes deadweight,
- a = 0.50 for oil tankers of 420,000 tonnes deadweight and above.

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

O_C = as defined in regulation 25.1.1 of this Annex,

O_S = as defined in regulation 25.1.2 of this Annex,

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

15 In the determination of PA_C and PA_S for segregated ballast tanks and spaces other than oil tanks the following shall apply:

- .1 the minimum width of each wing tank or space either of which extends for the full depth of the ship's side or from the deck to the top of the double bottom shall be not less than 2 metres. The width shall be measured inboard from the ship's side at right angles to the centreline. Where a lesser width is provided the wing tank or space shall not be taken into account when calculating the protecting area PA_C ; and
- .2 the minimum vertical depth of each double bottom tank or space shall be $B/15$ or 2 metres, whichever is the lesser. Where a lesser depth is provided the bottom tank or space shall not be taken into account when calculating the protecting area PA_S .

The minimum width and depth of wing tanks and double bottom tanks shall be measured clear of the bilge area and, in the case of minimum width, shall be measured clear of any rounded gunwale area.

Regulation 19

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

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

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

- .1 in lieu of paragraphs 12 to 15 of regulation 18, as applicable, comply with the requirements of paragraph 3 of this regulation unless it is subject to the provisions of paragraphs 4 and 5 of this regulation; and
- .2 comply, if applicable, with the requirements of regulation 28.6.

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

.1 Wing tanks or spaces

Wing tanks or spaces shall extend either for the full depth of the ship's side or from the top of the double bottom to the uppermost deck, disregarding a rounded gunwale where fitted. They shall be arranged such that the cargo tanks are located inboard of the moulded line of the side shell plating nowhere less than the distance w which, as shown in figure 1 is measured at any cross-section at right angles to the side shell, as specified below:

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

$w = 2.0$ m, whichever is the lesser.

The minimum value of $w = 1.0$ m.

.2 Double bottom tanks or spaces

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

$$h = B/15 \text{ (m) or}$$
$$h = 2.0 \text{ m, whichever is the lesser.}$$

The minimum value of $h = 1.0$ m.

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

When the distances h and w are different, the distance w shall have preference at levels exceeding $1.5h$ above the baseline as shown in figure 1.

.4 The aggregate capacity of ballast tanks

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

.5 Suction wells in cargo tanks

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

.6 Ballast and cargo piping

Ballast piping and other piping such as sounding and vent piping to ballast tanks shall not pass through cargo tanks. Cargo piping and similar piping to cargo tanks shall not pass through ballast tanks. Exemptions to this requirement may be granted for short lengths of piping, provided that they are completely welded or equivalent.

4 The following applies for double bottom tanks or spaces:

- .1 Double bottom tanks or spaces as required by paragraph 3.2 of this regulation may be dispensed with, provided that the design of the tanker is such that the cargo and vapour pressure exerted on the bottom shell plating forming a single boundary between the cargo and the sea does not exceed the external hydrostatic water pressure, as expressed by the following formula:

$$f \times h_c \times \rho_c \times g + p \leq d_n \times \rho_s \times g$$

where:

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

ρ_c = maximum cargo density in kg/m³

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

ρ_s = density of seawater in kg/m³

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

f = safety factor = 1.1

g = standard acceleration of gravity (9.81 m/s²)

- .2 Any horizontal partition necessary to fulfil the above requirements shall be located at a height not less than B/6 or 6 m, whichever is the lesser, but not more than 0.6D, above the baseline where D is the moulded depth amidships.
- .3 The location of wing tanks or spaces shall be as defined in paragraph 3.1 of this regulation except that, below a level 1.5 h above the baseline where h is as defined in paragraph 3.2 of this regulation, the cargo tank boundary line may be vertical down to the bottom plating, as shown in figure 2.

5 Other methods of design and construction of oil tankers may also be accepted as alternatives to the requirements prescribed in paragraph 3 of this regulation, provided that such methods ensure at least the same level of protection against oil pollution in the event of collision or stranding and are approved in principle by the Marine Environment Protection Committee based on guidelines developed by the Organization.

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

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

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

with a minimum value of $h = 0.76 \text{ m}$;

in the turn of the bilge area and at locations without a clearly defined turn of the bilge, the cargo tank boundary line shall run parallel to the line of the midship flat bottom as shown in figure 3; and

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

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

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

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

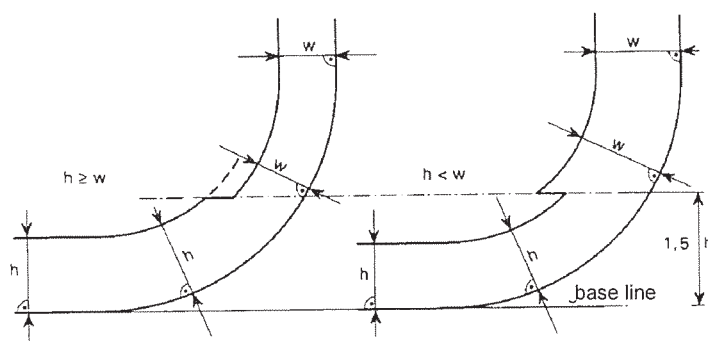


Figure 1 - Cargo tank boundary lines for the purpose of paragraph 3

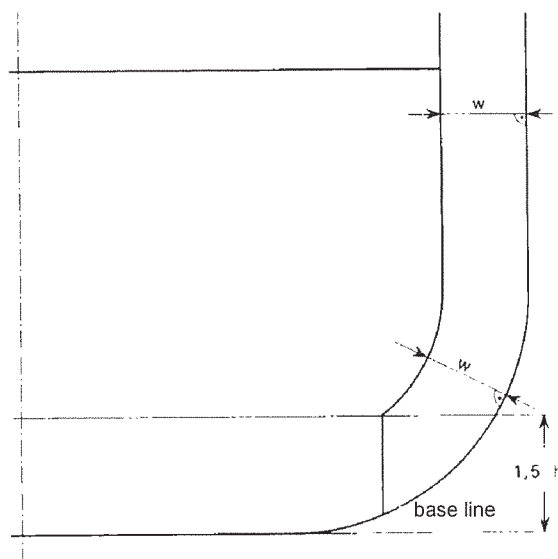


Figure 2 - Cargo tank boundary lines for the purpose of paragraph 4

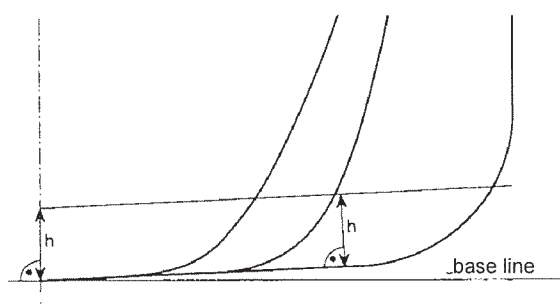


Figure 3 - Cargo tank boundary lines for the purpose of paragraph 6

Regulation 20

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

- 1 Unless expressly provided otherwise this regulation shall:
 - .1 apply to oil tankers of 5,000 tonnes deadweight and above, which are delivered before 6 July 1996, as defined in regulation 1.28.5 of this Annex; and
 - .2 not apply to oil tankers complying with regulation 19 and regulation 28 in respect of paragraph 28.6, which are delivered before 6 July 1996, as defined in regulation 1.28.5 of this Annex; and
 - .3 not apply to oil tankers covered by subparagraph 1 above which comply with regulation 19.3.1 and 19.3.2 or 19.4 or 19.5 of this Annex, except that the requirement for minimum distances between the cargo tank boundaries and the ship side and bottom plating need not be met in all respects. In that event, the side protection distances shall not be less than those specified in the International Bulk Chemical Code for type 2 cargo tank location and the bottom protection distances at centreline shall comply with regulation 18.15.2 of this Annex.

2 For the purpose of this regulation:

- .1 “Heavy diesel oil” means diesel oil other than those distillates of which more than 50 per cent by volume distils at a temperature not exceeding 340°C when tested by the method acceptable to the Organization.
- .2 “Fuel oil” means heavy distillates or residues from crude oil or blends of such materials intended for use as a fuel for the production of heat or power of a quality equivalent to the specification acceptable to the Organization.

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

- .1 “Category 1 oil tanker” means an oil tanker of 20,000 tonnes deadweight and above carrying crude oil, fuel oil, heavy diesel oil or lubricating oil as cargo, and of 30,000 tonnes deadweight and above carrying oil other than the above, which does not comply with the requirements for oil tankers delivered after 1 June 1982, as defined in regulation 1.28.4 of this Annex;
- .2 “Category 2 oil tanker” means an oil tanker of 20,000 tonnes deadweight and above carrying crude oil, fuel oil, heavy diesel oil or lubricating oil as cargo, and of 30,000 tonnes deadweight and above carrying oil other than the above, which complies with the requirements for oil tankers delivered after 1 June 1982, as defined in regulation 1.28.4 of this Annex; and
- .3 “Category 3 oil tanker” means an oil tanker of 5,000 tonnes deadweight and above but less than that specified in subparagraph 1 or 2 of this paragraph.

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

Category of oil tanker	Date or year
Category 1	5 April 2005 for ships delivered on 5 April 1982 or earlier 2005 for ships delivered after 5 April 1982
Category 2 and Category 3	5 April 2005 for ships delivered on 5 April 1977 or earlier 2005 for ships delivered after 5 April 1977 but before 1 January 1978 2006 for ships delivered in 1978 and 1979 2007 for ships delivered in 1980 and 1981 2008 for ships delivered in 1982 2009 for ships delivered in 1983 2010 for ships delivered in 1984 or later

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

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

- .2 the Administration is satisfied by verification of the official records that the ship complied with the conditions specified above;
- .3 the conditions of the ship specified above remain unchanged; and
- .4 such continued operation does not go beyond the date on which the ship reaches 25 years after the date of its delivery.

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

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

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

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

- .1 paragraph 5 of this regulation beyond the anniversary of the date of delivery of the ship in 2015; or
- .2 paragraph 7 of this regulation.

In such cases, that Party shall communicate to the Organization for circulation to the Parties to the present Convention particulars thereof for their information.

Regulation 21

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

1 This regulation shall:

- .1 apply to oil tankers of 600 tonnes deadweight and above carrying heavy grade oil as cargo regardless of the date of delivery; and
- .2 not apply to oil tankers covered by subparagraph 1 above which comply with regulations 19.3.1 and 19.3.2 or 19.4 or 19.5 of this Annex, except that the requirement for minimum distances between the cargo tank boundaries and the ship side and bottom plating need not be met in all respects. In that event, the side

protection distances shall not be less than those specified in the International Bulk Chemical Code for type 2 cargo tank location and the bottom protection distances at centreline shall comply with regulation 18.15.2 of this Annex.

2 For the purpose of this regulation “heavy grade oil” means any of the following:

- .1 crude oils having a density at 15°C higher than 900 kg/m³;
- .2 fuel oils having either a density at 15°C higher than 900 kg/m³ or a kinematic viscosity at 50°C higher than 180 mm²/s; or
- .3 bitumen, tar and their emulsions.

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

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

- .1 if 5,000 tonnes deadweight and above, comply with the requirements of regulation 19 of this Annex not later than 5 April 2005; or
- .2 if 600 tonnes deadweight and above but less than 5,000 tonnes deadweight, be fitted with both double bottom tanks or spaces complying with the provisions of regulation 19.6.1 of this Annex, and wing tanks or spaces arranged in accordance with regulation 19.3.1 and complying with the requirement for distance *w* as referred to in regulation 19.6.2, not later than the anniversary of the date of delivery of the ship in the year 2008.

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

- .1 the ship was in service on 4 December 2003;
- .2 the Administration is satisfied by verification of the official records that the ship complied with the conditions specified above;
- .3 the conditions of the ship specified above remain unchanged; and
- .4 such continued operation does not go beyond the date on which the ship reaches 25 years after the date of its delivery.

6 .1 The Administration may allow continued operation of an oil tanker of 5,000 tonnes deadweight and above, carrying crude oil having a density at 15°C higher than 900 kg/m³ but lower than 945 kg/m³, beyond the date specified in paragraph 4.1 of this regulation, if satisfactory results of the Condition Assessment Scheme referred to in regulation 20.6 warrant that, in the opinion of

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

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

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

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

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

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

Regulation 22

Pump-room bottom protection

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

2 The pump-room shall be provided with a double bottom such that at any cross-section the depth of each double bottom tank or space shall be such that the distance h between the bottom of the pump-room and the ship's base line measured at right angles to the ship's base line is not less than specified below:

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

$$h = 2 \text{ m, whichever is the lesser.}$$

The minimum value of $h = 1 \text{ m}$.

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

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

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

Regulation 23

Accidental oil outflow performance

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

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

- .1 "Load line draught (d_s)" is the vertical distance, in metres, from the moulded baseline at mid-length to the waterline corresponding to the summer freeboard to be assigned to the ship. Calculations pertaining to this regulation should be based on draught d_s , notwithstanding assigned draughts that may exceed d_s , such as the tropical loadline.
- .2 "Waterline (d_B)" is the vertical distance, in metres, from the moulded baseline at mid-length to the waterline corresponding to 30% of the depth D_s .
- .3 "Breadth (B_s)" is the greatest moulded breadth of the ship, in metres, at or below the deepest load line d_s .
- .4 "Breadth (B_B)" is the greatest moulded breadth of the ship, in metres, at or below the waterline d_B .
- .5 "Depth (D_s)" is the moulded depth, in metres, measured at mid-length to the upper deck at side.
- .6 "Length (L)" and "deadweight (DW)" are as defined in regulations 1.19 and 1.23, respectively.

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

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

$$O_M \leq 0.015 \quad \text{for } C \leq 200,000 \text{ m}^3$$

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

$$O_M \leq 0.012$$

$$\text{for } C \geq 400,000 \text{ m}^3$$

for combination carriers between 5,000 tonnes deadweight (DWT) and 200,000 m³ capacity, the mean oil outflow parameter may be applied, provided calculations are submitted to the satisfaction of the Administration, demonstrating that after accounting for its increased structural strength, the combination carrier has at least equivalent oil out flow performance to a standard double hull tanker of the same size having a $O_M \leq 0.015$.

$$O_M \leq 0.021$$

$$\text{for } C \leq 100,000 \text{ m}^3$$

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

where:

O_M = mean oil outflow parameter.

C = total volume of cargo oil, in m³, at 98% tank filling

.2 for oil tankers of less than 5,000 tonnes deadweight (DWT) :

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

.1 where no longitudinal bulkhead is provided inside the cargo tanks:

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

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

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

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

.1 for wing cargo tanks: $0.2L$

.2 for centre cargo tanks:

$$.1 \quad \text{if } \frac{b_i}{B} \geq 0.2L : 0.2L$$

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

- where no centreline longitudinal bulkhead is provided:

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

- where a centreline longitudinal bulkhead is provided:

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

- .4 b_i is the minimum distance from the ship's side to the outer longitudinal bulkhead of the tank in question measured inboard at right angles to the centreline at the level corresponding to the assigned summer freeboard.

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

- .1 The cargo block length extends between the forward and aft extremities of all tanks arranged for the carriage of cargo oil, including slop tanks.
- .2 Where this regulation refers to cargo tanks, it shall be understood to include all cargo tanks, slop tanks and fuel tanks located within the cargo block length.
- .3 The ship shall be assumed loaded to the load line draught d_s without trim or heel.
- .4 All cargo oil tanks shall be assumed loaded to 98% of their volumetric capacity. The nominal density of the cargo oil (ρ_n) shall be calculated as follows:

$$\rho_n = 1000 (\text{DWT})/C \text{ (kg/m}^3\text{)}$$

- .5 For the purposes of these outflow calculations, the permeability of each space within the cargo block, including cargo tanks, ballast tanks and other non-oil spaces shall be taken as 0.99, unless proven otherwise.
- .6 Suction wells may be neglected in the determination of tank location provided that such wells are as small as practicable and the distance between the well bottom and bottom shell plating is not less than 0.5h, where h is the height as defined in regulation 19.3.2.

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

- .1 The mean oil outflow shall be calculated independently for side damage and for bottom damage and then combined into the non-dimensional oil outflow parameter O_M , as follows:

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

where:

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

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

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

where:

$O_{MB(0)}$ = mean outflow for 0 m tide condition; and
 $O_{MB(2.5)}$ = mean outflow for minus 2.5 m tide condition, in m^3 .

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

$$O_{MS} = C_3 \sum_i^n P_{S(i)} O_{S(i)} \quad (m^3)$$

where:

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

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

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

where:

- i = represents each cargo tank under consideration;
 - n = the total number of cargo tanks;
 - $P_{B(i)}$ = the probability of penetrating cargo tank i from bottom damage, calculated in accordance with, paragraph 9.1 of this regulation;
 - $O_{B(i)}$ = the outflow from cargo tank i , in m^3 , calculated in accordance with paragraph 7.3 of this regulation; and
 - $C_{DB(i)}$ = factor to account for oil capture as defined in paragraph 7.4 of this regulation
- .2 $O_{MB(2.5)} = \sum_i^n P_{B(i)} O_{B(i)} C_{DB(i)} \quad (m^3)$
- where:
- $i, n, P_{B(i)}$ and $C_{DB(i)}$ = as defined in subparagraph .1 above;
 - $O_{B(i)}$ = the outflow from cargo tank i , in m^3 , after tidal change
- .3 The oil outflow $O_{B(i)}$ for each cargo oil tank shall be calculated based on pressure balance principles, in accordance with the following assumptions:

- .1 The ship shall be assumed stranded with zero trim and heel, with the stranded draught prior to tidal change equal to the load line draught d_s .
- .2 The cargo level after damage shall be calculated as follows:

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

where:

h_c = the height of the cargo oil above Z_l , in metres;

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

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

ρ_s = density of seawater, to be taken as $1,025 \text{ kg/m}^3$;

p = if an inert gas system is fitted, the normal overpressure, in kPa, to be taken as not less than 5 kPa; if an inert gas system is not fitted, the overpressure may be taken as 0;

g = the acceleration of gravity, to be taken as 9.81 m/s^2 ; and

ρ_n = nominal density of cargo oil, calculated in accordance with paragraph 4.4 of this regulation.

- .3 For cargo tanks bounded by the bottom shell, unless proven otherwise, oil outflow $O_{B(i)}$ shall be taken not less than 1% of the total volume of cargo oil loaded in cargo tank i , to account for initial exchange losses and dynamic effects due to current and waves.
- .4 In the case of bottom damage, a portion from the outflow from a cargo tank may be captured by non-oil compartments. This effect is approximated by application of the factor $C_{DB(i)}$ for each tank, which shall be taken as follows:

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

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

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

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

where:

$P_{SL} = 1 - P_{Sf} - P_{Sa}$ = probability the damage will extend into the longitudinal zone bounded by X_a and X_f ;

$P_{SV} = 1 - P_{Su} - P_{Sl}$ = probability the damage will extend into the vertical zone bounded by Z_l and Z_u ; and

$P_{ST} = 1 - P_{Sy}$ = probability the damage will extend transversely beyond the boundary defined by y .

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

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

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

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

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

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

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

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

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

Z_l = the vertical distance from the moulded baseline to the lowest point on the compartment being considered, in metres;

Z_u = the vertical distance from the moulded baseline to the highest point on the compartment being considered, in metres. Z_u is not to be taken greater than D_s ; and

y = the minimum horizontal distance measured at right angles to the centreline between the compartment under consideration and the side shell in metres;

.3 Table of probabilities for side damage

X_a/L	P_{Sa}	X_f/L	P_{Sf}	Z_l/D_s	P_{Sl}	Z_u/D_s	P_{Su}
0.00	0.000	0.00	0.967	0.00	0.000	0.00	0.968
0.05	0.023	0.05	0.917	0.05	0.000	0.05	0.952
0.10	0.068	0.10	0.867	0.10	0.001	0.10	0.931
0.15	0.117	0.15	0.817	0.15	0.003	0.15	0.905
0.20	0.167	0.20	0.767	0.20	0.007	0.20	0.873
0.25	0.217	0.25	0.717	0.25	0.013	0.25	0.836
0.30	0.267	0.30	0.667	0.30	0.021	0.30	0.789
0.35	0.317	0.35	0.617	0.35	0.034	0.35	0.733
0.40	0.367	0.40	0.567	0.40	0.055	0.40	0.670
0.45	0.417	0.45	0.517	0.45	0.085	0.45	0.599
0.50	0.467	0.50	0.467	0.50	0.123	0.50	0.525
0.55	0.517	0.55	0.417	0.55	0.172	0.55	0.452
0.60	0.567	0.60	0.367	0.60	0.226	0.60	0.383
0.65	0.617	0.65	0.317	0.65	0.285	0.65	0.317
0.70	0.667	0.70	0.267	0.70	0.347	0.70	0.255
0.75	0.717	0.75	0.217	0.75	0.413	0.75	0.197
0.80	0.767	0.80	0.167	0.80	0.482	0.80	0.143
0.85	0.817	0.85	0.117	0.85	0.553	0.85	0.092
0.90	0.867	0.90	0.068	0.90	0.626	0.90	0.046
0.95	0.917	0.95	0.023	0.95	0.700	0.95	0.013
1.00	0.967	1.00	0.000	1.00	0.775	1.00	0.000

P_{Sy} shall be calculated as follows:

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

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

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

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

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

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

where:

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

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

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

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

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

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

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

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

P_{Bz} = the probability the damage will lie entirely below the tank.

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

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

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

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

z = the minimum value of z over the length of the compartment, where, at any given longitudinal location, z is the vertical distance from the lower point of the bottom shell at that longitudinal location to the lower point of the compartment at that longitudinal location, in metres.

.3 Table of probabilities for bottom damage

X_a/L	P_{Ba}	X_f/L	P_{Bf}	Y_p/B_B	P_{Bp}	Y_s/B_B	P_{Bs}
0.00	0.000	0.00	0.969	0.00	0.844	0.00	0.000
0.05	0.002	0.05	0.953	0.05	0.794	0.05	0.009
0.10	0.008	0.10	0.936	0.10	0.744	0.10	0.032
0.15	0.017	0.15	0.916	0.15	0.694	0.15	0.063
0.20	0.029	0.20	0.894	0.20	0.644	0.20	0.097
0.25	0.042	0.25	0.870	0.25	0.594	0.25	0.133
0.30	0.058	0.30	0.842	0.30	0.544	0.30	0.171
0.35	0.076	0.35	0.810	0.35	0.494	0.35	0.211
0.40	0.096	0.40	0.775	0.40	0.444	0.40	0.253
0.45	0.119	0.45	0.734	0.45	0.394	0.45	0.297
0.50	0.143	0.50	0.687	0.50	0.344	0.50	0.344
0.55	0.171	0.55	0.630	0.55	0.297	0.55	0.394
0.60	0.203	0.60	0.563	0.60	0.253	0.60	0.444
0.65	0.242	0.65	0.489	0.65	0.211	0.65	0.494
0.70	0.289	0.70	0.413	0.70	0.171	0.70	0.544
0.75	0.344	0.75	0.333	0.75	0.133	0.75	0.594
0.80	0.409	0.80	0.252	0.80	0.097	0.80	0.644
0.85	0.482	0.85	0.170	0.85	0.063	0.85	0.694
0.90	0.565	0.90	0.089	0.90	0.032	0.90	0.744
0.95	0.658	0.95	0.026	0.95	0.009	0.95	0.794
1.00	0.761	1.00	0.000	1.00	0.000	1.00	0.844

P_{Bz} shall be calculated as follows:

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

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

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

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

- .1 The probabilities referred to in 8 and 9 above may be calculated with more precision through application of hypothetical sub-compartments.
- .2 The probabilities referred to in 8 and 9 above may be calculated through direct application of the probability density functions contained in the Guidelines referred to in regulation 19.5.
- .3 The oil outflow performance may be evaluated in accordance with the method described in the Guidelines referred to in regulation 19.5.

11 The following provisions regarding piping arrangements shall apply:

- .1 Lines of piping that run through cargo tanks in a position less than $0.30B_s$ from the ship's side or less than $0.30D_s$ from the ship's bottom shall be fitted with valves or similar closing devices at the point at which they open into any cargo tank. These valves shall be kept closed at sea at any time when the tanks contain cargo oil, except that they may be opened only for cargo transfer needed for essential cargo operations.
- .2 Credit for reducing oil outflow through the use of an emergency rapid cargo transfer system or other system arranged to mitigate oil outflow in the event of an accident may be taken into account only after the effectiveness and safety aspects of the system are approved by the Organization. Submittal for approval shall be made in accordance with the provisions of the Guidelines referred to in regulation 19.5.

Regulation 24

Damage assumptions

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

.1 Side damage:

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

.2 Bottom damage:

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

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

Regulation 25*Hypothetical outflow of oil*

1 The hypothetical outflow of oil in the case of side damage (O_c) and bottom damage (O_s) shall be calculated by the following formulae with respect to compartments breached by damage to all conceivable locations along the length of the ship to the extent as defined in regulation 24 of this Annex.

.1 For side damages:

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

.2 For bottom damages:

$$O_s = 1/3 (\sum Z_i W_i + \sum Z_i C_i) \quad (II)$$

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

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

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

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

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

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

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

2 If a void space or segregated ballast tank of a length less than l_c as defined in regulation 24 of this Annex is located between wing oil tanks, O_c in formula (I) may be calculated on the basis of volume W_i being the actual volume of one such tank (where they are of equal capacity) or the smaller of the two tanks (if they differ in capacity) adjacent to such space, multiplied by S_i as defined below and taking for all other wing tanks involved in such collision the value of the actual full volume.

$$S_i = 1 - l_i/l_c$$

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

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

- .2 Where the double bottom does not extend for the full length and width of the tank involved, the double bottom is considered non-existent and the volume of the tanks above the area of the bottom damage shall be included in formula (II) even if the tank is not considered breached because of the installation of such a partial double bottom.
- .3 Suction wells may be neglected in the determination of the value h_i provided such wells are not excessive in area and extend below the tank for a minimum distance and in no case more than half the height of the double bottom. If the depth of such a well exceeds half the height of the double bottom, h_i shall be taken equal to the double bottom height minus the well height.

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

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

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

- 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.

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

Regulation 26

Limitations of size and arrangement of cargo tanks

- 1 Except as provided in paragraph 7 below:
1. every oil tanker of 150 gross tonnage and above delivered after 31 December 1979, as defined in regulation 1.28.2, and
 2. every oil tanker of 150 gross tonnage and above delivered on or before 31 December 1979, as defined in regulation 1.28.1, which falls into either of the following categories:

- .1 a tanker, the delivery of which is after 1 January 1977, or
- .2 a tanker to which both the following conditions apply:
 - .1 delivery is not later than 1 January 1977; and
 - .2 the building contract is placed after 1 January 1974, or in cases where no building contract has previously been placed, the keel is laid or the tanker is at a similar stage of construction after 30 June 1974.

shall comply with the provisions of this regulation.

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

3 The volume of any one wing cargo oil tank of an oil tanker shall not exceed 75 per cent of the limits of the hypothetical oil outflow referred to in paragraph 2 of this regulation. The volume of any one centre cargo oil tank shall not exceed 50,000 cubic metres. However, in segregated ballast oil tankers as defined in regulation 18 of this Annex, the permitted volume of a wing cargo oil tank situated between two segregated ballast tanks, each exceeding l_c in length, may be increased to the maximum limit of hypothetical oil outflow provided that the width of the wing tanks exceeds t_c .

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

- .1 where no longitudinal bulkhead is provided inside the cargo tanks:

$$(0.5 \frac{b_i}{B} + 0.1)L \quad \text{but not to exceed } 0.2L$$
- .2 where a centreline longitudinal bulkhead is provided inside the cargo tanks:

$$(0.25 \frac{b_i}{B} + 0.15)L$$
- .3 where two or more longitudinal bulkheads are provided inside the cargo tanks:
 - .1 for wing cargo tanks: $0.2L$
 - .2 for centre cargo tanks:
 - .1 if $\frac{b_i}{B}$ is equal to or greater than one fifth: $0.2L$
 - .2 if $\frac{b_i}{B}$ is less than one fifth:
 - where no centreline longitudinal bulkhead is provided:

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

- where a centreline longitudinal bulkhead is provided:

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

- .4 b_i is the minimum distance from the ship's side to the outer longitudinal bulkhead of the tank in question measured inboard at right angles to the centreline at the level corresponding to the assigned summer freeboard.

5 In order not to exceed the volume limits established by paragraphs 2, 3 and 4 of this regulation and irrespective of the accepted type of cargo transfer system installed, when such system interconnects two or more cargo tanks, valves or other similar closing devices shall be provided for separating the tanks from each other. These valves or devices shall be closed when the tanker is at sea.

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

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

Regulation 27

Intact stability

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

- .1 In port, the initial metacentric height GMO , corrected for the free surface measured at 0° heel, shall be not less than 0.15 m;
- .2 At sea, the following criteria shall be applicable:
 - .1 the area under the righting lever curve (GZ curve) shall be not less than 0.055 m.rad up to $\theta = 30^\circ$ angle of heel and not less than 0.09 m.rad up to $\theta = 40^\circ$ or other angle of flooding θ_f if this angle is less than 40° . Additionally, the area under the righting lever curve (GZ curve) between the angles of heel of 30° and 40° or between 30° and θ_f , if this angle is less than 40° , shall be not less than 0.03 m.rad;
 - .2 the righting lever GZ shall be at least 0.20 m at an angle of heel equal to or greater than 30° ;

- .3 the maximum righting arm shall occur at an angle of heel preferably exceeding 30° but not less than 25°; and
 - .4 the initial metacentric height G_{Mo}, corrected for free surface measured at 0° heel, shall be not less than 0.15 m.
- 2 The requirements of paragraph 1 of this regulation shall be met through design measures. For combination carriers simple supplementary operational procedures may be allowed.
- 3 Simple supplementary operational procedures for liquid transfer operations referred to in paragraph 2 of this regulation shall mean written procedures made available to the master which:
- .1 are approved by the Administration;
 - .2 indicate those cargo and ballast tanks which may, under any specific condition of liquid transfer and possible range of cargo densities, be slack and still allow the stability criteria to be met. The slack tanks may vary during the liquid transfer operations and be of any combination provided they satisfy the criteria;
 - .3 will be readily understandable to the officer-in-charge of liquid transfer operations;
 - .4 provide for planned sequences of cargo/ballast transfer operations;
 - .5 allow comparisons of attained and required stability using stability performance criteria in graphical or tabular form;
 - .6 require no extensive mathematical calculations by the officer-in-charge;
 - .7 provide for corrective actions to be taken by the officer-in-charge in case of departure from recommended values and in case of emergency situations; and
 - .8 are prominently displayed in the approved trim and stability booklet and at the cargo/ballast transfer control station and in any computer software by which stability calculations are performed.

Regulation 28

Subdivision and damage stability

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

- .1 in tankers of more than 225 metres in length, anywhere in the ship's length;
- .2 in tankers of more than 150 metres, but not exceeding 225 metres in length, anywhere in the ship's length except involving either after or forward bulkhead bounding the machinery space located aft. The machinery space shall be treated as a single floodable compartment; and

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

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

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

.1 Side damage:

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

.2 Bottom damage:

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

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

- .4 Where the damage involving transverse bulkheads is envisaged as specified in subparagraphs 1.1 and 1.2 of this regulation, transverse watertight bulkheads shall be spaced at least at a distance equal to the longitudinal extent of assumed damage specified in subparagraph 2.1 of this paragraph in order to be considered effective. Where transverse bulkhead are spaced at a lesser distance, one or more of these bulkheads within such extent of damage shall be assumed as non-existent for the purpose of determining flooded compartments.
 - .5 Where the damage between adjacent transverse watertight bulkheads is envisaged as specified in subparagraph 1.3 of this regulation, no main transverse bulkhead or a transverse bulkhead bounding side tanks or double bottom tanks shall be assumed damaged, unless:
 - .1 the spacing of the adjacent bulkheads is less than the longitudinal extent of assumed damage specified in subparagraph 2.1 of this paragraph; or
 - .2 there is a step or recess in a transverse bulkhead of more than 3.05 metres in length, located within the extent of penetration of assumed damage. The step formed by the after peak bulkhead and after peak top shall not be regarded as a step for the purpose of this regulation.
 - .6 If pipes, ducts or tunnels are situated within the assumed extent of damage, arrangements shall be made so that progressive flooding cannot thereby extend to compartments other than those assumed to be floodable for each case of damage.
- 3 Oil tankers shall be regarded as complying with the damage stability criteria if the following requirements are met:
- .1 The final waterline, taking into account sinkage, heel and trim, shall be below the lower edge of any opening through which progressive flooding may take place. Such openings shall include air-pipes and those which are closed by means of weathertight doors or hatch covers and may exclude those openings closed by means of watertight manhole covers and flush scuttles, small watertight cargo tank hatch covers which maintain the high integrity of the deck, remotely operated watertight sliding doors, and sidescuttles of the non-opening type.
 - .2 In the final stage of flooding, the angle of heel due to unsymmetrical flooding shall not exceed 25°, provided that this angle may be increased up to 30° if no deck edge immersion occurs.
 - .3 The stability in the final stage of flooding shall be investigated and may be regarded as sufficient if the righting lever curve has at least a range of 20° beyond the position of equilibrium in association with a maximum residual righting lever of at least 0.1 metre within the 20° range; the area under the curve within this range shall not be less than 0.0175 metre radians. Unprotected openings shall not be immersed within this range unless the space concerned is assumed to be flooded. Within this range, the immersion of any of the openings listed in subparagraph 3.1 of this paragraph and other openings capable of being closed watertight may be permitted.
 - .4 The Administration shall be satisfied that the stability is sufficient during intermediate stages of flooding.

- .5 Equalization arrangements requiring mechanical aids such as valves or cross-levelling pipes, if fitted, shall not be considered for the purpose of reducing an angle of heel or attaining the minimum range of residual stability to meet the requirements of subparagraphs 3.1, 3.2 and 3.3 of this paragraph and sufficient residual stability shall be maintained during all stages where equalization is used. Spaces which are linked by ducts of a large cross-sectional area may be considered to be common.

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

- .1 Account shall be taken of any empty or partially filled tank, the relative density of cargoes carried, as well as any outflow of liquids from damaged compartments.
- .2 The permeabilities assumed for spaces flooded as a result of damage shall be as follows:

Spaces	Permeabilities
Appropriated to stores	0.60
Occupied by accommodation	0.95
Occupied by machinery	0.85
Voids	0.95
Intended for consumable liquids	0 to 0.95
Intended for other liquids	0 to 0.95

- .3 The buoyancy of any superstructure directly above the side damage shall be disregarded. The unflooded parts of superstructures beyond the extent of damage, however, may be taken into consideration provided that they are separated from the damaged space by watertight bulkheads and the requirements of subparagraph .1 of this regulation in respect of these intact spaces are complied with. Hinged watertight doors may be acceptable in watertight bulkheads in the superstructure.
- .4 The free surface effect shall be calculated at an angle of heel of 5° 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° for partially filled tanks.
- .5 In calculating the effect of free surfaces of consumable liquids it shall be assumed that, for each type of liquid at least one transverse pair or a single centreline tank has a free surface and the tank or combination of tanks to be taken into account shall be those where the effect of free surface is the greatest.

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

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

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

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

- .1 longitudinal extent:
 - .1 ships of 75,000 tonnes deadweight and above:
0.6L measured from the forward perpendicular;
 - .2 ships of less than 75,000 tonnes deadweight:
0.4L measured from the forward perpendicular;
- .2 transverse extent: B/3 anywhere in the bottom;
- .3 vertical extent: breach of the outer hull.

Regulation 29

Slop tanks

1 Subject to the provisions of paragraph 4 of regulation 3 of this Annex, oil tankers of 150 gross tonnage and above shall be provided with slop tank arrangements in accordance with the requirements of paragraphs 2.1 to 2.3 of this regulation. In oil tankers delivered on or before 31 December 1979, as defined in regulation 1.28.1, any cargo tank may be designated as a slop tank.

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

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

2.3 The arrangements of the slop tank or combination of slop tanks shall have a capacity necessary to retain the slop generated by tank washings, oil residues and dirty ballast residues. The total capacity of the slop tank or tanks shall not be less than 3 per cent of the oil carrying capacity of the ship, except that the Administration may accept:

- .1 2 per cent for such oil tankers where the tank washing arrangement are such that once the slop tank or tanks are charged with washing water, this water is sufficient for tank washing and, where applicable, for providing the driving fluid for eductors, without the introduction of additional water into the system;
- .2 2 per cent where segregated ballast tanks or dedicated clean ballast tanks are provided in accordance with regulation 18 of this Annex, or where a cargo tank cleaning system using crude oil washing is fitted in accordance with regulation 3 of this Annex. This capacity may be further reduced to 1.5 per cent for such oil tankers where the tank washing arrangements are such that once the slop tank or tanks are charged with washing water, this water is sufficient for tank washing

and, where applicable, for providing the driving fluid for eductors, without the introduction of additional water into the system; and

- .3 1 per cent for combination carriers where oil cargo is only carried in tanks with smooth walls. This capacity may be further reduced to 0.8 per cent where the tank washing arrangements are such that once the slop tank or tanks are charged with washing water, this water is sufficient for tank washing and, where applicable, for providing the driving fluid for eductors, without the introduction of additional water into the system.

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

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

Regulation 30

Pumping, piping and discharge arrangement

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

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

3 In oil tankers of 150 gross tonnage and above delivered after 31 December 1979, as defined in regulation 1.28.2, means shall be provided for stopping the discharge into the sea of ballast water or oil contaminated water from cargo tank areas, other than those discharges below the waterline permitted under paragraph 6 of this regulation, from a position on the upper deck or above located so that the manifold in use referred to in paragraph 1 of this regulation and the discharge to the sea from the pipelines referred to in paragraph 2 of this regulation may be visually observed. Means for stopping the discharge need not be provided at the observation position if a positive communication system such as a telephone or radio system is provided between the observation position and the discharge control position.

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

- .1 it shall be equipped with oil piping so designed and installed that oil retention in the lines is minimized; and
- .2 means shall be provided to drain all cargo pumps and all oil lines at the completion of cargo discharge, where necessary by connection to a stripping device. The line and pump draining shall be capable of being discharged both ashore and to a cargo tank or a slop tank. For discharge ashore a special small diameter line shall be provided and shall be connected outboard of the ship's manifold valves.

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

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

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

.1 in ports or at offshore terminals, or

.2 at sea by gravity, or

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

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

.2 Oil tankers delivered on or before 31 December 1979, as defined in regulation 1.28.1, which, without modification, are not capable of discharging segregated ballast above the waterline may discharge segregated ballast below the waterline at sea, provided that the surface of the ballast water has been examined immediately before the discharge to ensure that no contamination with oil has taken place.

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

.4 On every oil tanker at sea, dirty ballast water or oil contaminated water from tanks in the cargo area, other than slop tanks, may be discharged by gravity below the waterline, provided that sufficient time has elapsed in order to allow oil/water separation to have taken place and the ballast water has been examined immediately before the discharge with an oil/water interface detector referred to in regulation 32 of this Annex, in order to ensure that the height of the interface is such that the discharge does not involve any increased risk of harm to the marine environment.

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

- .1 a part of the flow of such water is led through permanent piping to a readily accessible location on the upper deck or above where it may be visually observed during the discharge operation; and
- .2 such part flow arrangements comply with the requirements established by the Administration, which shall contain at least all the provisions of the Specifications for the Design, Installation and Operation of a Part Flow System for Control of Overboard Discharges adopted by the Organization.

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

PART B EQUIPMENT

Regulation 31

Oil discharge monitoring and control system

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

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

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

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

Regulation 32*Oil/water interface detector*

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

Regulation 33*Crude oil washing requirements*

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

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

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

PART C CONTROL OF OPERATIONAL DISCHARGES OF OIL**Regulation 34***Control of discharge of oil***A. Discharges outside special areas**

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

- .1 the tanker is not within a special area;
- .2 the tanker is more than 50 nautical miles from the nearest land;
- .3 the tanker is proceeding en route;
- .4 the instantaneous rate of discharge of oil content does not exceed 30 litres per nautical mile;
- .5 the total quantity of oil discharged into the sea does not exceed for tankers delivered on or before 31 December 1979, as defined in regulation 1.28.1, 1/15,000 of the total quantity of the particular cargo of which the residue formed a

part, and for tankers delivered after 31 December 1979, as defined in regulation 1.28.2, 1/30,000 of the total quantity of the particular cargo of which the residue formed a part; and

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

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

B. Discharges in special areas

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

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

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

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

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

D. General requirements

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

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

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

Regulation 35*Crude oil washing operations*

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

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

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

Regulation 36*Oil Record Book, Part II - Cargo/ballast operations*

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

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

- .1 loading of oil cargo;
- .2 internal transfer of oil cargo during voyage;
- .3 unloading of oil cargo;
- .4 ballasting of cargo tanks and dedicated clean ballast tanks;
- .5 cleaning of cargo tanks including crude oil washing;
- .6 discharge of ballast except from segregated ballast tanks;
- .7 discharge of water from slop tanks;
- .8 closing of all applicable valves or similar devices after slop tank discharge operations;
- .9 closing of valves necessary for isolation of dedicated clean ballast tanks from cargo and stripping lines after slop tank discharge operations; and
- .10 disposal of residues.

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

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

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

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

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

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

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

CHAPTER 5 - PREVENTION OF POLLUTION ARISING FROM AN OIL POLLUTION INCIDENT

Regulation 37

Shipboard oil pollution emergency plan

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

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

- .1 the procedure to be followed by the master or other persons having charge of the ship to report an oil pollution incident, as required in article 8 and Protocol I of the present Convention, based on the guidelines developed by the Organization;
- .2 the list of authorities or persons to be contacted in the event of an oil pollution incident;
- .3 a detailed description of the action to be taken immediately by persons on board to reduce or control the discharge of oil following the incident; and
- .4 the procedures and point of contact on the ship for co-ordinating shipboard action with national and local authorities in combating the pollution.

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

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

CHAPTER 6 - RECEPTION FACILITIES

Regulation 38

Reception facilities

A. Reception facilities outside special areas

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

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

- .1 all ports and terminals in which crude oil is loaded into oil tankers where such tankers have immediately prior to arrival completed a ballast voyage of not more than 72 hours or not more than 1,200 nautical miles;
- .2 all ports and terminals in which oil other than crude oil in bulk is loaded at an average quantity of more than 1,000 tonnes per day;
- .3 all ports having ship repair yards or tank cleaning facilities;
- .4 all ports and terminals which handle ships provided with the sludge tank(s) required by regulation 12 of this Annex;
- .5 all ports in respect of oily bilge waters and other residues, which cannot be discharged in accordance with regulation 15 of this Annex; and

- .6 all loading ports for bulk cargoes in respect of oil residues from combination carriers which cannot be discharged in accordance with regulation 34 of this Annex.
- 3 The capacity for the reception facilities shall be as follows:
- .1 Crude oil loading terminals shall have sufficient reception facilities to receive oil and oily mixtures which cannot be discharged in accordance with the provisions of regulation 34.1 of this Annex from all oil tankers on voyages as described in paragraph 2.1 of this regulation.
 - .2 Loading ports and terminals referred to in paragraph 2.2 of this regulation shall have sufficient reception facilities to receive oil and oily mixtures which cannot be discharged in accordance with the provisions of regulation 34.1 of this Annex from oil tankers which load oil other than crude oil in bulk.
 - .3 All ports having ship repair yards or tank cleaning facilities shall have sufficient reception facilities to receive all residues and oily mixtures which remain on board for disposal from ships prior to entering such yards or facilities.
 - .4 All facilities provided in ports and terminals under paragraph 2.4 of this regulation shall be sufficient to receive all residues retained according to regulation 12 of this Annex from all ships that may reasonably be expected to call at such ports and terminals.
 - .5 All facilities provided in ports and terminals under this regulation shall be sufficient to receive oily bilge waters and other residues which cannot be discharged in accordance with regulation 15 of this Annex.
 - .6 The facilities provided in loading ports for bulk cargoes shall take into account the special problems of combination carriers as appropriate.

B. Reception facilities within special areas

4 The Government of each Party to the present Convention the coastline of which borders on any given special area shall ensure that all oil loading terminals and repair ports within the special area are provided with facilities adequate for the reception and treatment of all the dirty ballast and tank washing water from oil tankers. In addition all ports within the special area shall be provided with adequate reception facilities for other residues and oily mixtures from all ships. Such facilities shall have adequate capacity to meet the needs of the ships using them without causing undue delay.

5 The Government of each Party to the present Convention having under its jurisdiction entrances to seawater courses with low depth contour which might require a reduction of draught by the discharge of ballast shall ensure the provision of the facilities referred to in paragraph 4 of this regulation but with the proviso that ships required to discharge slops or dirty ballast could be subject to some delay.

6 With regard to the Red Sea area, Gulfs area, Gulf of Aden area and Oman area of the Arabian Sea:

- .1 Each Party concerned shall notify the Organization of the measures taken pursuant to provisions of paragraphs 4 and 5 of this regulation. Upon receipt of sufficient

notifications the Organization shall establish a date from which the discharge requirements of regulations 15 and 34 of this Annex in respect of the area in question shall take effect. The Organization shall notify all Parties of the date so established no less than twelve months in advance of that date.

- .2 During the period between the entry into force of the present Convention and the date so established, ships while navigating in the special area shall comply with the requirements of regulations 15 and 34 of this Annex as regards discharges outside special areas.
- .3 After such date oil tankers loading in ports in these special areas where such facilities are not yet available shall also fully comply with the requirements of regulations 15 and 34 of this Annex as regards discharges within special areas. However, oil tankers entering these special areas for the purpose of loading shall make every effort to enter the area with only clean ballast on board.
- .4 After the date on which the requirements for the special area in question take effect, each Party shall notify the Organization for transmission to the Parties concerned of all cases where the facilities are alleged to be inadequate.
- .5 At least the reception facilities as prescribed in paragraphs 1, 2 and 3 of this regulation shall be provided one year after the date of entry into force of the present Convention.

7 Notwithstanding paragraphs 4, 5 and 6 of this regulation, the following rules apply to the Antarctic area:

- .1 The Government of each Party to the present Convention at whose ports ships depart *en route* to or arrive from the Antarctic area undertakes to ensure that as soon as practicable adequate facilities are provided for the reception of all sludge, dirty ballast, tank washing water, and other oily residues and mixtures from all ships, without causing undue delay, and according to the needs of the ships using them.
- .2 The Government of each Party to the present Convention shall ensure that all ships entitled to fly its flag, before entering the Antarctic area, are fitted with a tank or tanks of sufficient capacity on board for the retention of all sludge, dirty ballast, tank washing water and other oily residues and mixtures while operating in the area and have concluded arrangements to discharge such oily residues at a reception facility after leaving the area.

C. General requirements

8 Each Party shall notify the Organization for transmission to the Parties concerned of all cases where the facilities provided under this regulation are alleged to be inadequate.

CHAPTER 7 - SPECIAL REQUIREMENTS FOR FIXED OR FLOATING PLATFORMS

Regulation 39

Special requirements for fixed or floating platforms

1 This regulation applies to fixed or floating platforms including drilling rigs, floating production, storage and offloading facilities (FPSOs) used for the offshore production and storage of oil, and floating storage units (FSUs) used for the offshore storage of produced oil.

2 Fixed or floating platforms when engaged in the exploration, exploitation and associated offshore processing of sea-bed mineral resources and other platforms shall comply with the requirements of this Annex applicable to ships of 400 gross tonnage and above other than oil tankers, except that:

- .1 they shall be equipped as far as practicable with the installations required in regulations 12 and 14 of this Annex;
- .2 they shall keep a record of all operations involving oil or oily mixture discharges, in a form approved by the Administration; and
- .3 subject to the provisions of regulation 4 of this Annex, the discharge into the sea of oil or oily mixture shall be prohibited except when the oil content of the discharge without dilution does not exceed 15 parts per million.

3 In verifying compliance with this Annex in relation to platforms configured as FPSOs or FSUs, in addition to the requirements of paragraph 2, Administrations should take account of the Guidelines developed by the Organization.

APPENDIX I**LIST OF OILS*****Asphalt solutions**

Blending stocks
Roofers flux
Straight run residue

Gasoline blending stocks

Alkylates – fuel
Reformats
Polymer – fuel

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

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

Distillates

Straight run
Flashed feed stocks

Naphtha

Solvent
Petroleum
Heartcut distillate oil

Gas oil

Cracked

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

APPENDIX II

FORM OF IOPP CERTIFICATE AND SUPPLEMENTS*

INTERNATIONAL OIL POLLUTION PREVENTION CERTIFICATE

(Note: This certificate shall be supplemented by a Record of Construction and Equipment)

Issued under the provisions of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto, as amended, (hereinafter referred to as "the Convention") under the authority of the Government of:

(full designation of the country)

by -----
(full designation of the competent person or organization authorized under the provisions of the Convention)

Particulars of ship**

Name of ship -----
Distinctive number or letters -----
Port of registry -----
Gross tonnage -----
Deadweight of ship (tonnes)[†] -----
IMO Number[‡] -----

* The IOPP Certificate shall be at least in English, French or Spanish. If an official language of the issuing country is also used, this shall prevail in case of a dispute or discrepancy.

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

[†] For oil tankers

[‡] Refer to the IMO Ship Identification Number Scheme adopted by the Organization by resolution A.600(15).

Type of ship:*

Oil tanker

Ship other than an oil tanker with cargo tanks coming under regulation 2.2 of Annex I of the Convention

Ship other than any of the above

THIS IS TO CERTIFY:

1. That the ship has been surveyed in accordance with regulation 6 of Annex I of the Convention; and
2. That the survey shows that the structure, equipment systems, fittings, arrangement and material of the ship and the condition thereof are in all respects satisfactory and that the ship complies with the applicable requirements of Annex I of the Convention.

This certificate is valid until[†]
subject to surveys in accordance with regulation 6 of Annex I of the Convention.

Completion date of the survey on which this certificate is based (dd/mm/yyyy)

Issued at
(Place of issue of certificate)

.....
(Date of issue)

.....
(Signature of duly authorized official
issuing the certificate)

(Seal or stamp of the authority, as appropriate)

* Delete as appropriate

† Insert the date of expiry as specified by the Administration in accordance with regulation 10.1 of Annex I of the Convention. The day and the month of this day correspond to the anniversary date as defined in regulation 1.27 of Annex I of the Convention, unless amended in accordance with regulation 10.8 of Annex I of the Convention.

ENDORSEMENT FOR ANNUAL AND INTERMEDIATE SURVEYS

THIS IS TO CERTIFY that at a survey required by regulation 6 of Annex I of the Convention the ship was found to comply with the relevant provisions of the Convention:

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

Place:

Date (dd/mm/yyyy):

(Sea/ or stamp of the authority, as appropriate)

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

Place:

Date (dd/mm/yyyy):

(Sea/ or stamp of the authority, as appropriate)

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

Place:

Date (dd/mm/yyyy):

(Sea/ or stamp of the authority, as appropriate)

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

Place:

Date (dd/mm/yyyy):

(Seal or stamp of the authority, as appropriate)

* Delete as appropriate.

**ANNUAL/INTERMEDIATE SURVEY IN ACCORDANCE
WITH REGULATION 10.8.3**

THIS IS TO CERTIFY that, at an annual/intermediate* survey in accordance with regulation 10.8.3 of Annex I of the Convention, the ship was found to comply with the relevant provisions of the Convention:

Signed:
(Signature of duly authorized official)

Place:

Date (dd/mm/yyyy):

(Seal or stamp of the authority, as appropriate)

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

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

Signed:
(Signature of duly authorized official)

Place:

Date (dd/mm/yyyy):

(Seal or stamp of the authority, as appropriate)

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

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

Signed:
(Signature of duly authorized official)

Place:

Date (dd/mm/yyyy):

(Seal or stamp of the authority, as appropriate)

* Delete as appropriate

**ENDORSEMENT TO EXTEND THE VALIDITY OF THE CERTIFICATE UNTIL
REACHING THE PORT OF SURVEY OR FOR A PERIOD OF GRACE
WHERE REGULATION 10.5 OR 10.6 APPLIES**

This Certificate shall, in accordance with regulation 10.5 or 10.6* of Annex I of the Convention, be accepted as valid until (dd/mm/yyyy):

Signed:
(Signature of duly authorized official)

Place:

Date (dd/mm/yyyy):

(Seal or stamp of the authority, as appropriate)

**ENDORSEMENT FOR ADVANCEMENT OF ANNIVERSARY DATE
WHERE REGULATION 10.8 APPLIES**

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

Signed:
(Signature of duly authorized official)

Place:

Date (dd/mm/yyyy):

(Seal or stamp of the authority, as appropriate)

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

Signed:
(Signature of duly authorized official)

Place:

Date (dd/mm/yyyy):

(Seal or stamp of the authority, as appropriate)

* Delete as appropriate

FORM A**Supplement to the International Oil Pollution Prevention Certificate
(IOPP Certificate)****RECORD OF CONSTRUCTION AND EQUIPMENT FOR SHIPS OTHER
THAN OIL TANKERS**

in respect of the provisions of Annex I of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (hereinafter referred to as "the Convention").

Notes:

- 1 This form is to be used for the third type of ships as categorized in the IOPP Certificate, i.e. "ships other than any of the above". For oil tankers and ships other than oil tankers with cargo tanks coming under regulation 2.2 of Annex I of the Convention, Form B shall be used.
- 2 This Record shall be permanently attached to the IOPP Certificate. The IOPP Certificate shall be available on board the ship at all times.
- 3 The language of the original Record shall be at least in English, French or Spanish. If an official language of the issuing country is also used, this shall prevail in case of a dispute or discrepancy.
- 4 Entries in boxes shall be made by inserting either a cross (x) for the answers "yes" and "applicable" or a dash (-) for the answers "no" and "not applicable" as appropriate.
- 5 Regulations mentioned in this Record refer to regulations of Annex I of the Convention and resolutions refer to those adopted by the International Maritime Organization.

1. Particulars of ship

- 1.1 Name of ship
- 1.2 Distinctive number or letters
- 1.3 Port of registry
- 1.4 Gross tonnage
- 1.5 Date of build:
 - 1.5.1 Date of building contract
 - 1.5.2 Date on which keel was laid or ship was at a similar stage
of construction
 - 1.5.3 Date of delivery

1.6 Major conversion (if applicable):

1.6.1 Date of conversion contract

1.6.2 Date on which conversion was commenced

1.6.3 Date of completion of conversion

1.7 The ship has been accepted by the Administration as a
“ship delivered on or before 31 December 1979”
under regulation 1.28.1 due to unforeseen delay in delivery ☐

**2. Equipment for the control of oil discharge from
machinery space bilges and oil fuel tanks**
(regulations 16 and 14)

2.1 Carriage of ballast water in oil fuel tanks:

2.1.1 The ship may under normal conditions carry ballast water
in oil fuel tanks ☐

2.2 Type of oil filtering equipment fitted:

2.2.1 Oil filtering (15 ppm) equipment ☐
(regulation 14.6)

2.2.2 Oil filtering (15 ppm) equipment with alarm and
automatic stopping device (regulation 14.7) ☐

2.3 Approval standards:

2.3.1 The separating/filtering equipment:

.1 has been approved in accordance with
resolution A.393(X); ☐

.2 has been approved in accordance with
resolution MEPC.60(33); ☐

.3 has been approved in accordance with
resolution MEPC.107(49); ☐

.4 has been approved in accordance with
resolution A.233(VII); ☐

.5 has been approved in accordance with
national standards not based upon
resolution A.393(X) or A.233(VII); ☐

.6 has not been approved. ☐

2.3.2 The process unit has been approved in accordance with
resolution A.444(XI) ☐

2.3.3 The oil content meter:

- .1 has been approved in accordance with resolution A.393(X); ☐
- .2 has been approved in accordance with resolution MEPC.60(33); ☐
- .3 has been approved in accordance with resolution MEPC.107(49). ☐

2.4 Maximum throughput of the system is m³/h

2.5 Waiver of regulation 14:

2.5.1 The requirements of regulation 14.1 or 14.2 are waived in respect of the ship in accordance with regulation 14.5.

2.5.1.1 The ship is engaged exclusively on voyages within special area(s): ☐2.5.1.2 The ship is certified under the International Code of Safety for High-Speed Craft and engaged on a scheduled service with a turn-around time not exceeding 24 hours ☐2.5.2 The ship is fitted with holding tank(s) for the total retention on board of all oily bilge water as follows: ☐

Tank identification	Tank location		Volume (m ³)
	Frames (from) - (to)	Lateral position	
Total volume:m ³			

3. Means for retention and disposal of oil residues (sludge) (regulation 12) and bilge water holding tank(s)*

3.1 The ship is provided with oil residue (sludge) tanks as follows:

Tank identification	Tank location		Volume (m ³)
	Frames (from) - (to)	Lateral position	
Total volume:m ³			

* Bilge water holding tank(s) are not required by the Convention, entries in the table under paragraph 3.3 are voluntary.

3.2 Means for the disposal of residues in addition to the provisions of sludge tanks:

3.2.1 Incinerator for oil residues, capacity l/h ☐

3.2.2 Auxiliary boiler suitable for burning oil residues ☐

3.2.3 Tank for mixing oil residues with fuel oil, capacity m³ ☐

3.2.4 Other acceptable means: ☐

3.3 The ship is provided with holding tank(s) for the retention on board of oily bilge water as follows:

Tank identification	Tank location		Volume (m ³)
	Frames (from) - (to)	Lateral position	
Total volume:m ³			

4. Standard discharge connection
(regulation 13)

4.1 The ship is provided with a pipeline for the discharge of residues from machinery bilges and sludges to reception facilities, fitted with a standard discharge connection in accordance with regulation 13 ☐

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

5.1 The ship is provided with a shipboard oil pollution emergency plan in compliance with regulation 37 ☐

5.2 The ship is provided with a shipboard marine pollution emergency plan in compliance with regulation 37.3 ☐

6. Exemption

6.1 Exemptions have been granted by the Administration from the requirements of chapter 3 of Annex I of the Convention in accordance with regulation 3.1 on those items listed under paragraph(s)
.....
..... of this Record ☐

7. Equivalents (regulation 5)

- 7.1 Equivalents have been approved by the Administration for certain requirements of Annex I on those items listed under paragraph(s) of this Record ☐

THIS IS TO CERTIFY that this Record is correct in all respects.

Issued at
(Place of issue of the Record)

.....
(Date of issue)

.....
(Signature of duly authorized official
issuing the Record)

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

FORM B

**Supplement to the International Oil Pollution Prevention Certificate
(IOPP Certificate)****RECORD OF CONSTRUCTION AND EQUIPMENT FOR OIL TANKERS**

in respect of the provisions of Annex I of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (hereinafter referred to as "the Convention").

Notes:

- 1 This form is to be used for the first two types of ships as categorized in the IOPP Certificate, i.e. "oil tankers" and "ships other than oil tankers with cargo tanks coming under regulation 2.2 of Annex I of the Convention". For the third type of ships as categorized in the IOPP Certificate, Form A shall be used.
- 2 This Record shall be permanently attached to the IOPP Certificate. The IOPP Certificate shall be available on board the ship at all times.
- 3 The language of the original Record shall be at least in English, French or Spanish. If an official language of the issuing country is also used, this shall prevail in case of a dispute or discrepancy.
- 4 Entries in boxes shall be made by inserting either a cross (x) for the answers "yes" and "applicable" or a dash (-) for the answers "no" and "not applicable" as appropriate.
- 5 Unless otherwise stated, regulations mentioned in this Record refer to regulations of Annex I of the Convention and resolutions refer to those adopted by the International Maritime Organization.

1. Particulars of ship

- 1.1 Name of ship
- 1.2 Distinctive number or letters
- 1.3 Port of registry
- 1.4 Gross tonnage
- 1.5 Carrying capacity of ship (m³)
- 1.6 Deadweight of ship (tonnes) (regulation 1.23)
- 1.7 Length of ship (m) (regulation 1.19)

- 1.8 Date of build:
- 1.8.1 Date of building contract
- 1.8.2 Date on which keel was laid or ship was at a similar stage of construction
- 1.8.3 Date of delivery
- 1.9 Major conversion (if applicable):
- 1.9.1 Date of conversion contract
- 1.9.2 Date on which conversion was commenced
- 1.9.3 Date of completion of conversion.
- 1.10 Unforeseen delay in delivery:
- 1.10.1 The ship has been accepted by the Administration as a “ship delivered on or before 31 December 1979” under regulation 1.28.1 due to unforeseen delay in delivery ☐
- 1.10.2 The ship has been accepted by the Administration as an “oil tanker delivered on or before 1 June 1982” under regulation 1.28.3 due to unforeseen delay in delivery ☐
- 1.10.3 The ship is not required to comply with the provisions of regulation 26 due to unforeseen delay in delivery ☐
- 1.11 Type of ship:
- 1.11.1 Crude oil tanker ☐
- 1.11.2 Product carrier ☐
- 1.11.3 Product carrier not carrying fuel oil or heavy diesel oil as referred to in regulation 20.2, or lubricating oil ☐
- 1.11.4 Crude oil/product carrier ☐
- 1.11.5 Combination carrier ☐
- 1.11.6 Ship, other than an oil tanker, with cargo tanks coming under regulation 2.2 of Annex I of the Convention ☐
- 1.11.7 Oil tanker dedicated to the carriage of products referred to in regulation 2.4 ☐

- 1.11.8 The ship, being designated as a "crude oil tanker" operating with COW, is also designated as a "product carrier" operating with CBT, for which a separate IOPP Certificate has also been issued ☐
- 1.11.9 The ship, being designated as a "product carrier" operating with CBT, is also designated as a "crude oil tanker" operating with COW, for which a separate IOPP Certificate has also been issued ☐
- 2. Equipment for the control of oil discharge from machinery space bilges and oil fuel tanks**
(regulations 16 and 14)
- 2.1 Carriage of ballast water in oil fuel tanks:
- 2.1.1 The ship may under normal conditions carry ballast water in oil fuel tanks ☐
- 2.2 Type of oil filtering equipment fitted:
- 2.2.1 Oil filtering (15 ppm) equipment (regulation 14.6) ☐
- 2.2.2 Oil filtering (15 ppm) equipment with alarm and automatic stopping device (regulation 14.7) ☐
- 2.3 Approval standards:
- 2.3.1 The separating/filtering equipment:
- .1 has been approved in accordance with resolution A.393(X); ☐
- .2 has been approved in accordance with resolution MEPC.60(33); ☐
- .3 has been approved in accordance with resolution MEPC.107(49); ☐
- .4 has been approved in accordance with resolution A.233(VII); ☐
- .5 has been approved in accordance with national standards not based upon resolution A.393(X) or A.233(VII); ☐
- .6 has not been approved. ☐
- 2.3.2 The process unit has been approved in accordance with resolution A.444(XI) ☐

- 2.3.3 The oil content meter :
- .1

has been approved in accordance with resolution A.393(X);

☐

.2

has been approved in accordance with resolution MEPC.60(33);

☐

.3

has been approved in accordance with resolution MEPC.107(49).

☐

2.4 Maximum throughput of the system is m³/h

2.5 Waiver of regulation 14:

2.5.1 The requirements of regulation 14.1 or 14.2 are waived in respect of the ship in accordance with regulation 14.5.

The ship is engaged exclusively on voyages within special area(s): ☐

2.5.2 The ship is fitted with holding tank(s) for the total retention on board of all oily bilge water as follows : ☐

Tank identification	Tank location		Volume (m ³)
	Frames (from) - (to)	Lateral position	
Total volume:m ³			

2.5.3 In lieu of the holding tank(s) the ship is provided with arrangements to transfer bilge water to the slop tank ☐

3. Means for retention and disposal of oil residues (sludge) (regulation 12) and bilge water holding tank(s)*

3.1 The ship is provided with oil residue (sludge) tanks as follows:

Tank identification	Tank location		Volume (m ³)
	Frames (from) - (to)	Lateral position	
Total volume:m ³			

* Bilge water holding tank(s) are not required by the Convention, entries in the table under paragraph 3.3 are voluntary.

3.2 Means for the disposal of residues in addition to the provisions of sludge tanks:

3.2.1 Incinerator for oil residues, capacity.....l/h ☐

3.2.2 Auxiliary boiler suitable for burning oil residues ☐

3.2.3 Tank for mixing oil residues with fuel oil, capacity m³ ☐

3.2.4 Other acceptable means: ☐

3.3 The ship is provided with holding tank(s) for the retention on board of oily bilge water as follows:

Tank identification	Tank location		Volume (m ³)
	Frames (from) - (to)	Lateral position	
Total volume:m ³			

4. Standard discharge connection (regulation 13)

4.1 The ship is provided with a pipeline for the discharge of residues from machinery bilges and sludges to reception facilities, fitted with a standard discharge connection in accordance with regulation 13 ☐

5. Construction (regulations 18, 19, 20, 23, 26, 27 and 28)

5.1 In accordance with the requirements of regulation 18, the ship is:

5.1.1 Required to be provided with SBT, PL and COW ☐

5.1.2 Required to be provided with SBT and PL ☐

5.1.3 Required to be provided with SBT ☐

5.1.4 Required to be provided with SBT or COW ☐

5.1.5 Required to be provided with SBT or CBT ☐

5.1.6 Not required to comply with the requirements of regulation 18 ☐

5.2 Segregated ballast tanks (SBT):

5.2.1 The ship is provided with SBT in compliance with regulation 18 ☐

5.2.2 The ship is provided with SBT, in compliance with regulation 18, which are arranged in protective locations (PL) in compliance with regulations 18.12 to 18.15 ☐

5.2.3 SBT are distributed as follows:

Tank	Volume (m ³)	Tank	Volume (m ³)
		Total volume:m ³	

5.3 Dedicated clean ballast tanks (CBT):

5.3.1 The ship is provided with CBT in compliance with regulation 18.8, and may operate as a product carrier ☐

5.3.2 CBT are distributed as follows:

Tank	Volume (m ³)	Tank	Volume (m ³)
		Total volume:m ³	

5.3.3 The ship has been supplied with a valid Dedicated Clean Ballast Tank Operation Manual, which is dated ☐

5.3.4 The ship has common piping and pumping arrangements for ballasting the CBT and handling cargo oil ☐

5.3.5 The ship has separate independent piping and pumping arrangements for ballasting the CBT ☐

5.4 Crude oil washing (COW):

5.4.1 The ship is equipped with a COW system in compliance with regulation 33 ☐

5.4.2 The ship is equipped with a COW system in compliance with regulation 33 except that the effectiveness of the system has not been confirmed in accordance with regulation 33.1 and paragraph 4.2.10 of the Revised COW Specifications (resolution A.446(XI) as amended by resolutions A.497(XII) and A.897(21)) ☐

5.4.3 The ship has been supplied with a valid Crude Oil Washing Operations and Equipment Manual which is dated ☐

- 5.4.4 The ship is not required to be but is equipped with COW in compliance with the safety aspects of the Revised COW Specifications (resolution A.446(XI) as amended by resolutions A.497(XII) and A.897(21)) ☐
- 5.5 Exemption from regulation 18:
- 5.5.1 The ship is solely engaged in trade between
.....
in accordance with regulation 2.5 and is therefore exempted from the requirements of regulation 18 ☐
- 5.5.2 The ship is operating with special ballast arrangements in accordance with regulation 18.10 and is therefore exempted from the requirements of regulation 18 ☐
- 5.6 Limitation of size and arrangements of cargo tanks (regulation 26):
- 5.6.1 The ship is required to be constructed according to, and complies with, the requirements of regulation 26 ☐
- 5.6.2 The ship is required to be constructed according to and complies with, the requirements of regulation 26.4 (see regulation 2.2) ☐
- 5.7 Subdivision and stability (regulation 28):
- 5.7.1 The ship is required to be constructed according to, and complies with, the requirements of regulation 28 ☐
- 5.7.2 Information and data required under regulation 28.5 have been supplied to the ship in an approved form ☐
- 5.7.3 The ship is required to be constructed according to, and complies with, the requirements of regulation 27 ☐
- 5.7.4 Information and data required under regulation 27
For combination carriers have been supplied to the ship
in a written procedure approved by the Administration ☐
- 5.8 Double-hull construction:
- 5.8.1 The ship is required to be constructed according to regulation 19 and complies with the requirements of:
- .1 paragraph (3) (double-hull construction) ☐
- .2 paragraph (4) (mid-height deck tankers with double side construction) ☐
- .3 paragraph (5) (alternative method approved by the Marine Environment Protection Committee) ☐

- 5.8.2 The ship is required to be constructed according to and complies with the requirements of regulation 19.6 (double bottom requirements) ☐
- 5.8.3 The ship is not required to comply with the requirements of regulation 19 ☐
- 5.8.4 The ship is subject to regulation 20 and:
- .1 is required to comply with paragraphs 2 to 5, 7 and 8 of regulation 19 and regulation 28 in respect of paragraph 28.6 not later than ☐
- .2 is allowed to continue operation in accordance with regulation 20.5 until ☐
- .3 is allowed to continue operation in accordance with regulation 20.7 until ☐
- 5.8.5 The ship is not subject to regulation 20 ☐
- 5.8.6 The ship is subject to regulation 21 and:
- .1 is required to comply with regulation 21.4 not later than ☐
- .2 is allowed to continue operation in accordance with regulation 21.5 until ☐
- .3 is allowed to continue operation in accordance with regulation 21.6.1 until ☐
- .4 is allowed to continue operation in accordance with regulation 21.6.2 until ☐
- .5 is exempted from the provisions of regulation 21 in accordance with regulation 21.7.2 ☐
- 5.8.7 The ship is not subject to regulation 21 ☐
- 5.8.8 The ship is subject to regulation 22 and:
- .1 complies with the requirements of regulation 22.2..... ☐
- .2 complies with the requirements of regulation 22.3..... ☐
- .3 complies with the requirements of regulation 22.5..... ☐
- 5.8.9 The ship is not subject to regulation 22..... ☐
- 5.9 Accidental oil outflow performance
- 5.9.1 The ship complies with the requirements of regulation 23 ☐

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

6.1 Oil discharge monitoring and control system:

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

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

6.1.3 The system comprises:

.1 control unit ☐

.2 computing unit ☐

.3 calculating unit ☐

6.1.4 The system is:

.1 fitted with a starting interlock ☐

.2 fitted with automatic stopping device ☐

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

.1 crude oil ☐

.2 black products ☐

.3 white products ☐

.4 oil-like noxious liquid substances as listed in the
attachment to the certificate ☐

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

6.2 Slop tanks:

The ship is provided with dedicated slop tank(s)
with the total capacity of m³, which is % of the
oil carrying capacity, in accordance with:

.1 regulation 29.2.3 ☐

.2 regulation 29.2.3.1 ☐

.3 regulation 29.2.3.2 ☐

.4 regulation 29.2.3.3 ☐

- 6.2.2 Cargo tanks have been designated as slop tanks ☐
- 6.3 Oil/water interface detectors:
- 6.3.1 The ship is provided with oil/water interface detectors approved under the terms of resolution MEPC.5(XIII) ☐
- 6.4 Exemptions from regulations 29, 31 and 32:
- 6.4.1 The ship is exempted from the requirements of regulations 29, 31 and 32 in accordance with regulation 2.4 ☐
- 6.4.2 The ship is exempted from the requirements of regulations 29, 31 and 32 in accordance with regulation 2.2 ☐
- 6.5 Waiver of regulation:
- 6.5.1 The requirements of regulations 31 and 32 are waived in respect of the ship in accordance with regulation 3.5. The ship is engaged exclusively on:
- .1 specific trade under regulation 2.5: ☐
- .2 voyages within special area(s): ☐
- .3 voyages within 50 nautical miles of the nearest land outside special area(s) of 72 hours or less in duration restricted to: ☐
- 7. Pumping, piping and discharge arrangements**
(regulation 30)
- 7.1 The overboard discharge outlets for segregated ballast are located:
- 7.1.1 Above the waterline ☐
- 7.1.2 Below the waterline ☐
- 7.2 The overboard discharge outlets, other than the discharge manifold, for clean ballast are located[†]:
- 7.2.1 Above the waterline ☐
- 7.2.2 Below the waterline ☐

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

- 7.3 The overboard discharge outlets, other than the discharge manifold, for dirty ballast water or oil-contaminated water from cargo tank areas are located:
- 7.3.1 Above the waterline ☐
- 7.3.2 Below the waterline in conjunction with the part flow arrangements in compliance with regulation 30.6.5 ☐
- 7.3.3 Below the waterline ☐
- 7.4 Discharge of oil from cargo pumps and oil lines (regulations 30.4 and 30.5):
- 7.4.1 Means to drain all cargo pumps and oil lines at the completion of cargo discharge:
- .1 drainings capable of being discharged to a cargo tank or slop tank ☐
- .2 for discharge ashore a special small-diameter line is provided ☐
- 8. Shipboard oil/marine pollution emergency plan**
(regulation 37)
- 8.1 The ship is provided with a shipboard oil pollution emergency plan in compliance with regulation 37 ☐
- 8.2 The ship is provided with a shipboard marine pollution emergency plan in compliance with regulation 37.3 ☐
- 9. Exemption**
- 9.1 Exemptions have been granted by the Administration from the requirements of chapter 3 of Annex I of the Convention in accordance with regulation 3.1 on those items listed under paragraph(s)
.....
..... of this Record ☐
- 10. Equivalentents** (regulation 5)
- 10.1 Equivalentents have been approved by the Administration for certain requirements of Annex I on those items listed under paragraph(s) of this Record ☐

THIS IS TO CERTIFY that this Record is correct in all respects.

Issued at
(Place of issue of the Record)

..... <i>(Date of issue)</i> <i>(Signature of duly authorized official issuing the Record)</i>
---------------------------------	--

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

APPENDIX III

FORM OF OIL RECORD BOOK

OIL RECORD BOOK

PART I - Machinery space operations

(All Ships)

Name of Ship:

Distinctive number
or letters:

Gross tonnage:

Period from: to:

Note: Oil Record Book Part I shall be provided to every oil tanker of 150 gross tonnage and above and every ship of 400 gross tonnage and above, other than oil tankers, to record relevant machinery space operations. For oil tankers, Oil Record Book Part II shall also be provided to record relevant cargo/ballast operations.

Introduction

The following pages of this section show a comprehensive list of items of machinery space operations which are, when appropriate, to be recorded in the Oil Record Book Part I in accordance with regulation 17 of Annex I of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78). The items have been grouped into operational sections, each of which is denoted by a letter Code.

When making entries in the Oil Record Book Part I, the date, operational Code and item number shall be inserted in the appropriate Columns and the required particulars shall be recorded chronologically in the blank spaces.

Each completed operation shall be signed for and dated by the officer or officers in charge. The master of the Ship shall sign each completed page.

The Oil Record Book Part I contains many references to oil quantity. The limited accuracy of tank Measurement devices, temperature variations and clingage will affect the accuracy of these readings. The entries in the Oil Record Book Part I should be considered accordingly.

In the event of accidental or other exceptional discharge of oil statement shall be made in the Oil Record Book Part I of the circumstances of, and the reasons for, the discharge.

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

The entries in the Oil Record Book Part I, for ships holding an IOPP Certificate, shall be at least in English, French or Spanish. Where entries in official language of the State whose flag the ship is entitled to fly are also used, this shall prevail in case of a dispute or discrepancy.

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

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

LIST OF ITEMS TO BE RECORDED**(A) Ballasting or cleaning of oil fuel tanks**

1. Identity of tank(s) ballasted.
2. Whether cleaned since they last contained oil and, if not, type of oil previously carried.
3. Cleaning process:
 - .1 position of ship and time at the start and completion of cleaning;
 - .2 identify tank(s) in which one or another method has been employed (rinsing through, steaming, cleaning with chemicals; type and quantity of chemicals used, in m³);
 - .3 identity of tank(s) into which cleaning water was transferred.
4. Ballasting:
 - .1 position of ship and time at start and end of ballasting;
 - .2 quantity of ballast if tanks are not cleaned, in m³.

(B) Discharge of dirty ballast or cleaning water from oil fuel tanks referred to under Section A)

5. Identity of tank(s).
6. Position of ship at start of discharge.
7. Position of ship on completion of discharge.
8. Ship's speed(s) during discharge.
9. Method of discharge:
 - .1 through 15 ppm equipment
 - .2 to reception facilities.
10. Quantity discharged, in m³.

(C) Collection and disposal of oil residues (sludge and other oil residues)

11. Collection of oil residues

Quantities of oil residues (sludge and other oil residues) retained on board. The quantity should be recorded weekly¹: (This means that the quantity must be recorded once a week even if the voyage lasts more than one week)

- .1 - identity of tank(s)
- .2 - capacity of tank(s) m³
- .3 - total quantity of retention m³

12. Methods of disposal of residue.

State quantity of oil residues disposed of, the tank(s) emptied and the quantity of contents retained in m³:

- .1 to reception facilities (identify port)²;
- .2 transferred to another (other) tank(s) (indicate tank(s) and the total content of tank(s))
- .3 incinerated (indicate total time of operation);
- .4 other method (state which).

(D) Non-automatic discharge overboard or disposal otherwise of bilge water which has accumulated in machinery spaces13. Quantity discharged or disposed of, in cubic metres.¹

14. Time of discharge or disposal (starts and stop).

15. Method of discharge or disposal:

- .1 through 15 ppm equipment (state position at start and end);
- .2 to reception facilities (identify port)²;
- .3 transfer to slop tank or holding tank (indicate tank(s); state the total quantity retained in tank(s), in m³).

¹ Tanks listed in item 3.1 of form A and B of the supplement in the IOPP Certificate used for sludge.

² Ship's masters should obtain from the operator of the reception facilities, which includes barges and tank trucks, a receipt or certificate detailing the quantity of tank washings, dirty ballast, residues or oily mixtures transferred, together with the time and date of the transfer. This receipt or certificate, if attached to the Oil Record Book Part I, may aid the master of the ship in proving that his ship was not involved in an alleged pollution incident. The receipt or certificate should be kept together with the Oil Record Book Part I.

³ In case of discharge or disposal of bilge water from holding tank(s), state identity and capacity of holding tank(s) and quantity retained in holding tank.

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

16. Time and position of ship at which the system has been put into automatic mode of operation for discharge overboard, through 15 ppm equipment.
17. Time when the system has been put into automatic mode of operation for transfer of bilge water to holding tank (identify tank).
18. Time when the system has been put into manual operation.

(F) Condition of the oil filtering equipment

19. Time of system failure².
20. Time when system has been made operational.
21. Reasons for failure.

(G) Accidental or other exceptional discharges of oil

22. Time of occurrence.
23. Place or position of ship at time of occurrence.
24. Approximate quantity and type of oil.
25. Circumstances of discharge or escape, the reasons therefore and general remarks.

(H) Bunkering of fuel or bulk lubricating oil

26. Bunkering:
 - .1 Place of bunkering.
 - .2 Time of bunkering.
 - .3 Type and quantity of fuel oil and identity of tank(s) (state quantity added, in tonnes and total content of tank(s)).
 - .4 Type and quantity of lubricating oil and identity of tank(s) (state quantity added, in tonnes and total content of tank (s)).

² The condition of the oil filtering equipment covers also the alarm and automatic stopping devices, if applicable.

(I) Additional operational procedures and general remarks

Name of ship

Distinctive number or letters _____

MACHINERY SPACE OPERATIONS

[illegible]

Signature of master

OIL RECORD BOOK**PART II – Cargo / Ballast Operations***(Oil Tankers)*

Name of Ship:

Distinctive number
or letters:

Gross tonnage:

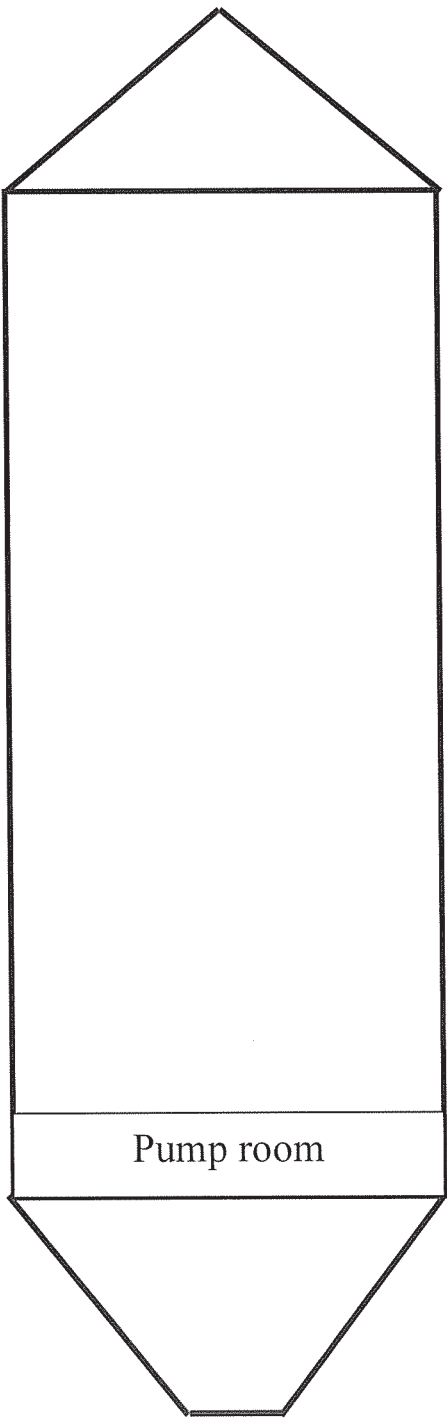
Period from: to:

<i>Note:</i> Every oil tanker of 150 gross tonnage and above shall be provided with Oil Record Book Part II to record relevant cargo/ballast operations. Such a tanker shall also be provided with Oil Record Book Part I to record relevant machinery space operations.
--

Name of Ship

Distinctive number or letters

PLAN VIEW OF CARGO AND SLOP TANKS
(to be completed on board)



Identification of tanks	Capacity
Depth of slop tank(s):	

(Give the capacity of each tank and the depth of slop tank(s))

Introduction

The following pages of this section show a comprehensive list of items of cargo and ballast operations which are, when appropriate, to be recorded in the Oil Record Book Part II in accordance with regulation 36 of Annex I of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78). The items have been grouped into operational section, each of which is denoted by a code letter.

When making entries in the Oil Record Book Part II, the date, operational code and item number shall be inserted in the appropriate columns and the required particulars shall be recorded chronologically in the blank spaces.

Each completed operation shall be signed for and dated by the officer or officers in charge. Each completed page shall be countersigned by the master of the ship.

In respect of the oil tankers engaged in specific trades in accordance with regulation 2.5 of Annex I of MARPOL 73/78, appropriate entry in the Oil Record Book Part II shall be endorsed by the competent port State authority.*

The Oil Record Book Part II contains many references to oil quantity. The limited accuracy of tank Measurement devices, temperature variations and clingage will affect the accuracy of these readings. The entries in the Oil Record Book Part II should be considered accordingly.

In the event of accidental or other exceptional discharge of oil a statement shall be made in the Oil Record Book Part II of the circumstances of, and the reasons for, the discharge.

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

The entries in the Oil Record Book Part II, for ships holding an IOPP Certificate, shall be at least in English, French or Spanish. Where entries in an official language of the State whose flag the ship is entitled to fly are also used, this shall prevail in case of a dispute or discrepancy.

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

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

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

LIST OF ITEMS TO BE RECORDED**(A) Loading of oil cargo**

1. Place of loading.
2. Type of oil loaded and identity of tank(s).
3. Total quantity of oil loaded (state quantity added, in m³ at 15°C and the total content of tank(s), in m³).

(B) Internal transfer of oil cargo during voyage

4. Identity of tank(s):
 - .1 from:
 - .2 to: (state quantity transferred and total quantity of tank(s), in m³).
5. Was (were) the tank(s) in 4.1 emptied? (If not, state quantity retained, in m³.)

(C) Unloading of oil cargo

6. Place of unloading.
7. Identity of tank(s) unloaded.
8. Was (were) the tank(s) emptied? (If not, state quantity retained, in m³.)

(D) Crude oil washing (COW tankers only)

(To be completed for each tank being crude oil washed)

9. Port where crude oil washing was carried out or ship's position if carried out between two discharge ports.
10. Identity of tank(s) washed.¹
11. Number of machines in use.
12. Time of start of washing.
13. Washing pattern employed.²
14. Washing line pressure.
15. Time washing was completed or stopped.

¹ When an individual tank has more machines than can be operated simultaneously, as described in the Operations and Equipment Manual, then the section being crude oil washed should be identified, e.g. No.2 centre, forward section.

² In accordance with the Operations and Equipment Manual, enter whether single-stage or multi-stage method of washing is employed. If multi-stage method is used, give the vertical arc covered by the machines and the number of times that arc is covered for that particular stage of the programme.

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

17. Remarks.³

(E) Ballasting of cargo tanks

18. Position of ship at start and end of ballasting.

19. Ballasting process:

.1 identity of tank(s) ballasted;

.2 time of start and end; and

.3 quantity of ballast received: Indicate total quantity of ballast for each tank involved in operation, in m³.

(F) Ballasting of dedicated clean ballast tanks (CBT tankers only)

20. Identity of tank(s) ballasted.

21. Position of ship when water intended for flushing, or port ballast was taken to dedicated clean ballast tank(s).

22. Position of ship when pump(s) and lines were flushed to slop tank.

23. Quantity of the oily water which, after line flushing, is transferred to the slop tank(s) or cargo tank(s) in which slop is preliminarily stored (identify tank(s)). State total quantity, in m³.

24. Position of ship when additional ballast water was taken to dedicated clean ballast tank(s).

25. Time and position of ship when valves separating the dedicated clean ballast tanks from cargo and stripping lines were closed.

26. Quantity of clean ballast taken on board, in m³.

(G) Cleaning of cargo tanks

27. Identity of tank(s) cleaned.

28. Port or ship's position.

29. Duration of cleaning.

30. Method of cleaning.⁴

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

⁴ Hand-hosing, machine washing and/or chemical cleaning. Where chemically cleaned, the chemical concerned and amount used should be stated.

31. Tank washings transferred to:

- .1 reception facilities (state port and quantity, in m³)⁵; and
- .2 sloptank(s) or cargo tank(s) designated as sloptank(s) (identify tank(s); state quantity transferred and total quantity, in m³).

(H) Discharge of dirty ballast

32. Identity of tank(s).
33. Time and position of ship at start of discharge into the sea.
34. Time and position of ship on completion of discharge into the sea.
35. Quantity discharged into the sea, in m³.
36. Ship's speed(s) during discharge.
37. Was the discharge monitoring and control system in operation during the discharge?
38. Was a regular check kept on the effluent and the surface of the water in the locality of the discharge?
39. Quantity of oily water transferred to slop tank(s) (identify slop tank(s). State total quantity, in m³).
40. Discharged to shore reception facilities (identify port and quantity involved, in m³).⁵

(I) Discharge of water from slop tanks into the sea

41. Identity of slop tanks.
42. Time of settling from last entry of residues, or
43. Time of settling from last discharge.
44. Time and position of ship at start of discharge.
45. Ullage of total contents at start of discharge.
46. Ullage of oil/water interface at start of discharge.
47. Bulk quantity discharged in m³ and rate of discharge in m³/hour.

⁵ Ships' masters should obtain from the operator of the reception facilities, which include barges and tank trucks, a receipt or certificate detailing the quantity or tank washings, dirty ballast, residues or oily mixtures transferred together with the time and date of the transfer. This receipt or certificate, if attached to the Oil Record Book Part II, may aid the master of the ship in proving that his ship was not involved in an alleged pollution incident. The receipt or the certificate should be kept together with the Oil Record Book Part II.

48. Final quantity discharged in m³ and rate of discharge in m³/hour.
49. Time and position of ship on completion of discharge.
50. Was the discharge monitoring and control system in operation during the discharge?
51. Ullage of oil/ water interface on completion of discharge, in metres.
52. Ship's speed(s) during discharge.
53. Was regular check kept on the effluent and the surface of water in the locality of the discharge?
54. Confirm that all applicable valves in the ship's piping system have been closed on completion of discharge from the slop tanks.

(J) Disposal of residues and oily mixtures not otherwise dealt with

55. Identity of tanks.
56. Quantity disposed of from each tank. (State the quantity retained, in m³.)
57. Method of disposal:
 - .1 to reception facilities (identify port and quantity involved)⁵;
 - .2 mixed with cargo (state quantity);
 - .3 transferred to (an)other tank(s) (identify tank(s); state quantity transferred and total quantity in tank(s), in m³); and
 - .4 other method (state which); state quantity disposed of, in m³.

(K) Discharge of clean ballast contained in cargo tanks

58. Position of ship at start of clean ballast.
59. Identity of tank(s) discharged.
60. Was (were) the tank(s) empty on completion?
61. Position of ship on completion if different from 58.
62. Was a regular check kept on the effluent and the surface of the water in the locality of the discharge?

⁵

Ships' masters should obtain from the operator of the reception facilities, which include barges and tank trucks, a receipt or certificate detailing the quantity or tank washings, dirty ballast, residues or oily mixtures transferred together with the time and date of the transfer. This receipt or certificate, if attached to the Oil Record Book Part II, may aid the master of the ship in proving that his ship was not involved in an alleged pollution incident. The receipt or the certificate should be kept together with the Oil Record Book Part II.

(L) Discharge of ballast from dedicated clean ballast tanks (CBT tankers only)

- 63. Identity of tank(s) discharged.
- 64. Time and position of ship at start of discharge of clean ballast into the sea.
- 65. Time and position of ship on completion of discharge into the sea.
- 66. Quantity discharged, in m³:
 - .1 into the sea; or
 - .2 to reception facility (identify port).⁵
- 67. Was there any indication of oil contamination of the ballast water before or during discharge into the sea?
- 68. Was the discharge monitored by an oil content meter?
- 69. Time and position of ship when valves separating dedicated clean ballast tanks from the cargo and stripping lines were closed on completion of deballasting.

(M) Condition of oil discharge monitoring and control system

- 70. Time of system failure.
- 71. Time when system has been made operational.
- 72. Reasons for failure.

(N) Accidental or other exceptional discharges of oil

- 73. Time of occurrence.
- 74. Port or ship's position at time of occurrence.
- 75. Approximate quantity, in m³, and type of oil.
- 76. Circumstances of discharge or escape, the reasons therefore and general remarks.

⁵ Ships' masters should obtain from the operator of the reception facilities, which include barges and tank trucks, a receipt or certificate detailing the quantity or tank washings, dirty ballast, residues or oily mixtures transferred, together with the time and date of the transfer. This receipt or certificate, if attached to the Oil Record Book Part II, may aid the master of the ship in proving that his ship was not involved in an alleged pollution incident. The receipt or the certificate should be kept together with the Oil Record Book Part II.

(O) Additional operational procedures and general remarks*TANKERS ENGAGED IN SPECIFIC TRADES***(P) Loading of ballast water**

- 77. Identity of tank(s) ballasted.
- 78. Position of ship when ballasted.
- 79. Total quantity of ballast loaded in cubic metres.
- 80. Remarks.

(Q) Re-allocation of ballast water within the ship

- 81. Reason for re-allocation.

(R) Ballast water discharge to reception facility

- 82. Port(s) where ballast water was discharged.
- 83. Name or designation of reception facility.
- 84. Total quantity of ballast water discharged in cubic metres.
- 85. Date, signature and stamp of port authority official.

RESOLUTION MEPC.118(52)**Adopted on 15 October 2004****AMENDMENTS TO THE ANNEX OF THE PROTOCOL OF 1978
RELATING TO THE INTERNATIONAL CONVENTION FOR THE PREVENTION
OF POLLUTION FROM SHIPS, 1973****(Revised Annex II of MARPOL 73/78)**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee (the Committee) conferred upon it by international conventions for the prevention and control of marine pollution,

NOTING article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the “1973 Convention”) and article VI of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the “1978 Protocol”) which together specify the amendment procedure of the 1978 Protocol and confer upon the appropriate body of the Organization the function of considering and adopting amendments to the 1973 Convention, as modified by the 1978 Protocol (MARPOL 73/78),

HAVING CONSIDERED the text of the revised Annex II of MARPOL 73/78,

1. ADOPTS, in accordance with article 16(2)(b), (c) and (d) of the 1973 Convention, the revised Annex II of MARPOL 73/78, the text of which is set out at the annex to the present resolution;
2. DETERMINES, in accordance with article 16(2)(f)(iii) of the 1973 Convention, that the revised Annex II of MARPOL 73/78 shall be deemed to have been accepted on 1 July 2006 unless, prior to that date, not less than one-third of the Parties or Parties, the combined merchant fleets of which constitute not less than 50 per cent of the gross tonnage of the world’s merchant fleet, have communicated to the Organization their objection to the amendments;
3. INVITES the Parties to note that, in accordance with article 16(2)(g)(ii) of the 1973 Convention, the revised Annex II of MARPOL 73/78 shall enter into force on 1 January 2007 upon its acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with article 16(2)(e) of the 1973 Convention, to transmit to all Parties to MARPOL 73/78 certified copies of the present resolution and the text of the revised Annex II of MARPOL 73/78 contained in the annex; and
5. REQUESTS FURTHER the Secretary-General to transmit copies of the present resolution and its annex to the Members of the Organization which are not Parties to MARPOL 73/78.

CHAPTER 1 - GENERAL

Regulation 1

Definitions

For the purposes of this Annex:

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

2 *Associated piping* means the pipeline from the suction point in a cargo tank to the shore connection used for unloading the cargo and includes all ship's piping, pumps and filters which are in open connection with the cargo unloading line.

3 *Ballast water*

Clean ballast means ballast water carried in a tank which, since it was last used to carry a cargo containing a substance in Category X, Y or Z, has been thoroughly cleaned and the residues resulting there from have been discharged and the tank emptied in accordance with the appropriate requirements of this Annex.

Segregated ballast means ballast water introduced into a tank permanently allocated 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 *Chemical Codes*

Bulk Chemical Code means the Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk adopted by the Marine Environment Protection Committee of the Organization by resolution MEPC.20(22), as 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.

International Bulk Chemical Code means the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk adopted by the Marine Environment Protection Committee of the Organization by resolution MEPC.19(22), as 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.

5 *Depth of water* means the charted depth.

6 *En route* means that the ship is under way at sea on a course or courses, including deviation from the shortest direct route, which as far as practicable for navigational purposes, will cause any discharge to be spread over as great an area of the sea as is reasonable and practicable.

7 *Liquid substances* are those having a vapour pressure not exceeding 0.28 MPa absolute at a temperature of 37.8°C.

8 *Manual* means Procedures and Arrangements Manual in accordance with the model given in appendix 6 of this Annex.

9 *Nearest land*. The term “from the nearest land” means from the baseline from which the territorial sea 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 the line drawn from a point on the coast of Australia in:

latitude 11°00' S, longitude 142°08' E
to a point in latitude 10°35' S, longitude 141°55' E,
thence to a point latitude 10°00' S, longitude 142°00' E,
thence to a point latitude 9°10' S, longitude 143°52' E,
thence to a point latitude 9°00' S, longitude 144°30' E,
thence to a point latitude 10°41' S, longitude 145°00' E,
thence to a point latitude 13°00' S, longitude 145°00' E,
thence to a point latitude 15°00' S, longitude 146°00' E,
thence to a point latitude 17°30' S, longitude 147°00' E,
thence to a point latitude 21°00' S, longitude 152°55' E,
thence to a point latitude 24°30' S, longitude 154°00' E,
thence to a point on the coast of Australia
in latitude 24°42' S, longitude 153°15' E.

10 *Noxious Liquid Substance* means any substance indicated in the Pollution Category column of chapter 17 or 18 of the International Bulk Chemical Code or provisionally assessed under the provisions of regulation 6.3 as falling into Category X, Y or Z.

11 *PPM* means ml/m³.

12 *Residue* means any noxious liquid substance which remains for disposal.

13 *Residue/water mixture* means residue to which water has been added for any purpose (e.g. tank cleaning, ballasting, bilge slops).

14 *Ship construction*

14.1 *Ship constructed* means a ship the keel of which is laid or which is at a similar stage of construction. A ship converted to a chemical tanker, irrespective of the date of construction, shall be treated as a chemical tanker constructed on the date on which such conversion commenced. This conversion provision shall not apply to the modification of a ship, which complies with all of the following conditions:

- .1 the ship is constructed before 1 July 1986; and
- .2 the ship is certified under the Bulk Chemical Code to carry only those products identified by the Code as substances with pollution hazards only.

14.2 *Similar stage of construction* means the stage at which:

- .1 construction identifiable with a specific ship begins; and
- .2 assembly of that ship has commenced comprising at least 50 tons or one per cent of the estimated mass of all structural material, whichever is less.

15 *Solidifying/non-solidifying*

15.1 *Solidifying Substance* means a noxious liquid substance which:

- .1 in the case of a substance with a melting point of less than 15°C which is at a temperature of less than 5°C above its melting point at the time of unloading; or
- .2 in the case of a substances with a melting point of equal to or greater than 15°C which is at a temperature of less than 10°C above its melting point at the time of unloading.

15.2 *Non-solidifying Substance* means a noxious liquid substance, which is not a Solidifying Substance.

16 *Tanker*

- .1 *Chemical tanker* means a ship constructed or adapted for the carriage in bulk of any liquid product listed in chapter 17 of the International Bulk Chemical Code;
- .2 *NLS tanker* means a ship constructed or adapted to carry a cargo of Noxious Liquid Substances in bulk and includes an “oil tanker” as defined in Annex I of the present Convention when certified to carry a cargo or part cargo of Noxious Liquid Substances in bulk.

17 *Viscosity*

- .1 *High-Viscosity Substance* means a noxious liquid substance in Category X or Y with a viscosity equal to or greater than 50 mPa.s at the unloading temperature.
- .2 *Low-Viscosity Substance* means a noxious liquid substance, which is not a High-Viscosity Substance.

Regulation 2

Application

1 Unless expressly provided otherwise the provisions of this Annex shall apply to all ships certified to carry 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 an NLS tanker, the appropriate requirements of Annex I of the present Convention shall also apply.

Regulation 3*Exceptions*

1 The discharge requirements of this Annex shall not apply to the discharge into the sea of Noxious Liquid Substances or mixtures containing such substances when such a discharge:

- .1 is necessary for the purpose of securing the safety of a ship or saving life at sea; or
- .2 results from damage to a ship or its equipment:
 - .1 provided that all reasonable precautions have been taken after the occurrence of the damage or discovery of the discharge for the purpose of preventing or minimizing the discharge; and
 - .2 except if the owner or the master acted either with intent to cause damage, or recklessly and with knowledge that damage would probably result; or
- .3 is 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 4*Exemptions*

1 With respect to amendments to carriage requirements due to the upgrading of the categorization of a substance, the following shall apply:

- .1 where an amendment to this Annex and the International Bulk Chemical Code and Bulk Chemical Code involves changes to the structure or equipment and fittings due to the upgrading of the requirements for the carriage of certain substances, the Administration may modify or delay for a specified period the application of such an amendment to ships constructed before the date of entry into force of that amendment, if the immediate application of such an amendment is considered unreasonable or impracticable. Such relaxation shall be determined with respect to each substance;
- .2 the Administration allowing a relaxation of the application of an amendment under this paragraph shall submit to the Organization a report giving details of the ship or ships concerned, the cargoes certified to carry, the trade in which each ship is engaged and the justification for the relaxation, for circulation to the Parties to the Convention for their information and appropriate action, if any and reflect the exemption on the Certificate as referred to in regulation 7 or 9 of this Annex;

- .3 Notwithstanding the above, an Administration may exempt ships from the carriage requirements under regulation 11 for ships certified to carry individually identified vegetable oils identified by the relevant footnote in chapter 17 of the IBC Code, provided the ship complies with the following conditions:
 - .1 Subject to this regulation, the NLS tanker shall meet all requirements for ship type 3 as identified in the IBC Code except for cargo tank location;
 - .2 under this regulation, cargo tanks shall be located at the following distances inboard. The entire cargo tank length shall be protected by ballast tanks or spaces other than tanks that carry oil as follows:
 - .1 wing tanks or spaces shall be arranged such that cargo tanks are located inboard of the moulded line of the side shell plating nowhere less than 760 mm;
 - .2 double bottom tanks or spaces shall be arranged such that the distance between the bottom of the cargo tanks and the moulded line of the bottom shell plating measured at right angles to the bottom shell plating is not less than $B/15$ (m) or 2.0 m at the centreline, whichever is the lesser. The minimum distance shall be 1.0 metre; and
 - .3 the relevant certificate shall indicate the exemption granted.
- 2 Subject to the provisions of paragraph 3 of this regulation, the provisions of regulation 12.1 need not apply to a ship constructed before 1 July 1986 which is engaged in restricted voyages as determined by the Administration between:
 - .1 ports or terminals within a State Party to the present Convention; or
 - .2 ports or terminals of States Parties to the present Convention.
- 3 The provisions of paragraph 2 of this regulation shall only apply to a ship constructed before 1 July 1986 if:
 - .1 each time a tank containing Category X, Y or Z substances or mixtures is to be washed or ballasted, the tank is washed in accordance with a prewash procedure approved by the Administration in compliance with appendix 6 of this Annex, and the tank washings are discharged to a reception facility;
 - .2 subsequent washings or ballast water are discharged to a reception facility or at sea in accordance with other provisions of this Annex;
 - .3 the adequacy of the reception facilities at the ports or terminals referred to above, for the purpose of this paragraph, is approved by the Governments of the States Parties to the present Convention within which such ports or terminals are situated;

- .4 in the case of ships engaged in voyages to ports or terminals under the jurisdiction of other States Parties to the present Convention, the Administration communicates to the Organization, for circulation to the Parties to the Convention, particulars of the exemption, for their information and appropriate action, if any; and
- .5 the certificate required under this Annex is endorsed to the effect that the ship is solely engaged in such restricted voyages.

4 For a ship whose constructional and operational features are such that ballasting of cargo tanks is not required and cargo tank washing is only required for repair or dry-docking, the Administration may allow exemption from the provisions of regulation 12, provided that all of the following conditions are complied with:

- .1 the design, construction and equipment of the ship are approved by the Administration, having regard to the service for which it is intended;
- .2 any effluent from tank washings which may be carried out before a repair or dry-docking is discharged to a reception facility, the adequacy of which is ascertained by the Administration;
- .3 the certificate required under this Annex indicates:
 - .1 that each cargo tank is certified for the carriage of a restricted number of substances which are comparable and can be carried alternately in the same tank without intermediate cleaning; and
 - .2 the particulars of the exemption;
- .4 the ship carries a Manual approved by the Administration; and
- .5 in the case of ships engaged in voyages to ports or terminals under the jurisdiction of other States Parties to the present Convention, the Administration communicates to the Organization, for circulation to the Parties to the Convention, particulars of the exemption, for their information and appropriate action, if any.

Regulation 5

Equivalents

1 The Administration may allow any fitting, material, appliance or apparatus to be fitted in a ship as an alternative to that required by this Annex if such fitting, material, appliance or apparatus is at least as effective as that required by this Annex. This authority of the Administration shall not extend to the substitution of operational methods to effect the control of discharge of Noxious Liquid Substances 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 alternative to that required by this Annex, under paragraph 1 of this regulation, shall communicate to the Organization for circulation to the Parties to the Convention, particulars thereof, for their information and appropriate action, if any.

3 Notwithstanding the provisions of paragraphs 1 and 2 of this regulation, the construction and equipment of liquefied gas carriers certified to carry Noxious Liquid Substances listed in the applicable Gas Carrier Code, shall be deemed to be equivalent to the construction and equipment requirements contained in regulations 11 and 12 of this Annex, provided that the gas carrier meets all following conditions:

- .1 hold a Certificate of Fitness in accordance with the appropriate Gas Carrier Code for ships certified to carry liquefied gases in bulk;
- .2 hold an International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk, in which it is certified that the gas carrier may carry only those Noxious Liquid Substances identified and listed in the appropriate Gas Carrier Code;
- .3 be provided with segregated ballast arrangements;
- .4 be provided with pumping and piping arrangements, which, to the satisfaction of the Administration, ensure that the quantity of cargo residue remaining in the tank and its associated piping after unloading does not exceed the applicable quantity of residue as required by regulation 12.1, 12.2 or 12.3; and
- .5 be provided with a Manual, approved by the Administration, ensuring that no operational mixing of cargo residues and water will occur and that no cargo residues will remain in the tank after applying the ventilation procedures prescribed in the Manual.

CHAPTER 2 - CATEGORIZATION OF NOXIOUS LIQUID SUBSTANCES

Regulation 6

Categorization and listing of Noxious Liquid Substances and other substances

1 For the purpose of the regulations of this Annex, Noxious Liquid Substances shall be divided into four categories as follows:

- .1 Category X: Noxious Liquid Substances which, if discharged into the sea from tank cleaning or deballasting operations, are deemed to present a major hazard to either marine resources or human health and, therefore, justify the prohibition of the discharge into the marine environment;
- .2 Category Y: Noxious Liquid Substances which, if discharged into the sea from tank cleaning or deballasting operations, are deemed to 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 a limitation on the quality and quantity of the discharge into the marine environment;
- .3 Category Z: Noxious Liquid Substances which, if discharged into the sea from tank cleaning or deballasting operations, are deemed to present a minor hazard to either marine resources or human health and therefore justify less stringent restrictions on the quality and quantity of the discharge into the marine environment;
- .4 Other Substances: substances indicated as OS (Other Substances) in the pollution category column of chapter 18 of the International Bulk Chemical Code which have been evaluated and found to fall outside Category X, Y or Z as defined in regulation 6.1 of this Annex because they are, at present, considered to present no harm to marine resources, human health, amenities or other legitimate uses of the sea when discharged into the sea from tank cleaning or deballasting operations. The discharge of bilge or ballast water or other residues or mixtures containing only substances referred to as “Other Substances” shall not be subject to any requirements of the Annex.

2 Guidelines for use in the categorization of Noxious Liquid Substances are given in appendix 1 to this Annex.

3 Where it is proposed to carry a liquid substance in bulk which has not been categorized under paragraph 1 of this regulation, 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 among the Governments involved has been reached, the substance shall not be carried. As soon as possible, but not later than 30 days after the agreement has been reached, the Government of the producing or shipping country, initiating the agreement concerned, shall notify the Organization and provide details of the substance and the provisional assessment for annual circulation to all Parties for their information. The Organization shall maintain a register of all such substances and their provisional assessment until such time as the substances are formally included in the IBC Code.

CHAPTER 3 - SURVEYS AND CERTIFICATION

Regulation 7

Survey and certification of chemical tankers

Notwithstanding the provisions of regulations 8, 9, and 10 of this Annex, chemical tankers which have been surveyed and certified by States Parties to the present Convention in accordance with the provisions of the International Bulk Chemical Code or the Bulk Chemical Code, as applicable, shall be deemed to have complied with the provisions of the said regulations, and the certificate issued under that Code shall have the same force and receive the same recognition as the certificate issued under regulation 9 of this Annex.

Regulation 8

Surveys

1 Ships carrying Noxious Liquid Substances in bulk shall be subject to the surveys specified below:

- .1 An initial survey before the ship is put in service or before the Certificate required under regulation 9 of this Annex is issued for the first time, and which shall include a complete survey of its structure, equipment, systems, fittings, arrangements and material in so far as the ship is covered by this Annex. This survey shall be such as to ensure that the structure, equipment, systems, fittings, arrangements and material fully comply with the applicable requirements of this Annex.
- .2 A renewal survey at intervals specified by the Administration, but not exceeding 5 years, except where regulation 10.2, 10.5, 10.6, 10.7 of this Annex is applicable. The renewal survey shall be such as to ensure that the structure, equipment, systems, fittings, arrangements and material fully comply with applicable requirements of this Annex.
- .3 An intermediate survey within 3 months before or after the second anniversary date or within 3 months before or after the third anniversary date of the Certificate which shall take the place of one of the annual surveys specified in paragraph 1.4 of this regulation. The intermediate survey shall be such as to ensure that the equipment and associated pump and piping systems fully comply with the applicable requirements of this Annex and are in good working order. Such intermediate surveys shall be endorsed on the Certificate issued under regulation 9 of this Annex.
- .4 An annual survey within 3 months before or after each anniversary date of the Certificate including a general inspection of the structure, equipment, systems, fittings, arrangements and material referred to in paragraph 1.1 of this regulation to ensure that they have been maintained in accordance with paragraph 3 of this regulation and that they remain satisfactory for the service for which the ship is intended. Such annual surveys shall be endorsed on the Certificate issued under regulation 9 of this Annex.

- .5 An additional survey either general or partial, according to the circumstances, shall be made after a repair resulting from investigations prescribed in paragraph 3 of this regulation, or whenever any important repairs or renewals are made. The survey shall be such as to ensure that the necessary repairs or renewals have been effectively made, that the material and workmanship of such repairs or renewals are in all respects satisfactory and that the ship complies in all respects with the requirements of this Annex.

2.1 Surveys of ships, as regards the enforcement of the provisions of this Annex, shall be carried out by officers of the Administration. The Administration may, however, entrust the surveys either to surveyors nominated for the purpose or to organizations recognized by it.

2.2 The recognized organization, referred to in paragraph 2.1 of this regulation shall comply with the Guidelines adopted by the Organization by resolution A.739(18), as may be amended by the Organization, and the specification adopted by the Organization by resolution A.789(19), as may be amended by the Organization, provided that such amendments are adopted, brought into force and take effect in accordance with the provisions of article 16 of the present Convention concerning the amendment procedures applicable to this Annex.

2.3 An Administration nominating surveyors or recognizing organizations to conduct surveys as set forth in paragraph 2.1 of this regulation shall, as a minimum, empower any nominated surveyor or recognized organization to:

- .1 require repairs to a ship; and
- .2 carry out surveys if requested by the appropriate authorities of a port State.

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

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

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

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

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

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

Regulation 9

Issue or endorsement of Certificate

1 An International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk shall be issued, after an initial or renewal survey in accordance with the provisions of regulation 8 of this Annex, to any ship intended to carry Noxious Liquid Substances in bulk and which is engaged in voyages to ports or terminals under the jurisdiction of other Parties to the Convention.

2 Such Certificate shall be issued or endorsed 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.

3.1 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 Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk to the ship and, where appropriate, endorse or authorize the endorsement of that Certificate on the ship, in accordance with this Annex.

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

3.3 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 paragraph 1 of this regulation.

3.4 No International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk shall be issued to a ship, which is entitled to fly the flag of a State which is not a party.

4 The International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk shall be drawn up in the form corresponding to the model given in appendix 3 to this Annex and shall be at least in English, French or Spanish. Where entries in an official national language of the State whose flag the ship is entitled to fly are also used, this shall prevail in the case of a dispute or discrepancy.

Regulation 10

Duration and validity of Certificate

1 An International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk shall be issued for a period specified by the Administration which shall not exceed 5 years.

2.1 Notwithstanding the requirements of paragraph 1 of this regulation, when the renewal survey is completed within 3 months before the expiry date of the existing Certificate, the new Certificate shall be valid from the date of completion of the renewal survey to a date not exceeding 5 years from the date of expiry of the existing Certificate.

2.2 When the renewal survey is completed after the expiry date of the existing Certificate, the new Certificate shall be valid from the date of completion of the renewal survey to a date not exceeding 5 years from the date of expiry of the existing Certificate.

2.3 When the renewal survey is completed more than 3 months before the expiry date of the existing Certificate, the new Certificate shall be valid from the date of completion of the renewal survey to a date not exceeding 5 years from the date of completion of the renewal survey.

3 If a Certificate is issued for a period of less than 5 years, the Administration may extend the validity of the Certificate beyond the expiry date to the maximum period specified in paragraph 1 of this regulation, provided that the surveys referred to in regulation 8.1.3 and 8.1.4 of this Annex applicable when a Certificate is issued for a period of 5 years are carried out as appropriate.

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

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

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

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

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

- .1 the anniversary date shown on the Certificate shall be amended by endorsement to a date which shall not be more than 3 months later than the date on which the survey was completed;
- .2 the subsequent annual or intermediate survey required by regulation 8 of this Annex shall be completed at the intervals prescribed by that regulation using the new anniversary date;
- .3 the expiry date may remain unchanged provided one or more annual or intermediate surveys, as appropriate, are carried out so that the maximum intervals between the surveys prescribed by regulation 8 of this Annex are not exceeded.

9 A Certificate issued under regulation 9 of this Annex shall cease to be valid in any of the following cases:

- .1 if the relevant surveys are not completed within the periods specified under regulation 8.1 of this Annex;
- .2 if the Certificate is not endorsed in accordance with regulation 8.1.3 or 8.1.4 of this Annex;
- .3 upon transfer of the ship to the flag of another State. A new Certificate shall only be issued when the Government issuing the new Certificate is fully satisfied that the ship is in compliance with the requirements of regulation 8.3.1 and 8.3.2 of this Annex. In the case of a transfer between Parties, if requested within 3 months after the transfer has taken place, the Government of the Party whose flag the ship was formerly entitled to fly shall, as soon as possible, transmit to the Administration copies of the Certificate carried by the ship before the transfer and, if available, copies of the relevant survey reports.

CHAPTER 4 - DESIGN, CONSTRUCTION, ARRANGEMENT AND EQUIPMENT**Regulation 11***Design, construction, equipment and operations*

1 The design, construction, equipment and operation of ships certified to carry Noxious Liquid Substances in bulk identified in chapter 17 of the International Bulk Chemical Code, shall be in compliance with the following provisions to minimize the uncontrolled discharge into the sea of such substances:

- .1 the International Bulk Chemical Code when the chemical tanker is constructed on or after 1 July 1986; or
- .2 the Bulk Chemical Code as referred to in paragraph 1.7.2 of that Code for:
 - .1 ships for which the building contract is placed on or after 2 November 1973 but constructed before 1 July 1986, and which are engaged on voyages to ports or terminals under the jurisdiction of other States Parties to the Convention; and
 - .2 ships constructed on or after 1 July 1983 but before 1 July 1986, which are engaged solely on voyages between ports or terminals within the State the flag of which the ship is entitled to fly.
- .3 The Bulk Chemical Code as referred to in paragraph 1.7.3 of that Code for:
 - .1 ships for which the building contract is placed before 2 November 1973 and which are engaged on voyages to ports or terminals under the jurisdiction of other States Parties to the Convention; and
 - .2 ships constructed before 1 July 1983, which are solely engaged on, voyages between ports or terminals within the State the flag of which the ship is entitled to fly.

2 In respect of ships other than chemical tankers or liquefied gas carriers certified to carry Noxious Liquid Substances in bulk identified in chapter 17 of the International Bulk Chemical Code, the Administration shall establish appropriate measures based on the Guidelines developed by the Organization in order to ensure that the provisions shall be such as to minimize the uncontrolled discharge into the sea of such substances.

Regulation 12*Pumping, piping, unloading arrangements and slop tanks*

1 Every ship constructed before 1 July 1986 shall be provided with a pumping and piping arrangement to ensure that each tank certified for the carriage of substances in Category X or Y does not retain a quantity of residue in excess of 300 litres in the tank and its associated piping and that each tank certified for the carriage of substances in Category Z does not retain a quantity of residue in excess of 900 litres in the tank and its associated piping. A performance test shall be carried out in accordance with appendix 5 of this Annex.

2 Every ship constructed on or after 1 July 1986 but before 1 January 2007 shall be provided with a pumping and piping arrangement to ensure that each tank certified for the carriage of substances in Category X or Y does not retain a quantity of residue in excess of 100 litres in the tank and its associated piping and that each tank certified for the carriage of

substances in Category Z does not retain a quantity of residue in excess of 300 litres in the tank and its associated piping. A performance test shall be carried out in accordance with appendix 5 of this Annex.

3 Every ship constructed on or after 1 January 2007 shall be provided with a pumping and piping arrangement to ensure that each tank certified for the carriage of substances in Category X, Y or Z does not retain a quantity of residue in excess of 75 litres in the tank and its associated piping. A performance test shall be carried out in accordance with appendix 5 of this Annex.

4 For a ship other than a chemical tanker constructed before 1 January 2007 which cannot meet the requirements for the pumping and piping arrangements for substances in Category Z referred to in paragraphs 1 and 2 of this regulation no quantity requirement shall apply. Compliance is deemed to be reached if the tank is emptied to the most practicable extent.

5 Pumping performance tests referred to in paragraphs 1, 2 and 3 of this regulation shall be approved by the Administration. Pumping performance tests shall use water as the test medium.

6 Ships certified to carry substances of Category X, Y or Z shall have an underwater discharge outlet (or outlets).

7 For ships constructed before 1 January 2007 and certified to carry substances in Category Z an underwater discharge outlet as required under paragraph 6 of this regulation is not mandatory.

8 The underwater discharge outlet (or outlets) shall be located within the cargo area in the vicinity of the turn of the bilge and shall be so arranged as to avoid the re-intake of residue/water mixtures by the ship's seawater intakes.

9 The underwater discharge outlet arrangement shall be such that the residue/water mixture discharged into the sea will not pass through the ship's boundary layer. To this end, when the discharge is made normal to the ship's shell plating, the minimum diameter of the discharge outlet is governed by the following equation:

$$d = \frac{Q_d}{5L_d}$$

where:

d	=	minimum diameter of the discharge outlet (m)
L _d	=	distance from the forward perpendicular to the discharge outlet (m)
Q _d	=	the maximum rate selected at which the ship may discharge a residue/water mixture through the outlet (m ³ /h).

10 When the discharge is directed at an angle to the ship's shell plating, the above relationship shall be modified by substituting for Q_d the component of Q_d which is normal to the ship's shell plating.

11 *Slop tanks*

Although this Annex does not require the fitting of dedicated slop tanks, slop tanks may be needed for certain washing procedures. Cargo tanks may be used as slop tanks.

CHAPTER 5 - OPERATIONAL DISCHARGES OF RESIDUES OF NOXIOUS LIQUID SUBSTANCES

Regulation 13

Control of discharges of residues of Noxious Liquid Substances

Subject to the provisions of regulation 3 of this Annex the control of discharges of residues of Noxious Liquid Substances or ballast water, tank washings or other mixtures containing such substances shall be in compliance with the following requirements.

1 *Discharge provisions*

1.1 The discharge into the sea of residues of substances assigned to Category X, Y or Z or of those provisionally assessed as such or ballast water, tank washings or other mixtures containing such substances shall be prohibited unless such discharges are made in full compliance with the applicable operational requirements contained in this Annex.

1.2 Before any prewash or discharge procedure is carried out in accordance with this regulation, the relevant tank shall be emptied to the maximum extent in accordance with the procedures prescribed in the Manual.

1.3 The carriage of substances which have not been categorized, provisionally assessed or evaluated as referred to in regulation 6 of this Annex or of ballast water, tank washings or other mixtures containing such residues shall be prohibited along with any consequential discharge of such substances into the sea.

2 *Discharge standards*

2.1 Where the provisions in this regulation allow the discharge into the sea of residues of substances in Category X, Y or Z or of those provisionally assessed as such or ballast water, tank washings or other mixtures containing such substances the following discharge standards shall apply:

- .1 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;
- .2 the discharge is made below the waterline through the underwater discharge outlet(s) not exceeding the maximum rate for which the underwater discharge outlet(s) is (are) designed; and
- .3 the discharge is made at a distance of not less than 12 nautical miles from the nearest land in a depth of water of not less than 25 metres.

2.2 For ships constructed before 1 January 2007 the discharge into the sea of residues of substances in Category Z or of those provisionally assessed as such or ballast water, tank washings or other mixtures containing such substances below the waterline is not mandatory.

2.3 The Administration may waive the requirements of paragraph 2.1.3 for substances in Category Z, regarding the distance of not less than 12 nautical miles from the nearest land for 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. In addition, the Administration may waive the same requirement regarding the discharge distance of not less than 12 nautical miles from the nearest land for a particular ship entitled to fly the flag of their State, when engaged in voyages within waters subject to the sovereignty or jurisdiction of one adjacent state after the establishment of an agreement, in writing, of a waiver between the two coastal States involved provided that no third party will be affected. Information on such agreement shall be communicated to the Organization within 30 days for further circulation to the Parties to the Convention for their information and appropriate action if any.

3 *Ventilation of cargo residues*

Ventilation procedures approved by the Administration may be used to remove cargo residues from a tank. Such procedures shall be in accordance with appendix 7 of this Annex. Any water subsequently introduced into the tank shall be regarded as clean and shall not be subject to the discharge requirements in this Annex.

4 *Exemption for a prewash*

On request of the ship's master an exemption for a prewash may be granted by the Government of the receiving Party, where it is satisfied that:

- .1 the unloaded tank is to be reloaded with the same substance or another substance compatible with the previous one and that the tank will not be washed or ballasted prior to loading; or
- .2 the unloaded tank is neither washed nor ballasted at sea. The prewash in accordance with the applicable paragraph of this regulation shall be carried out at another port provided that it has been confirmed in writing that a reception facility at that port is available and is adequate for such a purpose; or
- .3 the cargo residues will be removed by a ventilation procedure approved by the Administration in accordance with appendix 7 of this Annex.

5 *The use of cleaning agents or additives*

5.1 When a washing medium other than water, such as mineral oil or chlorinated solvent, is used instead of water to wash a tank, its discharge shall be governed by the provisions of either Annex I or Annex II, which would apply to the medium had it been carried as cargo. Tank washing procedures involving the use of such a medium shall be set out in the Manual and be approved by the Administration.

5.2 When small amounts of cleaning additives (detergent products) are added to water in order to facilitate tank washing, no additives containing Pollution Category X components shall be used except those components that are readily biodegradable and present in a total concentration of less than 10% of the cleaning additive. No restrictions additional to those applicable to the tank due to the previous cargo shall apply.

6 *Discharge of residues of Category X*

6.1 Subject to the provision of paragraph 1, the following provisions shall apply:

- .1 A tank from which a substance in Category X has been unloaded, shall be prewashed before the ship leaves the port of unloading. The resulting residues shall be discharged to a reception facility until the concentration of the substance in the effluent to such facility, as indicated by analyses of samples of the effluent taken by the surveyor, is at or below 0.1% by weight. When the required concentration level 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 endorsed by the surveyor referred to in regulation 16.1.
- .2 Any water subsequently introduced into the tank may be discharged into the sea in accordance with the discharge standards in regulation 13.2.
- .3 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 obtain the required concentration in regulation 13.6.1.1 provided that:
 - .1 the tank is prewashed in accordance with a procedure approved by the Administration in compliance with appendix 6 of this Annex; and
 - .2 appropriate entries shall be made in the Cargo Record Book and endorsed by the surveyor referred to in regulation 16.1.

7 *Discharge of residues of Category Y and Z*

7.1 Subject to the provision of paragraph 1, the following provisions shall apply:

- .1 With respect to the residue discharge procedures for substances in Category Y or Z the discharge standards in regulation 13.2 shall apply.
- .2 If the unloading of a substance of Category Y or Z is not carried out in accordance with the Manual, a prewash shall be carried out before the ship leaves the port of unloading, unless alternative measures are taken to the satisfaction of the surveyor referred to in regulation 16. 1 of this Annex to remove the cargo residues from the ship to quantities specified in this Annex. The resulting tank washings of the prewash shall be discharged to a reception facility at the port of unloading or another port with a suitable reception facility provided that it has been confirmed in writing that a reception facility at that port is available and is adequate for such a purpose.
- .3 For High-Viscosity or Solidifying Substances in Category Y the following shall apply:

- .1 a prewash procedure as specified in appendix 6 shall be applied;
- .2 the residue/water mixture generated during the prewash shall be discharged to a reception facility until the tank is empty; and
- .3 any water subsequently introduced into the tank may be discharged into the sea in accordance with the discharge standards in regulation 13.2.

7.2 Operational requirements for ballasting and deballasting

7.2.1 After unloading, and, if required, after a prewash, a cargo tank may be ballasted. Procedures for the discharge of such ballast are set out in regulation 13.2.

7.2.2 Ballast introduced into a cargo tank which has been washed to such an extent that the ballast contains less than 1 ppm of the substance previously carried, may be discharged into the sea without regard to the discharge rate, ship's speed and discharge outlet location, provided that the ship is not less than 12 miles from the nearest land and in water that is not less than 25 metres deep. The required degree of cleanliness has been achieved when a prewash as specified in appendix 6 has been carried out and the tank has been subsequently washed with a complete cycle of the cleaning machine for ships built before 1 July 1994 or with a water quantity not less than that calculated with $k=1.0$.

7.2.3 The discharge into the sea of clean or segregated ballast shall not be subject to the requirements of this Annex.

8 Discharges in the Antarctic Area

8.1 *Antarctic Area* means the sea area south of latitude 60°S.

8.2 In the Antarctic area any discharge into the sea of Noxious Liquid Substances or mixtures containing such substances is prohibited.

Regulation 14

Procedures and Arrangements Manual

1 Every ship certified to carry substances of Category X, Y or Z shall have on board a Manual approved by the Administration. The Manual shall have a standard format in compliance with appendix 4 to this Annex. In the case of a ship engaged in international voyages on which the language used is not English, French or Spanish, the text shall include a translation into one of these languages.

2 The main purpose of the Manual is to identify for the ship's officers the physical arrangements and all the operational procedures with respect to cargo handling, tank cleaning, slops handling and cargo tank ballasting and deballasting which must be followed in order to comply with the requirements of this Annex.

Regulation 15*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 logbook or otherwise, in the form specified in appendix 2 to this Annex.

2 After completion of any operation specified in appendix 2 to this Annex, the operation shall be promptly recorded in the Cargo Record Book.

3 In the event of an accidental discharge of a noxious liquid substance or a mixture containing such a substance or a discharge under the provisions of regulation 3 of this Annex, an entry shall be made in the Cargo Record Book stating the circumstances of, and the reason for, the discharge.

4 Each entry shall be signed by the officer or officers in charge of the operation concerned and each page shall be signed by the master of the ship. The entries in the Cargo Record Book, for ships holding an International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk or a certificate referred to in regulation 7 of this Annex shall be at least in English, French or Spanish. Where entries in an official national language of the State whose flag the ship is entitled to fly are also used, this shall prevail in case of a dispute or discrepancy.

5 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 three years after the last entry has been made.

6 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.

CHAPTER 6 – MEASURES OF CONTROL BY PORT STATES

Regulation 16

Measures of control

1 The Government of each Party to the Convention shall appoint or authorize surveyors for the purpose of implementing this regulation. The surveyors shall execute control in accordance with control procedures developed by the Organization.

2 When a surveyor appointed or authorized by the Government of the Party to the Convention has verified that an operation has been carried out in accordance with the requirements of the Manual, or has granted an exemption for a prewash, then that surveyor shall make an appropriate entry in the Cargo Record Book.

3 The master of a ship certified to carry Noxious Liquid Substances in bulk shall ensure that the provisions of regulation 13 and of this regulation have been complied with and that the Cargo Record Book is completed in accordance with regulation 15 whenever operations as referred to in that regulation take place.

4 A tank which has carried a Category X substance shall be prewashed in accordance with regulation 13.6. The appropriate entries of these operations shall be made in the Cargo Record Book and endorsed by the surveyor referred to under paragraph 1 of this regulation.

5 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 the alternative procedure referred to in regulation 13.6.3 provided that the surveyor referred to under paragraph 1 of this regulation certifies in the Cargo Record Book that:

- .1 the tank, its pump and piping systems have been emptied; and
- .2 the prewash has been carried out in accordance with the provisions of appendix 6 of this Annex; and
- .3 the tank washing resulting from such prewash have been discharged to a reception facility and the tank is empty.

6 At the request of the ship's master, the Government of the receiving Party may exempt the ship from the requirements for a prewash referred to in the applicable paragraphs of regulation 13, when one of the conditions of regulation 13.4 is met.

7 An exemption referred to in paragraph 6 of this regulation may only be granted by the Government of the receiving Party to a ship engaged in voyages to ports or terminals under the jurisdiction of other States Parties to the present Convention. When such an exemption has been granted, the appropriate entry made in the Cargo Record Book shall be endorsed by the surveyor referred to in paragraph 1 of this regulation.

8 If the unloading is not carried out in accordance with the pumping conditions for the tank approved by the Administrations and based on appendix 5 of this Annex, alternative measures may be taken to the satisfaction of the surveyor referred to in paragraph 1 of this regulation to remove the cargo residues from the ship to quantities specified in regulation 12 as applicable. The appropriate entries shall be made in the Cargo Record Book.

9 *Port State control on operational requirements*

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

9.2 In the circumstances given in paragraph 9.1 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.

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

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

CHAPTER 7 - PREVENTION OF POLLUTION ARISING FROM AN INCIDENT INVOLVING NOXIOUS LIQUID SUBSTANCES

Regulation 17

Shipboard marine pollution emergency plan for Noxious Liquid Substances

1 Every ship of 150 gross tonnage and above certified to carry Noxious Liquid Substances in bulk shall carry on board a shipboard marine pollution emergency plan for Noxious Liquid Substances approved by the Administration.

2 Such a plan shall be based on the Guidelines developed by the Organization and written in a working language or languages understood by the master and officers. The plan shall consist at least of:

- .1 the procedure to be followed by the master or other persons having charge of the ship to report a Noxious Liquid Substances pollution incident, as required in article 8 and Protocol I of the present Convention, based on the Guidelines developed by the Organization;
- .2 the list of authorities or persons to be contacted in the event of a Noxious Liquid Substances pollution incident;
- .3 a detailed description of the action to be taken immediately by persons on board to reduce or control the discharge of Noxious Liquid Substances following the incident; and
- .4 the procedures and point of contact on the ship for co-ordinating shipboard action with national and local authorities in combating the pollution.

3 In the case of ships to which regulation 37 of Annex I of the Convention also applies, such a plan may be combined with the shipboard oil pollution emergency plan required under regulation 37 of Annex I of the Convention. In this case, the title of such a plan shall be “Shipboard marine pollution emergency plan”.

CHAPTER 8 - RECEPTION FACILITIES

Regulation 18

Reception facilities and cargo unloading terminal arrangements

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:

- .1 ports and terminals involved in ships' cargo handling shall have adequate facilities for the reception of residues and mixtures containing such residues of Noxious Liquid Substances resulting from compliance with this Annex, without undue delay for the ships involved.
- .2 ship repair ports undertaking repairs to NLS tankers shall provide facilities adequate for the reception of residues and mixtures containing Noxious Liquid Substances for ships calling at that port.

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 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 paragraph 1 of this regulation will be fulfilled and from which the requirements of the applicable paragraphs of regulation 13 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.

4 The Government of each Party to the Convention shall undertake to ensure that cargo unloading terminals shall provide arrangements to facilitate stripping of cargo tanks of ships unloading Noxious Liquid Substances at these terminals. Cargo hoses and piping systems of the terminal, containing Noxious Liquid Substances received from ships unloading these substances at the terminal, shall not be drained back to the ship.

5 Each Party shall notify the Organization, for transmission to the Parties concerned, of any case where facilities required under paragraph 1 or arrangements required under paragraph 3 of this regulation are alleged to be inadequate.

APPENDICES TO ANNEX II

APPENDIX 1

GUIDELINES FOR THE CATEGORIZATION OF NOXIOUS LIQUID SUBSTANCES

Products are assigned to Pollution Categories based on an evaluation of their properties as reflected in the resultant GESAMP Hazard Profile as shown in the table below:

Rule	A1 Bio- accumulation	A2 Bio- degradation	B1 Acute toxicity	B2 Chronic toxicity	D3 Long-term health effects	E2 Effects on marine wildlife and on benthic habitats	Cat
1			≥ 5				X
2	≥ 4		4				
3		NR	4				
4	≥ 4	NR			CMRTNI		
5			4				Y
6			3				
7			2				
8	≥ 4	NR		Not 0			
9				≥ 1			
10						Fp,F or S If not Inorganic	
11					CMRTNI		
12	Any product not meeting the criteria of rules 1 to 11 and 13						Z
13	All products identified as: ≤ 2 in column A1; R in column A2; blank in column D3; not Fp, F or S (if not organic) in column E2; and 0 (zero) in all other columns of the GESAMP Hazard Profile						OS

Abbreviated legend to the revised GESAMP Hazard Evaluation Procedure

Columns A and B - Aquatic Environment					
	A		B		
	Bioaccumulation and Biodegradation		Aquatic Toxicity		
Numerical Rating	A 1 [*] Bioaccumulation		A 2 [*] Biodegradation	B 1 [*] Acute Toxicity	B 2 [*] Chronic Toxicity
	log Pow	BCF		LC/EC/IC ₅₀ (mg/l)	NOEC (mg/l)
0	<1 or > ca. 7	not measurable	R: readily biodegradable NR: not readily Biodegradable	>1000	>1
1	≥1 - <2	≥1 - <10		>100 - ≤1000	>0.1 - ≤1
2	≥2 - <3	≥10 - <100		>10 - ≤100	>0.01 - ≤0.1
3	≥3 - >4	≥100 - <500		>1 - ≤10	>0.001 - ≤0.01
4	≥4 - <5	≥500 - <4000		>0.1 - ≤1	≤0.001
5	≥5	≥4000		>0.01 - ≤0.1	
6				≤0.01	

Columns C and D - Human Health (Toxic effects to mammals)						
	C			D		
	Acute Mammalian Toxicity			Irritation, Corrosion & Long term health effects		
Numerical Ratings	C 1 Oral Toxicity LD ₅₀ (mg/kg)	C 2 Percutaneous Toxicity LD ₅₀ (mg/kg)	C 3 Inhalation Toxicity LC ₅₀ (mg/l)	D 1 Skin irritation & corrosion	D 2 Eye irritation & corrosion	D3 [*] Long term health effects
0	>2000	>2000	>20	not irritating	not irritating	C - Carcinogen M - Mutagenic R - Reprotoxic S - Sensitizing A - Aspiration haz. T - Target organ systemic toxicity L - Lung injury N - Neurotoxic I - Immunotoxic
1	>300 - ≤2000	>1000 - ≤2000	>10 - ≤20	mildly irritating	mildly irritating	
2	>50 - ≤300	>200 - ≤1000	>2 - ≤10	irritating	irritating	
3	>5 - ≤50	>50 - ≤200	>0.5 - ≤2	3 Severely irritating or corrosive 3A Corr. (≤4hr) 3B Corr. (≤1hr) 3C Corr. (≤3m)	severely irritating	
4	≤5	≤50	≤0.5			

Column E Interferences with other Uses of the Sea			
E 1 Tainting	E 2 [*] Physical effects on Wildlife & benthic habitats	E 3 Interference with Coastal Amenities	
		Numerical Rating	Description & Action
NT: not tainting (tested) T: tainting test positive	Ep: Persistent Floater F: Floater S: Sinking Substances	0	no interference no warning
		1	slightly objectionable warning, no closure of amenity
		2	moderately objectionable possible closure of amenity
		3	highly objectionable closure of amenity

* These columns are used to define Pollution Categories

APPENDIX 2

FORM OF CARGO RECORD BOOK FOR SHIPS CARRYING
NOXIOUS LIQUID SUBSTANCES IN BULK

CARGO RECORD BOOK FOR SHIPS
CARRYING NOXIOUS LIQUID SUBSTANCES IN BULK

Name of ship.....

Distinctive number or letters.....

IMO Number.....

Gross tonnage.....

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

Distinctive number or letters.....

The diagram shows a vertical cross-section of a ship's hull. It is divided into three main horizontal sections. The top section is a curved, triangular shape representing the bow. The middle section is a large, empty rectangular area representing the main hull volume. The bottom section is a curved, inverted triangular shape representing the stern. A horizontal line near the bottom of the hull section is labeled "Pump-room".

[illegible]

(Give the capacity of each tank in cubic metres)

INTRODUCTION

The following pages show a comprehensive list of items of cargo and ballast operations which are, when appropriate, to be recorded in the Cargo Record Book on a tank to tank basis in accordance with regulation 15.2 of Annex II of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78), as amended. The items have been grouped into operational sections, each of which is denoted by a letter.

When making entries in the Cargo Record Book, the date, operational code and item number shall be inserted in the appropriate columns and the required particulars shall be recorded chronologically in the blank spaces.

Each completed operation shall be signed for and dated by the officer or officers in charge and, if applicable, by a surveyor authorized by the competent authority of the State in which the ship is unloading. Each completed page shall be countersigned by the master of the ship.

List of items to be recorded

Entries are required for operations involving all Categories of substances.

(A) Loading of cargo

- 1 Place of loading.
- 2 Identify tank(s), name of substance(s) and Category(ies).

(B) Internal transfer of cargo

- 3 Name and Category of cargo(es) transferred.
- 4 Identity of tanks:
 - .1 from :
 - .2 to :
- 5 Was (were) tank(s) in 4.1 emptied?
- 6 If not, quantity remaining in tank(s).

(C) Unloading of cargo

- 7 Place of unloading.
- 8 Identity of tank(s) unloaded.
- 9 Was (were) tank(s) emptied?
 - .1 If yes, confirm that the procedure for emptying and stripping has been performed in accordance with the ship's Procedures and Arrangements Manual (i.e. list, trim, stripping temperature).
 - .2 If not, quantity remaining in tank(s).
- 10 Does the ship's Procedures and Arrangements Manual require a prewash with subsequent disposal to reception facilities?
- 11 Failure of pumping and/or stripping system:
 - .1 time and nature of failure;
 - .2 reasons for failure;
 - .3 time when system has been made operational.

(D) Mandatory prewash in accordance with the ship's Procedures and Arrangements Manual

- 12 Identify tank(s), substance(s) and Category(ies).
- 13 Washing method:
 - .1 number of cleaning machines per tank;
 - .2 duration of wash/washing cycles;
 - .3 hot/cold wash.
- 14 Prewash slops transferred to:
 - .1 reception facility in unloading port (identify port)*;
 - .2 reception facility otherwise (identify port)*.

(E) Cleaning of cargo tanks except mandatory prewash (other prewash operations, final wash, ventilation etc.)

- 15 State time, identify tank(s), substance(s) and Category(ies) and state:
 - .1 washing procedure used;
 - .2 cleaning agent(s) (identify agent(s) and quantities);
 - .3 ventilation procedure used (state number of fans used, duration of ventilation).
- 16 Tank washings transferred:
 - .1 into the sea;
 - .2 to reception facility (identify port)*;
 - .3 to slops collecting tank (identify tank).

(F) Discharge into the sea of tank washings

- 17 Identify tank(s):
 - .1 Were tank washings discharged during cleaning of tank(s)? If so at what rate?
 - .2 Were tank washing(s) discharged from a slops collecting tank? If so, state quantity and rate of discharge.

* Ship's masters should obtain from the operator of the reception facilities, which include barges and tank trucks, a receipt or certificate specifying the quantity of tank washings transferred, together with the time and date of the transfer. The receipt or certificate should be kept together with the cargo record book.

18 Time pumping commenced and stopped.

19 Ship's speed during discharge.

(G) Ballasting of cargo tanks

20 Identity of tank(s) ballasted.

21 Time at start of ballasting.

(H) Discharge of ballast water from cargo tanks

22 Identity of tank(s).

23 Discharge of ballast:

.1 into the sea;

.2 to reception facilities (identify port) *.

24 Time ballast discharge commenced and stopped.

25 Ship's speed during discharge.

(I) Accidental or other exceptional discharge

26 Time of occurrence.

27 Approximate quantity, substance(s) and Category(ies).

28 Circumstances of discharge or escape and general remarks.

(J) Control by authorized surveyors

29 Identify port.

30 Identify tank(s), substance(s), Category(ies) discharged ashore.

31 Have tank(s), pump(s), and piping system(s) been emptied?

32 Has a prewash in accordance with the ship's Procedures and Arrangements Manual been carried out?

33 Have tank washings resulting from the prewash been discharged ashore and is the tank empty?

34 An exemption has been granted from mandatory prewash.

35 Reasons for exemption.

* Ship's masters should obtain from the operator of the reception facilities, which include barges and tank trucks, a receipt or certificate specifying the quantity of tank washings transferred, together with the time and date of the transfer. The receipt or certificate should be kept together with the cargo record book.

36 Name and signature of authorized surveyor.

37 Organization, company, government agency for which surveyor works.

(K) Additional operational procedures and remarks

IMO Number.....

Signature of master.....

APPENDIX 3

FORM OF INTERNATIONAL POLLUTION PREVENTION CERTIFICATE FOR THE
CARRIAGE OF NOXIOUS LIQUID SUBSTANCES IN BULK*INTERNATIONAL POLLUTION PREVENTION CERTIFICATE FOR
THE CARRIAGE OF NOXIOUS LIQUID SUBSTANCES IN BULK

Issued under the provisions of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto, as amended (hereinafter referred to as “the Convention”) under the authority of the Government of:

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

by.....
(full designation of the competent person or organization authorized under
the provisions of the Convention)

Particulars of ship

Name of ship

Distinctive number or letters.....

IMO Number[†].....

Port of registry.....

Gross tonnage.....

* The NLS Certificate shall be at least in English, French or Spanish. Where entries in an official national language of the State whose flag is entitled to fly are also used, this shall prevail in case of a dispute or discrepancy.

[†] Refer to the IMO Ship Identification Number Scheme adopted by the Organization by resolution A.600(15).

THIS IS TO CERTIFY:

- 1 That the ship has been surveyed in accordance with regulation 8 of Annex II of the Convention.
- 2 That the survey showed that the structure, equipment, systems, fitting, arrangements and material of the ship and the condition thereof are in all respects satisfactory and that the ship complies with the applicable requirements of Annex II of the Convention.
- 3 That the ship has been provided with a Procedures and Arrangements Manual as required by regulation 14 of Annex II of the Convention, and that the arrangements and equipment of the ship prescribed in the Manual are in all respects satisfactory
- 4 That the ship complies with the requirements of Annex II to MARPOL 73/78 for the carriage in bulk of the following Noxious Liquid Substances, provided that all relevant provisions of Annex II are observed.

Noxious Liquid Substances	Conditions of carriage (tank numbers etc.)	Pollution Category
Continued on additional signed and dated sheets		

This certificate is valid until subject to surveys in accordance with regulation 8 of Annex II of the Convention.

Completion date of the survey on which this certificate is based (dd/mm/yyyy):

Issued at.....

(Place of issue of certificate)

.....
(Date of issue)

.....
(Signature of duly authorized official issuing the certificate)

(Seal or stamp of the authority, as appropriate)

ENDORSEMENT FOR ANNUAL AND INTERMEDIATE SURVEYS

THIS IS TO CERTIFY that, at a survey required by regulation 8 of Annex II of the Convention, the ship was found to comply with the relevant provisions of the Convention:

Annual survey: Signed.....
(Signature of duly authorized official)
Place.....
Date (dd/mm/yyyy):

(Seal or stamp of the authority, as appropriate)

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

(Seal or stamp of the authority, as appropriate)

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

(Seal or stamp of the authority, as appropriate)

Annual survey: Signed.....
(Signature of duly authorized official)
Place.....
Date (dd/mm/yyyy):

(Seal or stamp of the authority, as appropriate)

* Delete as appropriate.

ANNUAL/INTERMEDIATE SURVEY IN ACCORDANCE WITH REGULATION 10.8.3

THIS IS TO CERTIFY that, at an annual/intermediate survey* in accordance with regulation 10.8.3 of Annex II of the Convention, the ship was found to comply with the relevant provisions of the Convention:

Signed.....
(Signature of duly authorized official)
Place.....
Date (dd/mm/yyyy):

(Seal or stamp of the authority, as appropriate)

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

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

Signed.....
(Signature of duly authorized official)
Place.....
Date (dd/mm/yyyy):

(Seal or stamp of the authority, as appropriate)

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

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

Signed.....
(Signature of duly authorized official)
Place.....
Date (dd/mm/yyyy):

(Seal or stamp of the authority, as appropriate)

* Delete as appropriate.

**ENDORSEMENT TO EXTEND THE VALIDITY OF THE CERTIFICATE
UNTIL REACHING THE PORT OF SURVEY OR FOR A PERIOD
OF GRACE WHERE REGULATION 10.5 OR 10.6 APPLIES**

This Certificate shall, in accordance with regulation 10.5 or 10.6* of Annex II of the Convention, be accepted as valid until (dd/mm/yyyy):

Signed.....

(Signature of duly authorized official)

Place.....

Date (dd/mm/yyyy):

(Seal or stamp of the authority, as appropriate)

**ENDORSEMENT FOR ADVANCEMENT OF ANNIVERSARY DATE WHERE
REGULATION 10.8 APPLIES**

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

Signed.....

(Signature of duly authorized official)

Place.....

Date (dd/mm/yyyy):

(Seal or stamp of the authority, as appropriate)

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

Signed.....

(Signature of duly authorized official)

Place.....

Date (dd/mm/yyyy):

(Seal or stamp of the authority, as appropriate)

* Delete as appropriate.

APPENDIX 4**STANDARD FORMAT FOR THE PROCEDURES AND ARRANGEMENTS MANUAL**

- Note 1:* The format consists of a standardized introduction and index of the leading paragraphs to each section. This standardized part shall be reproduced in the Manual of each ship. It shall be followed by the contents of each section as prepared for the particular ship. When a section is not applicable, “NA” shall be entered, so as not to lead to any disruption of the numbering as required by the standard format. Where the paragraphs of the standard format are printed in *italics*, the required information shall be described for that particular ship. The contents will vary from ship to ship because of design, trade and intended cargoes. Where the text is not in italics, that text of the standard format shall be copied into the Manual without any modification.
- Note 2:* If the Administration requires or accepts information and operational instructions in addition to those outlined in this Standard Format, they shall be included in Addendum D of the Manual.

STANDARD FORMAT

MARPOL 73/78 ANNEX II PROCEDURES AND ARRANGEMENTS MANUAL

Name of ship:

Distinctive number or letters:

IMO Number.....

Port of registry:

Approval stamp of Administration:

INTRODUCTION

1 The International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (hereinafter referred to as MARPOL 73/78) was established in order to prevent the pollution of the marine environment by discharges into the sea from ships of harmful substances or effluents containing such substances. In order to achieve its aim, MARPOL 73/78 contains six Annexes in which detailed regulations are given with respect to the handling on board ships and the discharge into the sea or release into the atmosphere of six main groups of harmful substances, i.e. Annex I (Mineral oils), Annex II (Noxious Liquid Substances carried in bulk), Annex III (Harmful substances carried in packaged forms), Annex IV (Sewage), Annex V (Garbage) and Annex VI (Air Pollution).

2 Regulation 13 of Annex II of MARPOL 73/78 (hereinafter referred to as Annex II) prohibits the discharge into the sea of Noxious Liquid Substances of Categories X, Y or Z or of ballast water, tank washings or other residues or mixtures containing such substances, except in compliance with specified conditions including procedures and arrangements based upon standards developed by the International Maritime Organization (IMO) to ensure that the criteria specified for each Category will be met.

3 Annex II requires that each ship which is certified for the carriage of Noxious Liquid Substances in bulk shall be provided with a Procedures and Arrangements Manual, hereinafter referred to as the Manual.

4 This Manual has been written in accordance with Appendix 4 of Annex II and is concerned with the marine environmental aspects of the cleaning of cargo tanks and the discharge of residues and mixtures from these operations. The Manual is not a safety guide and reference shall be made to other publications specifically to evaluate safety hazards.

5 The purpose of the Manual is to identify the arrangements and equipment required to enable compliance with Annex II and to identify for the ship's officers all operational procedures with respect to cargo handling, tank cleaning, slops handling, residue discharging, ballasting and deballasting, which must be followed in order to comply with the requirements of Annex II.

6 In addition, this Manual, together with the ship's Cargo Record Book and the Certificate issued under Annex II*, will be used by Administrations for control purposes in order to ensure full compliance with the requirements of Annex II by this ship.

7 The master shall ensure that no discharges into the sea of cargo residues or residue/water mixtures containing Category X, Y or Z substances shall take place, unless such discharges are made in full compliance with the operational procedures contained in this Manual.

8 This Manual has been approved by the Administration and no alteration or revision shall be made to any part of it without the prior approval of the Administration.

* Include only the Certificate issued to the particular ship: i.e. The International Pollution Prevention Certificate for the carriage of Noxious Liquid Substances in bulk or the Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk or the International Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk.

INDEX OF SECTIONS

- 1 Main features of MARPOL 73/78, Annex II
- 2 Description of the ship's equipment and arrangements
- 3 Cargo unloading procedures and tank stripping
- 4 Procedures relating to the cleaning of cargo tanks, the discharge of residues, ballasting and deballasting
- 5 Information and Procedures

SECTION 1 Main features of MARPOL 73/78, Annex II

1.1 The requirements of Annex II apply to all ships carrying Noxious Liquid Substances in bulk. Substances posing a threat of harm to the marine environment are divided into three categories, X, Y and Z. Category X substances are those posing the greatest threat to the marine environment, whilst Category Z substances are those posing the smallest threat.

1.2 Annex II prohibits the discharge into the sea of any effluent containing substances falling under these categories, except when the discharge is made under conditions which are specified in detail for each Category. These conditions include, where applicable, such parameters as:

- .1 the maximum quantity of substances per tank which may be discharged into the sea;
- .2 the speed of the ship during the discharge;
- .3 the minimum distance from the nearest land during discharge;
- .4 the minimum depth of water at sea during discharge; and
- .5 the need to effect the discharge below the waterline.

1.3 For certain sea areas identified as “special area” more stringent discharge criteria apply. Under Annex II the special area is the Antarctic area.

1.4 Annex II requires that every ship is provided with pumping and piping arrangements to ensure that each tank designated for the carriage of Category X, Y and Z substances does not retain after unloading a quantity of residue in excess of the quantity given in the Annex. For each tank intended for the carriage of such substances an assessment of the residue quantity has to be made. Only when the residue quantity as assessed is less than the quantity prescribed by the Annex a tank may be approved for the carriage of a Category X, Y or Z substances.

1.5 In addition to the conditions referred to above, an important requirement contained in Annex II is that the discharge operations of certain cargo residues and certain tank cleaning and ventilation operations may only be carried out in accordance with approved procedures and arrangements.

1.6 To enable the requirement of paragraph 1.5 to be met, this Manual contains in section 2 all particulars of the ship's equipment and arrangements, in section 3 operational procedures for cargo unloading and tank stripping and in section 4 procedures for discharge of cargo residues, tank washing, slops collection, ballasting and deballasting as may be applicable to the substances the ship is certified to carry.

1.7 By following the procedures as set out in this Manual, it will be ensured that the ship complies with all relevant requirements of Annex II to MARPOL 73/78.

SECTION 2 Description of the ship's equipment and arrangements

2.1 This section contains all particulars of the ship's equipment and arrangements necessary to enable the crew to follow the operational procedures set out in sections 3 and 4.

2.2 General arrangement of ship and description of cargo tanks

This section shall contain a brief description of the cargo area of the ship with the main features of the cargo tanks and their positions.

Line or schematic drawings showing the general arrangement of the ship and indicating the position and numbering of the cargo tanks and heating arrangements shall be included.

2.3 Description of cargo pumping and piping arrangements and stripping system

This section shall contain a description of the cargo pumping and piping arrangements and of the stripping system. Line or schematic drawings shall be provided showing the following and be supported by textual explanation where necessary:

- .1 cargo piping arrangements with diameters;*
- .2 cargo pumping arrangements with pump capacities;*
- .3 piping arrangements of stripping system with diameters;*
- .4 pumping arrangements of stripping system with pump capacities;*
- .5 location of suction points of cargo lines and stripping lines inside every cargo tank;*
- .6 if a suction well is fitted, the location and cubic capacity thereof;*
- .7 line draining and stripping or blowing arrangements; and*
- .8 quantity and pressure of nitrogen or air required for line blowing if applicable.*

2.4 Description of ballast tanks and ballast pumping and piping arrangements

This section shall contain a description of the ballast tanks and ballast pumping and piping arrangements.

Line or schematic drawings and tables shall be provided showing the following:

- .1 a general arrangement showing the segregated ballast tanks and cargo tanks to be used as ballast tanks together with their capacities (cubic metres);*
- .2 ballast piping arrangement;*
- .3 pumping capacity for those cargo tanks which may also be used as ballast tanks; and*

- .4 *any interconnection between the ballast piping arrangements and the underwater outlet system.*

2.5 **Description of dedicated slop tanks with associated pumping and piping arrangements**

This section shall contain a description of the dedicated slop tank(s), if any, with the associated pumping and piping arrangements. Line or schematic drawings shall be provided showing the following:

- .1 *which dedicated slop tanks are provided together with the capacities of such tanks;*
- .2 *pumping and piping arrangements of dedicated slop tanks with piping diameters and their connection with the underwater discharge outlet.*

2.6 **Description of underwater discharge outlet for effluents containing Noxious Liquid Substances**

This section shall contain information on position and maximum flow capacity of the underwater discharge outlet (or outlets) and the connections to this outlet from the cargo tanks and slop tanks. Line or schematic drawings shall be provided showing the following:

- .1 *location and number of underwater discharge outlets;*
- .2 *connections to underwater discharge outlet;*
- .3 *location of all seawater intakes in relation to underwater discharge outlets.*

2.7 **Description of flow rate indicating and recording devices**

Deleted

2.8 **Description of cargo tank ventilation system**

This section shall contain a description of the cargo tank ventilation system.

Line or schematic drawings and tables shall be provided showing the following and supported by textual explanation if necessary:

- .1 *the Noxious Liquid Substances the ship is certified fit to carry having a vapour pressure over 5 kPa at 20°C suitable for cleaning by ventilation to be listed in paragraph 4.4.10 of the Manual;*
- .2 *ventilation piping and fans;*
- .3 *position of the ventilation openings;*
- .4 *the minimum flow rate of the ventilation system to adequately ventilate the bottom and all parts of the cargo tank;*
- .5 *the location of structures inside the tank affecting ventilation;*

- .6 *the method of ventilating the cargo pipeline system, pumps, filters, etc; and*
- .7 *means for ensuring that the tank is dry.*

2.9 Description of tank washing arrangements and wash water heating system

This section shall contain a description of the cargo tank washing arrangements, wash water heating system and all necessary tank washing equipment.

Line or schematic drawings and tables or charts showing the following:

- .1 *arrangements of piping dedicated for tank washing with pipeline diameters;*
- .2 *type of tank cleaning machines with capacities and pressure rating;*
- .3 *maximum number of tank cleaning machines which can operate simultaneously;*
- .4 *position of deck openings for cargo tank washing;*
- .5 *the number of cleaning machines and their location required for ensuring complete coverage of the cargo tank walls;*
- .6 *maximum capacity of wash water which can be heated to 60°C by the installed heating equipment; and*
- .7 *maximum number of tank cleaning machines which can be operated simultaneously at 60°C.*

SECTION 3 Cargo unloading procedures and tank stripping

3.1 This section contains operational procedures in respect of cargo unloading and tank stripping which must be followed in order to ensure compliance with the requirements of Annex II.

3.2 Cargo unloading

This section shall contain procedures to be followed including the pump and cargo unloading and suction line to be used for each tank. Alternative methods may be given.

The method of operation of the pump or pumps and the sequence of operation of all valves shall be given.

The basic requirement is to unload the cargo to the maximum extent.

3.3 Cargo tank stripping

This section shall contain procedures to be followed during the stripping of each cargo tank.

The procedures shall include the following:

- .1 operation of stripping system;
- .2 list and trim requirements;
- .3 line draining and stripping or blowing arrangements if applicable; and
- .4 duration of the stripping time of the water test.

3.4 Cargo temperature

This section shall contain information on the heating requirements of cargoes which have been identified as being required to be at a certain minimum temperature during unloading.

Information shall be given on control of the heating system and the method of temperature measurement.

3.5 Procedures to be followed when a cargo tank cannot be unloaded in accordance with the required procedures

This section shall contain information on the procedures to be followed in the event that the requirements contained in sections 3.3 and/or 3.4 cannot be met due to circumstances such as the following:

- .1 failure of cargo tank stripping system; and
- .2 failure of cargo tank heating system.

3.6 Cargo Record Book

The Cargo Record Book shall be completed in the appropriate places on completion of any cargo operation.

SECTION 4 Procedures relating to the cleaning of cargo tanks, the discharge of residues, ballasting and deballasting

4.1 This section contains operational procedures in respect of tank cleaning, ballast and slops handling which must be followed in order to ensure compliance with the requirements of Annex II.

4.2 The following paragraphs outline the sequence of actions to be taken and contain the information essential to ensure that Noxious Liquid Substances are discharged without posing a threat of harm to the marine environment.

4.3 Deleted

4.4 The information necessary to establish the procedures for discharging the residue of the cargo, cleaning, ballasting and deballasting the tank, shall take into account the following:

.1 Category of substance

The Category of the substance should be obtained from the relevant Certificate.

.2 Stripping efficiency of tank pumping system

The contents of this section will depend on the design of the ship and whether it is a new ship or existing ship (See flow diagram and pumping/stripping requirements).

.3 Vessel within or outside Special Area

This section shall contain instructions on whether the tank washings can be discharged into the sea within a special area (as defined in section 1.3) or outside a special area. The different requirements shall be made clear and will depend on the design and trade of the ship.

No discharges into the sea of residues of Noxious Liquid Substances, or mixtures containing such substances, are allowed within the Antarctic area (the sea area south of latitude 60°S).

.4 Solidifying or High-Viscosity Substance

The properties of the substance should be obtained from the shipping document.

.5 Miscibility with water

Deleted

.6 Compatibility with slops containing other substances

This section shall contain instructions on the permissible and non-permissible mixing of cargo slops. Reference should be made to compatibility guides.

.7 Discharge to reception facility

This section shall identify those substances the residues of which are required to be prewashed and discharged to a reception facility.

.8 Discharging into the sea

This section shall contain information on the factors to be considered in order to identify whether the residue/water mixtures are permitted to be discharged into the sea.

.9 Use of cleaning agents or additives

This section shall contain information on the use and disposal of cleaning agents (e.g. solvents used for tank cleaning) and additives to tank washing water (e.g. detergents).

.10 Use of ventilation procedures for tank cleaning

This section shall make reference to all substances suitable for the use of ventilation procedures.

4.5 Having assessed the above information, the correct operational procedures to be followed should be identified using the instructions and flow diagram of section 5. Appropriate entries shall be made in the Cargo Record Book indicating the procedure adopted.

SECTION 5 Information and procedures

This section shall contain procedures, which will depend on the age of the ship and pumping efficiency. Examples of flow diagram referred to in this section are given at addendum A and incorporate comprehensive requirements applicable to both new and existing ships. The Manual for a particular ship shall only contain those requirements specifically applicable to that ship.

Information relating to melting point and viscosity, for those substances which have a melting point equal to or greater than 0°C or a viscosity equal or greater than 50 mPa.s at 20°C, shall be obtained from the shipping document.

For substances allowed to be carried, reference is made to the relevant Certificate.

The Manual shall contain:

Table 1	:	Deleted
Table 2	:	Cargo tank information.
Addendum A	:	Flow diagram.
Addendum B	:	Prewash procedures.
Addendum C	:	Ventilation procedures.
Addendum D	:	Additional information and operational instructions when required or accepted by the Administration.

Outlines of the above table and addenda are shown below.

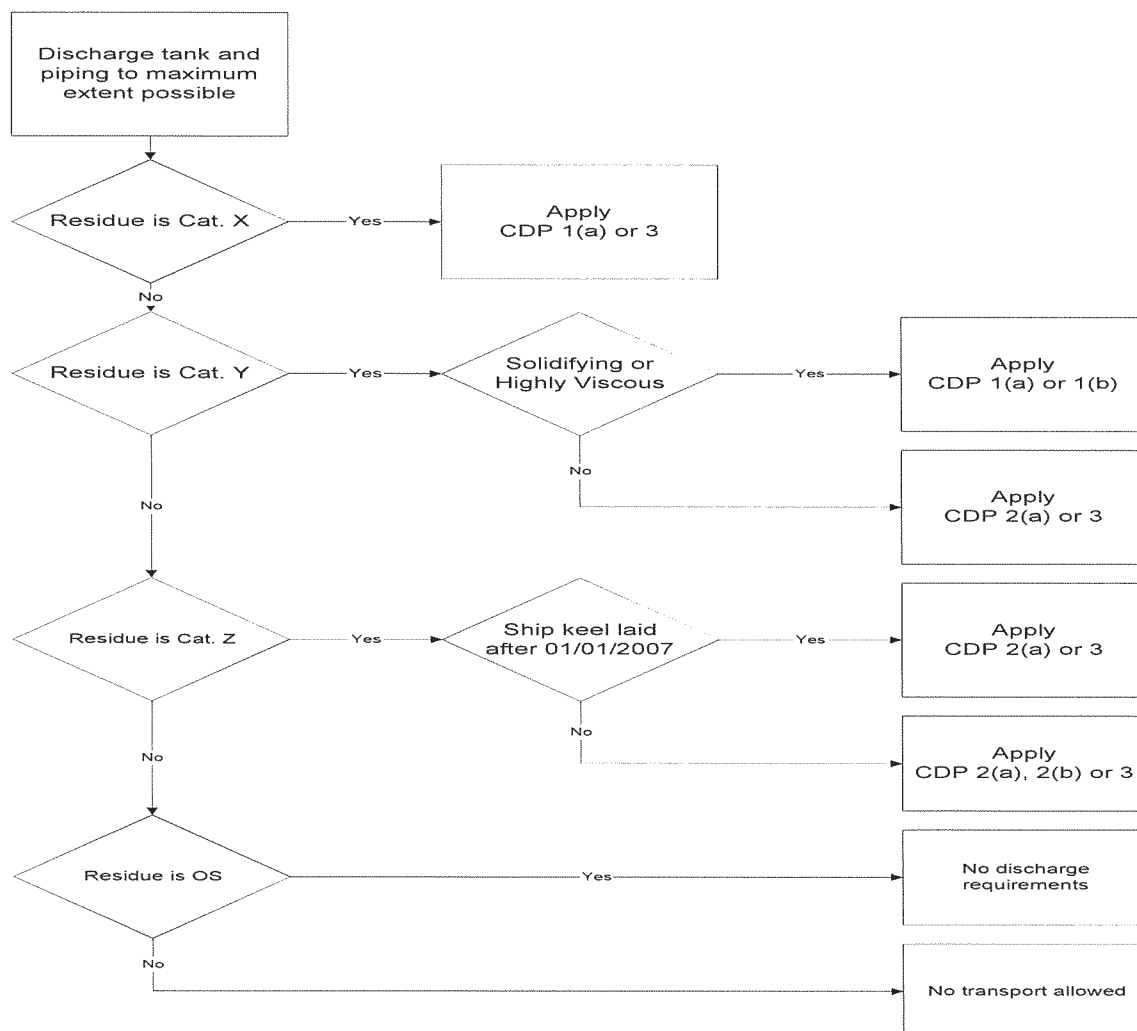
Table 2 - Cargo tank information

[illegible]

ADDENDUM A

FLOW DIAGRAMS -- CLEANING OF CARGO TANKS AND DISPOSAL OF TANK WASHINGS/BALLAST CONTAINING RESIDUES OF CATEGORY X,Y, AND Z SUBSTANCES

- Note 1 : This flow diagram shows the basic requirements applicable to all age groups of ships and is for guidance only.
- Note 2 : All discharges into the sea are regulated by Annex II.
- Note 3 : Within the Antarctic area, any discharge into the sea of Noxious Liquid Substances or mixtures containing such substances is prohibited.



<i>Ship details</i>	Stripping requirements (in litres)		
	Category X	Category Y	Category Z
New Ships: keel laid after 01/01/2007	75	75	75
IBC ships until 01/01/2007	100 + 50 tolerance	100 + 50 tolerance	300 + 50 tolerance
BCH ships	300 + 50 tolerance	300 + 50 tolerance	900 + 50 tolerance
Other ships: keel-laid before 01/01/2007	N/A	N/A	Empty to the most possible extent

Cleaning and disposal procedures (CDP)						
(Start at the top of the column under the CDP number specified and complete each item procedure in the sequence where marked)						
No.	Operation	Procedure Number				
		1(a)	1(b)	2(a)	2(b)	3
1	Strip tank and piping to maximum extent, at least in compliance with the procedures in section 3 of this Manual	X	X	X	X	X
2	Apply prewash in accordance with Addendum B of this Manual and discharge residue to reception facility	X	X			
3	Apply subsequent wash, additional to the prewash, with: a complete cycle of the cleaning machine(s) for ships built before 1 July 1994 a water quantity not less than calculated with “k”=1.0 for ships built on or after 1 July 1994		X			
4	Apply ventilation procedure in accordance with Addendum C of this Manual					X
5	Ballast tanks or wash tank to commercial standards	X		X	X	X
6	Ballast added to tank		X			
7	Conditions for discharge of ballast/residue/water mixtures other than prewash:					
	.1 distance from land > 12 nautical miles	X		X	X	
	.2 ship's speed > 7 knots	X		X	X	
	.3 water depth > 25 metres	X		X	X	
	.4 Using underwater discharge (not exceeding permissible discharge rate)	X		X		
8	Conditions for discharge of ballast:					
	.1 distance from land > 12 nautical miles		X			
	.2 water depth > 25 metres		X			
9	Any water subsequently introduced into a tank may be discharged into the sea without restrictions	X	X	X	X	X

ADDENDUM B**PREWASH PROCEDURES**

This addendum to the Manual shall contain prewash procedures based on appendix 6 of Annex II. These procedures shall contain specific requirements for the use of the tank washing arrangements and equipment provided on the particular ship and include the following:

- .1 cleaning machine positions to be used;*
- .2 slops pumping out procedure;*
- .3 requirements for hot washing;*
- .4 number of cycles of cleaning machine (or time); and*
- .5 minimum operating pressures.*

ADDENDUM C**VENTILATION PROCEDURES**

This addendum to the Manual shall contain ventilation procedures based on appendix 7 of Annex II. The procedures shall contain specific requirements for the use of the cargo tank ventilation system, or equipment, fitted on the particular ship and shall include the following:

- .1 ventilation positions to be used;*
- .2 minimum flow or speed of fans;*
- .3 procedures for ventilating cargo pipeline, pumps, filters, etc.; and*
- .4 procedures for ensuring that tanks are dry on completion.*

**ADDENDUM D - ADDITIONAL INFORMATION AND OPERATIONAL
INSTRUCTIONS REQUIRED OR ACCEPTED
BY THE ADMINISTRATION**

APPENDIX 5

ASSESSMENT OF RESIDUE QUANTITIES IN CARGO TANKS, PUMPS AND ASSOCIATED PIPING

1 Introduction

1.1 Purpose

1.1.1 The purpose of this appendix is to provide the procedure for testing the efficiency of cargo pumping systems.

1.2 Background

1.2.1 The ability of the pumping system of a tank to comply with regulation 12.1, 12.2 or 12.3 is determined by performing a test in accordance with the procedure set out in section 3 of this appendix. The quantity measured is termed the “stripping quantity”. The stripping quantity of each tank shall be recorded in the ship’s Manual.

1.2.2 After having determined the stripping quantity of one tank, the Administration may use the determined quantities for a similar tank, provided the Administration is satisfied that the pumping system in that tank is similar and operating properly.

2 Design criteria and performance test

2.1 The cargo pumping systems should be designed to meet the required maximum amount of residue per tank and associated piping as specified in regulation 12 of Annex II to the satisfaction of the Administration.

2.2 In accordance with regulation 12.5 the cargo pumping systems shall be tested with water to prove their performance. Such water tests shall, by measurement, show that the system meets the requirements of regulation 12. In respect of regulations 12.1 and 12.2 a tolerance of 50 litres per tank is acceptable.

3 Water performance test

3.1 Test condition

3.1.1 The ship’s trim and list shall be such as to provide favourable drainage to the suction point. During the water test the ship’s trim shall not exceed 3° by the stern, and the ship’s list shall not exceed 1°.

3.1.2 The trim and list chosen for the water test shall be recorded. This shall be the minimum favourable trim and list used during the water test.

3.1.3 During the water test means shall be provided to maintain a back-pressure of not less than 100 kPa at the cargo tank’s unloading manifold (see figures 5-1 and 5-2).

3.1.4 The time taken to complete the water test shall be recorded for each tank, recognizing that this may need to be amended as a result of subsequent tests.

3.2 Test procedure

3.2.1 Ensure that the cargo tank to be tested and its associated piping have been cleaned and that the cargo tank is safe for entry.

3.2.2 Fill the cargo tank with water to a depth necessary to carry out normal end of unloading procedures.

3.2.3 Discharge and strip water from the cargo tank and its associated piping in accordance with the proposed procedures.

3.2.4 Collect all water remaining in the cargo tank and its associated piping into a calibrated container for measurement. Water residues shall be collected, *inter alia*, from the following points:

- .1 the cargo tank suction and its vicinity;
- .2 any entrapped areas on the cargo tank bottom;
- .3 the low point drain of the cargo pump; and
- .4 all low point drains of piping associated with the cargo tank up to the manifold valve.

3.2.5 The total water volumes collected above determine the stripping quantity for the cargo tank.

3.2.6 Where a group of tanks is served by a common pump or piping, the water test residues associated with the common system(s) may be apportioned equally among the tanks provided that the following operational restriction is included in the ship's approved Manual: "For sequential unloading of tanks in this group, the pump or piping is not to be washed until all tanks in the group have been unloaded."

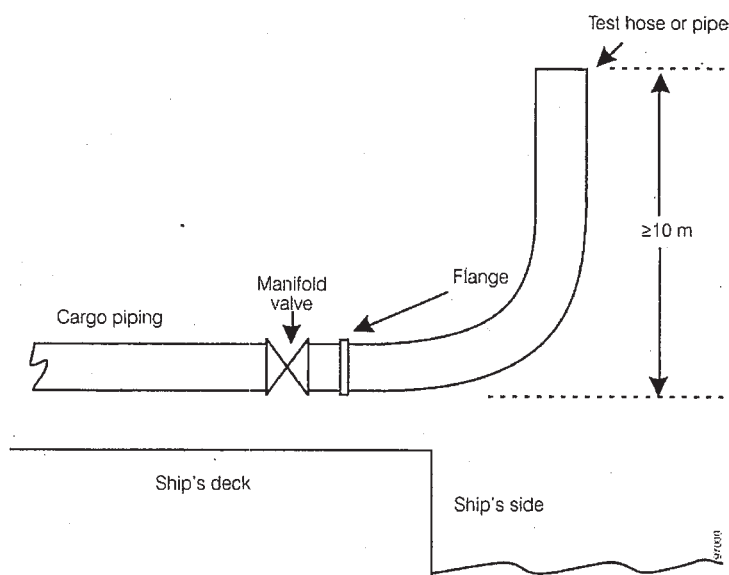


Figure 5-1

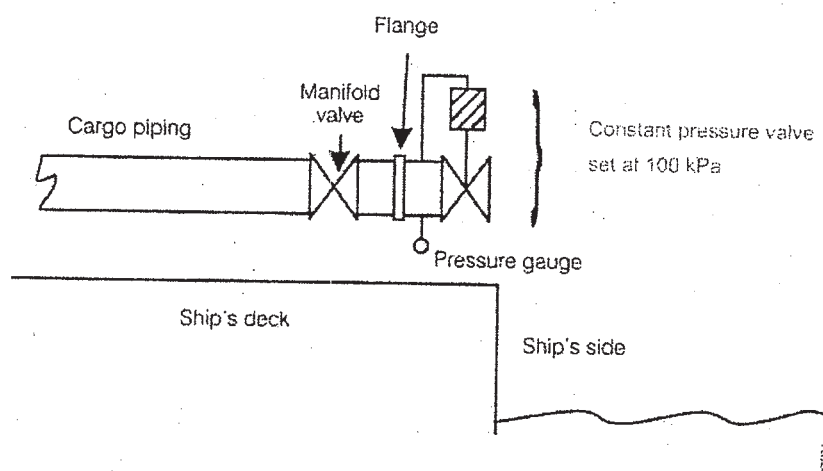


Figure 5-2

The above figures illustrate test arrangements that would provide a backpressure of not less than 100 kPa at the cargo tank's unloading manifold.

APPENDIX 6

PREWASH PROCEDURES

A For ships built before 1 July 1994

A prewash procedure is required in order to meet certain Annex II requirements. This appendix explains how these prewash procedures shall be performed.

Prewash procedures for non-Solidifying Substances

1 Tanks shall be washed by means of a rotary water jet, operated at sufficiently high water pressure. In the case of Category X substances cleaning machines shall be operated in such locations that all tank surfaces are washed. In the case of Category Y substances only one location need be used.

2 During washing the amount of water in the tank shall be minimized by continuously pumping out slops and promoting flow to the suction point (positive list and trim). If this condition cannot be met the washing procedure shall be repeated three times, with thorough stripping of the tank between washings.

3 Those substances which have a viscosity equal to or greater than 50 mPa.s at 20°C shall be washed with hot water (temperature at least 60°C), unless the properties of such substances make the washing less effective.

4 The number of cycles of the cleaning machine used shall not be less than that specified in table 6-1. A cleaning machine cycle is defined as the period between two consecutive identical orientations of the tank cleaning machine (rotation through 360°).

5 After washing, the tank cleaning machine(s) shall be kept operating long enough to flush the pipeline, pump and filter, and discharge to shore reception facilities shall be continued until the tank is empty.

Prewash procedures for Solidifying Substances

1 Tanks shall be washed as soon as possible after unloading. If possible tanks shall be heated prior to washing.

2 Residues in hatches and manholes shall preferably be removed prior to the prewash.

3 Tanks shall be washed by means of a rotary water jet operated at sufficiently high water pressure and in locations to ensure that all tank surfaces are washed.

4 During washing the amount of water in the tank shall be minimized by pumping out slops continuously and promoting flow to the suction point (positive list and trim). If this condition cannot be met, the washing procedure shall be repeated three times with thorough stripping of the tank between washings.

5 Tanks shall be washed with hot water (temperature at least 60°C) unless the properties of such substances make the washing less effective.

6 The number of cycles of the cleaning machine used shall not be less than that specified in table 6-1. A cleaning machine cycle is defined as the period between two consecutive identical orientations of the machine (rotation through 360°).

7 After washing, the cleaning machine(s) shall be kept operating long enough to flush the pipeline, pump and filter, and discharge to shore reception facilities shall be continued until the tank is empty.

Table 6-1 -- Number of cleaning machine cycles to be used in each location

Category of substance	Number of cleaning machine cycles	
	Non-Solidifying Substances	Solidifying Substances
Category X	1	2
Category Y	1/2	1

B For ships built on or after 1 July 1994 and recommendatory for ships built before 1 July 1994

A prewash procedure is required in order to meet certain Annex II requirements. This appendix explains how these prewash procedures shall be performed and how the minimum volumes of washing media to be used shall be determined. Smaller volumes of washing media may be used based on actual verification testing to the satisfaction of the Administration. Where reduced volumes are approved an entry to that effect must be recorded in the Manual.

If a medium other than water is used for the prewash, the provisions regulation 13.5.1 apply.

Prewash procedures for non-Solidifying Substances without recycling

1 Tanks shall be washed by means of a rotary jet(s), operated at sufficiently high water pressure. In the case of Category X substances cleaning machines shall be operated in such locations that all tank surfaces are washed. In the case of Category Y substances only one location need be used.

2 During washing the amount of liquid in the tank shall be minimized by continuously pumping out slops and promoting flow to the suction point. If this condition cannot be met, the washing procedure shall be repeated three times, with thorough stripping of the tank between washings.

3 Those substances which have a viscosity equal to or greater than 50 mPa.s at 20°C shall be washed with hot water (temperature at least 60°C), unless the properties of such substances make the washing less effective.

4 The quantities of wash water used shall not be less than those specified in paragraph 20 or determined according to paragraph 21.

5 After prewashing the tanks and lines shall be thoroughly stripped.

Prewash procedures for Solidifying Substances without recycling

- 6 Tanks shall be washed as soon as possible after unloading. If possible, tanks should be heated prior to washing.
- 7 Residues in hatches and manholes should preferably be removed prior to the prewash.
- 8 Tanks shall be washed by means of a rotary jet(s) operated at sufficiently high water pressure and in locations to ensure that all tank surfaces are washed.
- 9 During washing the amount of liquid in the tank shall be minimized by pumping out slops continuously and promoting flow to the suction point. If this condition cannot be met, the washing procedure shall be repeated three times with thorough stripping of the tank between washings.
- 10 Tanks shall be washed with hot water (temperature at least 60°C), unless the properties of such substances make the washing less effective.
- 11 The quantities of wash water used shall not be less than those specified in paragraph 20 or determined according to paragraph 21.
- 12 After prewashing the tanks and lines shall be thoroughly stripped.

Prewash procedures with recycling of washing medium

- 13 Washing with a recycled washing medium may be adopted for the purpose of washing more than one cargo tank. In determining the quantity, due regard must be given to the expected amount of residues in the tanks and the properties of the washing medium and whether any initial rinse or flushing is employed. Unless sufficient data are provided, the calculated end concentration of cargo residues in the washing medium shall not exceed 5% based on nominal stripping quantities.
- 14 The recycled washing medium shall only be used for washing tanks having contained the same or similar substance.
- 15 A quantity of washing medium sufficient to allow continuous washing shall be added to the tank or tanks to be washed.
- 16 All tank surfaces shall be washed by means of a rotary jet(s) operated at sufficiently high pressure. The recycling of the washing medium may either be within the tank to be washed or via another tank, e.g. a slop tank.
- 17 The washing shall be continued until the accumulated throughput is not less than that corresponding to the relevant quantities given in paragraph 20 or determined according to paragraph 21.
- 18 Solidifying Substances and substances with viscosity equal to or greater than 50 mPa.s at 20°C shall be washed with hot water (temperature at least 60°C) when water is used as the washing medium, unless the properties of such substances make the washing less effective.
- 19 After completing the tank washing with recycling to the extent specified in paragraph 17, the washing medium shall be discharged and the tank thoroughly stripped. Thereafter, the tank

shall be subjected to a rinse, using clean washing medium, with continuous drainage and discharged to a reception facility. The rinse shall as a minimum cover the tank bottom and be sufficient to flush the pipelines, pump and filter.

Minimum quantity of water to be used in a prewash

20 The minimum quantity of water to be used in a prewash is determined by the residual quantity of noxious liquid substance in the tank, the tank size, the cargo properties, the permitted concentration in any subsequent wash water effluent, and the area of operation. The minimum quantity is given by the following formula:

$$Q = k(15r^{0.8} + 5r^{0.7} \times V/1000)$$

where

Q = the required minimum quantity in m³

r = the residual quantity per tank in m³. The value of r shall be the value demonstrated in the actual stripping efficiency test, but shall not be taken lower than 0.100 m³ for a tank volume of 500 m³ and above and 0.040 m³ for a tank volume of 100 m³ and below. For tank sizes between 100 m³ and 500 m³ the minimum value of r allowed to be used in the calculations is obtained by linear interpolation.

For Category X substances the value of r shall either be determined based on stripping tests according to the Manual, observing the lower limits as given above, or be taken to be 0.9 m³.

V = tank volume in m³

k = a factor having values as follows:

Category X, non-Solidifying, Low-Viscosity Substance,	k = 1.2
---	---------

Category X, Solidifying or High-Viscosity Substance,	k = 2.4
--	---------

Category Y, non-Solidifying, Low-Viscosity Substance,	k = 0.5
---	---------

Category Y, Solidifying or High-Viscosity Substance,	k = 1.0
--	---------

The table below is calculated using the formula with a k factor of 1 and may be used as an easy reference.

Stripping quantity (m ³)	Tank volume (m ³)		
	100	500	3000
≤0.04	1.2	2.9	5.4
.10	2.5	2.9	5.4
.30	5.9	6.8	12.2
.90	14.3	16.1	27.7

21 Verification testing for approval of prewash volumes lower than those given in paragraph 20 may be carried out to the satisfaction of the Administration to prove that the requirements of regulation 13 are met, taking into account the substances the ship is certified to carry. The prewash volume so verified shall be adjusted for other prewash conditions by application of the factor k as defined in paragraph 20.

APPENDIX 7

VENTILATION PROCEDURES

1 Cargo residues of substances with a vapour pressure greater than 5 KPa at 20°C may be removed from a cargo tank by ventilation.

2 Before residues of Noxious Liquid Substances are ventilated from a tank the safety hazards relating to cargo flammability and toxicity shall be considered. With regard to safety aspects, the operational requirements for openings in cargo tanks in SOLAS 74, as amended, the International Bulk Chemical Code, the Bulk Chemical Code, and the ventilation procedures in the International Chamber of Shipping (ICS) Tanker Safety Guide (Chemicals) should be consulted.

3 Port authorities may also have regulations on cargo tank ventilation.

4 The procedures for ventilation of cargo residues from a tank are as follows:

- .1 the pipelines shall be drained and further cleared of liquid by means of ventilation equipment;
- .2 the list and trim shall be adjusted to the minimum levels possible so that evaporation of residues in the tank is enhanced;
- .3 ventilation equipment producing an airjet which can reach the tank bottom shall be used. Figure 7-1 could be used to evaluate the adequacy of ventilation equipment used for ventilating a tank of a given depth;
- .4 ventilation equipment shall be placed in the tank opening closest to the tank sump or suction point;
- .5 ventilation equipment shall, when practicable, be positioned so that the airjet is directed at the tank sump or suction point and impingement of the airjet on tank structural members is to be avoided as much as possible; and
- .6 ventilation shall continue until no visible remains of liquid can be observed in the tank. This shall be verified by a visual examination or an equivalent method.

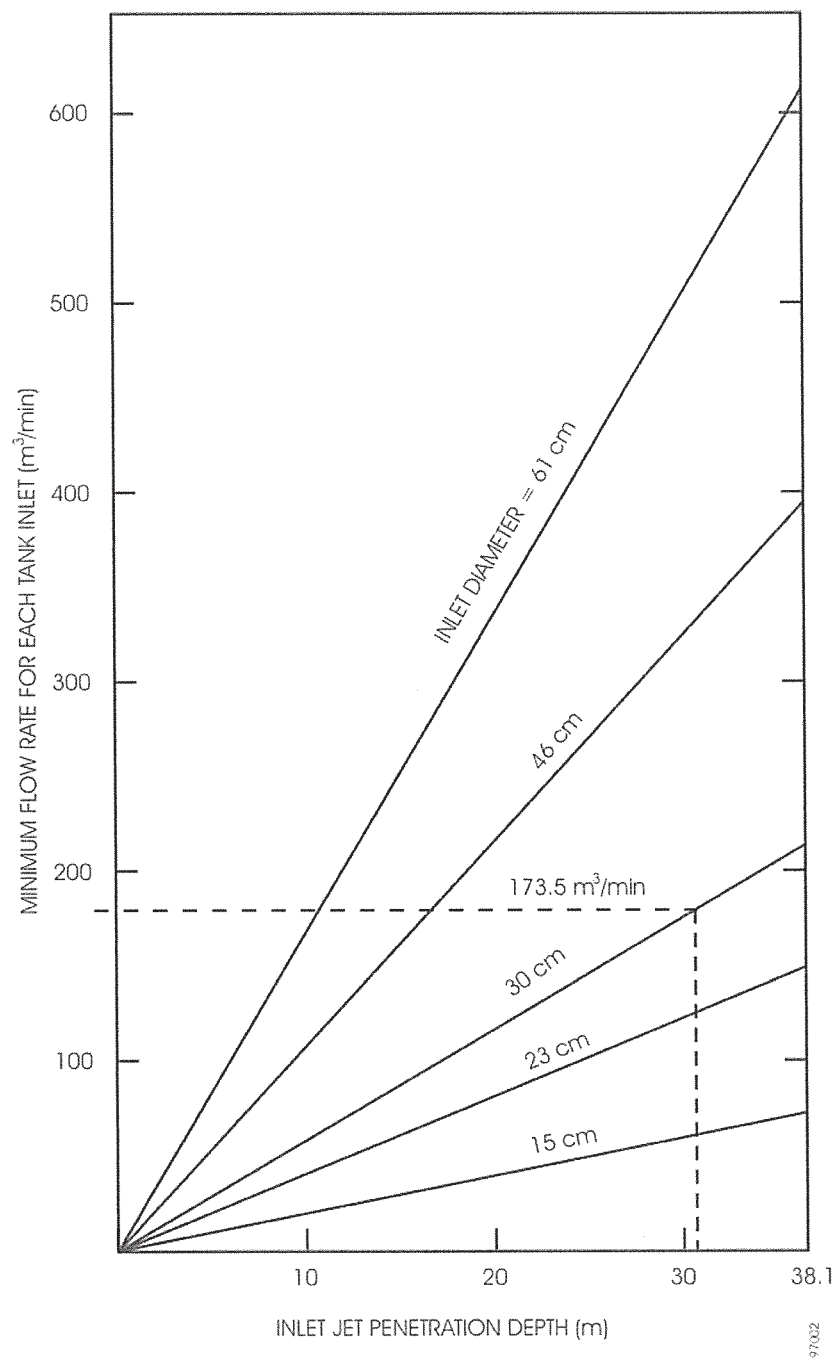


Figure 7-1. Minimum flow rate as a function of jet penetration depth.
Jet penetration depth shall be compared against tank height.

RESOLUTION MEPC.141(54)
(adopted on 24 March 2006)

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

**(Amendments to regulation 1, addition to regulation 12A, consequential amendments
to the IOPP Certificate and amendments to regulation 21 of the revised
Annex I of MARPOL 73/78)**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee (the Committee) conferred upon it by international conventions for the prevention and control of marine pollution,

NOTING article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the “1973 Convention”) and article VI of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the “1978 Protocol”) which together specify the amendment procedure of the 1978 Protocol and confer upon the appropriate body of the Organization the function of considering and adopting amendments to the 1973 Convention, as modified by the 1978 Protocol (MARPOL 73/78),

NOTING ALSO that the revised Annex I to MARPOL 73/78 was adopted by resolution MEPC.117(52) and is expected to enter into force on 1 January 2007,

HAVING CONSIDERED proposed amendments to regulation 1, proposed new regulation 12A, consequential amendments to the Supplement (Forms A and B) of the IOPP Certificate, and proposed amendments to regulation 21 of the revised Annex I to MARPOL 73/78,

1. ADOPTS, in accordance with article 16(2)(d) of the 1973 Convention, the amendments to the revised Annex I of MARPOL 73/78, the text of which is set out at Annex to the present resolution;
2. DETERMINES, in accordance with article 16(2)(f)(iii) of the 1973 Convention, that the amendments shall be deemed to have been accepted on 1 February 2007, unless prior to that date, not less than one-third of the Parties or Parties the combined merchant fleets of which constitute not less than 50 per cent of the gross tonnage of the world’s merchant fleet, have communicated to the Organization their objection to the amendments;
3. INVITES the Parties to note that, in accordance with article 16(2)(g)(ii) of the 1973 Convention, the said amendments shall enter into force on 1 August 2007 upon their acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with article 16(2)(e) of the 1973 Convention, to transmit to all Parties to MARPOL 73/78 certified copies of the present resolution and the text of the amendments contained in the Annex; and
5. REQUESTS FURTHER the Secretary-General to transmit to the Members of the Organization which are not Parties to MARPOL 73/78 copies of the present resolution and its Annex.

ANNEX

AMENDMENTS TO THE REVISED MARPOL ANNEX I

1 Addition of paragraph 28.9 to regulation 1

The following new paragraph 28.9 is added after the existing paragraph 28.8 of regulation 1:

“28.9 ship delivered on or after 1 August 2010 means a ship:

- .1 for which the building contract is placed on or after 1 August 2007; or
- .2 in the absence of a building contract, the keels of which are laid or which are at a similar stage of construction on or after 1 February 2008; or
- .3 the delivery of which is on or after 1 August 2010; or
- .4 which have undergone a major conversion:
 - .1 for which the contract is placed after 1 August 2007; or
 - .2 in the absence of contract, the construction work of which is begun after 1 February 2008; or
 - .3 which is completed after 1 August 2010.”

2 Addition of new regulation 12A on oil fuel tank protection

The following new regulation 12A is added after the existing regulation 12:

“Regulation 12A – Oil fuel tank protection

1 This regulation shall apply to all ships with an aggregate oil fuel capacity of 600 m³ and above which are delivered on or after 1 August 2010, as defined in regulation 1.28.9 of this Annex.

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

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

- .1 “Oil fuel” means any oil used as fuel oil in connection with the propulsion and auxiliary machinery of the ship in which such oil is carried.
- .2 “Load line draught (d_s)” is the vertical distance, in metres, from the moulded baseline at mid-length to the waterline corresponding to the summer freeboard draught to be assigned to the ship.
- .3 “Light ship draught” is the moulded draught amidships corresponding to the lightweight.

- .4 “Partial load line draught (d_p)” is the light ship draught plus 60% of the difference between the light ship draught and the load line draught (d_s). The partial load line draught (d_p) shall be measured in metres.
- .5 “Waterline d_B ” is the vertical distance, in metres, from the moulded baseline at mid-length to the waterline corresponding to 30% of the depth D_s .
- .6 “Breadth B_s ” is the greatest moulded breadth of the ship, in metres, at or below the deepest load line draught d_s .
- .7 “Breadth B_B ” is the greatest moulded breadth of the ship, in metres, at or below the waterline d_B .
- .8 “Depth D_s ” is the moulded depth, in metres, measured at mid-length to the upper deck at side. For the purpose of the application, “upper deck” means the highest deck to which the watertight transverse bulkheads except aft peak bulkheads extend.
- .9 “Length L ” means 96% of the total length on a waterline at 85% of the least moulded depth measured from the top of the keel, or the length from the foreside of the stem to the axis of the rudder stock on that waterline, if that be greater. In ships designed with a rake of keel the waterline on which this length is measured shall be parallel to the designed waterline. The length (L) shall be measured in metres.
- .10 “Breadth B ” means the maximum breadth of the ship, in metres, measured amidships to the moulded line of the frame in a ship with a metal shell and to the outer surface of the hull in a ship with a shell of any other material.
- .11 “Oil fuel tank” means a tank in which oil fuel is carried, but excludes those tanks which would not contain oil fuel in normal operation, such as overflow tanks.
- .12 “Small oil fuel tank” is an oil fuel tank with a maximum individual capacity not greater than 30 m³.
- .13 “ C ” is the ship’s total volume of oil fuel, including that of the small oil fuel tanks, in m³, at 98% tank filling.
- .14 “Oil fuel capacity” means the volume of a tank in m³, at 98% filling.

4 The provisions of this regulation shall apply to all oil fuel tanks except small oil fuel tanks, as defined in 3.12, provided that the aggregate capacity of such excluded tanks is not greater than 600 m³.

5 Individual oil fuel tanks shall not have a capacity of over 2,500 m³.

6 For ships, other than self-elevating drilling units, having an aggregate oil fuel capacity of 600 m³ and above, oil fuel tanks shall be located above the moulded line of the bottom shell plating nowhere less than the distance h as specified below:

$$h = B/20 \text{ m or,}$$

$$h = 2.0 \text{ m, whichever is the lesser.}$$

The minimum value of $h = 0.76$ m

In the turn of the bilge area and at locations without a clearly defined turn of the bilge, the oil fuel tank boundary line shall run parallel to the line of the midship flat bottom as shown in Figure 1.

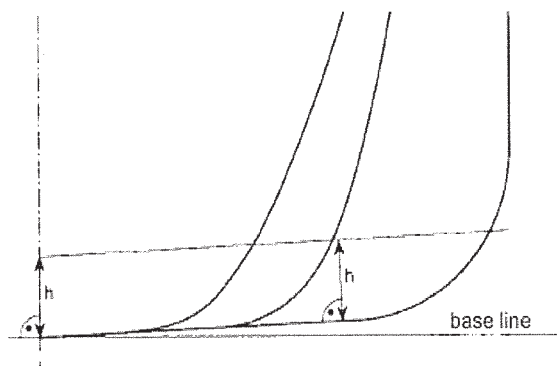


Figure 1 – Oil fuel tank boundary lines for the purpose of paragraph 6

7 For ships having an aggregate oil fuel capacity of 600 m^3 or more but less than $5,000 \text{ m}^3$, oil fuel tanks shall be located inboard of the moulded line of the side shell plating, nowhere less than the distance w which, as shown in Figure 2, is measured at any cross-section at right angles to the side shell, as specified below:

$$w = 0.4 + 2.4 C/20,000 \text{ m}$$

The minimum value of $w = 1.0$ m; however for individual tanks with an oil fuel capacity of less than 500 m^3 the minimum value is 0.76 m.

8 For ships having an aggregate oil fuel capacity of $5,000 \text{ m}^3$ and over, oil fuel tanks shall be located inboard of the moulded line of the side shell plating, nowhere less than the distance w which, as shown in Figure 2, is measured at any cross-section at right angles to the side shell, as specified below:

$$w = 0.5 + C/20,000 \text{ m or}$$

$$w = 2.0 \text{ m, whichever is the lesser.}$$

The minimum value of $w = 1.0$ m

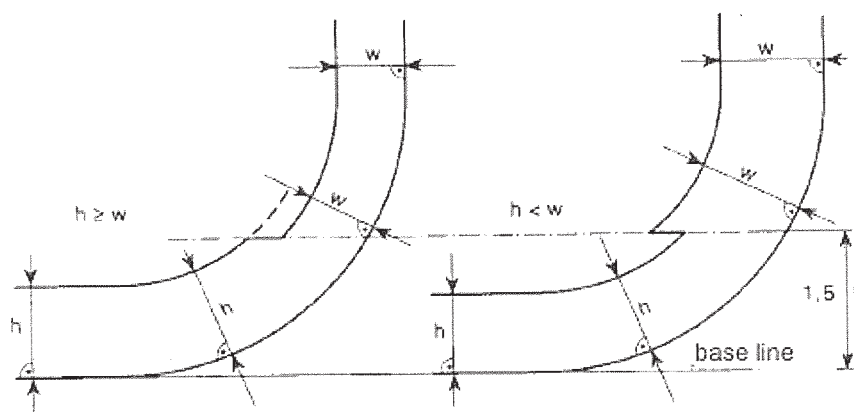


Figure 2 – Oil fuel tank boundary lines for the purpose of paragraphs 7 and 8

9 Lines of oil fuel piping located at a distance from the ship's bottom of less than h , as defined in paragraph 6, or from the ship's side less than w , as defined in paragraphs 7 and 8 shall be fitted with valves or similar closing devices within or immediately adjacent to the oil fuel tank. These valves shall be capable of being brought into operation from a readily accessible enclosed space the location of which is accessible from the navigation bridge or propulsion machinery control position without traversing exposed freeboard or superstructure decks. The valves shall close in case of remote control system failure (fail in a closed position) and shall be kept closed at sea at any time when the tank contains oil fuel except that they may be opened during oil fuel transfer operations.

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

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

- .1 The level of protection against oil fuel pollution in the event of collision or grounding shall be assessed on the basis of the mean oil outflow parameter as follows:

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

$$O_M < 0.010 \quad \text{for } C \geq 5,000 \text{ m}^3$$

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

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

- .1 the ship shall be assumed loaded to the partial load line draught (d_P) without trim or heel;
- .2 all oil fuel tanks shall be assumed loaded to 98% of their volumetric capacity;
- .3 the nominal density of the oil fuel (ρ_n) shall generally be taken as $1,000 \text{ kg/m}^3$. If the density of the oil fuel is specifically restricted to a lesser value, the lesser value may be applied; and
- .4 for the purpose of these outflow calculations, the permeability of each oil fuel tank shall be taken as 0.99, unless proven otherwise.

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

- .1 The mean oil outflow shall be calculated independently for side damage and for bottom damage and then combined into a non-dimensional oil outflow parameter O_M , as follows:

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

where:

O_{MS} = mean outflow for side damage, in m^3
 O_{MB} = mean outflow for bottom damage, in m^3
 C = total oil fuel volume.

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

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

where:

$O_{MB(0)}$ = mean outflow for 0 m tide condition, and
 $O_{MB(2.5)}$ = mean outflow for minus 2.5 m tide condition, in m^3 .

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

$$O_{MS} = \sum_{i=1}^n P_{S(i)} O_{S(i)} \quad (m^3)$$

where:

i = each oil fuel tank under consideration;
 n = total number of oil fuel tanks;
 $P_{S(i)}$ = the probability of penetrating oil fuel tank i from side damage, calculated in accordance with paragraph 11.6 of this regulation;
 $O_{S(i)}$ = the outflow, in m^3 , from side damage to oil fuel tank i , which is assumed equal to the total volume in oil fuel tank i at 98% filling.

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

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

where:

i = each oil fuel tank under consideration;
 n = total number of oil fuel tanks;
 $P_{B(i)}$ = the probability of penetrating oil fuel tank i from bottom damage, calculated in accordance with paragraph 11.7 of this regulation;
 $O_{B(i)}$ = the outflow from oil fuel tank i , in m^3 , calculated in accordance with paragraph 11.5.3 of this regulation; and
 $C_{DB(i)}$ = factor to account for oil capture as defined in paragraph 11.5.4.

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

where:

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

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

.1 The ship shall be assumed stranded with zero trim and heel, with the stranded draught prior to tidal change equal to the partial load line draught d_P .

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

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

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

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

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

ρ_S = density of seawater, to be taken as 1,025 kg/m³; and,

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

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

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

where:

H_W = 1.0 m, when $Y_B = 0$

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

H_W is to be measured upwards from the midship flat bottom line. In the turn of the bilge area and at locations without a clearly defined turn of the bilge, H_W is to be measured from a line parallel to the midship flat bottom, as shown for distance “h” in Figure 1.

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

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

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

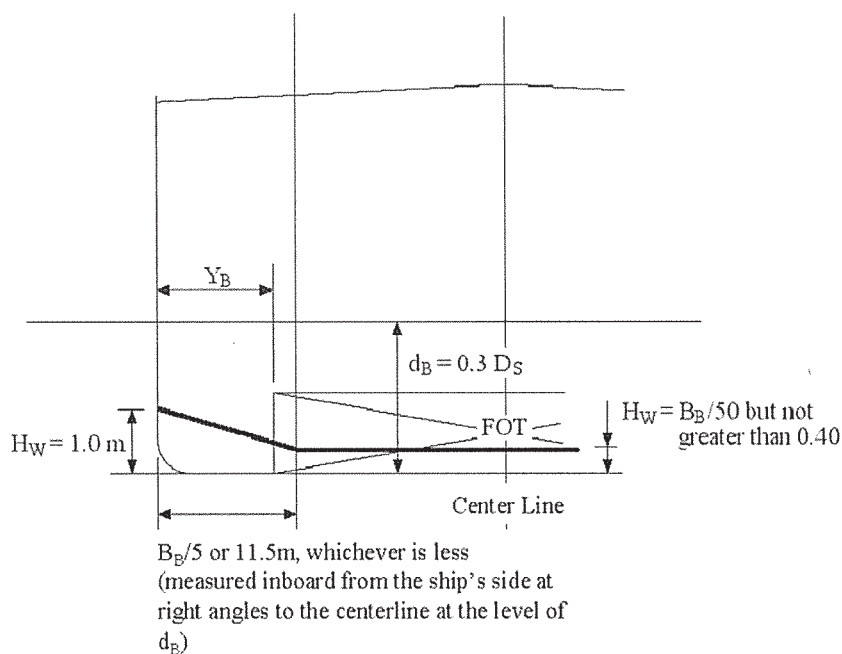


Figure 3 — Dimensions for calculation of the minimum oil outflow for the purpose of subparagraph 11.5.3.3

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

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

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

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

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

where: $P_{SL} = (1 - P_{Sf} - P_{Sa})$ = probability the damage will extend into the longitudinal zone bounded by X_a and X_f ;

$P_{SV} = (1 - P_{Su} - P_{Sl})$ = probability the damage will extend into the vertical zone bounded by Z_l and Z_u ;

$P_{ST} = (1 - P_{Sy})$ = probability the damage will extend transversely beyond the boundary defined by y ;

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

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

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

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

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

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

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

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

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

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

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

y = the minimum horizontal distance measured at right angles to the centreline between the compartment under consideration and the side shell, in m¹.

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

.3 Table of Probabilities for side damage

X_a/L	P_{Sa}	X_f/L	P_{Sf}	Z_l/D_S	P_{Sl}	Z_u/D_S	P_{Su}
0,00	0,000	0,00	0,967	0,00	0,000	0,00	0,968
0,05	0,023	0,05	0,917	0,05	0,000	0,05	0,952
0,10	0,068	0,10	0,867	0,10	0,001	0,10	0,931
0,15	0,117	0,15	0,817	0,15	0,003	0,15	0,905
0,20	0,167	0,20	0,767	0,20	0,007	0,20	0,873
0,25	0,217	0,25	0,717	0,25	0,013	0,25	0,836
0,30	0,267	0,30	0,667	0,30	0,021	0,30	0,789
0,35	0,317	0,35	0,617	0,35	0,034	0,35	0,733
0,40	0,367	0,40	0,567	0,40	0,055	0,40	0,670
0,45	0,417	0,45	0,517	0,45	0,085	0,45	0,599
0,50	0,467	0,50	0,467	0,50	0,123	0,50	0,525
0,55	0,517	0,55	0,417	0,55	0,172	0,55	0,452
0,60	0,567	0,60	0,367	0,60	0,226	0,60	0,383
0,65	0,617	0,65	0,317	0,65	0,285	0,65	0,317
0,70	0,667	0,70	0,267	0,70	0,347	0,70	0,255
0,75	0,717	0,75	0,217	0,75	0,413	0,75	0,197
0,80	0,767	0,80	0,167	0,80	0,482	0,80	0,143
0,85	0,817	0,85	0,117	0,85	0,553	0,85	0,092
0,90	0,867	0,90	0,068	0,90	0,626	0,90	0,046
0,95	0,917	0,95	0,023	0,95	0,700	0,95	0,013
1,00	0,967	1,00	0,000	1,00	0,775	1,00	0,000

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

P_{Sy} shall be calculated as follows:

$$\begin{aligned} P_{Sy} &= (24.96 - 199.6 y/B_S) (y/B_S) && \text{for } y/B_S \leq 0.05 \\ P_{Sy} &= 0.749 + \{5 - 44.4 (y/B_S - 0.05)\} \{(y/B_S) - 0.05\} && \text{for } 0.05 < y/B_S < 0.1 \\ P_{Sy} &= 0.888 + 0.56 (y/B_S - 0.1) && \text{for } y/B_S \geq 0.1 \end{aligned}$$

P_{Sy} is not to be taken greater than 1.

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

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

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

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

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

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

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

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

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

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

P_{Bz} = probability the damage will lie entirely below the tank.

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

X_a and X_f as defined in 11.6.2;

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

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

z = the minimum value of z over the length of the compartment, where, at any given longitudinal location, z is the vertical distance from the lower point of the bottom shell at that longitudinal location to the lower point of the compartment at that longitudinal location.

.3 Table of probabilities for bottom damage

X_a/L	P_{Ba}	X_f/L	P_{Bf}	Y_p/B_B	P_{Bp}	Y_s/B_B	P_{Bs}
0,00	0,000	0,00	0,969	0,00	0,844	0,00	0,000
0,05	0,002	0,05	0,953	0,05	0,794	0,05	0,009
0,10	0,008	0,10	0,936	0,10	0,744	0,10	0,032
0,15	0,017	0,15	0,916	0,15	0,694	0,15	0,063
0,20	0,029	0,20	0,894	0,20	0,644	0,20	0,097
0,25	0,042	0,25	0,870	0,25	0,594	0,25	0,133
0,30	0,058	0,30	0,842	0,30	0,544	0,30	0,171
0,35	0,076	0,35	0,810	0,35	0,494	0,35	0,211
0,40	0,096	0,40	0,775	0,40	0,444	0,40	0,253
0,45	0,119	0,45	0,734	0,45	0,394	0,45	0,297
0,50	0,143	0,50	0,687	0,50	0,344	0,50	0,344
0,55	0,171	0,55	0,630	0,55	0,297	0,55	0,394
0,60	0,203	0,60	0,563	0,60	0,253	0,60	0,444
0,65	0,242	0,65	0,489	0,65	0,211	0,65	0,494
0,70	0,289	0,70	0,413	0,70	0,171	0,70	0,544
0,75	0,344	0,75	0,333	0,75	0,133	0,75	0,594
0,80	0,409	0,80	0,252	0,80	0,097	0,80	0,644
0,85	0,482	0,85	0,170	0,85	0,063	0,85	0,694
0,90	0,565	0,90	0,089	0,90	0,032	0,90	0,744
0,95	0,658	0,95	0,026	0,95	0,009	0,95	0,794
1,00	0,761	1,00	0,000	1,00	0,000	1,00	0,844

P_{Bz} shall be calculated as follows:

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

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

P_{Bz} is not to be taken greater than 1.

- .8 For the purpose of maintenance and inspection, any oil fuel tanks that do not border the outer shell plating shall be located no closer to the bottom shell plating than the minimum value of h in paragraph 6 and no closer to the side shell plating than the applicable minimum value of w in paragraph 7 or 8.

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

3 Consequential amendments to the Supplement of the IOPP Certificate (Forms A and B)

The following new paragraph 2A is added to the Supplement of the IOPP Certificate (Forms A and B):

- “2A.1 The ship is required to be constructed according to regulation 12A and complies with the requirements of:

paragraphs 6 and either 7 or 8 (double hull construction) ☐

paragraph 11 (accidental oil fuel outflow performance). ☐

2A.2 The ship is not required to comply with the requirements of regulation 12A. ☐ ”

4 Amendments to regulation 21

The text of existing paragraph 2.2 of regulation 21 on Prevention of oil pollution from oil tankers carrying heavy grade oil as cargo is replaced by the following:

“oils, other than crude oils, having either a density at 15°C higher than 900 kg/m³ or a kinematic viscosity at 50°C higher than 180 mm²/s; or”

RESOLUTION MEPC.143(54)
(adopted on 24 March 2006)

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

(Addition of regulation 13 to Annex IV of MARPOL 73/78)

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee (the Committee) conferred upon it by international conventions for the prevention and control of marine pollution,

NOTING article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the “1973 Convention”) and article VI of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the “1978 Protocol”) which together specify the amendment procedure of the 1978 Protocol and confer upon the appropriate body of the Organization the function of considering and adopting amendments to the 1973 Convention, as modified by the 1978 Protocol (MARPOL 73/78),

HAVING CONSIDERED the proposed new regulation 13 of Annex IV of MARPOL 73/78 concerning port State control on operational requirements,

1. ADOPTS, in accordance with article 16(2)(b), (c) and (d) of the 1973 Convention, the new regulation 13 of Annex IV of MARPOL 73/78, the text of which is set out at Annex to the present resolution;
2. DETERMINES, in accordance with article 16(2)(f)(iii) of the 1973 Convention, that the revised Annex IV shall be deemed to have been accepted on 1 February 2007, unless, prior to that date, not less than one third of the Parties to MARPOL 73/78 or by the Parties the combined merchant fleets of which constitute not less than 50 per cent of the gross tonnage of the world's merchant fleet, have notified to the Organization their objections to the amendments;
3. INVITES Parties to MARPOL 73/78 to note that, in accordance with article 16(2)(g)(ii) of the 1973 Convention, the said amendments shall enter into force on 1 August 2007 upon their acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with article 16(2)(e) of the 1973 Convention, to transmit to all Parties to MARPOL 73/78 certified copies of the present resolution and the text of the amendments contained in the Annex; and
5. REQUESTS FURTHER the Secretary-General to transmit copies of this resolution and its Annex to Members of the Organization which are not Parties to MARPOL 73/78.

ANNEX

AMENDMENTS TO THE REVISED MARPOL ANNEX IV

The following new chapter 5 and regulation 13 are added after the existing regulation 12:

Chapter 5 – Port State Control**“Regulation 13 – Port State control on operational requirements**

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

RESOLUTION MEPC.154(55)**Adopted on 13 October 2006****AMENDMENTS TO THE ANNEX OF THE PROTOCOL OF 1978 RELATING TO
THE INTERNATIONAL CONVENTION FOR THE PREVENTION OF
POLLUTION FROM SHIPS, 1973****(Designation of the Southern South African waters as a Special Area)**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee (the Committee) conferred upon it by international conventions for the prevention and control of marine pollution,

NOTING article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the “1973 Convention”) and article VI of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the “1978 Protocol”) which together specify the amendment procedure of the 1978 Protocol and confer upon the appropriate body of the Organization the function of considering and adopting amendments to the 1973 Convention, as modified by the 1978 Protocol (MARPOL 73/78),

HAVING CONSIDERED proposed amendments to regulation 1 of the revised Annex I to MARPOL 73/78, with a view to designating the Southern South African waters as a Special Area,

1. ADOPTS, in accordance with article 16(2)(d) of the 1973 Convention, the amendments to the revised Annex I of MARPOL 73/78, the text of which is set out at Annex to the present resolution;
2. DETERMINES, in accordance with article 16(2)(f)(iii) of the 1973 Convention, that the amendments shall be deemed to have been accepted on 1 September 2007, unless prior to that date, not less than one-third of the Parties or Parties the combined merchant fleets of which constitute not less than 50 per cent of the gross tonnage of the world's merchant fleet, have communicated to the Organization their objection to the amendments;
3. INVITES the Parties to note that, in accordance with article 16(2)(g)(ii) of the 1973 Convention, the said amendments shall enter into force on 1 March 2008 upon their acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with article 16(2)(e) of the 1973 Convention, to transmit to all Parties to MARPOL 73/78 certified copies of the present resolution and the text of the amendments contained in the Annex; and
5. REQUESTS FURTHER the Secretary-General to transmit to the Members of the Organization which are not Parties to MARPOL 73/78 copies of the present resolution and its Annex.

ANNEX

AMENDMENTS TO THE REVISED ANNEX I OF MARPOL 73/78

(Designation of the Southern South African waters as a Special Area)

A new subparagraph .10 is added to regulation 1.11 as follows:

“.10 *the Southern South African waters* means the sea area enclosed by the following co-ordinates:

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

RESOLUTION MEPC.156(55)
Adopted on 13 October 2006

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

(Revised Annex III of MARPOL 73/78)

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee (the Committee) conferred upon it by international conventions for the prevention and control of marine pollution,

NOTING article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the “1973 Convention”) and article VI of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the “1978 Protocol”) which together specify the amendment procedure of the 1978 Protocol and confer upon the appropriate body of the Organization the function of considering and adopting amendments to the 1973 Convention, as modified by the 1978 Protocol (MARPOL 73/78),

RECALLING further that, at its fifty-fourth session, it had endorsed the proposal by the DSC Sub-Committee regarding the timeframe leading to the entry into force of the revised MARPOL Annex III to make it coincide with the entry into force of amendment 34-08 to the International Maritime Dangerous Goods (IMDG) Code,

HAVING CONSIDERED the proposed amendments to Annex III of MARPOL 73/78 (revised Annex III),

1. ADOPTS, in accordance with article 16(2)(d) of the 1973 Convention, the amendments to Annex III of MARPOL 73/78, the text of which is set out at Annex to the present resolution;
2. DETERMINES, in accordance with article 16(2)(f)(iii) of the 1973 Convention, that the amendments shall be deemed to have been accepted on 1 July 2009, unless prior to that date, not less than one-third of the Parties or Parties the combined merchant fleets of which constitute not less than 50 per cent of the gross tonnage of the world’s merchant fleet, have communicated to the Organization their objection to the amendments;
3. INVITES the Parties to note that, in accordance with article 16(2)(g)(ii) of the 1973 Convention, the said amendments shall enter into force on 1 January 2010 upon their acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with article 16(2)(e) of the 1973 Convention, to transmit to all Parties to MARPOL 73/78 certified copies of the present resolution and the text of the amendments contained in the Annex; and

5. REQUESTS FURTHER the Secretary-General to transmit to the Members of the Organization which are not Parties to MARPOL 73/78 copies of the present resolution and its Annex.

ANNEX

AMENDMENTS TO ANNEX III OF MARPOL 73/78

(Revised Annex III)

The existing text of MARPOL Annex III is replaced by the following:

**“REGULATIONS FOR THE PREVENTION OF POLLUTION BY HARMFUL
SUBSTANCES CARRIED BY SEA IN PACKAGED FORM**

Regulation 1*Application*

- 1 Unless expressly provided otherwise, the regulations of this Annex apply to all ships carrying harmful substances in packaged form.
 - .1 For the purpose of this Annex, “harmful substances” are those substances which are identified as marine pollutants in the International Maritime Dangerous Goods Code (IMDG Code) or which meet the criteria in the Appendix of this Annex.
 - .2 For the purposes of this Annex, “packaged form” is defined as the forms of containment specified for harmful substances in the IMDG Code.
- 2 The 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 packing, marking, labelling, documentation, stowage, quantity limitations and exceptions for preventing or minimizing pollution of the marine environment by harmful substances.
- 4 For the purposes of this Annex, empty packagings 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 harmful to the marine environment.
- 5 The requirements of this Annex do not apply to ship’s stores and equipment.

Regulation 2*Packing*

Packages shall be adequate to minimize the hazard to the marine environment, having regard to their specific contents.

Regulation 3*Marking and labelling*

- 1 Packages containing a harmful substance shall be durably marked with the correct technical name (trade names alone shall not be used) and, further, shall be durably marked or labelled to indicate that the substance is a marine pollutant. Such identification shall be supplemented where possible by any other means, for example, by use of the relevant United Nations number.
- 2 The method of marking the correct technical name and of affixing labels on packages containing a harmful substance shall be such that this information will still be identifiable on packages surviving at least three months' immersion in the sea. In considering suitable marking and labelling, account shall be taken of the durability of the materials used and of the surface of the package.
- 3 Packages containing small quantities of harmful substances may be exempted from the marking requirements.

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 each such substance shall be used (trade names alone shall not be used) and the substance further identified by the addition of the words "MARINE POLLUTANT".
- 2 The shipping documents supplied by the shipper shall include, or be accompanied by, a signed certificate or declaration that the shipment offered for carriage is properly packaged and marked, labelled or placarded as appropriate 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 the 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. A copy of one of these documents shall be made available before departure to the person or organization designated by the port State authority.
- 4 At any stopover, where any loading or unloading operations, even partial, are carried out, a revision of the documents listing the harmful substances taken on board, indicating their location on board or showing a detailed stowage plan, shall be made available before departure to the person or organization designated by the port State authority.

5 When 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, 1974, as amended, the documents required by this regulation may be combined with those for dangerous goods. Where documents are combined, a clear distinction shall be made between dangerous goods and harmful substances covered by this Annex.

Regulation 5

Stowage

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

Regulation 6

Quantity limitations

Certain harmful substances 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 substances.

Regulation 7

Exceptions

- 1 Jettisoning of harmful substances carried in packaged form 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

Port State control on operational requirements

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

APPENDIX TO ANNEX III

Criteria for the identification of harmful substances in packaged form

For the purposes of this Annex, substances identified by any one of the following criteria are harmful substances:

Category: Acute 1

96 hr LC ₅₀ (for fish)	≤ 1 mg/l and/or
48 hr EC ₅₀ (for crustacea)	≤ 1 mg/l and/or
72 or 96 hr ErC ₅₀ (for algae or other aquatic plants)	≤ 1 mg/l

Category: Chronic 1

96 hr LC ₅₀ (for fish)	≤ 1 mg/l and/or
48 hr EC ₅₀ (for crustacea)	≤ 1 mg/l and/or
72 or 96 hr ErC ₅₀ (for algae or other aquatic plants)	≤ 1 mg/l

and the substance is not rapidly degradable and/or the log K_{ow} ≥ 4 (unless the experimentally determined BCF < 500).

Category: Chronic 2

96 hr LC ₅₀ (for fish)	>1 to ≤ 10 mg/l and/or
48 hr EC ₅₀ (for crustacea)	>1 to ≤ 10 mg/l and/or
72 or 96 hr ErC ₅₀ (for algae or other aquatic plants)	>1 to ≤ 10 mg/l

and the substance is not rapidly degradable and/or the log K_{ow} ≥ 4 (unless the experimentally determined BCF < 500), unless the chronic toxicity NOECs are > 1 mg/l.

RESOLUTION MEPC.164(56)**Adopted on 13 July 2007****AMENDMENTS TO THE ANNEX OF THE PROTOCOL OF 1978 RELATING TO
THE INTERNATIONAL CONVENTION FOR THE PREVENTION OF
POLLUTION FROM SHIPS, 1973****(Reception facilities outside Special Areas and discharge of sewage)**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee (the Committee) conferred upon it by international conventions for the prevention and control of marine pollution,

NOTING Article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the “1973 Convention”) and article VI of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the “1978 Protocol”) which together specify the amendment procedure of the 1978 Protocol and confer upon the appropriate body of the Organization the function of considering and adopting amendments to the 1973 Convention, as modified by the 1978 Protocol (MARPOL 73/78),

HAVING CONSIDERED proposed amendments to regulation 38.2.5 of Annex I and regulation 11.1.1 of Annex IV to MARPOL 73/78,

1. ADOPTS, in accordance with Article 16(2)(d) of the 1973 Convention, the amendments to Annex I and Annex IV of MARPOL 73/78, the texts of which are set out at Annex 1 and Annex 2 respectively to the present resolution;
2. DETERMINES, in accordance with Article 16(2)(f)(iii) of the 1973 Convention, that the amendments shall be deemed to have been accepted on 1 June 2008, unless prior to that date, not less than one-third of the Parties or Parties the combined merchant fleets of which constitute not less than 50 per cent of the gross tonnage of the world’s merchant fleet, have communicated to the Organization their objection to the amendments;
3. INVITES the Parties to note that, in accordance with Article 16(2)(g)(ii) of the 1973 Convention, the said amendments shall enter into force on 1 December 2008 upon their acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with Article 16(2)(e) of the 1973 Convention, to transmit to all Parties to MARPOL 73/78 certified copies of the present resolution and the text of the amendments contained in the Annexes; and
5. REQUESTS FURTHER the Secretary-General to transmit to the Members of the Organization which are not Parties to MARPOL 73/78 copies of the present resolution and its Annexes.

ANNEX 1

AMENDMENTS TO MARPOL ANNEX I

(Reception facilities outside Special Areas)

Regulation 38.2.5 is replaced by the following:

“all ports in respect of oily bilge waters and other residues that cannot be discharged in accordance with regulations 15 and 34 of this Annex; and”

ANNEX 2

AMENDMENTS TO MARPOL ANNEX IV

(Discharge of sewage)

Regulation 11.1.1 is replaced by the following:

- “1 the ship is discharging comminuted and disinfected sewage using a system approved by the Administration in accordance with regulation 9.1.2 of this Annex at a distance of more than 3 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, or sewage originating from spaces containing living animals, 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”

RESOLUTION MEPC.186(59)**Adopted on 17 July 2009****AMENDMENTS TO THE ANNEX OF THE PROTOCOL OF 1978 RELATING TO THE
INTERNATIONAL CONVENTION FOR THE PREVENTION OF
POLLUTION FROM SHIPS, 1973****(Addition of a new chapter 8 to MARPOL Annex I and consequential amendments to the
Supplement to the IOPP Certificate, Form B)**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee (the Committee) conferred upon it by international conventions for the prevention and control of marine pollution,

NOTING Article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the “1973 Convention”) and article VI of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the “1978 Protocol”) which together specify the amendment procedure of the 1978 Protocol and confer upon the appropriate body of the Organization the function of considering and adopting amendments to the 1973 Convention, as modified by the 1978 Protocol (MARPOL 73/78),

HAVING CONSIDERED proposed amendments to Annex I of MARPOL 73/78,

1. ADOPTS, in accordance with Article 16(2)(d) of the 1973 Convention, the amendments to Annex I of MARPOL 73/78 concerning the addition of a new chapter 8 and consequential amendments to the Supplement to the IOPP Certificate, Form B, the text of which is set out in the annex to the present resolution;
2. DETERMINES, in accordance with Article 16(2)(f)(iii) of the 1973 Convention, that the amendments shall be deemed to have been accepted on 1 July 2010 unless, prior to that date, not less than one-third of the Parties or Parties the combined merchant fleets of which constitute not less than 50 per cent of the gross tonnage of the world’s merchant fleet, have communicated to the Organization their objection to the amendments;
3. INVITES the Parties to note that, in accordance with Article 16(2)(g)(ii) of the 1973 Convention, the said amendments shall enter into force on 1 January 2011 upon their acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with Article 16(2)(e) of the 1973 Convention, to transmit to all Parties to MARPOL 73/78 certified copies of the present resolution and the text of the amendments contained in the annex; and
5. REQUESTS FURTHER the Secretary-General to transmit to the Members of the Organization which are not Parties to MARPOL 73/78 copies of the present resolution and its annex.

ANNEX**(Addition of a new chapter 8 to MARPOL and Annex I and consequential amendments to the Supplement to the IOPP Certificate, Form B)***1 A new chapter 8 is added:***“CHAPTER 8 – PREVENTION OF POLLUTION DURING TRANSFER OF OIL CARGO BETWEEN OIL TANKERS AT SEA*****Regulation 40******Scope of application***

1 The regulations contained in this chapter apply to oil tankers of 150 gross tonnage and above engaged in the transfer of oil cargo between oil tankers at sea (STS operations) and their STS operations conducted on or after 1 April 2012. However, STS operations conducted before that date but after the approval of the Administration of STS operations Plan required under regulation 41.1 shall be in accordance with the STS operations Plan as far as possible.

2 The regulations contained in this chapter shall not apply to oil transfer operations associated with fixed or floating platforms including drilling rigs; floating production, storage and offloading facilities (FPSOs) used for the offshore production and storage of oil; and floating storage units (FSUs) used for the offshore storage of produced oil.

3 The regulations contained in this chapter shall not apply to bunkering operations.

4 The regulations contained in this chapter shall not apply to STS operations necessary for the purpose of securing the safety of a ship or saving life at sea, or for combating specific pollution incidents in order to minimize the damage from pollution.

5 The regulations contained in this chapter shall not apply to STS operations where either of the ships involved is a warship, naval auxiliary or other ship owned or operated by a State and used, for the time being, only on government non-commercial service. However, each State shall ensure, by the adoption of appropriate measures not impairing operations or operational capabilities of such ships that the STS operations are conducted in a manner consistent, so far as is reasonable and practicable, with this chapter.

Regulation 41*General Rules on safety and environmental protection*

1 Any oil tanker involved in STS operations shall carry on board a Plan prescribing how to conduct STS operations (STS operations Plan) not later than the date of the first annual, intermediate or renewal survey of the ship to be carried out on or after 1 January 2011. Each oil tanker's STS operations Plan shall be approved by the Administration. The STS operations Plan shall be written in the working language of the ship.

2 The STS operations Plan shall be developed taking into account the information contained in the best practice guidelines for STS operations identified by the Organization. The STS operations Plan may be incorporated into an existing Safety Management System required by chapter IX of the International Convention for the Safety of Life at Sea, 1974, as amended, if that requirement is applicable to the oil tanker in question.

3 Any oil tanker subject to this chapter and engaged in STS operations shall comply with its STS operations Plan.

4 The person in overall advisory control of STS operations shall be qualified to perform all relevant duties, taking into account the qualifications contained in the best practice guidelines for STS operations identified by the Organization.

5 Records of STS operations shall be retained on board for three years and be readily available for inspection by a Party to the present Convention.

Regulation 42*Notification*

1 Each oil tanker subject to this chapter that plans STS operations within the territorial sea, or the exclusive economic zone of a Party to the present Convention shall notify that Party not less than 48 hours in advance of the scheduled STS operations. Where, in an exceptional case, all of the information specified in paragraph 2 is not available not less than 48 hours in advance, the oil tanker discharging the oil cargo shall notify the Party to the present Convention, not less than 48 hours in advance that an STS operation will occur and the information specified in paragraph 2 shall be provided to the Party at the earliest opportunity.

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

- .1 name, flag, call sign, IMO Number and estimated time of arrival of the oil tankers involved in the STS operations;
- .2 date, time and geographical location at the commencement of the planned STS operations;
- .3 whether STS operations are to be conducted at anchor or underway;
- .4 oil type and quantity;
- .5 planned duration of the STS operations;
- .6 identification of STS operations service provider or person in overall advisory control and contact information; and
- .7 confirmation that the oil tanker has on board an STS operations Plan meeting the requirements of regulation 41.

3 If the estimated time of arrival of an oil tanker at the location or area for the STS operations changes by more than six hours, the master, owner or agent of that oil tanker shall provide a revised estimated time of arrival to the Party to the present Convention specified in paragraph 1 of this regulation.”

2 *In the Record of Construction and Equipment for Oil Tankers, Form B, new section 8A is added as follows:*

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

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

RESOLUTION MEPC.187(59)**Adopted on 17 July 2009****AMENDMENTS TO THE ANNEX OF THE PROTOCOL OF 1978 RELATING TO
THE INTERNATIONAL CONVENTION FOR THE PREVENTION
OF POLLUTION FROM SHIPS, 1973****(Amendments to regulations 1, 12, 13, 17 and 38 of MARPOL Annex I, Supplement to the
IOPP Certificate and Oil Record Book Parts I and II)**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee (the Committee) conferred upon it by international conventions for the prevention and control of marine pollution,

NOTING Article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the “1973 Convention”) and article VI of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the “1978 Protocol”) which together specify the amendment procedure of the 1978 Protocol and confer upon the appropriate body of the Organization the function of considering and adopting amendments to the 1973 Convention, as modified by the 1978 Protocol (MARPOL 73/78),

HAVING CONSIDERED proposed amendments to Annex I of MARPOL 73/78,

1. ADOPTS, in accordance with Article 16(2)(d) of the 1973 Convention, the amendments to Annex I of MARPOL 73/78 concerning regulations 1, 12, 13, 17 and 38 and the Supplement to the IOPP Certificate and Oil Record Book Parts I and II, the text of which is set out in the annex to the present resolution;
2. DETERMINES, in accordance with Article 16(2)(f)(iii) of the 1973 Convention, that the amendments shall be deemed to have been accepted on 1 July 2010 unless prior, to that date, not less than one-third of the Parties or Parties the combined merchant fleets of which constitute not less than 50 per cent of the gross tonnage of the world’s merchant fleet, have communicated to the Organization their objection to the amendments;
3. INVITES the Parties to note that, in accordance with Article 16(2)(g)(ii) of the 1973 Convention, the said amendments shall enter into force on 1 January 2011 upon their acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with Article 16(2)(e) of the 1973 Convention, to transmit to all Parties to MARPOL 73/78 certified copies of the present resolution and the text of the amendments contained in the annex; and
5. REQUESTS FURTHER the Secretary-General to transmit to the Members of the Organization which are not Parties to MARPOL 73/78 copies of the present resolution and its annex.

ANNEX

AMENDMENTS TO MARPOL ANNEX I

(Amendments to regulations 1, 12, 13, 17 and 38 of MARPOL Annex I, Supplement to the IOPP Certificate and Oil Record Book Parts I and II)

Annex 1

AMENDMENTS TO REGULATIONS 1, 12, 13, 17 AND 38
OF MARPOL ANNEX I

Regulation 1 – Definitions

1 The following new subparagraphs .31, .32, .33 and .34 are added after existing subparagraph .30:

- “.31 **Oil residue (sludge)** means the residual waste oil products generated during the normal operation of a ship such as those resulting from the purification of fuel or lubricating oil for main or auxiliary machinery, separated waste oil from oil filtering equipment, waste oil collected in drip trays, and waste hydraulic and lubricating oils.
- .32 **Oil residue (sludge) tank means** a tank which holds oil residue (sludge) from which sludge may be disposed directly through the standard discharge connection or any other approved means of disposal.
- .33 **Oily bilge water** means water which may be contaminated by oil resulting from things such as leakage or maintenance work in machinery spaces. Any liquid entering the bilge system including bilge wells, bilge piping, tank top or bilge holding tanks is considered oily bilge water.
- .34 **Oily bilge water holding tank** means a tank collecting oily bilge water prior to its discharge, transfer or disposal.”

Regulation 12 – Tanks for oil residues (sludge)

2 Paragraph 1 is amended to read as follows:

- “1 Every ship of 400 gross tonnage and above shall be provided with a tank or tanks of adequate capacity, having regard to the type of machinery and length of voyage, to receive the oil residues (sludge) which cannot be dealt with otherwise in accordance with the requirements of this Annex.”

3 The following new paragraph 2 is inserted, after the existing paragraph 1:

“2 Oil residue (sludge) may be disposed of directly from the oil residue (sludge) tank(s) through the standard discharge connection referred to in regulation 13, or any other approved means of disposal. The oil residue (sludge) tank(s):

- .1 shall be provided with a designated pump for disposal that is capable of taking suction from the oil residue (sludge) tank(s); and
- .2 shall have no discharge connections to the bilge system, oily bilge water holding tank(s), tank top or oily water separators except that the tank(s) may be fitted with drains, with manually operated self-closing valves and arrangements for subsequent visual monitoring of the settled water, that lead to an oily bilge water holding tank or bilge well, or an alternative arrangement, provided such arrangement does not connect directly to the bilge piping system.”

4 Existing paragraphs 2 and 3 are renumbered 3 and 4, respectively.

Regulations 12, 13, 17 and 38

5 The word “sludge” in regulations 12.2, 13, 17.2.3, 38.2 and 38.7 is replaced by the words “oil residue (sludge)”.

6 The words “and other oil residues” in regulation 17.2.3 are deleted.

Annex 2

**AMENDMENTS TO THE SUPPLEMENT TO THE IOPP CERTIFICATE FORM A
(SHIPS OTHER THAN OIL TANKERS) AND FORM B (OIL TANKERS)**

1 The existing Section 3 of the Supplement to the IOPP Certificate, Form A and Form B, is replaced by the following:

“3 Means for retention and disposal of oil residues (sludge) (regulation 12) and oily bilge water holding tank(s)

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

Tank identification	Tank location		Volume (m ³)
	Frames (from)-(to)	Lateral position	
Total volume: m ³			

3.2 Means for the disposal of oil residues (sludge) retained in oil residue (sludge) tanks:

3.2.1 Incinerator for oil residues (sludge), maximum capacity kW or kcal/h (delete as appropriate)..... ☐

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

3.2.3 Other acceptable means, state which ☐

3.3 The ship is provided with holding tank(s) for the retention on board of oily bilge water as follows:

Tank identification	Tank location		Volume (m ³)
	Frames (from)-(to)	Lateral position	
Total volume: m ³			

”

2 The term “(double bottom requirements)” at the end of paragraph 5.8.2 of Form B is deleted.

3 Paragraphs 5.8.5 and 5.8.7 are replaced by the following:

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

- .1 The ship is less than 5,000 tonnes deadweight ☐
- .2 The ship complies with regulation 20.1.2 ☐
- .3 The ship complies with regulation 20.1.3 ☐

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

- .1 The ship is less than 600 tonnes deadweight ☐
- .2 The ship complies with regulation 19
(Deadweight tonnes \geq 5,000) ☐
- .3 The ship complies with regulation 21.1.2 ☐
- .4 The ship complies with regulation 21.4.2
(600 \leq Deadweight tonnes $<$ 5,000) ☐
- .5 The ship does not carry “heavy grade oil” as defined
in regulation 21.2 of MARPOL Annex I ☐

4 Delete paragraph 6.1.5.4 from the Supplement to the International Oil Pollution Prevention Certificate, Form B.

Annex 3

AMENDMENTS TO THE OIL RECORD BOOK PARTS I AND II

1 Sections (A) to (H) of the Oil Record Book Part I are replaced by the following:

“(A) **Ballasting or cleaning of oil fuel tanks**

- 1 Identity of tank(s) ballasted.
- 2 Whether cleaned since they last contained oil and, if not, type of oil previously carried.
- 3 Cleaning process:
 - .1 position of ship and time at the start and completion of cleaning;
 - .2 identify tank(s) in which one or another method has been employed (rinsing through, steaming, cleaning with chemicals; type and quantity of chemicals used, in m³);
 - .3 identity of tank(s) into which cleaning water was transferred and the quantity in m³.
- 4 Ballasting:
 - .1 position of ship and time at start and end of ballasting;
 - .2 quantity of ballast if tanks are not cleaned, in m³.

(B) **Discharge of dirty ballast or cleaning water from oil fuel tanks referred to under Section (A)**

- 5 Identity of tank(s).
- 6 Position of ship at start of discharge.
- 7 Position of ship on completion of discharge.
- 8 Ship's speed(s) during discharge.
- 9 Method of discharge:
 - .1 through 15 ppm equipment;
 - .2 to reception facilities.
- 10 Quantity discharged, in m³.

(C) **Collection, transfer and disposal of oil residues (sludge)**

- 11 Collection of oil residues (sludge).
Quantities of oil residues (sludge) retained on board. The quantity should be recorded weekly (this means that the quantity must be recorded once a week even if the voyage lasts more than one week):
 - .1 identity of tank(s)
 - .2 capacity of tank(s) m³
 - .3 total quantity of retention m³
 - .4 quantity of residue collected by manual operation m³
(Operator initiated manual collections where oil residue (sludge) is transferred into the oil residue (sludge) holding tank(s).)
- 12 Methods of transfer or disposal of oil residues (sludge).
State quantity of oil residues transferred or disposed of, the tank(s) emptied and the quantity of contents retained in m³:
 - .1 to reception facilities (identify port);
 - .2 to another (other) tank(s) (indicate tank(s) and the total content of tank(s));
 - .3 incinerated (indicate total time of operation);
 - .4 other method (state which).

(D) Non-automatic starting of discharge overboard, transfer or disposal otherwise of bilge water which has accumulated in machinery spaces

- 13 Quantity discharged, transferred or disposed of, in m³.
14 Time of discharge, transfer or disposal (start and stop).
15 Method of discharge, transfer, or disposal:
.1 through 15 ppm equipment (state position at start and end);
.2 to reception facilities (identify port)²;
.3 to slop tank or holding tank or other tank(s) (indicate tank(s); state quantity retained in tank(s), in m³).

(E) Automatic starting of discharge overboard, transfer or disposal otherwise of bilge water which has accumulated in machinery spaces

- 16 Time and position of ship at which the system has been put into automatic mode of operation for discharge overboard, through 15 ppm equipment.
17 Time when the system has been put into automatic mode of operation for transfer of bilge water to holding tank (identify tank).
18 Time when the system has been put into manual operation.

(F) Condition of the oil filtering equipment

- 19 Time of system failure.
20 Time when system has been made operational.
21 Reasons for failure.

(G) Accidental or other exceptional discharges of oil

- 22 Time of occurrence.
23 Place or position of ship at time of occurrence.
24 Approximate quantity and type of oil.
25 Circumstances of discharge or escape, the reasons therefor and general remarks.

(H) Bunkering of fuel or bulk lubricating oil

- 26 Bunkering:
.1 Place of bunkering.
.2 Time of bunkering.
.3 Type and quantity of fuel oil and identity of tank(s) (state quantity added, in tonnes and total content of tank(s)).
.4 Type and quantity of lubricating oil and identity of tank(s) (state quantity added, in tonnes and total content of tank(s)).”

2 Section (J) of the Oil Record Book Part II is replaced by the following:

“(J) Collection, transfer and disposal of residues and oily mixtures not otherwise dealt with

55 Identity of tanks.

56 Quantity transferred or disposed of from each tank. (State the quantity retained, in m³.)

57 Method of transfer or disposal:

- .1 disposal to reception facilities (identify port and quantity involved);
- .2 mixed with cargo (state quantity);
- .3 transferred to or from (an)other tank(s) including transfer from machinery space oil residue (sludge) and oily bilge water tanks (identify tank(s); state quantity transferred and total quantity in tank(s), in m³); and
- .4 other method (state which); state quantity disposed of in m³.”

RESOLUTION MEPC.189(60)

Adopted on 26 March 2010

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

(Addition of a new chapter 9 to MARPOL Annex I)

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee (the Committee) conferred upon it by international conventions for the prevention and control of marine pollution,

NOTING Article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1973 Convention") and article VI of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1978 Protocol") which together specify the amendment procedure of the 1978 Protocol and confer upon the appropriate body of the Organization the function of considering and adopting amendments to the 1973 Convention, as modified by the 1978 Protocol (MARPOL 73/78),

HAVING CONSIDERED draft amendments to Annex I of MARPOL 73/78,

1. ADOPTS, in accordance with Article 16(2)(d) of the 1973 Convention, the amendments to Annex I of MARPOL 73/78 concerning the addition of a new chapter 9 on Special requirements for the use or carriage of oils in the Antarctic area;
2. DETERMINES, in accordance with Article 16(2)(f)(iii) of the 1973 Convention, that the amendments shall be deemed to have been accepted on 1 February 2011 unless, prior to that date, not less than one third of the Parties or Parties the combined merchant fleets of which constitute not less than 50 per cent of the gross tonnage of the world's merchant fleet, have communicated to the Organization their objection to the amendments;
3. INVITES the Parties to note that, in accordance with Article 16(2)(g)(ii) of the 1973 Convention, the said amendments shall enter into force on 1 August 2011 upon their acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with Article 16(2)(e) of the 1973 Convention, to transmit to all Parties to MARPOL 73/78 certified copies of the present resolution and the text of the amendments contained in the annex; and
5. REQUESTS FURTHER the Secretary-General to transmit to the Members of the Organization which are not Parties to MARPOL 73/78 copies of the present resolution and its annex.

ANNEX

AMENDMENTS TO MARPOL ANNEX I TO ADD
CHAPTER 9 – SPECIAL REQUIREMENTS FOR THE USE OR
CARRIAGE OF OILS IN THE ANTARCTIC AREA

A new chapter 9 is added as follows:

"CHAPTER 9 – SPECIAL REQUIREMENTS FOR THE USE OR CARRIAGE OF OILS IN THE ANTARCTIC AREA

Regulation 43

Special requirements for the use or carriage of oils in the Antarctic area

1 With the exception of vessels engaged in securing the safety of ships or in a search and rescue operation, the carriage in bulk as cargo or carriage and use as fuel of the following:

- .1 crude oils having a density at 15°C higher than 900 kg/m³;
- .2 oils, other than crude oils, having a density at 15°C higher than 900 kg/m³ or a kinematic viscosity at 50°C higher than 180 mm²/s; or
- .3 bitumen, tar and their emulsions,

shall be prohibited in the Antarctic area, as defined in Annex I, regulation 1.11.7.

2 When prior operations have included the carriage or use of oils listed in paragraphs 1.1 to 1.3 of this regulation, the cleaning or flushing of tanks or pipelines is not required."

**PROTOCOL OF 1997 TO AMEND THE INTERNATIONAL CONVENTION FOR THE
PREVENTION OF POLLUTION FROM SHIPS, 1973, AS MODIFIED BY
THE PROTOCOL OF 1978 RELATING THERETO**

THE PARTIES TO THE PRESENT PROTOCOL,

BEING Parties to the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973,

RECOGNIZING the need to prevent and control air pollution from ships,

RECALLING Principle 15 of the Rio Declaration on Environment and Development which calls for the application of a precautionary approach,

CONSIDERING that this objective could best be achieved by the conclusion of a Protocol of 1997 to amend the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto,

HAVE AGREED as follows:

Article 1

Instrument to be amended

The instrument which the present Protocol amends is 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").

Article 2

Addition of Annex VI to the Convention

Annex VI entitled Regulations for the Prevention of Air Pollution from Ships, the text of which is set out in the annex to the present Protocol, is added.

Article 3

General Obligations

- 1 The Convention and the present Protocol shall, as between the Parties to the present Protocol, be read and interpreted together as one single instrument.
- 2 Every reference to the present Protocol constitutes at the same time a reference to the Annex hereto.

Article 4**Amendment procedure**

In applying article 16 of the Convention to an amendment to Annex VI and its appendices, the reference to “a Party to the Convention” shall be deemed to mean the reference to a Party bound by that Annex.

FINAL CLAUSES**Article 5****Signature, ratification, acceptance, approval and accession**

- 1 The present Protocol shall be open for signature at the Headquarters of the International Maritime Organization (hereinafter referred to as the “Organization”) from 1 January 1998 until 31 December 1998 and shall thereafter remain open for accession. Only Contracting States to the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the “1978 Protocol”) 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 (hereinafter referred to as the “Secretary-General”).

Article 6**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 50 per cent of the gross tonnage of the world’s merchant shipping, have become Parties to it in accordance with article 5 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.

Article 7**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.
- 3 A denunciation shall take effect twelve months after receipt of the notification by the Secretary-General or after the expiry of any other longer period which may be indicated in the notification.
- 4 A denunciation of the 1978 Protocol in accordance with article VII thereof shall be deemed to include a denunciation of the present Protocol in accordance with this article. Such denunciation shall take effect on the date on which denunciation of the 1978 Protocol takes effect in accordance with article VII of that Protocol.

Article 8**Depositary**

- 1 The present Protocol shall be deposited with the Secretary-General (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; and
 - (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; and
 - (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 9**Languages**

The present Protocol is established in a single copy in the Arabic, Chinese, English, French, Russian and Spanish languages, each text being equally authentic.

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

DONE AT LONDON this twenty-sixth day of September, one thousand nine hundred and ninety-seven.

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.

- (5) "NO_x 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) "SO_x Emission Control Area" means an area where the adoption of special mandatory measures for SO_x emissions from ships is required to prevent, reduce and control air pollution from SO_x and its attendant adverse impacts on land and sea areas. SO_x 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.

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.

- (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.

- (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 NO₂) 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 (SOx)****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 SOx Emission Control Areas

- (3) For the purpose of this regulation, SOx 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 SOx 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 SOx 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 SOx 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 SOx/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 SOx 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 SOx 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.

- (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:

- (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 NO_x 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.

- (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;

- (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.

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)

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)

- 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 ☐

- .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*

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.

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.

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

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.

RESOLUTION MEPC.132(53)**Adopted on 22 July 2005****AMENDMENTS TO THE ANNEX OF THE PROTOCOL OF 1997 TO AMEND THE
INTERNATIONAL CONVENTION FOR THE PREVENTION OF POLLUTION FROM
SHIPS, 1973, AS MODIFIED BY THE PROTOCOL OF 1978 RELATING THERETO****(Amendments to MARPOL Annex VI and the NO_x Technical Code)**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee (“the Committee”) conferred upon it by international conventions for the prevention and control of marine pollution,

NOTING article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the “1973 Convention”), article VI of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the “1978 Protocol”) and article 4 of the Protocol of 1997 to amend the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (herein after referred to as the “1997 Protocol”), which together specify the amendment procedure of the 1997 Protocol and confer upon the appropriate body of the Organization the function of considering and adopting amendments to the 1973 Convention, as modified by the 1978 and 1997 Protocols,

NOTING ALSO that, by the 1997 Protocol, Annex VI entitled Regulations for the Prevention of Air Pollution from Ships is added to the 1973 Convention (hereinafter referred to as “Annex VI”),

NOTING FURTHER that regulation 2(5) of Annex VI specifies the amendment procedure of the NO_x Technical Code,

HAVING CONSIDERED the proposed amendments to Annex VI and the NO_x Technical Code,

1. ADOPTS, in accordance with article 16(2)(d) of the 1973 Convention, the amendments to Annex VI and the NO_x Technical Code, the text of which is set out at Annex to the present resolution;
2. DETERMINES, in accordance with article 16(2)(f)(iii) of the 1973 Convention, that the amendments shall be deemed to have been accepted on 22 May 2006, unless prior to that date, not less than one-third of the Parties or Parties the combined merchant fleets of which constitute not less than 50 per cent of the gross tonnage of the world’s merchant fleet, have communicated to the Organization their objection to the amendments;
3. INVITES the Parties to note that, in accordance with article 16(2)(g)(ii) of the 1973 Convention, the said amendments shall enter into force on 22 November 2006 upon their acceptance in accordance with paragraph 2 above;

4. REQUESTS the Secretary-General, in conformity with article 16(2)(e) of the 1973 Convention, to transmit to all Parties to the 1973 Convention, as modified by the 1978 and 1997 Protocols, certified copies of the present resolution and the text of the amendments contained in the Annex;
5. REQUESTS FURTHER the Secretary-General to transmit to the Members of the Organization which are not Parties to the 1973 Convention, as modified by the 1978 and 1997 Protocols, copies of the present resolution and its Annex; and
6. INVITES Parties to consider the application of the aforesaid amendments to Annex VI with regard to the Harmonized System of Survey and Certification (HSSC) as soon as practicable to ships entitled to fly their flag before the expected date of entry into force of the amendments, and invites other Parties to accept the certificates issued under the HSSC for Annex VI.

ANNEX

AMENDMENTS TO MARPOL ANNEX VI
AND THE NO_x TECHNICAL CODE

A. Amendments to MARPOL Annex VI

Regulation 2

- 1 The following new paragraph (14) is added after existing paragraph (13):

“(14) *Anniversary date* means the day and the month of each year which will correspond to the date of expiry of the International Air Pollution Prevention Certificate.”

Regulation 5

- 2 The existing title is replaced by the following:

“Surveys”

- 3 The existing regulation 5 is replaced by the following:

“(1) Every ship of 400 gross tonnage and 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) A renewal survey at intervals specified by the Administration, but not exceeding five years, except where regulation 9(2), 9(5), 9(6) or 9(7) of this Annex is applicable. The renewal survey shall be such as to ensure that the equipment, systems, fittings, arrangements and material fully comply with applicable requirements of this Annex;
- (c) An intermediate survey within three months before or after the second anniversary date or within three months before or after the third anniversary date of the certificate which shall take the place of one of the annual surveys specified in paragraph (1)(d) of this regulation. The intermediate survey shall be such as to ensure that the equipment and arrangements fully comply with the applicable requirements of this Annex and are in good working order. Such intermediate surveys shall be endorsed on the certificate issued under regulation 6 or 7 of this Annex;
- (d) An annual survey within three months before or after each anniversary date of the certificate, including a general inspection of the equipment, systems, fittings, arrangements and material referred to in paragraph (1)(a) of this regulation to ensure that they have been maintained in accordance with paragraph (4) of this regulation and that they remain satisfactory for the service for which the ship is intended. Such annual surveys shall be endorsed on the certificate issued under regulation 6 or 7 of this Annex; and

- (e) An additional survey either general or partial, according to the circumstances, shall be made after a repair resulting from investigations prescribed in paragraph (4) of this regulation, or whenever any important repairs or renewals are made. The survey shall be such as to ensure that the necessary repairs or renewals have been effectively made, that the material and workmanship of such repairs or renewals are in all respects satisfactory and that the ship complies in all respects with the requirements of this Annex.
- (2) 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)
- (a) 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.
 - (b) The survey of engines and equipment for compliance with regulation 13 of this Annex shall be conducted in accordance with the NO_x Technical Code.
 - (c) 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.
 - (d) In every case, the Administration concerned shall fully guarantee the completeness and efficiency of the survey and shall undertake to ensure the necessary arrangements to satisfy this obligation.
- (4)
- (a) 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.
 - (b) 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

- 4 The existing title is replaced by the following:

“Issue or Endorsement of Certificate”

- 5 The existing regulation 6 is replaced by the following:

“(1) An International Air Pollution Prevention Certificate shall be issued, after an initial or renewal survey in accordance with the provisions of regulation 5 of this Annex, to:

- (a) any ship of 400 gross tonnage and 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 three years after entry into force of the Protocol of 1997.

(3) Such certificate shall be issued or endorsed 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

- 6 The existing title is replaced by the following:

“Issue or Endorsement of a Certificate by another Government”

- 7 The existing regulation 7 is replaced by the following:

“(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, shall issue or authorize the issuance of an International Air Pollution Prevention Certificate to the ship, and where appropriate, endorse or authorize the endorsement of that certificate on the ship, in accordance with this Annex.

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

(3) A certificate so issued shall contain a statement to the effect that it has been issued at the request of the Administration and it shall have the same force and receive the same recognition as 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

8 The existing regulation 8 is replaced by the following:

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

Regulation 9

9 The existing regulation 9 is replaced by the following:

“(1) An International Air Pollution Prevention Certificate shall be issued for a period specified by the Administration, which shall not exceed five years.

(2) (a) Notwithstanding the requirements of paragraph (1) of this regulation, when the renewal survey is completed within three months before the expiry date of the existing certificate, the new certificate shall be valid from the date of completion of the renewal survey to a date not exceeding five years from the date of expiry of the existing certificate.

(b) When the renewal survey is completed after the expiry date of the existing certificate, the new certificate shall be valid from the date of completion of the renewal survey to a date not exceeding five years from the date of expiry of the existing certificate.

(c) When the renewal survey is completed more than three months before the expiry date of the existing certificate, the new certificate shall be valid from the date of completion of the renewal survey to a date not exceeding five years from the date of completion of the renewal survey.

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

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

(5) If a ship, at the time when a certificate expires, is not in a port in which it is to be surveyed, the Administration may extend the period of validity of the certificate but this extension shall be granted only for the purpose of allowing the ship to complete its voyage to the port in which it is to be surveyed, and then only in cases where it appears proper and reasonable to do so. No certificate shall be extended for a period longer than three months, and a ship to which an extension is granted shall not, on its arrival in the port in which it is to be surveyed, be entitled by virtue of such extension to leave that port without having a new certificate. When the renewal survey is completed, the new certificate shall be valid to a date not exceeding five years from the date of expiry of the existing certificate before the extension was granted.

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

(7) In special circumstances, as determined by the Administration, a new certificate need not be dated from the date of expiry of the existing certificate as required by paragraph (2)(b), (5) or (6) of this regulation. In these special circumstances, the new certificate shall be valid to a date not exceeding five years from the date of completion of the renewal survey.

(8) If an annual or intermediate survey is completed before the period specified in regulation 5 of this Annex, then:

- (a) the anniversary date shown on the certificate shall be amended by endorsement to a date which shall not be more than three months later than the date on which the survey was completed;
- (b) the subsequent annual or intermediate survey required by regulation 5 of this Annex shall be completed at the intervals prescribed by that regulation using the new anniversary date;
- (c) the expiry date may remain unchanged provided one or more annual or intermediate surveys, as appropriate, are carried out so that the maximum intervals between the surveys prescribed by regulation 5 of this Annex are not exceeded.

(9) A certificate issued under regulation 6 or 7 of this Annex shall cease to be valid in any of the following cases:

- (a) if the relevant surveys are not completed within the periods specified under regulation 5(1) of this Annex;
- (b) if the certificate is not endorsed in accordance with regulation 5(1)(c) or 5(1)(d) of this Annex;
- (c) upon transfer of the ship to the flag of another State. A new certificate shall only be issued when the Government issuing the new certificate is fully satisfied that the ship is in compliance with the requirements of regulation 5(4)(a) 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 copies of the certificate carried by the ship before the transfer and, if available, copies of the relevant survey reports.”

Regulation 14

10 The following words are added in regulation 14(3)(a) before the word “and”:

“, the North Sea area as defined in regulation 5(1)(f) of Annex V;”

Appendix I - Form of IAPP Certificate

11 The existing Appendix I “Form of IAPP Certificate” is replaced by the following:

“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 by the Protocol of 1978 relating thereto, and as amended by resolution MEPC.132(53), (hereinafter referred to as “the Convention”) under the authority of the Government of:

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

by
(full designation of the competent person or organization
authorized under the provisions of the Convention)

Particulars of ship*

Name of ship

Distinctive number or letters

Port of registry

Gross tonnage

IMO Number⁺

Type of ship:

tanker ☐

ship other than a tanker ☐

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

⁺ In accordance with IMO ship identification number scheme adopted by the Organization by resolution A.600(15).

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 material fully comply with the applicable requirements of Annex VI of the Convention.

Completion date of the survey on which this certificate is based: dd/mm/yyyy

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 authorized official
issuing the certificate)

(Seal or stamp of the authority, as appropriate)

[†] Insert the date of expiry as specified by the Administration in accordance with regulation 9(1) of Annex VI of the Convention. The day and the month of this date correspond to the anniversary date as defined in regulation 2(14) of Annex VI of the Convention, unless amended in accordance with regulation 9(8) of Annex VI of the Convention.

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 authorized official)

Place

Date

(Seal or stamp of the authority, as appropriate)

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

Place

Date

(Seal or stamp of the authority, as appropriate)

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

Place

Date

(Seal or stamp of the authority, as appropriate)

Annual survey: Signed
(Signature of authorized official)

Place

Date

(Seal or stamp of the authority, as appropriate)

* Delete as appropriate.

**ANNUAL/INTERMEDIATE SURVEY IN ACCORDANCE
WITH REGULATION 9(8)(c)**

THIS IS TO CERTIFY that, at an annual/intermediate* survey in accordance with regulation 9(8)(c) of Annex VI of the Convention, the ship was found to comply with the relevant provisions of the Convention:

Signed
(Signature of authorized official)

Place

Date

(Seal or stamp of the authority, as appropriate)

**ENDORSEMENT TO EXTEND THE CERTIFICATE IF VALID
FOR LESS THAN 5 YEARS WHERE REGULATION 9(3) APPLIES**

The ship complies with the relevant provisions of the Convention, and this certificate shall, in accordance with regulation 9(3) of Annex VI of the Convention, be accepted as valid until

Signed
(Signature of authorized official)

Place

Date

(Seal or stamp of the authority, as appropriate)

* Delete as appropriate.

**ENDORSEMENT WHERE THE RENEWAL SURVEY HAS BEEN
COMPLETED AND REGULATION 9(4) APPLIES**

The ship complies with the relevant provisions of the Convention, and this certificate shall, in accordance with regulation 9(4) of Annex VI of the Convention, be accepted as valid until

Signed
(Signature of authorized official)

Place

Date

(Seal or stamp of the authority, as appropriate)

**ENDORSEMENT TO EXTEND THE VALIDITY OF THE CERTIFICATE UNTIL
REACHING THE PORT OF SURVEY OR FOR A PERIOD OF GRACE WHERE
REGULATION 9(5) OR 9(6) APPLIES**

This certificate shall, in accordance with regulation 9(5) or 9(6)* of Annex VI of the Convention, be accepted as valid until

Signed
(Signature of authorized official)

Place

Date

(Seal or stamp of the authority, as appropriate)

* Delete as appropriate.

**ENDORSEMENT FOR ADVANCEMENT OF ANNIVERSARY DATE
WHERE REGULATION 9(8) APPLIES**

In accordance with regulation 9(8) of Annex VI of the Convention, the new anniversary date
is

Signed
(Signature of authorized official)

Place

Date

(Seal or stamp of the authority, as appropriate)

In accordance with regulation 9(8) of Annex VI of the Convention, the new anniversary date
is

Signed
(Signature of authorized official)

Place

Date

(Seal or stamp of the authority, as appropriate)"

Supplement to International Air Pollution Prevention (IAPP) Certificate**RECORD OF CONSTRUCTION AND EQUIPMENT**

12 Paragraph 2 of the Notes is replaced by the following:

“2 The Record shall be at least in English, French or Spanish. If an official language of the issuing country is also used, this shall prevail in case of a dispute or discrepancy.”

B. Amendment to the NO_x Technical Code

1 The following words are added at the end of paragraph 5.2.1:

“If, for evident technical reasons, it is not possible to comply with this requirement, *f*_a shall be between 0.93 and 1.07.”

Appendix 1**Form of Engine International Air Pollution Prevention (EIAPP) Certificate
Supplement to Engine International Air Pollution Prevention (EIAPP) Certificate****RECORD OF CONSTRUCTION, TECHNICAL FILE AND MEANS OF VERIFICATION**

2 Paragraph 2 of the Notes is replaced by the following:

“2 The Record shall be at least in English, French or Spanish. If an official language of the issuing country is also used, this shall prevail in case of a dispute or discrepancy.”

RESOLUTION MEPC.176(58)**Adopted on 10 October 2008****AMENDMENTS TO THE ANNEX OF THE PROTOCOL OF 1997 TO AMEND THE
INTERNATIONAL CONVENTION FOR THE PREVENTION OF POLLUTION FROM
SHIPS, 1973, AS MODIFIED BY THE PROTOCOL OF 1978 RELATING THERETO****(Revised MARPOL Annex VI)**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee (the Committee) conferred upon it by international conventions for the prevention and control of marine pollution,

NOTING article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the “1973 Convention”), article VI of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the “1978 Protocol”) and article 4 of the Protocol of 1997 to amend the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (herein after referred to as the “1997 Protocol”), which together specify the amendment procedure of the 1997 Protocol and confer upon the appropriate body of the Organization the function of considering and adopting amendments to the 1973 Convention, as modified by the 1978 and 1997 Protocols,

NOTING ALSO that, by the 1997 Protocol, Annex VI, entitled Regulations for the Prevention of Air Pollution from Ships (hereinafter referred to as “Annex VI”), is added to the 1973 Convention,

HAVING CONSIDERED the draft amendments to MARPOL Annex VI,

1. ADOPTS, in accordance with article 16(2)(d) of the 1973 Convention, the amendments to Annex VI, the text of which is set out at Annex to the present resolution;
2. DETERMINES, in accordance with article 16(2)(f)(iii) of the 1973 Convention, that the amendments shall be deemed to have been accepted on 1 January 2010, unless prior to that date, not less than one-third of the Parties or Parties the combined merchant fleets of which constitute not less than 50 per cent of the gross tonnage of the world’s merchant fleet, have communicated to the Organization their objection to the amendments;
3. INVITES the Parties to note that, in accordance with article 16(2)(g)(ii) of the 1973 Convention, the said amendments shall enter into force on 1 July 2010 upon their acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with article 16(2)(e) of the 1973 Convention, to transmit to all Parties to the 1973 Convention, as modified by the 1978 and 1997 Protocols, certified copies of the present resolution and the text of the amendments contained in the Annex;

5. REQUESTS FURTHER the Secretary-General to transmit to the Members of the Organization which are not Parties to the 1973 Convention, as modified by the 1978 and 1997 Protocols, copies of the present resolution and its Annex; and
6. INVITES the Parties to MARPOL Annex VI and other Member Governments to bring the amendments to MARPOL Annex VI to the attention of shipowners, ship operators, shipbuilders, marine diesel engine manufacturers, marine fuel suppliers and any other interested groups.

ANNEX

REVISED MARPOL ANNEX VI

Regulations for the Prevention of Air Pollution from Ships

Chapter 1

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, 16 and 18 of this Annex.

Regulation 2*Definitions*

For the purpose of this Annex:

1 *Annex* means Annex VI to the International Convention for the Prevention of Pollution from Ships, 1973 (MARPOL), as modified by the Protocol of 1978 relating thereto (MARPOL 73/78), and as modified by the Protocol of 1997, as 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.

2 *A similar stage of construction* means the stage at which:

- .1 construction identifiable with a specific ship begins; and
- .2 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.

3 *Anniversary date* means the day and the month of each year that will correspond to the date of expiry of the International Air Pollution Prevention Certificate.

4 *Auxiliary control device* means a system, function, or control strategy installed on a marine diesel engine that is used to protect the engine and/or its ancillary equipment against operating conditions that could result in damage or failure, or that is used to facilitate the starting of the engine. An auxiliary control device may also be a strategy or measure that has been satisfactorily demonstrated not to be a defeat device.

5 *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 1,200°C.

6 *Defeat device* means a device that measures, senses, or responds to operating variables (e.g., engine speed, temperature, intake pressure or any other parameter) for the purpose of activating, modulating, delaying or deactivating the operation of any component or the function of the emission control system, such that the effectiveness of the emission control system is reduced under conditions encountered during normal operation, unless the use of such a device is substantially included in the applied emission certification test procedures.

7 *Emission* means any release of substances, subject to control by this Annex, from ships into the atmosphere or sea.

8 *Emission control area* means an area where the adoption of special mandatory measures for emissions from ships is required to prevent, reduce and control air pollution from NO_x or SO_x and particulate matter or all three types of emissions and their attendant adverse impacts on human health and the environment. Emission control areas shall include those listed in, or designated under, regulations 13 and 14 of this Annex.

9 *Fuel oil* means any fuel delivered to and intended for combustion purposes for propulsion or operation on board a ship, including distillate and residual fuels.

10 *Gross tonnage* means the gross tonnage calculated in accordance with the tonnage measurement regulations contained in Annex I to the International Convention on Tonnage Measurements of Ships, 1969 or any successor Convention.

11 *Installations* in relation to regulation 12 of this Annex means the installation of systems, equipment including portable fire-extinguishing units, insulation, or other material on a ship, but excludes the repair or recharge of previously installed systems, equipment, insulation, or other material, or the recharge of portable fire-extinguishing units.

12 *Installed* means a marine diesel engine that is or is intended to be fitted on a ship, including a portable auxiliary marine diesel engine, only if its fuelling, cooling, or exhaust system is an integral part of the ship. A fuelling system is considered integral to the ship only if it is permanently affixed to the ship. This definition includes a marine diesel engine that is used to supplement or augment the installed power capacity of the ship and is intended to be an integral part of the ship.

13 *Irrational emission control strategy* means any strategy or measure that, when the ship is operated under normal conditions of use, reduces the effectiveness of an emission control system to a level below that expected on the applicable emission test procedures.

14 *Marine diesel engine* means any reciprocating internal combustion engine operating on liquid or dual fuel, to which regulation 13 of this Annex applies, including booster/compound systems if applied.

15 *NO_x Technical Code* means the Technical Code on Control of Emission of Nitrogen Oxides from Marine Diesel Engines adopted by resolution 2 of the 1997 MARPOL Conference, as 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.

16 *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 Annex 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

17 *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.

18 *Shipboard incinerator* means a shipboard facility designed for the primary purpose of incineration.

19 *Ships constructed* means ships the keels of which are laid or that are at a similar stage of construction.

20 *Sludge oil* means sludge from the fuel oil 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.

21 *Tanker* means an oil tanker as defined in regulation 1 of Annex I or a chemical tanker as defined in regulation 1 of Annex II of the present Convention.

Regulation 3

Exceptions and exemptions

General

1 Regulations of this Annex shall not apply to:

- .1 any emission necessary for the purpose of securing the safety of a ship or saving life at sea; or

- .2 any emission resulting from damage to a ship or its equipment:
 - .2.1 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
 - .2.2 except if the owner or the master acted either with intent to cause damage, or recklessly and with knowledge that damage would probably result.

Trials for ship emission reduction and control technology research

2 The Administration of a Party may, in cooperation with other Administrations as appropriate, issue an exemption from specific provisions of this Annex for a ship to conduct trials for the development of ship emission reduction and control technologies and engine design programmes. Such an exemption shall only be provided if the applications of specific provisions of the Annex or the revised NO_x Technical Code 2008 could impede research into the development of such technologies or programmes. A permit for such an exemption shall only be provided to the minimum number of ships necessary and be subject to the following provisions:

- .1 for marine diesel engines with a per cylinder displacement up to 30 litres, the duration of the sea trial shall not exceed 18 months. If additional time is required, a permitting Administration or Administrations may permit a renewal for one additional 18-month period; or
- .2 for marine diesel engines with a per cylinder displacement at or above 30 litres, the duration of the ship trial shall not exceed 5 years and shall require a progress review by the permitting Administration or Administrations at each intermediate survey. A permit may be withdrawn based on this review if the testing has not adhered to the conditions of the permit or if it is determined that the technology or programme is not likely to produce effective results in the reduction and control of ship emissions. If the reviewing Administration or Administrations determine that additional time is required to conduct a test of a particular technology or programme, a permit may be renewed for an additional time period not to exceed five years.

Emissions from sea-bed mineral activities

3.1 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:

- .1 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;
- .2 the release of gases and volatile compounds entrained in drilling fluids and cuttings;

- .3 emissions associated solely and directly with the treatment, handling, or storage of sea-bed minerals; and
- .4 emissions from marine diesel engines that are solely dedicated to the exploration, exploitation and associated offshore processing of sea-bed mineral resources.

3.2 The requirements of regulation 18 of this Annex shall not apply to the use of hydrocarbons that are produced and subsequently used on site as fuel, when approved by the Administration.

Regulation 4

Equivalents

1 The Administration of a Party may allow any fitting, material, appliance or apparatus to be fitted in a ship or other procedures, alternative fuel oils, or compliance methods used as an alternative to that required by this Annex if such fitting, material, appliance or apparatus or other procedures, alternative fuel oils, or compliance methods are at least as effective in terms of emissions reductions as that required by this Annex, including any of the standards set forth in regulations 13 and 14.

2 The Administration of a Party that allows a fitting, material, appliance or apparatus or other procedures, alternative fuel oils, or compliance methods used as an alternative to that required by this Annex shall communicate to the Organization for circulation to the Parties particulars thereof, for their information and appropriate action, if any.

3 The Administration of a Party should take into account any relevant guidelines developed by the Organization pertaining to the equivalents provided for in this regulation.

4 The Administration of a Party that allows the use of an equivalent as set forth in paragraph 1 of this regulation shall endeavour not to impair or damage its environment, human health, property, or resources, or those of other States.

Chapter 2

Survey, certification and means of control

Regulation 5

Surveys

1 Every ship of 400 gross tonnage and above and every fixed and floating drilling rig and other platforms shall be subject to the surveys specified below:

- .1 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;
- .2 A renewal survey at intervals specified by the Administration, but not exceeding five years, except where regulation 9.2, 9.5, 9.6 or 9.7 of this Annex is applicable. The renewal survey shall be such as to ensure that the equipment, systems, fittings, arrangements and material fully comply with applicable requirements of this Annex;
- .3 An intermediate survey within three months before or after the second anniversary date or within three months before or after the third anniversary date of the certificate which shall take the place of one of the annual surveys specified in paragraph 1.4 of this regulation. The intermediate survey shall be such as to ensure that the equipment and arrangements fully comply with the applicable requirements of this Annex and are in good working order. Such intermediate surveys shall be endorsed on the certificate issued under regulation 6 or 7 of this Annex;
- .4 An annual survey within three months before or after each anniversary date of the certificate, including a general inspection of the equipment, systems, fittings, arrangements and material referred to in paragraph 1.1 of this regulation to ensure that they have been maintained in accordance with paragraph 4 of this regulation and that they remain satisfactory for the service for which the ship is intended. Such annual surveys shall be endorsed on the certificate issued under regulation 6 or 7 of this Annex; and
- .5 An additional survey either general or partial, according to the circumstances, shall be made whenever any important repairs or renewals are made as prescribed in paragraph 4 of this regulation or after a repair resulting from investigations prescribed in paragraph 5 of this regulation. The survey shall be such as to ensure that the necessary repairs or renewals have been effectively made, that the material and workmanship of such repairs or renewals are in all respects satisfactory and that the ship complies in all respects with the requirements of this Annex.

2 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.

- .1 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;
- .2 The survey of marine diesel engines and equipment for compliance with regulation 13 of this Annex shall be conducted in accordance with the revised NO_x Technical Code 2008;
- .3 When a nominated surveyor or recognized organization determines that the condition of the equipment does not correspond substantially with the particulars of the certificate, it shall ensure that corrective action is taken and shall in due course notify the Administration. If such corrective action is not taken, the certificate shall be withdrawn 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; and
- .4 In every case, the Administration concerned shall fully guarantee the completeness and efficiency of the survey and shall undertake to ensure the necessary arrangements to satisfy this obligation.

4 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.

5 Whenever an accident occurs to a ship or a defect is discovered that 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 or endorsement of a Certificate

1 An International Air Pollution Prevention Certificate shall be issued, after an initial or renewal survey in accordance with the provisions of regulation 5 of this Annex, to:

- .1 any ship of 400 gross tonnage and above engaged in voyages to ports or offshore terminals under the jurisdiction of other Parties; and
- .2 platforms and drilling rigs engaged in voyages to waters under the sovereignty or jurisdiction of other Parties.

2 A ship constructed before the date of entry into force of Annex VI for such ship's administration shall be issued with an International Air Pollution Prevention Certificate in accordance with paragraph 1 of this regulation no later than the first scheduled dry-docking after the date of such entry into force, but in no case later than three years after this date.

3 Such certificate shall be issued or endorsed 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 Party

1 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 issuance of an International Air Pollution Prevention Certificate to the ship, and where appropriate, endorse or authorize the endorsement of that certificate on the ship, in accordance with this Annex.

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

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

Regulation 8

Form of Certificate

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

Regulation 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.

2 Notwithstanding the requirements of paragraph 1 of this regulation:

- .1 when the renewal survey is completed within three months before the expiry date of the existing certificate, the new certificate shall be valid from the date of completion of the renewal survey to a date not exceeding five years from the date of expiry of the existing certificate;

- .2 when the renewal survey is completed after the expiry date of the existing certificate, the new certificate shall be valid from the date of completion of the renewal survey to a date not exceeding five years from the date of expiry of the existing certificate; and
- .3 when the renewal survey is completed more than three months before the expiry date of the existing certificate, the new certificate shall be valid from the date of completion of the renewal survey to a date not exceeding five years from the date of completion of the renewal survey.

3 If a certificate is issued for a period of less than five years, the Administration may extend the validity of the certificate beyond the expiry date to the maximum period specified in paragraph 1 of this regulation, provided that the surveys referred to in regulations 5.1.3 and 5.1.4 of this Annex applicable when a certificate is issued for a period of five years are carried out as appropriate.

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

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

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

7 In special circumstances, as determined by the Administration, a new certificate need not be dated from the date of expiry of the existing certificate as required by paragraph 2.1, 5 or 6 of this regulation. In these special circumstances, the new certificate shall be valid to a date not exceeding five years from the date of completion of the renewal survey.

8 If an annual or intermediate survey is completed before the period specified in regulation 5 of this Annex, then:

- .1 the anniversary date shown on the certificate shall be amended by endorsement to a date that shall not be more than three months later than the date on which the survey was completed;
- .2 the subsequent annual or intermediate survey required by regulation 5 of this Annex shall be completed at the intervals prescribed by that regulation using the new anniversary date; and

- .3 the expiry date may remain unchanged provided one or more annual or intermediate surveys, as appropriate, are carried out so that the maximum intervals between the surveys prescribed by regulation 5 of this Annex are not exceeded.
- 9 A certificate issued under regulation 6 or 7 of this Annex shall cease to be valid in any of the following cases:
- .1 if the relevant surveys are not completed within the periods specified under regulation 5.1 of this Annex;
 - .2 if the certificate is not endorsed in accordance with regulation 5.1.3 or 5.1.4 of this Annex; and
 - .3 upon transfer of the ship to the flag of another State. A new certificate shall only be issued when the Government issuing the new certificate is fully satisfied that the ship is in compliance with the requirements of regulation 5.4 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 copies of the 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, 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.
- 2 In the circumstances given in paragraph 1 of this regulation, the Party shall take such steps as to 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 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 this 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 that 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 3

Requirements for control of emissions from ships

Regulation 12

Ozone-depleting substances

1 This regulation does not apply to permanently sealed equipment where there are no refrigerant charging connections or potentially removable components containing ozone-depleting substances.

2 Subject to the provisions of regulation 3.1, 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.

3.1 Installations that contain ozone-depleting substances, other than hydro-chlorofluorocarbons, shall be prohibited:

- .1 on ships constructed on or after 19 May 2005; or
- .2 in the case of ships constructed before 19 May 2005, which have a contractual delivery date of the equipment to the ship on or after 19 May 2005 or, in the absence of a contractual delivery date, the actual delivery of the equipment to the ship on or after 19 May 2005.

3.2 Installations that contain hydro-chlorofluorocarbons shall be prohibited:

- .1 on ships constructed on or after 1 January 2020; or
- .2 in the case of ships constructed before 1 January 2020, which have a contractual delivery date of the equipment to the ship on or after 1 January 2020 or, in the absence of a contractual delivery date, the actual delivery of the equipment to the ship on or after 1 January 2020.

4 The substances referred to in this regulation, and equipment containing such substances, shall be delivered to appropriate reception facilities when removed from ships.

5 Each ship subject to regulation 6.1 shall maintain a list of equipment containing ozone-depleting substances.

6 Each ship subject to regulation 6.1 that has rechargeable systems that contain ozone-depleting substances shall maintain an ozone-depleting substances record book. This record book may form part of an existing log-book or electronic recording system as approved by the Administration.

7 Entries in the ozone-depleting substances record book shall be recorded in terms of mass (kg) of substance and shall be completed without delay on each occasion, in respect of the following:

- .1 recharge, full or partial, of equipment containing ozone-depleting substances;
- .2 repair or maintenance of equipment containing ozone-depleting substances;
- .3 discharge of ozone-depleting substances to the atmosphere:
 - .3.1 deliberate; and
 - .3.2 non-deliberate;
- .4 discharge of ozone-depleting substances to land-based reception facilities; and
- .5 supply of ozone-depleting substances to the ship.

Regulation 13

Nitrogen oxides (NO_x)

Application

1.1 This regulation shall apply to:

- .1 each marine diesel engine with a power output of more than 130 kW installed on a ship; and
- .2 each marine diesel engine with a power output of more than 130 kW that undergoes a major conversion on or after 1 January 2000 except when demonstrated to the satisfaction of the Administration that such engine is an identical replacement to the engine that it is replacing and is otherwise not covered under paragraph 1.1.1 of this regulation.

1.2 This regulation does not apply to:

- .1 a marine diesel engine intended to be used solely for emergencies, or solely to power any device or equipment intended to be used solely for emergencies on the ship on which it is installed, or a marine diesel engine installed in lifeboats intended to be used solely for emergencies; and
- .2 a marine diesel engine installed on a ship 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 engine is subject to an alternative NO_x control measure established by the Administration.

1.3 Notwithstanding the provisions of paragraph 1.1 of this regulation, the Administration may provide an exclusion from the application of this regulation for any marine diesel engine that is installed on a ship constructed, or for any marine diesel engine that undergoes a major conversion, before 19 May 2005, provided that the ship on which the engine is installed is solely engaged in voyages to ports or offshore terminals within the State the flag of which the ship is entitled to fly.

Major conversion

2.1 For the purpose of this regulation, *major conversion* means a modification on or after 1 January 2000 of a marine diesel engine that has not already been certified to the standards set forth in paragraph 3, 4, or 5.1.1 of this regulation where:

- .1 the engine is replaced by a marine diesel engine or an additional marine diesel engine is installed, or
- .2 any substantial modification, as defined in the revised NO_x Technical Code 2008, is made to the engine, or
- .3 the maximum continuous rating of the engine is increased by more than 10% compared to the maximum continuous rating of the original certification of the engine.

2.2 For a major conversion involving the replacement of a marine diesel engine with a non-identical marine diesel engine or the installation of an additional marine diesel engine, the standards in this regulation in force at the time of the replacement or addition of the engine shall apply. On or after 1 January 2016, in the case of replacement engines only, if it is not possible for such a replacement engine to meet the standards set forth in paragraph 5.1.1 of this regulation (Tier III), then that replacement engine shall meet the standards set forth in paragraph 4 of this regulation (Tier II). Guidelines are to be developed by the Organization to set forth the criteria of when it is not possible for a replacement engine to meet the standards in paragraph 5.1.1 of this regulation.

2.3 A marine diesel engine referred to in paragraph 2.1.2 or 2.1.3 of this regulation shall meet the following standards:

- .1 for ships constructed prior to 1 January 2000, the standards set forth in paragraph 3 of this regulation shall apply; and
- .2 for ships constructed on or after 1 January 2000, the standards in force at the time the ship was constructed shall apply.

Tier I

3 Subject to regulation 3 of this Annex, the operation of a marine diesel engine that is installed on a ship constructed on or after 1 January 2000 and prior to 1 January 2011 is prohibited, except when the emission of nitrogen oxides (calculated as the total weighted emission of NO₂) from the engine is within the following limits, where n = rated engine speed (crankshaft revolutions per minute):

- .1 17.0 g/kWh when n is less than 130 rpm;
- .2 $45 \cdot n^{(-0.2)}$ g/kWh when n is 130 or more but less than 2,000 rpm;
- .3 9.8 g/kWh when n is 2,000 rpm or more.

Tier II

4 Subject to regulation 3 of this Annex, the operation of a marine diesel engine that is installed on a ship constructed on or after 1 January 2011 is prohibited, except when the emission of nitrogen oxides (calculated as the total weighted emission of NO₂) from the engine is within the following limits, where n = rated engine speed (crankshaft revolutions per minute):

- .1 14.4 g/kWh when n is less than 130 rpm;
- .2 $44 \cdot n^{(-0.23)}$ g/kWh when n is 130 or more but less than 2,000 rpm;
- .3 7.7 g/kWh when n is 2,000 rpm or more.

Tier III

5.1 Subject to regulation 3 of this Annex, the operation of a marine diesel engine that is installed on a ship constructed on or after 1 January 2016:

- .1 is prohibited except when the emission of nitrogen oxides (calculated as the total weighted emission of NO₂) from the engine is within the following limits, where n = rated engine speed (crankshaft revolutions per minute):
 - .1.1 3.4 g/kWh when n is less than 130 rpm;
 - .1.2 $9 \cdot n^{(-0.2)}$ g/kWh when n is 130 or more but less than 2,000 rpm; and
 - .1.3 2.0 g/kWh when n is 2,000 rpm or more;
- .2 is subject to the standards set forth in paragraph 5.1.1 of this regulation when the ship is operating in an emission control area designated under paragraph 6 of this regulation; and
- .3 is subject to the standards set forth in paragraph 4 of this regulation when the ship is operating outside of an emission control area designated under paragraph 6 of this regulation.

5.2 Subject to the review set forth in paragraph 10 of this regulation, the standards set forth in paragraph 5.1.1 of this regulation shall not apply to:

- .1 a marine diesel engine installed on a ship with a length (L), as defined in regulation 1.19 of Annex I to the present Convention, less than 24 metres when it has been specifically designed, and is used solely, for recreational purposes; or
- .2 a marine diesel engine installed on a ship with a combined nameplate diesel engine propulsion power of less than 750 kW if it is demonstrated, to the satisfaction of the Administration, that the ship cannot comply with the standards set forth in paragraph 5.1.1 of this regulation because of design or construction limitations of the ship.

Emission control area

6 For the purpose of this regulation, an emission control area shall be any sea area, including any port area, designated by the Organization in accordance with the criteria and procedures set forth in appendix III to this Annex.

Marine diesel engines installed on a ship constructed prior to 1 January 2000

7.1 Notwithstanding paragraph 1.1.1 of this regulation, a marine diesel engine with a power output of more than 5,000 kW and a per cylinder displacement at or above 90 litres installed on a ship constructed on or after 1 January 1990 but prior to 1 January 2000 shall comply with the emission limits set forth in paragraph 7.4 of this regulation, provided that an approved method for that engine has been certified by an Administration of a Party and notification of such certification has been submitted to the Organization by the certifying Administration. Compliance with this paragraph shall be demonstrated through one of the following:

- .1 installation of the certified approved method, as confirmed by a survey using the verification procedure specified in the approved method file, including appropriate notation on the ship's International Air Pollution Prevention Certificate of the presence of the approved method; or
- .2 certification of the engine confirming that it operates within the limits set forth in paragraph 3, 4, or 5.1.1 of this regulation and an appropriate notation of the engine certification on the ship's International Air Pollution Prevention Certificate.

7.2 Paragraph 7.1 of this regulation shall apply no later than the first renewal survey that occurs 12 months or more after deposit of the notification in paragraph 7.1. If a shipowner of a ship on which an approved method is to be installed can demonstrate to the satisfaction of the Administration that the approved method was not commercially available despite best efforts to obtain it, then that approved method shall be installed on the ship no later than the next annual survey of that ship which falls after the approved method is commercially available.

7.3 With regard to a ship with a marine diesel engine with a power output of more than 5,000 kW and a per cylinder displacement at or above 90 litres installed on a ship constructed on or after 1 January 1990 but prior to 1 January 2000, the International Air Pollution Prevention Certificate shall, for a marine diesel engine to which paragraph 7.1 of this regulation applies, indicate that either an approved method has been applied pursuant to paragraph 7.1.1 of this regulation or the engine has been certified pursuant to paragraph 7.1.2 of this regulation or that an approved method does not yet exist or is not yet commercially available as described in paragraph 7.2 of this regulation.

7.4 Subject to regulation 3 of this Annex, the operation of a marine diesel engine described in paragraph 7.1 of this regulation is prohibited, except when the emission of nitrogen oxides (calculated as the total weighted emission of NO₂) from the engine is within the following limits, where n = rated engine speed (crankshaft revolutions per minute):

- .1 17.0 g/kWh when n is less than 130 rpm;
- .2 $45 \cdot n^{(-0.2)}$ g/kWh when n is 130 or more but less than 2,000 rpm; and
- .3 9.8 g/kWh when n is 2,000 rpm or more.

7.5 Certification of an approved method shall be in accordance with chapter 7 of the revised NO_x Technical Code 2008 and shall include verification:

- .1 by the designer of the base marine diesel engine to which the approved method applies that the calculated effect of the approved method will not decrease engine rating by more than 1.0%, increase fuel consumption by more than 2.0% as measured according to the appropriate test cycle set forth in the revised NO_x Technical Code 2008, or adversely affect engine durability or reliability; and
- .2 that the cost of the approved method is not excessive, which is determined by a comparison of the amount of NO_x reduced by the approved method to achieve the standard set forth in paragraph 7.4 of this paragraph and the cost of purchasing and installing such approved method.

Certification

8 The revised NO_x Technical Code 2008 shall be applied in the certification, testing, and measurement procedures for the standards set forth in this regulation.

9 The procedures for determining NO_x emissions set out in the revised NO_x Technical Code 2008 are intended to be representative of the normal operation of the engine. Defeat devices and irrational emission control strategies undermine this intention and shall not be allowed. This regulation shall not prevent the use of auxiliary control devices that are used to protect the engine and/or its ancillary equipment against operating conditions that could result in damage or failure or that are used to facilitate the starting of the engine.

Review

10 Beginning in 2012 and completed no later than 2013, the Organization shall review the status of the technological developments to implement the standards set forth in paragraph 5.1.1 of this regulation and shall, if proven necessary, adjust the time periods (effective date) set forth in that paragraph.

Regulation 14

Sulphur oxides (SO_x) and particulate matter

General requirements

1 The sulphur content of any fuel oil used on board ships shall not exceed the following limits:

- .1 4.50% m/m prior to 1 January 2012;
- .2 3.50% m/m on and after 1 January 2012; and
- .3 0.50% m/m on and after 1 January 2020.

2 The worldwide average sulphur content of residual fuel oil supplied for use on board ships shall be monitored taking into account guidelines developed by the Organization.

Requirements within emission control areas

- 3 For the purpose of this regulation, emission control areas shall include:
- .1 the Baltic Sea area as defined in regulation 1.11.2 of Annex I, the North Sea as defined in regulation 5(1)(f) of Annex V; and
 - .2 any other sea area, including port areas, designated by the Organization in accordance with criteria and procedures set forth in appendix III to this Annex.
- 4 While ships are operating within an emission control area, the sulphur content of fuel oil used on board ships shall not exceed the following limits:
- .1 1.50% m/m prior to 1 July 2010;
 - .2 1.00% m/m on and after 1 July 2010; and
 - .3 0.10% m/m on and after 1 January 2015.
- 5 The sulphur content of fuel oil referred to in paragraph 1 and paragraph 4 of this regulation shall be documented by its supplier as required by regulation 18 of this Annex.
- 6 Those ships using separate fuel oils to comply with paragraph 4 of this regulation and entering or leaving an emission control area set forth in paragraph 3 of this regulation shall carry a written procedure showing how the fuel oil changeover is to be done, allowing sufficient time for the fuel oil service system to be fully flushed of all fuel oils exceeding the applicable sulphur content specified in paragraph 4 of this regulation prior to entry into an emission control area. The volume of low sulphur fuel oils in each tank as well as the date, time, and position of the ship when any fuel-oil-change-over operation is completed prior to the entry into an emission control area or commenced after exit from such an area, shall be recorded in such log-book as prescribed by the Administration.
- 7 During the first twelve months immediately following an amendment designating a specific emission control area under paragraph 3.2 of this regulation, ships operating in that emission control area are exempt 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 of this regulation.

Review provision

- 8 A review of the standard set forth in paragraph 1.3 of this regulation shall be completed by 2018 to determine the availability of fuel oil to comply with the fuel oil standard set forth in that paragraph and shall take into account the following elements:
- .1 the global market supply and demand for fuel oil to comply with paragraph 1.3 of this regulation that exist at the time that the review is conducted;
 - .2 an analysis of the trends in fuel oil markets; and
 - .3 any other relevant issue.

9 The Organization shall establish a group of experts, comprising of representatives with the appropriate expertise in the fuel oil market and appropriate maritime, environmental, scientific and legal expertise, to conduct the review referred to in paragraph 8 of this regulation. The group of experts shall develop the appropriate information to inform the decision to be taken by the Parties.

10 The Parties, based on the information developed by the group of experts, may decide whether it is possible for ships to comply with the date in paragraph 1.3 of this regulation. If a decision is taken that it is not possible for ships to comply, then the standard in that paragraph shall become effective on 1 January 2025.

Regulation 15

Volatile organic compounds (VOCs)

1 If the emissions of VOCs from a tanker are to be regulated in a port or ports or a terminal or terminals under the jurisdiction of a Party, they shall be regulated in accordance with the provisions of this regulation.

2 A Party regulating tankers for VOC emissions shall submit a notification to the Organization. This notification shall include information on the size of tankers to be controlled, the 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 A Party that designates ports or terminals at which VOC emissions from tankers are to be regulated shall ensure that vapour emission control systems, approved by that Party taking into account the safety standards for such systems developed by the Organization, are provided in any designated port and terminal and are operated safely and in a manner so as to avoid undue delay to a ship.

4 The Organization shall circulate a list of the ports and terminals designated by Parties to other Parties and Member States of the Organization for their information.

5 A tanker to which paragraph 1 of this regulation applies shall be provided with a vapour emission collection system approved by the Administration taking into account the safety standards for such systems developed by the Organization, and shall use this system during the loading of relevant cargoes. A port or terminal that has installed vapour emission control systems in accordance with this regulation may accept tankers that are not fitted with vapour collection systems for a period of three years after the effective date identified in paragraph 2 of this regulation.

6 A tanker carrying crude oil shall have on board and implement a VOC management plan approved by the Administration. Such a plan shall be prepared taking into account the guidelines developed by the Organization. The plan shall be specific to each ship and shall at least:

- .1 provide written procedures for minimizing VOC emissions during the loading, sea passage and discharge of cargo;
- .2 give consideration to the additional VOC generated by crude oil washing;
- .3 identify a person responsible for implementing the plan; and

- .4 for ships on international voyages, be written in the working language of the master and officers and, if the working language of the master and officers is not English, French, or Spanish, include a translation into one of these languages.

7 This regulation shall also apply to gas carriers only if the types 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 4 of this regulation, shipboard incineration shall be allowed only in a shipboard incinerator.

2 Shipboard incineration of the following substances shall be prohibited:

- .1 residues of cargoes subject to Annex I, II or III or related contaminated packing materials;
- .2 polychlorinated biphenyls (PCBs);
- .3 garbage, as defined by Annex V, containing more than traces of heavy metals;
- .4 refined petroleum products containing halogen compounds;
- .5 sewage sludge and sludge oil either of which is not generated on board the ship; and
- .6 exhaust gas cleaning system residues.

3 Shipboard incineration of polyvinyl chlorides (PVCs) shall be prohibited, except in shipboard incinerator for which an IMO Type Approval Certificates have been issued.

4 Shipboard incineration of sewage sludge and sludge oil generated during 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.

5 Nothing in this regulation neither:

- .1 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, nor
- .2 precludes the development, installation and operation of alternative design shipboard thermal waste treatment devices that meet or exceed the requirements of this regulation.

6.1 Except as provided in paragraph 6.2 of this regulation, each incinerator on a ship constructed on or after 1 January 2000 or incinerator that is installed on board a ship on or after 1 January 2000 shall meet the requirements contained in appendix IV to this Annex. Each incinerator subject to this paragraph shall be approved by the Administration taking into account the standard specification for shipboard incinerators developed by the Organization; or

6.2 The Administration may allow exclusion from the application of paragraph 6.1 of this regulation to any incinerator installed on board a ship before 19 May 2005, 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.

7 Incinerators installed in accordance with the requirements of paragraph 6.1 of this regulation shall be provided with a manufacturer's operating manual which is to be retained with the unit and which shall specify how to operate the incinerator within the limits described in paragraph 2 of appendix IV of this Annex.

8 Personnel responsible for the operation of an incinerator installed in accordance with the requirements of paragraph 6.1 of this regulation shall be trained to implement the guidance provided in the manufacturer's operating manual as required by paragraph 7 of this regulation.

9 For incinerators installed in accordance with the requirements of paragraph 6.1 of this regulation the combustion chamber gas outlet temperature shall be monitored at all times the unit is in operation. Where that incinerator is of the continuous-feed type, waste shall not be fed into the unit when the combustion chamber gas outlet temperature is below 850°C. Where that incinerator is of the batch-loaded type, the unit shall be designed so that the combustion chamber gas outlet temperature shall reach 600°C within five minutes after start-up and will thereafter stabilize at a temperature not less than 850°C.

Regulation 17 ***Reception facilities***

1 Each Party undertakes to ensure the provision of facilities adequate to meet the:

- .1 needs of ships using its repair ports for the reception of ozone-depleting substances and equipment containing such substances when removed from ships;
- .2 needs of ships using its ports, terminals or repair ports for the reception of exhaust gas cleaning residues from an exhaust gas cleaning system,

without causing undue delay to ships; and

- .3 needs in ship-breaking facilities for the reception of ozone-depleting substances and equipment containing such substances when removed from ships.

2 If a particular port or terminal of a Party is – taking into account the guidelines to be developed by the Organization – remotely located from, or lacking in, the industrial infrastructure necessary to manage and process those substances referred to in paragraph 1 of this regulation and therefore cannot accept such substances, then the Party shall inform the Organization of any such port or terminal so that this information may be circulated to all Parties and Member States of the Organization for their information and any appropriate action. Each Party that has provided the Organization with such information shall also notify the Organization of its ports and terminals where reception facilities are available to manage and process such substances.

3 Each Party 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 availability and quality*****Fuel oil availability**

1 Each Party shall take all reasonable steps to promote the availability of fuel oils that comply with this Annex and inform the Organization of the availability of compliant fuel oils in its ports and terminals.

2.1 If a ship is found by a Party not to be in compliance with the standards for compliant fuel oils set forth in this Annex, the competent authority of the Party is entitled to require the ship to:

- .1 present a record of the actions taken to attempt to achieve compliance; and
- .2 provide evidence that it attempted to purchase compliant fuel oil in accordance with its voyage plan and, if it was not made available where planned, that attempts were made to locate alternative sources for such fuel oil and that despite best efforts to obtain compliant fuel oil, no such fuel oil was made available for purchase.

2.2 The ship should not be required to deviate from its intended voyage or to delay unduly the voyage in order to achieve compliance.

2.3 If a ship provides the information set forth in paragraph 2.1 of this regulation, a Party shall take into account all relevant circumstances and the evidence presented to determine the appropriate action to take, including not taking control measures.

2.4 A ship shall notify its Administration and the competent authority of the relevant port of destination when it cannot purchase compliant fuel oil.

2.5 A Party shall notify the Organization when a ship has presented evidence of the non-availability of compliant fuel oil.

Fuel oil quality

3 Fuel oil for combustion purposes delivered to and used on board ships to which this Annex applies shall meet the following requirements:

- .1 except as provided in paragraph 3.2 of this regulation:
 - .1.1 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;
 - .1.2 the fuel oil shall be free from inorganic acid; and
 - .1.3 the fuel oil shall not include any added substance or chemical waste that:
 - .1.3.1 jeopardizes the safety of ships or adversely affects the performance of the machinery, or

- .1.3.2 is harmful to personnel, or
 - .1.3.3 contributes overall to additional air pollution;
 - .2 fuel oil for combustion purposes derived by methods other than petroleum refining shall not:
 - .2.1 exceed the applicable sulphur content set forth in regulation 14 of this Annex;
 - .2.2 cause an engine to exceed the applicable NO_x emission limit set forth in paragraphs 3, 4, 5.1.1 and 7.4 of regulation 13;
 - .2.3 contain inorganic acid; or
 - .2.3.1 jeopardize the safety of ships or adversely affect the performance of the machinery, or
 - .2.3.2 be harmful to personnel, or
 - .2.3.3 contribute overall to additional air pollution.

4 This regulation does not apply to coal in its solid form or nuclear fuels. Paragraphs 5, 6, 7.1, 7.2, 8.1, 8.2, 9.2, 9.3, and 9.4 of this regulation do not apply to gas fuels such as liquefied natural gas, compressed natural gas or liquefied petroleum gas. The sulphur content of gas fuels delivered to a ship specifically for combustion purposes on board that ship shall be documented by the supplier.

5 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 that shall contain at least the information specified in appendix V to this Annex.

6 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.

7.1 The competent authority of a Party 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.

7.2 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.

8.1 The bunker delivery note shall be accompanied by a representative sample of the fuel oil delivered taking into account guidelines 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 12 months from the time of delivery.

8.2 If an Administration requires the representative sample to be analysed, it shall be done in accordance with the verification procedure set forth in appendix VI to determine whether the fuel oil meets the requirements of this Annex.

9 Parties undertake to ensure that appropriate authorities designated by them:

- .1 maintain a register of local suppliers of fuel oil;
- .2 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;
- .3 require local suppliers to retain a copy of the bunker delivery note for at least three years for inspection and verification by the port State as necessary;
- .4 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;
- .5 inform the Administration of any ship receiving fuel oil found to be non-compliant with the requirements of regulation 14 or 18 of this Annex; and
- .6 inform the Organization for transmission to Parties and Member States of the Organization of all cases where fuel oil suppliers have failed to meet the requirements specified in regulations 14 or 18 of this Annex.

10 In connection with port State inspections carried out by Parties, the Parties further undertake to:

- .1 inform the Party or non-Party under whose jurisdiction a bunker delivery note was issued of cases of delivery of non-compliant fuel oil, giving all relevant information; and
- .2 ensure that remedial action as appropriate is taken to bring non-compliant fuel oil discovered into compliance.

11 For every ship of 400 gross tonnage and above on scheduled services with frequent and regular port calls, an Administration may decide after application and consultation with affected States that compliance with paragraph 6 of this regulation may be documented in an alternative manner that gives similar certainty of compliance with regulations 14 and 18 of this Annex.

*Appendix I***Form of International Air Pollution Prevention (IAPP) Certificate
(Regulation 8)****INTERNATIONAL AIR POLLUTION PREVENTION CERTIFICATE**

Issued under the provisions of the Protocol of 1997, as amended by resolution MEPC.176(58) in 2008, to amend the International Convention for the Prevention of Pollution from Ships, 1973, as modified by 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)*

Particulars of ship *

Name of ship

Distinctive number or letters

Port of registry

Gross tonnage

IMO Number⁺

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

⁺ In accordance with IMO ship identification number scheme, adopted by the Organization by resolution A.600(15).

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.

Completion date of survey on which this Certificate is based: (dd/mm/yyyy)

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)

(dd/mm/yyyy):
(Date of issue) (Signature of authorized official
issuing the certificate)

(Seal or stamp of the authority, as appropriate)

* Insert the date of expiry as specified by the Administration in accordance with regulation 9.1 of Annex VI of the Convention. The day and the month of this date correspond to the anniversary date as defined in regulation 2.3 of Annex VI of the Convention, unless amended in accordance with regulation 9.8 of Annex VI of the Convention.

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 that Annex:

Annual survey:

Signed:
(Signature of authorized official)

Place:

Date (dd/mm/yyyy):

(Seal or stamp of the authority, as appropriate)

Annual/Intermediate* survey:

Signed:
(Signature of authorized official)

Place:

Date (dd/mm/yyyy):

(Seal or stamp of the authority, as appropriate)

Annual/Intermediate* survey:

Signed:
(Signature of authorized official)

Place:

Date (dd/mm/yyyy):

(Seal or stamp of the authority, as appropriate)

Annual survey:

Signed:
(Signature of authorized official)

Place:

Date (dd/mm/yyyy):

(Seal or stamp of the authority, as appropriate)

* Delete as appropriate.

Annual/intermediate survey in accordance with regulation 9.8.3

THIS IS TO CERTIFY that, at an annual/intermediate* survey in accordance with regulation 9.8.3 of Annex VI of the Convention, the ship was found to comply with the relevant provisions of that Annex:

Signed:
(Signature of authorized official)

Place:

Date (dd/mm/yyyy):

(Seal or stamp of the authority, as appropriate)

**Endorsement to extend the certificate if valid for less than 5 years
where regulation 9.3 applies**

The ship complies with the relevant provisions of the Annex, and this certificate shall, in accordance with regulation 9.3 of Annex VI of the Convention, be accepted as valid until (dd/mm/yyyy):

Signed:
(Signature of authorized official)

Place:

Date (dd/mm/yyyy):

(Seal or stamp of the authority, as appropriate)

Endorsement where the renewal survey has been completed and regulation 9.4 applies

The ship complies with the relevant provisions of the Annex, and this certificate shall, in accordance with regulation 9.4 of Annex VI of the Convention, be accepted as valid until (dd/mm/yyyy):

Signed:
(Signature of authorized official)

Place:

Date (dd/mm/yyyy):

(Seal or stamp of the authority, as appropriate)

* Delete as appropriate.

**Endorsement to extend the validity of the certificate until reaching the port
of survey or for a period of grace where regulation 9.5 or 9.6 applies**

This certificate shall, in accordance with regulation 9.5 or 9.6* of Annex VI of the Convention,
be accepted as valid until (dd/mm/yyyy):

Signed:
(Signature of authorized official)

Place:

Date (dd/mm/yyyy):

(Seal or stamp of the authority, as appropriate)

Endorsement for advancement of anniversary date where regulation 9.8 applies

In accordance with regulation 9.8 of Annex VI of the Convention, the new anniversary date is
(dd/mm/yyyy):

Signed:
(Signature of authorized official)

Place:

Date (dd/mm/yyyy):

(Seal or stamp of the authority, as appropriate)

In accordance with regulation 9.8 of Annex VI of the Convention, the new anniversary date is
(dd/mm/yyyy):

Signed:
(Signature of authorized official)

Place:

Date (dd/mm/yyyy):

(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

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 The Record shall be at least in English, French or Spanish. If an official language of the issuing country is also used, this shall prevail in case of a dispute or discrepancy.
- 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 IMO number
- 1.3 Date on which keel was laid or ship was at a similar stage of construction
- 1.4 Length (L) # metres

Completed only in respect of ships constructed on or after 1 January 2016, which are specially designed, and used solely, for recreational purposes and to which, in accordance with regulation 13.5.2.1, the NO_x emission limit as given by regulation 13.5.1.1 will not apply.

2 Control of emissions from ships

2.1 Ozone-depleting substances (regulation 12)

2.1.1 The following fire-extinguishing systems, other systems and equipment containing ozone-depleting substances, other than hydro-chlorofluorocarbons, installed before 19 May 2005 may continue in service:

System or equipment	Location on board	Substance

2.3 Sulphur oxides (SO_x) and particulate matter (regulation 14)

2.3.1 When the ship operates within an emission control area specified in regulation 14.3, the ship uses:

- .1 fuel oil with a sulphur content that does not exceed the applicable limit value as documented by bunker delivery notes; or ☐
- .2 an equivalent arrangement approved in accordance with regulation 4.1 as listed in 2.6 ☐

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. ☐

2.4.2.1 For a tanker carrying crude oil, there is an approved VOC management plan ☐

2.4.2.2 VOC management plan approval reference:

2.5 Shipboard incineration (regulation 16)

The ship has an incinerator:

- .1 installed on or after 1 January 2000 which complies with resolution MEPC.76(40) as amended ☐
- .2 installed before 1 January 2000 which complies with:
 - .2.1 resolution MEPC.59(33) ☐
 - .2.2 resolution MEPC.76(40) ☐

2.6 Equivalent (regulation 4)

The ship has been allowed to use the following fitting, material, appliance or apparatus to be fitted in a ship or other procedures, alternative fuel oils, or compliance methods used as an alternative to that required by this Annex:

System or equipment	Equivalent used	Approval reference

THIS IS TO CERTIFY that this Record is correct in all respects.

Issued at
(Place of issue of the Record)

(dd/mm/yyyy):
(Date of issue) (Signature of duly authorized official
issuing the Record)

(Seal or stamp of the authority, as appropriate)

*Appendix II***Test cycles and weighing factors
(Regulation 13)**

The following test cycles and weighing factors shall be applied for verification of compliance of marine diesel engines with the applicable NO_x limit in accordance with regulation 13 of this Annex using the test procedure and calculation method as specified in the revised NO_x Technical Code 2008.

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

Test cycle for *constant speed main propulsion* application
(including diesel-electric drive and all controllable-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

In the case of an engine to be certified in accordance with paragraph 5.1.1 of regulation 13, the specific emission at each individual mode point shall not exceed the applicable NO_x emission limit value by more than 50% except as follows:

- .1 The 10% mode point in the D2 test cycle.
- .2 The 10% mode point in the C1 test cycle.
- .3 The idle mode point in the C1 test cycle.

Appendix III

Criteria and procedures for designation of emission control areas (Regulation 13.6 and regulation 14.3)

1 Objectives

1.1 The purpose of this appendix is to provide the criteria and procedures to Parties for the formulation and submission of proposals for the designation of emission control areas and to set forth the factors to be considered in the assessment of such proposals by the Organization.

1.2 Emissions of NO_x, SO_x and particulate matter from ocean-going ships contribute to ambient concentrations of air pollution in cities and coastal areas around the world. Adverse public health and environmental effects associated with air pollution include premature mortality, cardiopulmonary disease, lung cancer, chronic respiratory ailments, acidification and eutrophication.

1.3 An emission control area should be considered for adoption by the Organization if supported by a demonstrated need to prevent, reduce and control emissions of NO_x or SO_x and particulate matter or all three types of emissions (hereinafter emissions) from ships.

2 Process for the designation of emission control areas

2.1 A proposal to the Organization for designation of an emission control area for NO_x or SO_x and particulate matter or all three types of emissions may be submitted only by Parties. Where two or more Parties have a common interest in a particular area, they should formulate a coordinated proposal.

2.2 A proposal to designate a given area as an emission control area should be submitted to the Organization in accordance with the rules and procedures established by the Organization.

3 Criteria for designation of an emission control area

3.1 The proposal shall include:

- .1 a clear delineation of the proposed area of application, along with a reference chart on which the area is marked;
- .2 the type or types of emission(s) that is or are being proposed for control (i.e. NO_x or SO_x and particulate matter or all three types of emissions);
- .3 a description of the human populations and environmental areas at risk from the impacts of ship emissions;

- .4 an assessment that emissions from ships operating in the proposed area of application are contributing to ambient concentrations of air pollution or to adverse environmental impacts. Such assessment shall include a description of the impacts of the relevant emissions on human health and the environment, such as adverse impacts to 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;
- .5 relevant information pertaining to the meteorological conditions in the proposed area of application to the human populations and environmental areas at risk, in particular prevailing wind patterns, or to topographical, geological, oceanographic, morphological, or other conditions that contribute to ambient concentrations of air pollution or adverse environmental impacts;
- .6 the nature of the ship traffic in the proposed emission control area, including the patterns and density of such traffic;
- .7 a description of the control measures taken by the proposing Party or Parties addressing land-based sources of NO_x, SO_x and particulate matter emissions affecting the human populations and environmental areas at risk that are in place and operating concurrent with the consideration of measures to be adopted in relation to provisions of regulations 13 and 14 of Annex VI; and
- .8 the relative costs of reducing emissions from ships when compared with land-based controls, and the economic impacts on shipping engaged in international trade.

3.2 The geographical limits of an emission control area will be based on the relevant criteria outlined above, including emissions and deposition from ships navigating in the proposed area, traffic patterns and density, and wind conditions.

4 *Procedures for the assessment and adoption of emission control areas by the organization*

4.1 The Organization shall consider each proposal submitted to it by a Party or Parties.

4.2 In assessing the proposal, the Organization shall take into account the criteria that are to be included in each proposal for adoption as set forth in section 3 above.

4.3 An 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.

5 *Operation of emission control areas*

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

*Appendix IV***Type approval and operating limits for shipboard incinerators
(Regulation 16)**

1 Ships' incinerators described in regulation 16.6.1 on board 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 16.6.1. 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 heavy fuel oil (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 16.6.1 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°C

*Appendix V***Information to be included in the bunker delivery note
(Regulation 18.5)**

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 the applicable paragraph of regulation 14.1 or 14.4 and regulation 18.3 of this Annex.

* Fuel oil shall be tested in accordance with ISO 3675:1998 or ISO 12185:1996.

** Fuel oil shall be tested in accordance with ISO 8754:2003.

*Appendix VI***Fuel verification procedure for MARPOL Annex VI fuel oil samples
(Regulation 18.8.2)**

The following procedure shall be used to determine whether the fuel oil delivered to and used on board ships is compliant with the sulphur limits required by regulation 14 of Annex VI.

1 *General Requirements*

1.1 The representative fuel oil sample, which is required by paragraph 8.1 of regulation 18 (the “MARPOL sample”) shall be used to verify the sulphur content of the fuel oil supplied to a ship.

1.2 An Administration, through its competent authority, shall manage the verification procedure.

1.3 The laboratories responsible for the verification procedure set forth in this appendix shall be fully accredited* for the purpose of conducting the tests.

2 *Verification procedure stage 1*

2.1 The MARPOL sample shall be delivered by the competent authority to the laboratory.

2.2 The laboratory shall:

- .1 record the details of the seal number and the sample label on the test record;
- .2 confirm that the condition of the seal on the MARPOL sample is that it has not been broken; and
- .3 reject any MARPOL sample where the seal has been broken.

2.3 If the seal of the MARPOL sample has not been broken, the laboratory shall proceed with the verification procedure and shall:

- .1 ensure that the MARPOL sample is thoroughly homogenized;
- .2 draw two sub-samples from the MARPOL sample; and
- .3 reseal the MARPOL sample and record the new reseal details on the test record.

* Accreditation is in accordance with ISO 17025 or an equivalent standard.

2.4 The two sub-samples shall be tested in succession, in accordance with the specified test method referred to in appendix V (second footnote). For the purposes of this verification procedure, the results of the test analysis shall be referred to as “A” and “B”:

- .1 If the results of “A” and “B” are within the repeatability (r) of the test method, the results shall be considered valid.
- .2 If the results of “A” and “B” are not within the repeatability (r) of the test method, both results shall be rejected and two new sub-samples should be taken by the laboratory and analysed. The sample bottle should be resealed in accordance with paragraph 2.3.3 above after the new sub-samples have been taken.

2.5 If the test results of “A” and “B” are valid, an average of these two results should be calculated thus giving the result referred to as “X”:

- .1 If the result of “X” is equal to or falls below the applicable limit required by Annex VI, the fuel oil shall be deemed to meet the requirements.
- .2 If the result of “X” is greater than the applicable limit required by Annex VI, verification procedure stage 2 should be conducted; however, if the result of “X” is greater than the specification limit by $0.59R$ (where R is the reproducibility of the test method), the fuel oil shall be considered non-compliant and no further testing is necessary.

3 *Verification Procedure Stage 2*

3.1 If stage 2 of the verification procedure is necessary in accordance with paragraph 2.5.2 above, the competent authority shall send the MARPOL sample to a second accredited laboratory.

3.2 Upon receiving the MARPOL sample, the laboratory shall:

- .1 record the details of the reseal number applied in accordance with 2.3.3 and the sample label on the test record;
- .2 draw two sub-samples from the MARPOL sample; and
- .3 reseal the MARPOL sample and record the new reseal details on the test record.

3.3 The two sub-samples shall be tested in succession, in accordance with the test method specified in appendix V (second footnote). For the purposes of this verification procedure, the results of the test analysis shall be referred to as “C” and “D”:

- .1 If the results of “C” and “D” are within the repeatability (r) of the test method, the results shall be considered valid.

- .2 If the results of “C” and “D” are not within the repeatability (r) of the test method, both results shall be rejected and two new sub-samples shall be taken by the laboratory and analysed. The sample bottle should be resealed in accordance with paragraph 3.2.3 above after the new sub-samples have been taken.
- 3.4 If the test results of “C” and “D” are valid, and the results of “A”, “B”, “C”, and “D” are within the reproducibility (R) of the test method then the laboratory shall average the results, which is referred to as “Y”:
 - .1 If the result of “Y” is equal to or falls below the applicable limit required by Annex VI, the fuel oil shall be deemed to meet the requirements.
 - .2 If the result of “Y” is greater than the applicable limit required by Annex VI, then the fuel oil fails to meet the standards required by Annex VI.
- 3.5 If the result of “A”, “B”, “C” and “D” are not within the reproducibility (R) of the test method then the Administration may discard all of the test results and, at its discretion, repeat the entire testing process.
- 3.6 The results obtained from the verification procedure are final.

RESOLUTION MEPC.190(60)
Adopted on 26 March 2010

**AMENDMENTS TO THE ANNEX OF THE PROTOCOL OF 1997 TO AMEND THE
INTERNATIONAL CONVENTION FOR THE PREVENTION OF POLLUTION FROM
SHIPS, 1973, AS MODIFIED BY THE PROTOCOL OF 1978 RELATING THERETO**

(North American Emission Control Area)

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee (the Committee) conferred upon it by international conventions for the prevention and control of marine pollution,

NOTING article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1973 Convention"), article VI of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1978 Protocol") and article 4 of the Protocol of 1997 to amend the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (herein after referred to as the "1997 Protocol"), which together specify the amendment procedure of the 1997 Protocol and confer upon the appropriate body of the Organization the function of considering and adopting amendments to the 1973 Convention, as modified by the 1978 and 1997 Protocols,

NOTING ALSO that, by the 1997 Protocol, Annex VI entitled Regulations for the Prevention of Air Pollution from Ships was added to the 1973 Convention (hereinafter referred to as "Annex VI"),

NOTING FURTHER that the revised Annex VI was adopted by resolution MEPC.176(58) and that, following its deemed acceptance on 1 January 2010, will enter into force on 1 July 2010,

HAVING CONSIDERED draft amendments to the revised Annex VI,

1. ADOPTS, in accordance with article 16(2)(d) of the 1973 Convention, the amendments to Annex VI, the text of which is set out at annex to the present resolution;
2. DETERMINES, in accordance with article 16(2)(f)(iii) of the 1973 Convention, that the amendments shall be deemed to have been accepted on 1 February 2011, unless prior to that date, not less than one third of the Parties or Parties the combined merchant fleets of which constitute not less than 50 per cent of the gross tonnage of the world's merchant fleet, have communicated to the Organization their objection to the amendments;
3. INVITES the Parties to note that, in accordance with article 16(2)(g)(ii) of the 1973 Convention, the said amendments shall enter into force on 1 August 2011 upon their acceptance in accordance with paragraph 2 above;

4. REQUESTS the Secretary-General, in conformity with article 16(2)(e) of the 1973 Convention, to transmit to all Parties to the 1973 Convention, as modified by the 1978 and 1997 Protocols, certified copies of the present resolution and the text of the amendments contained in the Annex; and
5. REQUESTS FURTHER the Secretary-General to transmit to the Members of the Organization which are not Parties to the 1973 Convention, as modified by the 1978 and 1997 Protocols, copies of the present resolution and its Annex.

ANNEX

**AMENDMENTS TO REGULATIONS 13, 14 AND NEW APPENDIX VII
OF THE REVISED MARPOL ANNEX VI**

1 Paragraph 6 of regulation 13 is amended as follows:

"6 For the purposes of this regulation, emission control areas shall be:

- .1 the North American area, which means the area described by the coordinates provided in appendix VII to this Annex; and
- .2 any other sea area, including any port area, designated by the Organization in accordance with the criteria and procedures set forth in appendix III to this Annex."

2 Paragraph 3 of regulation 14 is replaced by the following:

"3 For the purpose of this regulation, emission control areas shall include:

- .1 the Baltic Sea area as defined in regulation 1.11.2 of Annex I and the North Sea as defined in regulation 5(1)(f) of Annex V;
- .2 the North American area as described by the coordinates provided in appendix VII to this Annex; and
- .3 any other sea area, including any port area, designated by the Organization in accordance with the criteria and procedures set forth in appendix III to this Annex."

3 New appendix VII is added as follows:

"Appendix VII

**North American Emission Control Area
(Regulation 13.6 and regulation 14.3)**

The North American area comprises:

- .1 the sea area located off the Pacific coasts of the United States and Canada, enclosed by geodesic lines connecting the following coordinates:

POINT	LATITUDE	LONGITUDE
1	32° 32' 10" N.	117° 06' 11" W.
2	32° 32' 04" N.	117° 07' 29" W.
3	32° 31' 39" N.	117° 14' 20" W.
4	32° 33' 13" N.	117° 15' 50" W.
5	32° 34' 21" N.	117° 22' 01" W.
6	32° 35' 23" N.	117° 27' 53" W.
7	32° 37' 38" N.	117° 49' 34" W.
8	31° 07' 59" N.	118° 36' 21" W.
9	30° 33' 25" N.	121° 47' 29" W.

POINT	LATITUDE	LONGITUDE
10	31° 46' 11" N.	123° 17' 22" W.
11	32° 21' 58" N.	123° 50' 44" W.
12	32° 56' 39" N.	124° 11' 47" W.
13	33° 40' 12" N.	124° 27' 15" W.
14	34° 31' 28" N.	125° 16' 52" W.
15	35° 14' 38" N.	125° 43' 23" W.
16	35° 43' 60" N.	126° 18' 53" W.
17	36° 16' 25" N.	126° 45' 30" W.
18	37° 01' 35" N.	127° 07' 18" W.
19	37° 45' 39" N.	127° 38' 02" W.
20	38° 25' 08" N.	127° 52' 60" W.
21	39° 25' 05" N.	128° 31' 23" W.
22	40° 18' 47" N.	128° 45' 46" W.
23	41° 13' 39" N.	128° 40' 22" W.
24	42° 12' 49" N.	129° 00' 38" W.
25	42° 47' 34" N.	129° 05' 42" W.
26	43° 26' 22" N.	129° 01' 26" W.
27	44° 24' 43" N.	128° 41' 23" W.
28	45° 30' 43" N.	128° 40' 02" W.
29	46° 11' 01" N.	128° 49' 01" W.
30	46° 33' 55" N.	129° 04' 29" W.
31	47° 39' 55" N.	131° 15' 41" W.
32	48° 32' 32" N.	132° 41' 00" W.
33	48° 57' 47" N.	133° 14' 47" W.
34	49° 22' 39" N.	134° 15' 51" W.
35	50° 01' 52" N.	135° 19' 01" W.
36	51° 03' 18" N.	136° 45' 45" W.
37	51° 54' 04" N.	137° 41' 54" W.
38	52° 45' 12" N.	138° 20' 14" W.
39	53° 29' 20" N.	138° 40' 36" W.
40	53° 40' 39" N.	138° 48' 53" W.
41	54° 13' 45" N.	139° 32' 38" W.
42	54° 39' 25" N.	139° 56' 19" W.
43	55° 20' 18" N.	140° 55' 45" W.
44	56° 07' 12" N.	141° 36' 18" W.
45	56° 28' 32" N.	142° 17' 19" W.
46	56° 37' 19" N.	142° 48' 57" W.
47	58° 51' 04" N.	153° 15' 03" W.

- .2 the sea areas located off the Atlantic coasts of the United States, Canada, and France (Saint-Pierre-et-Miquelon) and the Gulf of Mexico coast of the United States enclosed by geodesic lines connecting the following coordinates:

POINT	LATITUDE	LONGITUDE
1	60° 00' 00" N.	64° 09' 36" W.
2	60° 00' 00" N.	56° 43' 00" W.
3	58° 54' 01" N.	55° 38' 05" W.
4	57° 50' 52" N.	55° 03' 47" W.
5	57° 35' 13" N.	54° 00' 59" W.
6	57° 14' 20" N.	53° 07' 58" W.
7	56° 48' 09" N.	52° 23' 29" W.
8	56° 18' 13" N.	51° 49' 42" W.

POINT	LATITUDE	LONGITUDE
9	54° 23' 21" N.	50° 17' 44" W.
10	53° 44' 54" N.	50° 07' 17" W.
11	53° 04' 59" N.	50° 10' 05" W.
12	52° 20' 06" N.	49° 57' 09" W.
13	51° 34' 20" N.	48° 52' 45" W.
14	50° 40' 15" N.	48° 16' 04" W.
15	50° 02' 28" N.	48° 07' 03" W.
16	49° 24' 03" N.	48° 09' 35" W.
17	48° 39' 22" N.	47° 55' 17" W.
18	47° 24' 25" N.	47° 46' 56" W.
19	46° 35' 12" N.	48° 00' 54" W.
20	45° 19' 45" N.	48° 43' 28" W.
21	44° 43' 38" N.	49° 16' 50" W.
22	44° 16' 38" N.	49° 51' 23" W.
23	43° 53' 15" N.	50° 34' 01" W.
24	43° 36' 06" N.	51° 20' 41" W.
25	43° 23' 59" N.	52° 17' 22" W.
26	43° 19' 50" N.	53° 20' 13" W.
27	43° 21' 14" N.	54° 09' 20" W.
28	43° 29' 41" N.	55° 07' 41" W.
29	42° 40' 12" N.	55° 31' 44" W.
30	41° 58' 19" N.	56° 09' 34" W.
31	41° 20' 21" N.	57° 05' 13" W.
32	40° 55' 34" N.	58° 02' 55" W.
33	40° 41' 38" N.	59° 05' 18" W.
34	40° 38' 33" N.	60° 12' 20" W.
35	40° 45' 46" N.	61° 14' 03" W.
36	41° 04' 52" N.	62° 17' 49" W.
37	40° 36' 55" N.	63° 10' 49" W.
38	40° 17' 32" N.	64° 08' 37" W.
39	40° 07' 46" N.	64° 59' 31" W.
40	40° 05' 44" N.	65° 53' 07" W.
41	39° 58' 05" N.	65° 59' 51" W.
42	39° 28' 24" N.	66° 21' 14" W.
43	39° 01' 54" N.	66° 48' 33" W.
44	38° 39' 16" N.	67° 20' 59" W.
45	38° 19' 20" N.	68° 02' 01" W.
46	38° 05' 29" N.	68° 46' 55" W.
47	37° 58' 14" N.	69° 34' 07" W.
48	37° 57' 47" N.	70° 24' 09" W.
49	37° 52' 46" N.	70° 37' 50" W.
50	37° 18' 37" N.	71° 08' 33" W.
51	36° 32' 25" N.	71° 33' 59" W.
52	35° 34' 58" N.	71° 26' 02" W.
53	34° 33' 10" N.	71° 37' 04" W.
54	33° 54' 49" N.	71° 52' 35" W.
55	33° 19' 23" N.	72° 17' 12" W.
56	32° 45' 31" N.	72° 54' 05" W.
57	31° 55' 13" N.	74° 12' 02" W.
58	31° 27' 14" N.	75° 15' 20" W.
59	31° 03' 16" N.	75° 51' 18" W.
60	30° 45' 42" N.	76° 31' 38" W.
61	30° 12' 48" N.	77° 18' 29" W.

POINT	LATITUDE	LONGITUDE
62	29° 25' 17" N.	76° 56' 42" W.
63	28° 36' 59" N.	76° 47' 60" W.
64	28° 17' 13" N.	76° 40' 10" W.
65	28° 17' 12" N.	79° 11' 23" W.
66	27° 52' 56" N.	79° 28' 35" W.
67	27° 26' 01" N.	79° 31' 38" W.
68	27° 16' 13" N.	79° 34' 18" W.
69	27° 11' 54" N.	79° 34' 56" W.
70	27° 05' 59" N.	79° 35' 19" W.
71	27° 00' 28" N.	79° 35' 17" W.
72	26° 55' 16" N.	79° 34' 39" W.
73	26° 53' 58" N.	79° 34' 27" W.
74	26° 45' 46" N.	79° 32' 41" W.
75	26° 44' 30" N.	79° 32' 23" W.
76	26° 43' 40" N.	79° 32' 20" W.
77	26° 41' 12" N.	79° 32' 01" W.
78	26° 38' 13" N.	79° 31' 32" W.
79	26° 36' 30" N.	79° 31' 06" W.
80	26° 35' 21" N.	79° 30' 50" W.
81	26° 34' 51" N.	79° 30' 46" W.
82	26° 34' 11" N.	79° 30' 38" W.
83	26° 31' 12" N.	79° 30' 15" W.
84	26° 29' 05" N.	79° 29' 53" W.
85	26° 25' 31" N.	79° 29' 58" W.
86	26° 23' 29" N.	79° 29' 55" W.
87	26° 23' 21" N.	79° 29' 54" W.
88	26° 18' 57" N.	79° 31' 55" W.
89	26° 15' 26" N.	79° 33' 17" W.
90	26° 15' 13" N.	79° 33' 23" W.
91	26° 08' 09" N.	79° 35' 53" W.
92	26° 07' 47" N.	79° 36' 09" W.
93	26° 06' 59" N.	79° 36' 35" W.
94	26° 02' 52" N.	79° 38' 22" W.
95	25° 59' 30" N.	79° 40' 03" W.
96	25° 59' 16" N.	79° 40' 08" W.
97	25° 57' 48" N.	79° 40' 38" W.
98	25° 56' 18" N.	79° 41' 06" W.
99	25° 54' 04" N.	79° 41' 38" W.
100	25° 53' 24" N.	79° 41' 46" W.
101	25° 51' 54" N.	79° 41' 59" W.
102	25° 49' 33" N.	79° 42' 16" W.
103	25° 48' 24" N.	79° 42' 23" W.
104	25° 48' 20" N.	79° 42' 24" W.
105	25° 46' 26" N.	79° 42' 44" W.
106	25° 46' 16" N.	79° 42' 45" W.
107	25° 43' 40" N.	79° 42' 59" W.
108	25° 42' 31" N.	79° 42' 48" W.
109	25° 40' 37" N.	79° 42' 27" W.
110	25° 37' 24" N.	79° 42' 27" W.
111	25° 37' 08" N.	79° 42' 27" W.
112	25° 31' 03" N.	79° 42' 12" W.
113	25° 27' 59" N.	79° 42' 11" W.
114	25° 24' 04" N.	79° 42' 12" W.

POINT	LATITUDE	LONGITUDE
115	25° 22' 21" N.	79° 42' 20" W.
116	25° 21' 29" N.	79° 42' 08" W.
117	25° 16' 52" N.	79° 41' 24" W.
118	25° 15' 57" N.	79° 41' 31" W.
119	25° 10' 39" N.	79° 41' 31" W.
120	25° 09' 51" N.	79° 41' 36" W.
121	25° 09' 03" N.	79° 41' 45" W.
122	25° 03' 55" N.	79° 42' 29" W.
123	25° 02' 60" N.	79° 42' 56" W.
124	25° 00' 30" N.	79° 44' 05" W.
125	24° 59' 03" N.	79° 44' 48" W.
126	24° 55' 28" N.	79° 45' 57" W.
127	24° 44' 18" N.	79° 49' 24" W.
128	24° 43' 04" N.	79° 49' 38" W.
129	24° 42' 36" N.	79° 50' 50" W.
130	24° 41' 47" N.	79° 52' 57" W.
131	24° 38' 32" N.	79° 59' 58" W.
132	24° 36' 27" N.	80° 03' 51" W.
133	24° 33' 18" N.	80° 12' 43" W.
134	24° 33' 05" N.	80° 13' 21" W.
135	24° 32' 13" N.	80° 15' 16" W.
136	24° 31' 27" N.	80° 16' 55" W.
137	24° 30' 57" N.	80° 17' 47" W.
138	24° 30' 14" N.	80° 19' 21" W.
139	24° 30' 06" N.	80° 19' 44" W.
140	24° 29' 38" N.	80° 21' 05" W.
141	24° 28' 18" N.	80° 24' 35" W.
142	24° 28' 06" N.	80° 25' 10" W.
143	24° 27' 23" N.	80° 27' 20" W.
144	24° 26' 30" N.	80° 29' 30" W.
145	24° 25' 07" N.	80° 32' 22" W.
146	24° 23' 30" N.	80° 36' 09" W.
147	24° 22' 33" N.	80° 38' 56" W.
148	24° 22' 07" N.	80° 39' 51" W.
149	24° 19' 31" N.	80° 45' 21" W.
150	24° 19' 16" N.	80° 45' 47" W.
151	24° 18' 38" N.	80° 46' 49" W.
152	24° 18' 35" N.	80° 46' 54" W.
153	24° 09' 51" N.	80° 59' 47" W.
154	24° 09' 48" N.	80° 59' 51" W.
155	24° 08' 58" N.	81° 01' 07" W.
156	24° 08' 30" N.	81° 01' 51" W.
157	24° 08' 26" N.	81° 01' 57" W.
158	24° 07' 28" N.	81° 03' 06" W.
159	24° 02' 20" N.	81° 09' 05" W.
160	23° 59' 60" N.	81° 11' 16" W.
161	23° 55' 32" N.	81° 12' 55" W.
162	23° 53' 52" N.	81° 19' 43" W.
163	23° 50' 52" N.	81° 29' 59" W.
164	23° 50' 02" N.	81° 39' 59" W.
165	23° 49' 05" N.	81° 49' 59" W.
166	23° 49' 05" N.	82° 00' 11" W.
167	23° 49' 42" N.	82° 09' 59" W.

POINT	LATITUDE	LONGITUDE
168	23° 51' 14" N.	82° 24' 59" W.
169	23° 51' 14" N.	82° 39' 59" W.
170	23° 49' 42" N.	82° 48' 53" W.
171	23° 49' 32" N.	82° 51' 11" W.
172	23° 49' 24" N.	82° 59' 59" W.
173	23° 49' 52" N.	83° 14' 59" W.
174	23° 51' 22" N.	83° 25' 49" W.
175	23° 52' 27" N.	83° 33' 01" W.
176	23° 54' 04" N.	83° 41' 35" W.
177	23° 55' 47" N.	83° 48' 11" W.
178	23° 58' 38" N.	83° 59' 59" W.
179	24° 09' 37" N.	84° 29' 27" W.
180	24° 13' 20" N.	84° 38' 39" W.
181	24° 16' 41" N.	84° 46' 07" W.
182	24° 23' 30" N.	84° 59' 59" W.
183	24° 26' 37" N.	85° 06' 19" W.
184	24° 38' 57" N.	85° 31' 54" W.
185	24° 44' 17" N.	85° 43' 11" W.
186	24° 53' 57" N.	85° 59' 59" W.
187	25° 10' 44" N.	86° 30' 07" W.
188	25° 43' 15" N.	86° 21' 14" W.
189	26° 13' 13" N.	86° 06' 45" W.
190	26° 27' 22" N.	86° 13' 15" W.
191	26° 33' 46" N.	86° 37' 07" W.
192	26° 01' 24" N.	87° 29' 35" W.
193	25° 42' 25" N.	88° 33' 00" W.
194	25° 46' 54" N.	90° 29' 41" W.
195	25° 44' 39" N.	90° 47' 05" W.
196	25° 51' 43" N.	91° 52' 50" W.
197	26° 17' 44" N.	93° 03' 59" W.
198	25° 59' 55" N.	93° 33' 52" W.
199	26° 00' 32" N.	95° 39' 27" W.
200	26° 00' 33" N.	96° 48' 30" W.
201	25° 58' 32" N.	96° 55' 28" W.
202	25° 58' 15" N.	96° 58' 41" W.
203	25° 57' 58" N.	97° 01' 54" W.
204	25° 57' 41" N.	97° 05' 08" W.
205	25° 57' 24" N.	97° 08' 21" W.
206	25° 57' 24" N.	97° 08' 47" W.

- .3 the sea area located off the coasts of the Hawaiian Islands of Hawai'i, Maui, Oahu, Moloka'i, Ni'ihau, Kaua'i, Lāna'i, and Kaho'olawe, enclosed by geodesic lines connecting the following coordinates:

POINT	LATITUDE	LONGITUDE
1	22° 32' 54" N.	153° 00' 33" W.
2	23° 06' 05" N.	153° 28' 36" W.
3	23° 32' 11" N.	154° 02' 12" W.
4	23° 51' 47" N.	154° 36' 48" W.
5	24° 21' 49" N.	155° 51' 13" W.
6	24° 41' 47" N.	156° 27' 27" W.
7	24° 57' 33" N.	157° 22' 17" W.

POINT	LATITUDE	LONGITUDE
8	25° 13' 41" N.	157° 54' 13" W.
9	25° 25' 31" N.	158° 30' 36" W.
10	25° 31' 19" N.	159° 09' 47" W.
11	25° 30' 31" N.	159° 54' 21" W.
12	25° 21' 53" N.	160° 39' 53" W.
13	25° 00' 06" N.	161° 38' 33" W.
14	24° 40' 49" N.	162° 13' 13" W.
15	24° 15' 53" N.	162° 43' 08" W.
16	23° 40' 50" N.	163° 13' 00" W.
17	23° 03' 20" N.	163° 32' 58" W.
18	22° 20' 09" N.	163° 44' 41" W.
19	21° 36' 45" N.	163° 46' 03" W.
20	20° 55' 26" N.	163° 37' 44" W.
21	20° 13' 34" N.	163° 19' 13" W.
22	19° 39' 03" N.	162° 53' 48" W.
23	19° 09' 43" N.	162° 20' 35" W.
24	18° 39' 16" N.	161° 19' 14" W.
25	18° 30' 31" N.	160° 38' 30" W.
26	18° 29' 31" N.	159° 56' 17" W.
27	18° 10' 41" N.	159° 14' 08" W.
28	17° 31' 17" N.	158° 56' 55" W.
29	16° 54' 06" N.	158° 30' 29" W.
30	16° 25' 49" N.	157° 59' 25" W.
31	15° 59' 57" N.	157° 17' 35" W.
32	15° 40' 37" N.	156° 21' 06" W.
33	15° 37' 36" N.	155° 22' 16" W.
34	15° 43' 46" N.	154° 46' 37" W.
35	15° 55' 32" N.	154° 13' 05" W.
36	16° 46' 27" N.	152° 49' 11" W.
37	17° 33' 42" N.	152° 00' 32" W.
38	18° 30' 16" N.	151° 30' 24" W.
39	19° 02' 47" N.	151° 22' 17" W.
40	19° 34' 46" N.	151° 19' 47" W.
41	20° 07' 42" N.	151° 22' 58" W.
42	20° 38' 43" N.	151° 31' 36" W.
43	21° 29' 09" N.	151° 59' 50" W.
44	22° 06' 58" N.	152° 31' 25" W.
45	22° 32' 54" N.	153° 00' 33" W.

(end of text)"

RESOLUTION MEPC.194(61)**Adopted on 1 October 2010****AMENDMENTS TO THE ANNEX OF THE PROTOCOL OF 1997 TO AMEND THE
INTERNATIONAL CONVENTION FOR THE PREVENTION OF POLLUTION FROM
SHIPS, 1973, AS MODIFIED BY THE PROTOCOL OF 1978 RELATING THERETO****(Revised form of Supplement to the IAPP Certificate)**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee (the Committee) conferred upon it by international conventions for the prevention and control of marine pollution,

NOTING article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1973 Convention"), article VI of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1978 Protocol") and article 4 of the Protocol of 1997 to amend the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (herein after referred to as the "1997 Protocol"), which together specify the amendment procedure of the 1997 Protocol and confer upon the appropriate body of the Organization the function of considering and adopting amendments to the 1973 Convention, as modified by the 1978 and 1997 Protocols,

NOTING ALSO that, by the 1997 Protocol, Annex VI entitled Regulations for the Prevention of Air Pollution from Ships was added to the 1973 Convention (hereinafter referred to as "Annex VI"),

NOTING FURTHER that the revised Annex VI was adopted by resolution MEPC.176(58) and entered into force on 1 July 2010,

HAVING CONSIDERED draft amendments to the revised Annex VI,

1. ADOPTS, in accordance with article 16(2)(d) of the 1973 Convention, the amendments to Annex VI, the text of which is set out at annex to the present resolution;
2. DETERMINES, in accordance with article 16(2)(f)(iii) of the 1973 Convention, that the amendments shall be deemed to have been accepted on 1 August 2011, unless prior to that date, not less than one third of the Parties or Parties the combined merchant fleets of which constitute not less than 50 per cent of the gross tonnage of the world's merchant fleet, have communicated to the Organization their objection to the amendments;
3. INVITES the Parties to note that, in accordance with article 16(2)(g)(ii) of the 1973 Convention, the said amendments shall enter into force on 1 February 2012 upon their acceptance in accordance with paragraph 2 above;

4. REQUESTS the Secretary-General, in conformity with article 16(2)(e) of the 1973 Convention, to transmit to all Parties to the 1973 Convention, as modified by the 1978 and 1997 Protocols, certified copies of the present resolution and the text of the amendments contained in the Annex;
5. REQUESTS FURTHER the Secretary-General to transmit to the Members of the Organization which are not Parties to the 1973 Convention, as modified by the 1978 and 1997 Protocols, copies of the present resolution and its Annex.

ANNEX

AMENDMENTS TO APPENDIX I OF THE REVISED MARPOL ANNEX VI
(REVISED FORM OF SUPPLEMENT TO THE INTERNATIONAL AIR POLLUTION
PREVENTION CERTIFICATE)

Paragraph 2.3 of the form of Supplement to the International Air Pollution Prevention Certificate is amended as follows:

"2.3 Sulphur oxides (SO_x) and particulate matter (regulation 14)

2.3.1 When the ship operates outside of an Emission Control Area specified in regulation 14.3, the ship uses:

- .1 fuel oil with a sulphur content as documented by bunker delivery notes that does not exceed the limit value of:
 - 4.50% m/m (not applicable on or after 1 January 2012); or ☐
 - 3.50% m/m (not applicable on or after 1 January 2020); or ☐
 - 0.50% m/m, and/or ☐
- .2 an equivalent arrangement approved in accordance with regulation 4.1 as listed in 2.6 that is at least as effective in terms of SO_x emission reductions as compared to using a fuel oil with a sulphur content limit value of:
 - 4.50% m/m (not applicable on or after 1 January 2012); or ☐
 - 3.50% m/m (not applicable on or after 1 January 2020); or ☐
 - 0.50% m/m ☐

2.3.2 When the ship operates inside an Emission Control Area specified in regulation 14.3, the ship uses:

- .1 fuel oil with a sulphur content as documented by bunker delivery notes that does not exceed the limit value of:
 - 1.00% m/m (not applicable on or after 1 January 2015); or ☐
 - 0.10% m/m, and/or ☐
- .2 an equivalent arrangement approved in accordance with regulation 4.1 as listed in 2.6 that is at least as effective in terms of SO_x emission reductions as compared to using a fuel oil with a sulphur content limit value of:
 - 1.00% m/m (not applicable on or after 1 January 2015); or ☐
 - 0.10% m/m ☐

"

1973 年國際防止船舶造成污染公約

本公約各締約國，

意識到保護整個人類環境特別是海洋環境的需要，

認識到船舶故意、隨意或意外排放油類和其他有害物質是造成污染的一項重要來源，

還認識到主要為保護環境而締結的第一個多邊協議《1954 年國際防止海上油污公約》的重要性和該公約在防止海洋和沿海環境污染方面所作出的重大貢獻，

本着徹底消除有意排放油類和其他有害物質而污染海洋環境並將這些物質的意外排放減至最低限度的願望，

考慮到達到這一目的的最好辦法是制定不限於油污染的具有普遍意義的規則，

特議定下列各條：

第 1 條

本公約的一般義務

(1) 各締約國承擔義務實施本公約及對其有約束力的本公約附則的各項規定，以防止由於違反公約排放有害物質或含有此類有害物質的廢液而污染海洋環境。

(2) 除另有明文規定者外，凡引用本公約即同時引用其議定書及各附則。

第 2 條

定義

除另有明文規定者外，就本公約而言：

(1) 規則係指載於本公約附則中的規則條文。

(2) 有害物質係指任何進入海洋後易於危害人類健康、傷害生物資源和海洋生物，損害休息環境或妨礙對海洋其他合法利用的物質，並包括受本公約控制的任何物質。

(3) (a) 排放一詞對有害物質或含有此類物質的廢液而言，係指無論由於何種原因所造成的船舶的排放，包括任何的漏出、處理、溢出、滲漏、泵出、冒出或排出；

(b) 排放一詞不包括下列情況：

(i) 1972 年 11 月 13 日在倫敦簽訂的《防止傾倒廢棄物和其他物質污染海洋公約》所指的傾倒；或

(ii) 由於對海底礦物資源的勘探、開發及與之相關聯的近海加工處理所直接引起的有害物質的排放；或

(iii) 為減少或控制污染的合法科學研究而進行的有害物質排放。

(4) 船舶係指在海洋環境中運行的任何類型的船舶，包括水翼船、氣墊船、潛水船、水上艇筏和固定或浮動平台。

(5) 主管機關係指船舶在其管轄下進行營運的國家政府。就有權懸掛某一國家國旗的船舶而言，主管機關即為該國的政府。對在沿海國家為勘探和開發其自然資源而行使主權的與其海岸鄰接的海床和底土從事勘探和開發的固定或浮動平台，其主管機關即為該有關沿海國家的政府。

(6) 事故係指涉及實際或可能將有害物質或含有此類物質的廢液排放入海的事件。

(7) 組織係指政府間海事協商組織^①。

第 3 條

適用範圍

(1) 本公約適用於：

(a) 有權懸掛締約國國旗的船舶；和

(b) 無權懸掛締約國國旗但在締約國管轄下營運的船舶。

(2) 本條中的任何內容，均不得解釋為減損或擴大各締約國根據國際法為勘探和開發其自然資源對於鄰接於其海岸的海床和底土的主權。

^① 根據 1982 年 5 月 22 日生效的本組織公約修正案，本組織的名稱改為“國際海事組織”。

(3) 本公約不適用於任何軍艦、海軍輔助船舶，或締約國所擁有或營運的、並暫時只用於政府非商業性服務的其他船舶。然而，各締約國應通過採取不損害其所擁有或營運此類船舶的操作或操作性能的適當措施確保此類船舶在合理和可行的範圍內按本公約的規定行事。

第 4 條

違章

(1) 任何違反本公約要求的事件，無論其發生在何處，應予禁止，並根據有關船舶主管機關的法律予以制裁。如果該主管機關獲悉此類違章事件，並確信有充分的證據可對所指控的違章事件提起訴訟，則應按照其法律使這種訴訟儘快進行。

(2) 在任一締約國管轄區域以內的任何違反本公約要求的事件，應予禁止，並根據該締約國的法律予以制裁。無論何時發生此類違章事件，該締約國應：

(a) 按其法律提起訴訟；或

(b) 將其可能掌握的關於已發生違章事件的情況和證據提供給該船舶的主管機關。

(3) 如有關某一船舶違反本公約事件的情況或證據已提交該船的主管機關，則該主管機關應迅速將其所採取的行動通知提供上述情況或證據的締約國和本組織。

(4) 締約國法律就本條所規定的處罰，其嚴厲程度應足以遏制對本公約的違反，並且無論此類事件發生在何處，該處罰均應同等嚴厲。

第5條

證書和檢查船舶的特殊規定

(1) 除本條(2)的規定外，根據某一締約國授權按規則的各項規定所簽發的證書，其他締約國應予承認，並視為在本公約涉及的全部範圍內與其所簽發的證書具有同等的效力。

(2) 對按規則規定需要持有證書的船舶，當其在某一締約國所管轄的港口或近海裝卸站時，應接受該締約國正式授權的官員的檢查。任何這種檢查，應以核實船上是否攜有有效的證書為限，除非有明顯理由確信該船或其設備的狀況在實質上與證書所載內容不符。在這種情況下，或如船舶未攜有有效的證書，執行檢查的締約國應採取措施，確保該船在未具備對海洋環境不致產生不當的危害威脅前，不得開航。但是，該締約國可准許該船舶離開港口或近海裝卸站而駛往最近的可進行修理的修船廠。

(3) 如果某一締約國因一艘外國船舶不符合本公約的規定而拒絕其進入所管轄的港口或近海裝卸站，或對之採取任何行動，則該締約國應立即通知該船船旗國的領事或外交代表，如無此可能，則應立即通知該船的主管機關。在拒絕進港或採取上述行動前，該締約國可要求與該船的主管機關進行協商。如該船未按規則的規定攜有有效的證書，也應通知主管機關。

(4) 對於非本公約締約國的船舶，各締約國應實施本公約的各項必要的規定，以確保不再給予此類船舶優惠的待遇。

第 6 條

違章事件的偵查和本公約的實施

(1) 本公約各締約國應使用一切適當和可行的偵查和環境監測措施、合適的報告和證據積累程序，在偵查違章事件和實施本公約規定方面進行合作。

(2) 適用本公約的船舶，在某一締約國的任何港口或近海裝卸站均可能受到由該締約國指定或授權的官員的檢查，以核實該船是否違反規則的規定而排放了任何有害物質。如檢查表明有違反本公約的事件，應向主管機關提交一份報告以便採取適當行動。

(3) 任何締約國應向該主管機關提供其船舶違反本附則規定已排放有害物質或含有此類物質的廢液的證據（如有）。如可行，該締約國的主管當局應將所指控的違章事件通知該船船長。

(4) 在收到此類證據後，被通知的主管機關應對此事進行調查，並可要求其他締約國對所指控的違章提供進一步的或更完善的證據。如果該主管機關確信有充分的證據可對所指控的違章事件提起訴訟，應按照其法律使此類訴訟儘快進行。該主管機關應將所採取的行動迅速通知報告所指控的違章事件的締約國，以及本組織。

(5) 如果收到任何締約國的調查請求，連同船舶違反本附則規定在任何地方已排放有害物質或含有此類物質的廢液的充分證據，則締約國也可對適用本公約的船舶在其進入該締約國管轄的港口或近海裝卸站時進行檢查。這種調查報告應送交提出請求的締約國以及主管機關，以便根據本公約規定採取適當的行動。

第 7 條

對船舶的不當延誤

(1) 在實施本公約第 4、第 5 或第 6 條規定時，應盡力避免使船舶受到不當滯留或延誤。

(2) 如果在實施本公約第 4、第 5 或第 6 條規定時船舶受到不當滯留或延誤，該船有權對其所受到的任何損失或損壞要求賠償。

第 8 條

涉及有害物質的事故報告

(1) 應儘可能立即按本公約議定書 I 的規定作出事故報告。

(2) 每一締約國應：

(a) 為適當的官員或機構受理所有關於事故的報告，作出一切必要的安排；並

(b) 將這些安排的詳細情況通知本組織，以便轉告其他締約國和本組織的成員國。

(3) 締約國一旦收到本條規定的報告時，應立即將該報告轉發給：

(a) 所涉及船舶的主管機關；和

(b) 可能受到影響的任何其他國家。

(4) 每一締約國承擔義務，指示其海上檢查船舶和飛機以及其他相應的部門，向其當局報告本公約議定書 I 中所涉及的任何事故。該締約國如認為適當，應相應報告本組織和有關的任何其他締約國。

第 9 條

其他的條約及解釋

(1) 本公約一經生效，在締約國之間即替代經修正的《1954 年國際防止海上油污公約》。

(2) 本公約的任何內容，不得影響根據聯合國大會第 C (XXV) 2750 號決議召開的聯合國海洋法會議對《海洋法》的編纂和制定，也不得影響任何國家目前或未來就《海洋法》以及沿海國和船旗國的管轄權的性質和範圍所主張的要求和法律觀點。

(3) 本公約中“管轄權”一詞，在應用或解釋本公約時應根據現行的國際法予以解釋。

第 10 條

爭議的解決

在兩個或以上的締約國之間對本公約的解釋或應用所發生的任何爭議，如不能通過這些締約國之間的協商解決，且這些締約國又不能以其他方式取得一致意見時，經其中任一締約國的請求，應按本公約議定書 II 中的規定提請仲裁。

第 11 條

資料的送交

(1) 本公約各締約國承擔義務將下列各項文件送交本組織：

- (a) 就本公約範圍內各項事宜所頒佈的法律、命令、法令和規則以及其他文件的文本；
- (b) 按照規則的規定辦理關於裝運有害物質船舶的設計、建造和設備事宜的經授權代表該締約國的非政府性機構名單；^①
- (c) 根據規則規定所簽發的證書的足夠數量的樣本；
- (d) 接收設備的清單，包括其地點、容量和可用的設備及其他特性；
- (e) 表明本公約實施結果的正式報告或其摘要；和

^① 本段文字已由 1978 年議定書第 III 條的內容所替代。

(f) 按本組織標準格式填寫的對違反本公約事件實際所作處罰的年度統計報告。

(2) 本組織應將收到的任何文件一事通知按本條規定送交的各締約國，並將按本條(1)(b)至(f)規定送交本組織的任何資料分發給所有締約國。

第 12 條

船舶事故

(1) 各主管機關承擔義務，對其受規則的規定約束的任何船舶所發生的任何事故進行調查，如果此類事故對海上環境造成了重大的有害影響。

(2) 本公約各締約國承擔義務，在其認為此類調查結果可能有助於確定本公約可能需要進行何種修改時，向本組織提供該資料。

第 13 條

簽字、批准、接受、認可和加入

(1) 本公約自 1974 年 1 月 15 日起至 1974 年 12 月 31 日在本組織總部開放供簽字，此後繼續開放供加入。各國可按下列方式成為本公約的締約國：

(a) 簽字並對批准、接受或認可無保留；或

(b) 簽字而有待批准、接受或認可，隨後再予批准、接受或認可；或

(c) 加入。

(2) 辦理批准、接受、認可或加入，應向本組織秘書長交存一份相應的文件。

(3) 本組織秘書長應將任何簽字或批准、接受、認可或加入的任何新文件的交存及其交存日期，通知所有已簽字或已加入本公約的國家。

第 14 條

任選附則

(1) 在簽字、批准、接受、認可或加入本公約時，一個國家可以提出聲明不接受本公約的附則 III、IV 和 V 中的任何一個附則或其全部（以下稱“任選附則”）。除上述之外，各締約國應受任何附則的全部約束。

(2) 已聲明不接受某一任選附則約束的國家，可隨時通過向本組織交存第 13 (2) 條所規定的文件，接受該附則。

(3) 根據本條 (1) 提出聲明不接受某一任選附則且以後又未按本條 (2) 規定接受該附則的國家，在該附則有關事項方面，既不承擔本公約所規定的任何義務，也無權要求本公約所賦予的任何權利，同時，就有關該附則的各種事項而言，凡在本公約中提及各締約國時，均不包括該國家。

(4) 本組織應將根據本條規定提出的任何聲明以及收到按本條(2)規定交存的任何文件一事，通知業已簽字或加入本公約的國家。

第 15 條

生效

(1) 本公約應在不少於 15 個其商船總噸位不少於世界商船隊總噸位 50%的國家按第 13 條規定成為本公約締約國之日起 12 個月後生效。

(2) 任選附則應在本條(1)所規定的條件就該附則而言得到滿足之日起 12 個月後生效。

(3) 本組織應將本公約生效的日期和任選附則按本條(2)規定生效的日期，通知業已簽字或加入本公約的國家。

(4) 對於在本公約或任何任選附則生效的要求得到滿足之後但在其生效之日前交存批准、接受、認可或加入文件的國家，其批准、接受、認可或加入應在本公約或該附則生效之日生效，或在交存上述文件之日起 3 個月後生效，以日期較晚者為準。

(5) 對於在本公約或任選附則生效之日後交存批准、接受、認可或加入文件的國家，本公約或該附則應在上述文件交存之日起 3 個月後對其生效。

(6) 在第 16 條對本公約或任選附則的修正案的生效所要求的全部條件得到滿足之日後交存任何批准、接受、認可或加入文件，應適用於經修正的公約或附則。

第 16 條

修正

- (1) 本公約可按下列各款所規定的任一程序進行修正。
- (2) 經本組織審議後的修正案：
 - (a) 本公約締約國所提議的任何修正案，應提交本組織並應由本組織秘書長至少在本組織審議前 6 個月將其分發給本組織的所有成員和所有締約國；
 - (b) 本組織應將上述提議和分發的任何修正案提交給一個適當的機構進行審議；
 - (c) 本公約締約國，無論其是否為本組織成員，應有權參加相應機構的審議；
 - (d) 修正案應以到會並投票的締約國的三分之二多數票才能通過；
 - (e) 修正案如按上述 (d) 項的規定獲得通過，應由本組織秘書長將該修正案送交所有締約國供其接受；
 - (f) 在下列情況下，修正案應視為已被接受：
 - (i) 對本公約某一條款的一項修正案，在其商船總噸位不少於世界商船隊總噸位 50% 的三分之二締約國接受之日，即應視為已被接受；

- (ii) 對本公約某一附則的一項修正案，應視為按(f)
 - (iii) 中所規定的程序已被接受，除非該適當的機構在通過這一修正案時決定，該修正案應在其商船總噸位不少於世界商船隊總噸位 50% 的三分之二締約國接受之日，才能視為已被接受。但是，在本公約某一附則的一項修正案生效之前的任何時候，某一締約國仍可通知本組織秘書長，需經其專門認可後，該修正案才能對其生效。本組織秘書長應將該通知及收到的日期通知各締約國；
- (iii) 對本公約某一附則附錄的一項修正案，在該適當的機構通過該修正案時所規定的期限（該期限不得少於 10 個月）屆滿時，即應視為已被接受，除非在此期限內有不少於三分之一的締約國或其商船總噸位不少於世界商船隊總噸位 50% 的締約國（無論達到哪個條件均可）通知本組織表示反對；
- (iv) 對本公約議定書 I 的修正案，應按上述(f)(ii) 或(f)(iii) 中所規定的對本公約附則修正案的同樣程序辦理；
- (v) 對本公約議定書 II 的修正案，應按上述(f)(i) 中所規定的對本公約條款修正案的同樣程序辦理；

(g) 修正案應按下列條件生效：

- (i) 對本公約條款、議定書 II 或議定書 I 或未按(f)(iii)所規定的程序辦理的對本公約附則的修正案，凡按前述規定被接受者，對於已宣佈接受該修正案的各締約國，應在其被接受之日起 6 個月後生效；
- (ii) 對根據(f)(iii)所規定的程序辦理的對本公約議定書 I、附則或附則附錄的修正案，凡按前述條件視為已被接受者，應在其被接受之日起 6 個月後對所有締約國生效，但在該日期前提出聲明不予接受或按(f)(ii)的規定聲明需經其專門認可的締約國除外。

(3) 會議修正：

- (a) 經某一締約國提出申請，並有至少三分之一締約國的同意，本組織應召開一次本公約締約國會議審議對本公約的修正案。
 - (b) 經這一會議以到會並投票的締約國的三分之二多數票通過的每一項修正案，應由本組織秘書長送交所有締約國供其接受。
 - (c) 除非會議另有決定，該修正案應按上述(2)(f)和(g)中為此所規定的程序視為已被接受和生效。
- (4)(a) 如果是對某一任選附則的修正案，則本條中所提到的“締約國”應視為對該附則負有義務的締約國。

(b) 不接受某一附則的一項修正案的締約國，僅就該修正案的應用而言，應視為非締約國。

(5) 一項新附則的通過和生效，應按與本公約條款修正案的通過和生效相同的程序辦理。

(6) 除另有明文規定者外，根據本條規定對本公約所作的任何修正，凡涉及船舶結構者，只適用於在該修正案生效之日或其後訂立建造合同的船舶，或無建造合同但在該修正案生效之日或其後安放龍骨的船舶。

(7) 對一項議定書或附則的任何修正，應與該議定書或附則的實質性內容相關，並應與本公約的條款相一致。

(8) 本組織秘書長應將根據本條規定生效的任何修正案連同其生效日期通知所有締約國。

(9) 根據本條規定對一項修正案所提出的接受或反對的聲明，應以書面通知本組織秘書長。本組織秘書長應將該通知和收到的日期通知本公約各締約國。

第 17 條

促進技術合作

各締約國應與本組織和其他國際機構進行協商，並在聯合國環境規劃署執行主任的協助和協調下，對那些要求技術援助的締約國提供如下支持：

- (a) 培訓科技人員；
- (b) 提供必要的接收和監測的設備和設施；
- (c) 推進防止或減輕船舶污染海洋環境的其他措施和安排；
和
- (d) 鼓勵研究；

最好在有關國家的國內進行，以促進本公約的宗旨和目的。

第 18 條

退出

(1) 本公約任何締約國，在本公約或任何任選附則對其生效滿 5 年後，可隨時退出本公約或該任選附則。

(2) 退出本公約或任選附則，應以書面通知本組織秘書長，本組織秘書長應將該通知和收到的日期以及退出的生效日期通知所有其他締約國。

(3) 退出本公約或任選附則，應在本組織秘書長收到該項通知後 12 個月或在該通知中可能指明的任何較此為長的期限屆滿後生效。

第 19 條

保存和登記

(1) 本公約應由本組織秘書長保存，本組織秘書長應將核准無誤的本公約副本送交所有已簽字或加入本公約的國家。

(2) 本公約一經生效，本組織秘書長應即按《聯合國憲章》第102條的規定，將其文本送交聯合國秘書長登記並公佈。

第 20 條

文字

本公約正本一份，用英文、法文、俄文和西班牙文寫成，每種文本具有同等效力。應備有阿拉伯文、德文、意大利文和日文的官方譯本，譯本與簽署後的正本一起保存。

下列具名的經各自政府正式授權的代表^①特簽署本公約，以昭信守。

1973 年 11 月 2 日訂於倫敦。

① 略去簽字部分。

關於 1973 年國際防止船舶造成污染公約的 1978 年議定書

本議定書各締約國，

認識到《1973 年國際防止船舶造成污染公約》在保護海洋環境免受船舶造成的污染方面所能作出的重大貢獻，

還認識到進一步防止和控制船舶，特別是油船造成海洋污染的需要，

進一步認識到儘早並儘可能廣泛地實施公約附則 I 所載防止油類污染規則的需要，

但承認在某些技術問題未得到滿意的解決之前，有必要推遲實施公約附則 II，

考慮到達到這些目的的最好辦法是締結一份關於《1973 年國際防止船舶造成污染公約》的議定書，

特議定下列各條：

第 I 條

一般義務

1 本議定書各締約國承擔義務實施：

- (a) 本議定書及其附則的各項規定，該附則構成本議定書的組成部分；和

(b) 《1973 年國際防止船舶造成污染公約》(以下稱“公約”)的各項規定，但須遵照本議定書中所列的各項修訂與補充。

2 公約和本議定書的各項規定，應作為一個整體文件理解和解釋。

3 凡引用本議定書即同時引用其附則。

第 II 條

公約附則 II 的實施

1 儘管有公約第 14 (1) 條的規定，本議定書各締約國同意在本議定書生效之日起的三年內，或在政府間海事協商組織(以下稱“本組織”)^①海上環境保護委員會(以下稱“環保會”)中經本議定書締約國三分之二多數所確定的更長的期間內，各締約國應不受公約附則 II 各項規定的約束。

2. 在本條 1 所規定的期間內，本議定書各締約國，在公約附則 II 有關事項方面，既不承擔本公約所規定的任何義務，也無權要求本公約所賦予的任何權利，同時，就有關該附則的各種事項而言，凡在公約中提及各締約國時，均不包括本議定書的各締約國。

① 根據 1982 年 5 月 22 日生效的本組織公約修正案，本組織的名稱改為“國際海事組織”。

第 III 條

資料的送交

公約第 11 (1) (b) 條的文字由下文替代：

“按照規則的規定辦理關於裝運有害物質船舶的設計、建造、設備和營運事宜的經授權代表該締約國的指定的驗船師或被認可組織的名單，以分發給各締約國供其官員參考。為此，主管機關應將其授權給指定的驗船師或被認可組織的具體職責和條件通知本組織；”。

第 IV 條

簽字、批准、接受、認可和加入

1 本議定書自 1978 年 6 月 1 日起至 1979 年 5 月 31 日在本組織總部開放供簽字，此後繼續開放供加入。各國可按下列方式成為本議定書的締約國：

- (a) 簽字並對批准、接受或認可無保留；或
- (b) 簽字而有待批准、接受或認可，隨後再予批准、接受或認可；或
- (c) 加入。

2 辦理批准、接受、認可和加入，應向本組織秘書長交存一份相應的文件。

第 V 條

生效

1 本議定書應在不少於 15 個其商船總噸位不少於世界商船隊總噸位 50%的國家按本議定書第 IV 條規定成為本議定書締約國之日起 12 個月後生效。

2 凡在本議定書生效之日後交存的批准、接受、認可和加入文件，應在交存之日起 3 個月後生效。

3 凡在本議定書的修正案按公約第 16 條的規定視為已被接受之日以後交存的批准、接受、認可或加入文件，應適用於經修正的本議定書。

第 VI 條

修正

公約第 16 條中所述關於公約條款、附則及附則的附錄的修正程序，應分別適用於本議定書的條款、附則及附則附錄的修正。

第 VII 條

退出

1 本議定書的任何締約國，在本議定書對該締約國生效滿 5 年後，可隨時退出本議定書。

2 退出本議定書，應向本組織秘書長交存一份退出文件。

3 退出本議定書，應在本組織秘書長收到退出通知後 12 個月或在該通知中所指明的任何較此為長的期限屆滿後生效。

第 VIII 條

保存

1 本議定書應由本組織秘書長（以下稱“保管人”）保存。

2 保管人應：

（a）將下列事項通知本議定書的所有簽字國或加入國：

（i）每一新的簽字或批准、接受、認可和加入文件的交存及其日期；

（ii）本議定書生效日期；

（iii）任何退出本議定書文件的交存及收到日期以及退出的生效日期；

（iv）按照本議定書第 II（1）條所作的任何決定；

（b）將核准無誤的本議定書副本送交所有已簽字或已加入本議定書的國家。

3 本議定書一經生效，保管人應即按《聯合國憲章》第 102 條的規定，將其核准無誤的一份真實副本送交聯合國秘書處登記並公佈。

第 IX 條

文字

本議定書正本一份，用英文、法文、俄文和西班牙文寫成，每種文本具有同等效力。應備有阿拉伯文、德文、意大利文和日文的官方譯本，譯本與簽署後的正本一起保存。

下列具名的經各自政府正式授權的代表^①特簽署本議定書，以昭信守。

1978 年 2 月 17 日訂於倫敦。

① 略去簽字部分。

議定書 I

（包括修正案）

關於涉及有害物質事故報告的規定

（根據公約第 8 條）

第 I 條

報告的責任

（1）涉及本議定書第 II 條中所述事故的任何船舶的船長或負責管理該船的其他人員，應毫不延遲地儘可能按照本議定書的規定，對事故作出詳細的報告。

（2）如果本條（1）中所述的船舶被放棄，或者該船所作的報告不完整或得不到該船的報告，則該船的船東、租船人、經理人或經營人、或者他們的代理人，應儘可能擔負起本議定書中所規定的船長責任。

第 II 條

報告的時間

（1）當事故涉及下列情況時應進行報告：

- （a） 排放超過允許排放標準或無論何種原因有可能排放油類或有毒液體物質，包括為保障船舶安全或救護海上人命而進行的排放；或

(b) 排放或可能排放包裝形式的有害物質，包括裝在貨運集裝箱、可移動式罐櫃、公路和鐵路槽罐車以及船載駁船中的有害物質；或

(c) 船長為 15 m 或以上的船舶發生的損壞、故障或失靈：

(i) 影響船舶安全；包括但不限於碰撞、擱淺、火災、爆炸、結構失效、浸水以及貨物移動；或

(ii) 導致影響航行安全；包括但不限於操舵裝置、推進裝置、發電系統和船上主要導航設備的故障或失靈；或

(d) 船舶營運期間排放油類或有毒液體物質超過本公約允許的排放量或瞬間排放速率。

(2) 就本議定書而言：

(a) 本條(1)(a)所述的“油類”係指公約附則 I 第 1(1)條中所定義的油類。

(b) 本條(1)(a)所述的“有毒液體物質”係指公約附則 II 第 1(6)條中所定義的有毒液體物質。

(c) 本條(1)(b)所述的包裝形式的“有害物質”係指那些在《國際海運危險貨物規則》(IMDG 規則)中確定為海洋污染物的物質。

第 III 條

報告的內容

在任何情況下，報告應包括：

- (a) 涉及船舶的特徵；
- (b) 事故的時間、類型和地理位置；
- (c) 涉及有害物質的數量和類別；
- (d) 救助和救撈措施。

第 IV 條

補充報告

根據本議定書規定有責任發送報告的任何人，如有可能：

- (a) 應在必要時對最初的報告提出補充並提供有關事態進一步發展的情況；和
- (b) 應儘可能滿足受影響國家索取有關補充資料的要求。

第 V 條

報告的程序

(1) 通過可利用的最快的電信通信渠道並儘可能最優先地將報告發送給最近的沿海國。

(2) 為實施本議定書的規定，公約締約國應按照本組織制定的指南^①，頒發或敦促頒發有關在報告有害物質事故時應遵循的程序規則或指令。

① 參見本組織 A.851 (20) 決議通過並經 MEPC.138 (53) 決議修正的《船舶報告制度和船舶報告要求的一般原則，包括涉及危險貨物、有害物質和/或海洋污染物事故報告指南》；見 IMO 出版物 IA516E。

議定書 II

仲裁

(根據公約第 10 條)

第 I 條

除爭議各方另有決定外，仲裁程序應符合本議定書所列各項規定。

第 II 條

(1) 當一締約國應用公約第 10 條的規定向另一締約國提出請求時，應設立仲裁庭。仲裁請求應包括對爭議案件的說明以及任何支持性文件。

(2) 請求仲裁的一方應通知本組織秘書長，其已請求設立仲裁庭、爭議各方的國家名稱以及其認為各方對解釋或應用方面持有不同意見的公約條款或規則。秘書長應將這一情況轉告所有締約國。

第 III 條

仲裁庭由三名仲裁員組成：由有爭議的每一方各指定仲裁員 1 名，並由這兩名仲裁員協議指定第三名仲裁員擔任首席仲裁員。

第 IV 條

(1) 如自指定第二名仲裁員之日起滿 60 天仍未指定仲裁庭的首席仲裁員，經當事的任一方請求，本組織秘書長應在以後的 60 天期間內進行這項指定，其人選從本組織理事會預先擬定的合格人員名單中擇定。

(2) 如當事的一方在接到請求之日起 60 天內仍未指定應由其負責指定的仲裁員時，當事的另一方可直接通知本組織秘書長，秘書長應在 60 天內指定仲裁庭的首席仲裁員，其人選從本條(1)所規定的名單中擇定。

(3) 首席仲裁員經指定後，應要求未指定仲裁員的當事一方，以同樣的方法並根據同樣的條件指定仲裁員。如果該當事方不進行所需要的指定，則首席仲裁員應要求本組織秘書長按前款所規定的形式和條件指定仲裁員。

(4) 凡根據本條規定指定的首席仲裁員，不應是或曾是當事一方的公民，但經當事的另一方同意者除外。

(5) 如果經當事一方負責指定的仲裁員死亡或缺席，該當事方應在該仲裁員死亡或缺席之日起 60 天內指定接任的仲裁員。倘若該當事方不作指定，則應由其餘的仲裁員進行仲裁。

如果首席仲裁員死亡或缺席，應按照上述第 III 條的規定指定接任的首席仲裁員，但是，如果仲裁庭的成員在首席仲裁員死亡或缺席後 60 天內不能就其接任人選取得一致意見時，則應按照本條規定指定接任的首席仲裁員。

第 V 條

仲裁庭可審理並裁決由爭議事項所直接引起的反訴。

第 VI 條

當事的每一方應負責負擔其仲裁員的報酬和相關的費用，以及為準備他自己的案件的開支。對首席仲裁員報酬和仲裁的全部費用應由當事各方平均分擔。仲裁庭對其所有開支應有記錄，並應提出結算單。

第 VII 條

任何締約國，如在該案件中有法律上的利害關係，同時並可能受到其決定的影響者，在以書面通知原來發起該項仲裁程序的當事各方後，經仲裁庭同意，可參加該項仲裁程序。

第 VIII 條

凡根據本議定書規定設立的仲裁庭，得自行決定其議事規則。

第 IX 條

(1) 仲裁庭對於其議事規則、審理地點以及所需審理的任何問題的決定，均應以其成員的多數票通過；經各方負責指定的仲裁員，其中有一人缺席或棄權，不得妨礙仲裁庭作出裁決。如果表決的票數相等，首席仲裁員的一票，應為決定性的。

(2) 當事各方應便利仲裁庭的工作，特別是應按照其法律並儘其可能：

(a) 為仲裁庭提供必要的文件和資料；

(b) 使仲裁庭能進入其領土，詢問證人或專家，以及視察事故現場。

(3) 當事一方的缺席或棄權，不得妨礙仲裁程序的進行。

第 X 條

(1) 仲裁庭應在設立之日起 5 個月內提出其裁決書，除非其在必要時決定延長這一期限，但不得超過 3 個月。仲裁庭的裁決書應附有裁決理由的說明，此項裁決書為終審裁決，不得上訴，並應將其通知本組織秘書長。當事各方應立即按裁決書執行。

(2) 當事各方之間對於裁決書的解釋或執行所產生的任何爭議，可由當事的任一方提請作出該項裁決書的仲裁庭進行裁決，但如該仲裁庭業已撤銷，則可提交為此目的而按原仲裁庭的同樣組成方式所組成的另一仲裁庭進行裁決。

**經 1978 年議定書修訂的
1973 年國際防止船舶造成污染公約的 1997 年議定書**

本議定書各締約國，

作為關於 1973 年國際防止船舶造成污染公約的 1978 年議定書的
各締約國，

認識到防止和控制船舶造成空氣污染的需要，

憶及有關環境和發展的里奧聲明第 15 條原則要求採用預防方法，

考慮到達到這一目的的最好辦法是締結一份經 1978 年議定書修
訂的 1973 年國際防止船舶造成污染公約的 1997 年議定書，

特議定下列各條：

第 1 條

需修正的文件

本議定書修正的文件是經 1978 年議定書修訂的 1973 年國際防止
船舶造成污染公約（以下稱“公約”）。

第 2 條

公約新增的附則 VI

公約新增附則 VI，題為防止船舶造成空氣污染規則，其文本載於
本議定書的附件。

第 3 條

一般義務

1 在本議定書的各締約國之間，公約和本議定書應作為一個整體文件理解和解釋。

2 凡引用本議定書即同時引用其附則。

第 4 條

修正程序

在對附則 VI 及其附錄的修正應用公約第 16 條時，所述的“公約締約國”應視為受該附則約束的締約國。

最終條款

第 5 條

簽字、批准、接受、認可和加入

1 本議定書自 1998 年 1 月 1 日起至 1998 年 12 月 31 日在國際海事組織（以下稱“本組織”）總部開放供簽字，此後繼續開放供加入。只有關於 1973 年國際防止船舶造成污染公約的 1978 年議定書（以下稱“1978 年議定書”）的締約國才可按下列方式成為本議定書的締約國：

- (a) 簽字並對批准、接受或認可無保留；或
- (b) 簽字而有待批准、接受或認可，隨後再予批准、接受或認可；或
- (c) 加入。

2 辦理批准、接受、認可或加入，應向本組織秘書長（以下稱“秘書長”）交存一份相應的文件。

第 6 條

生效

1 本議定書應在不少於 15 個其商船總噸位不少於世界商船隊總噸位 50%的國家按本議定書第 5 條規定成為本議定書締約國之日起 12 個月後生效。

2 凡在本議定書生效之日後交存的批准、接受、認可或加入文件，應在交存之日起 3 個月後生效。

3 凡在本議定書的修正案按公約第 16 條的規定視為已被接受之日以後交存的批准、接受、認可或加入文件，應適用於經修正的本議定書。

第 7 條

退出

1 本議定書的任何締約國，在本議定書對該締約國生效滿 5 年後，可隨時退出本議定書。

2 退出本議定書，應向秘書長交存一份退出文件。

3 退出本議定書，應在秘書長收到退出通知後 12 個月或在該通知中所指明的任何較此為長的期限屆滿後生效。

4 按 1978 年議定書第 VII 條規定退出該議定書，應視為包括了按本條規定退出本議定書。這種退出應按 1978 年議定書第 VII 條規定，在該議定書退出生效之日生效。

第 8 條

保存

1 本議定書應由秘書長（以下稱“保管人”）保存。

2 保管人應：

（a）將下列事項通知本議定書的所有簽字國或加入國：

（i）每一新的簽字或批准、接受、認可或加入文件的交存及其日期；

（ii）本議定書生效日期；和

（iii）任何退出本議定書文件的交存及收到日期以及退出的生效日期；和

（b）將核准無誤的本議定書副本送交所有已簽字或已加入本議定書的國家。

3 本議定書一經生效，保管人應即按照《聯合國憲章》第 102 條的規定，將其核准無誤的一份真實副本送交聯合國秘書處登記並公佈。

第 9 條

文字

本議定書正本一份，用阿拉伯文、中文、英文、法文、俄文和西班牙文寫成，每種文本具有同等效力。

下列具名的經各自政府正式授權的代表特簽署本議定書^①，以昭信守。

1997 年 9 月 26 日訂於倫敦。

① 略去簽字部分。

防污公約附則 I

防止油類污染規則

第 1 章

總則

第 1 條

定義

就本附則而言：

1 油類係指包括原油、燃油、油泥、油渣和煉製品（本公約附則 II 所規定的石油化學品除外）在內的任何形式的石油，以及不限於上述一般原則，包括本附則附錄 I 中所列的物質。

見統一解釋 1.1

2 原油係指任何天然存在於地層中的液態烴混合物，不論其是否經處理以適合運輸，包括：

.1 可能業已去除某些餾份的原油；和

.2 可能業已添加某些餾份的原油。

3 油性混合物係指含有任何油分的混合物。

4 燃油係指船舶所載有並用作其推進和輔助機器的燃料的任何油類。

5 油船係指建造為或改造為主要在其貨物處所裝運散裝油類的船舶，並包括全部或部分裝運散裝貨油的兼用船、本公約附則 II 中定義的任何“NLS 液貨船”和經修正的 1974 SOLAS 公約第 II-1/3.20 條中定義的任何氣體運輸船。

見統一解釋 1.2

6 原油油船係指從事原油運輸業務的油船。

7 成品油油船係指從事除原油以外的油類運輸業務的油船。

8 兼用船係指設計為裝運散裝貨油或者裝運散裝固體貨物的船舶。

9 重大改建：

見統一解釋 2

.1 係指對船舶所作的下述改建：

.1.1 實質上改變了該船的尺度或裝載容量；或

.1.2 改變了該船的類型；或

.1.3 根據主管機關的意見，目的在於實質上是為延長該船的使用年限；或

.1.4 這種改建使得該船成為一艘新船，應遵守本公約中不適用於其作為現有船舶的有關規定。

.2 儘管有本定義的規定：

.2.1 但對第 1.28.3 條定義的在 1982 年 6 月 1 日或以前交船的載重量為 20,000 噸及以上的油船進行改建以求符合

本附則第 18 條的要求，就本附則而言，不應視為構成了重大改建；和

.2.2 但對第 1.28.5 條定義的在 1996 年 7 月 6 日以前交船的油船進行改建以求符合本附則第 19 或 20 條的要求，就本附則而言，不應視為構成了重大改建。

10 **最近陸地**。距最近陸地一詞，係指距按照國際法劃定領土所屬領海的基線，但下述情況除外：就本公約而言，在澳大利亞東北海面“距最近陸地”係指距澳大利亞海岸下述各點的連線：

自南緯 11 ° 00' 東經 142 ° 08' 的一點起，

至南緯 10 ° 35' 東經 141 ° 55' 的一點，

然後至南緯 10 ° 00' 東經 142 ° 00' 的一點，

然後至南緯 9 ° 10' 東經 143 ° 52' 的一點，

然後至南緯 9 ° 00' 東經 144 ° 30' 的一點，

然後至南緯 10 ° 41' 東經 145 ° 00' 的一點，

然後至南緯 13 ° 00' 東經 145 ° 00' 的一點，

然後至南緯 15 ° 00' 東經 146 ° 00' 的一點，

然後至南緯 17 ° 30' 東經 147 ° 00' 的一點，

然後至南緯 21 ° 00' 東經 152 ° 55' 的一點，

然後至南緯 24 ° 30' 東經 154 ° 00' 的一點，

然後至澳大利亞海岸南緯 $24^{\circ}42'$ 東經 $153^{\circ}15'$ 的一點所畫的一條連線。

11 **特殊區域**係指這樣的一個海域，在該海域中，由於其海洋學的和生態學的情況以及其交通的特殊性質等方面公認的技術原因，需要採取特殊的強制辦法以防止油類物質污染海洋。就本附則而言，特殊區域定義如下：

- .1 **地中海區域**係指地中海本身，包括其中的各個海灣和海區在內，與黑海以北緯 41° 為界，西至直布羅陀海峽，以西經 $005^{\circ}36'$ 為界；
- .2 **波羅的海區域**係指波羅的海本身以及波的尼亞灣、芬蘭灣和波羅的海入口（以斯卡格拉克海峽中斯卡晏角處的北緯 $57^{\circ}44'.8$ 為界）；
- .3 **黑海區域**係指黑海本身，與地中海以北緯 41° 為界；
- .4 **紅海區域**係指紅海本身，包括蘇伊士灣和亞喀巴灣，南以拉斯西尼（北緯 $12^{\circ}28'.5$ ，東經 $043^{\circ}19'.6$ ）和胡森穆拉得（北緯 $12^{\circ}40'.4$ ，東經 $043^{\circ}30'.2$ ）之間的恆向線為界；
- .5 **海灣區域**係指位於拉斯爾哈得（北緯 $22^{\circ}30'$ ，東經 $059^{\circ}48'$ ）和拉斯阿爾法斯特（北緯 $25^{\circ}04'$ ，東經 $061^{\circ}25'$ ）之間的恆向線西北的海域；

.6 亞丁灣區域係指紅海和阿拉伯海之間的亞丁灣部分，西以拉斯西尼（北緯 $12^{\circ}28'5''$ ，東經 $043^{\circ}19'6''$ ）和胡森穆拉特（北緯 $12^{\circ}40'4''$ ，東經 $043^{\circ}30'2''$ ）之間的恆向線為界，東以拉斯阿西爾（北緯 $11^{\circ}50'$ ，東經 $051^{\circ}16'9''$ ）和拉斯法爾塔克（北緯 $15^{\circ}35'$ ，東經 $052^{\circ}13'8''$ ）之間的恆向線為界；

.7 南極區域係指南緯 60° 以南的區域；和

.8 西北歐水域包括北海及其入口，愛爾蘭海及其入口，克爾特海，英吉利海峽及其入口以及緊靠愛爾蘭西部的大西洋東北海域。該區域以下述各點的連線為界：

法國海岸線上北緯 $48^{\circ}27'$

北緯 $48^{\circ}27'$ ；西經 $006^{\circ}25'$

北緯 $49^{\circ}52'$ ；西經 $007^{\circ}44'$

北緯 $50^{\circ}30'$ ；西經 012°

北緯 $56^{\circ}30'$ ；西經 012°

北緯 62° ；西經 003°

挪威海岸線上北緯 62°

丹麥和瑞典海岸線上北緯 $57^{\circ}44'8''$

.9 阿拉伯海的阿曼區域係指下述坐標範圍內的海域：

北緯 22 ° 30'.00 ； 東經 059 ° 48'.00

北緯 23 ° 47'.27 ； 東經 060 ° 35'.73

北緯 22 ° 40'.62 ； 東經 062 ° 25'.29

北緯 21 ° 47'.40 ； 東經 063 ° 22'.22

北緯 20 ° 30'.37 ； 東經 062 ° 52'.41

北緯 19 ° 45'.90 ； 東經 062 ° 25'.97

北緯 18 ° 49'.92 ； 東經 062 ° 02'.94

北緯 17 ° 44'.36 ； 東經 061 ° 05'.53

北緯 16 ° 43'.71 ； 東經 060 ° 25'.62

北緯 16 ° 03'.90 ； 東經 059 ° 32'.24

北緯 15 ° 15'.20 ； 東經 058 ° 58'.52

北緯 14 ° 36'.93 ； 東經 058 ° 10'.23

北緯 14 ° 18'.93 ； 東經 057 ° 27'.03

北緯 14 ° 11'.53 ； 東經 056 ° 53'.75

北緯 13 ° 53'.80 ； 東經 056 ° 19'.24

北緯 13 ° 45'.86 ； 東經 055 ° 54'.53

北緯 14 ° 27'.38 ； 東經 054 ° 51'.42

北緯 14 ° 40'.10 ； 東經 054 ° 27'.35

北緯 14 ° 46'.21 ； 東經 054 ° 08'.56

北緯 15 ° 20'.74 ; 東經 053 ° 38'.33

北緯 15 ° 48'.69 ; 東經 053 ° 32'.07

北緯 16 ° 23'.02 ; 東經 053 ° 14'.82

北緯 16 ° 39'.06 ; 東經 053 ° 06'.52

.10 南非南部水域係指下述坐標範圍內的海域：

南緯 31 ° 14'東經 017 ° 50'

南緯 31 ° 30'東經 017 ° 12'

南緯 32 ° 00'東經 017 ° 06'

南緯 32 ° 32'東經 016 ° 52'

南緯 34 ° 06'東經 017 ° 24'

南緯 36 ° 58'東經 020 ° 54'

南緯 36 ° 00'東經 022 ° 30'

南緯 35 ° 14'東經 022 ° 54'

南緯 34 ° 30'東經 026 ° 00'

南緯 33 ° 48'東經 027 ° 25'

南緯 33 ° 27'東經 027 ° 12'

12 油量瞬間排放率係指任一瞬間每小時排油的升數除以同一瞬間船速節數之值。

13 **艙櫃**係指為船舶的永久結構所形成並設計為裝運散裝液體的圍蔽處所。

14 **邊艙**係指與船殼邊板相連的任何艙櫃。

15 **中間艙**係指縱向艙壁間的任何艙櫃。

16 **污油水艙**係指明確指定用於收集艙櫃排出物、洗艙水和其他油性混合物的艙櫃。

17 **清潔壓載**係指自上次裝油後的艙內的壓載，該艙已進行清洗，其清潔程度即使在晴好天氣從一靜態船舶中將該艙中的排出物排入清潔而平靜的水中時，也不會在水面或鄰近的海岸線上產生可見的油跡，或形成油泥或乳化物沉積於水面以下或鄰近的海岸線上。如果該壓載是通過經主管機關認可的排油監控系統排出的，而根據這一系統的測定查明該排出物的含油量不超過 15 ppm，則儘管出現可見的油跡，仍應確定該壓載是清潔的。

18 **專用壓載**係指裝入艙內的壓載水，該艙與貨油和燃油系統完全隔絕並固定用於裝載壓載，或用於裝載本公約各附則中所指的各種油類或有毒液體物質以外的壓載或貨物。

見統一解釋 3

19 **船長 (L)** 係指量自龍骨頂部的最小型深 85% 處水線總長的 96%，或沿該水線首柱前緣至舵桿中心的長度，取大者。對設計為具有傾斜龍骨的船舶，計量該長度的水線應與設計水線平行。船長 (L)，m。

20 **首尾垂線**應取自船長（ L ）的前後兩端，首垂線應與計量船長水線上的首柱前緣相重合。

21 **船中部**係指在船長（ L ）的中部。

22 **船寬**（ B ）係指船舶的最大寬度，對金屬船殼的船舶是在船中部量至兩舷肋骨型線，對船殼為任何其他材料的船舶則是在船中部量至兩舷船殼的外表面。船寬（ B ），m。

23 **載重量**（ DW ）係指船舶在相對密度為 1.025 的水中處於與勘定的夏季乾舷相應的載重線時的排水量和該船的空載排水量之間的差數，噸。

24 **空載排水量**係指船舶在艙櫃內沒有貨物、燃油、滑油、壓載水、淡水和鍋爐給水，以及船上沒有消耗物料、乘客和船員及其行李時的排水量，公噸。

25 **某一處所的滲透率**係指該處所假定要被水佔據的容積和該處所總容積之比。

26 **船內的容積和面積**在任何情況下應算至型線。

27 **周年日期**係指與《國際防止油污染證書》期滿之日對應的每年的該月該日。

28.1 在 1979 年 12 月 31 日或以前交船的船舶係指：

- .1 在 1975 年 12 月 31 日或以前簽訂建造合同的船舶；或
- .2 無建造合同，在 1976 年 6 月 30 日或以前安放龍骨或處於類似建造階段的船舶；或

- .3 在 1979 年 12 月 31 日或以前交船的船舶；或
- .4 經重大改建的船舶：
 - .4.1 在 1975 年 12 月 31 日或以前簽訂改建合同；或
 - .4.2 無改建合同，改建工程在 1976 年 6 月 30 日或以前開工；或
 - .4.3 改建工程在 1979 年 12 月 31 日或以前完成。

見統一解釋 4 和 5

28.2 在 1979 年 12 月 31 日以後交船的船舶係指：

- .1 在 1975 年 12 月 31 日以後簽訂建造合同的船舶；或
- .2 無建造合同，在 1976 年 6 月 30 日以後安放龍骨或處於類似建造階段的船舶；或
- .3 在 1979 年 12 月 31 日以後交船的船舶；或
- .4 經重大改建的船舶：
 - .4.1 在 1975 年 12 月 31 日以後簽訂改建合同；或
 - .4.2 無改建合同，改建工程在 1976 年 6 月 30 日以後開工；或
 - .4.3 改建工程在 1979 年 12 月 31 日以後完成。

見統一解釋 5 和 6

28.3 在 1982 年 6 月 1 日或以前交船的油船係指：

- .1 在 1979 年 6 月 1 日或以前簽訂建造合同的油船；或
- .2 無建造合同，在 1980 年 1 月 1 日或以前安放龍骨或處於類似建造階段的油船；或
- .3 在 1982 年 6 月 1 日或以前交船的油船；或
- .4 經重大改建的油船：
 - .4.1 在 1979 年 6 月 1 日或以前簽訂改建合同；或
 - .4.2 無改建合同，改建工程在 1980 年 1 月 1 日或以前開工；或
 - .4.3 改建工程在 1982 年 6 月 1 日或以前完成。

28.4 在 1982 年 6 月 1 日以後交船的油船係指：

- .1 在 1979 年 6 月 1 日以後簽訂建造合同的油船；或
- .2 無建造合同，在 1980 年 1 月 1 日以後安放龍骨或處於類似建造階段的油船；或
- .3 在 1982 年 6 月 1 日以後交船的油船；或
- .4 經重大改建的油船：
 - .4.1 在 1979 年 6 月 1 日以後簽訂改建合同；或
 - .4.2 無改建合同，改建工程在 1980 年 1 月 1 日以後開工；或
 - .4.3 改建工程在 1982 年 6 月 1 日以後完成。

見統一解釋 5 和 6

28.5 在 1996 年 7 月 6 日以前交船的油船係指：

- .1 在 1993 年 7 月 6 日以前簽訂建造合同的油船；或
- .2 無建造合同，在 1994 年 1 月 6 日以前安放龍骨或處於類似建造階段的油船；或
- .3 在 1996 年 7 月 6 日以前交船的油船；或
- .4 經重大改建的油船：
 - .4.1 在 1993 年 7 月 6 日以前簽訂改建合同；或
 - .4.2 無改建合同，改建工程在 1994 年 1 月 6 日以前開工；或
 - .4.3 改建工程在 1996 年 7 月 6 日以前完成。

28.6 在 1996 年 7 月 6 日或以後交船的油船係指：

- .1 在 1993 年 7 月 6 日或以後簽訂建造合同的油船；或
- .2 無建造合同，在 1994 年 1 月 6 日或以後安放龍骨或處於類似建造階段的油船；或
- .3 在 1996 年 7 月 6 日或以後交船的油船；或
- .4 經重大改建的油船：
 - .4.1 在 1993 年 7 月 6 日或以後簽訂改建合同；或
 - .4.2 無改建合同，改建工程在 1994 年 1 月 6 日或以後開工；或

.4.3 改建工程在 1996 年 7 月 6 日或以後完成。

見統一解釋 5 和 6

28.7 在 2002 年 2 月 1 日或以後交船的油船係指：

- .1 在 1999 年 2 月 1 日或以後簽訂建造合同的油船；或
- .2 無建造合同，在 1999 年 8 月 1 日或以後安放龍骨或處於類似建造階段的油船；或
- .3 在 2002 年 2 月 1 日或以後交船的油船；或
- .4 經重大改建的油船：
 - .4.1 在 1999 年 2 月 1 日或以後簽訂改建合同；或
 - .4.2 無改建合同，改建工程在 1999 年 8 月 1 日或以後開工；或
 - .4.3 改建工程在 2002 年 2 月 1 日或以後完成。

見統一解釋 5 和 6

28.8 在 2010 年 1 月 1 日或以後交船的油船係指：

- .1 在 2007 年 1 月 1 日或以後簽訂建造合同的油船；或
- .2 無建造合同，在 2007 年 7 月 1 日或以後安放龍骨或處於類似建造階段的油船；或
- .3 在 2010 年 1 月 1 日或以後交船的油船；或
- .4 經重大改建的油船：

- .4.1 在 2007 年 1 月 1 日或以後簽訂改建合同；或
- .4.2 無改建合同，改建工程在 2007 年 7 月 1 日或以後開工；或
- .4.3 改建工程在 2010 年 1 月 1 日或以後完成。

見統一解釋 5 和 6

28.9 在 2010 年 8 月 1 日或以後交船的船舶係指：

- .1 在 2007 年 8 月 1 日或以後簽訂建造合同的船舶；或
- .2 無建造合同，在 2008 年 2 月 1 日或以後安放龍骨或處於類似建造階段的船舶；或
- .3 在 2010 年 8 月 1 日或以後交船的船舶；或
- .4 經重大改建的船舶：^①
 - .4.1 在 2007 年 8 月 1 日以後簽訂改建合同；或
 - .4.2 無改建合同，改建工程在 2008 年 2 月 1 日以後開工；或
 - .4.3 改建工程在 2010 年 8 月 1 日以後完成。

見統一解釋 5 和 6

29 百萬分比（ppm）係指每百萬分水含油量（體積）。

30 建造的船舶係指安放龍骨或處於類似建造階段的船舶。

① MEPC 59 屆會議同意（MEPC 59/24 文件 6.18），對於防污公約附則 I 第 12A 條要求的澄清也適用於第 1.28.9 條定義的重大改建。

見統一解釋 5

31 **殘油（油泥）**係指船舶正常操作過程中產生的殘餘廢油產物，例如由主機或輔機的燃油或潤滑油淨化產生的殘餘廢油產物，來自濾油設備的分離廢油，滴油盤收集的廢油，以及廢棄液壓油和潤滑油。

32 **殘油（油泥）艙**係指儲存殘油（油泥）的艙櫃，通過標準排放接頭和其他任何認可的處理措施可從該艙直接處理油泥。

33 **含油艙底水**係指可能被由機器處所中的滲漏或維護工作產生的油污染的水。進入艙底水系統（包括艙底水阱、艙底水管系、內底或艙底水儲存櫃）的任何液體被視為含油艙底水。

34 **含油艙底水儲存櫃**係指在其排放、過駁或處理前收集含油艙底水的艙櫃。

第 2 條

適用範圍

1 除另有明文規定外，本附則的規定應適用於所有船舶。

2 非油船，如設有構造為用於裝載散裝油類的貨物處所，且其總容量為 200 m³ 或以上，則本附則關於油船的第 16、26.4、29、30、31、32、34 和 36 條的要求，也應適用於這些處所的構造和作業，但如總容量少於 1,000 m³，則可適用本附則第 34.6 條的要求以代替第 29、31 和 32 條。

3 受本公約附則 II 規定約束的貨物，如裝載於油船的貨物處所，則也應適用本公約附則 II 的相應要求。

4 本附則第 29、31 和 32 條的要求應不適用於裝載瀝青或受本附則規定約束的其他油品的油船，這些油品的物理性能會妨礙油品和水的有效分離和監測。為實施本附則第 34 條規定的排放控制，應將殘餘物留存船上並將所有污染的洗艙水排入接收設備。

見統一解釋 7

5 除應遵照本條 6 的規定外，本附則第 18.6 至 18.8 條應不適用於第 1.28.3 條定義的在 1982 年 6 月 1 日或以前交船且僅在下述港口或裝卸站之間專門從事特定營運的油船：

.1 本公約某一締約國境內的港口或裝卸站；或

.2 本公約各締約國的港口或裝卸站，而且：

.2.1 該航程完全在某一特殊區域之內；或

.2.2 該航程完全在本組織所指定的其他限定範圍之內。

6 只有在上述航程中的裝貨港口或裝貨站設有接收設備，足以從使用該設備的油船接收處理全部壓載水和洗艙水，並符合所有下述條件時，本條 5 的規定才能適用：

.1 除本附則第 4 條所規定的各項例外以外，全部壓載水（包括清潔壓載水）和洗艙殘餘物，均留存船上並送入接收設備，同時本附則第 36 條所指《油類記錄簿》第 II 部分所作的相應記載由港口國主管當局簽署；

- .2 主管機關和本條 5.1 或 5.2 中所指港口國的政府之間已就使用第 1.28.3 條定義的在 1982 年 6 月 1 日或以前交船的油船進行特定營運達成了協議；
- .3 按本附則有關規定在上述港口或裝卸站設置的接收設備，就本條而言，其足夠程度已經這些港口或裝卸站所在的本公約締約國政府認可；和
- .4 在《國際防止油污證書》上已作簽署，說明該油船僅從事該項特定營運。

第 3 條

免除

1 任何船舶，諸如水翼船、氣墊船、近水面船艇和潛水船艇等，其構造特點使得應用本附則第 3 和 4 章有關構造和設備的任何規定為不合理或不可行時，考慮到該船擬從事的營運情況，只要其構造和設備能提供對油污的同等防護，主管機關可對其免除這些規定。

2 主管機關所准許的任何這種免除的細節，應在本附則第 7 條所述的證書中予以指明。

3 准許任何這種免除的主管機關，應將免除的細節和理由儘速（但不得超過其後的 90 天）送交本組織，並由本組織轉發本公約各締約國，供其參考和採取適當行動（如有時）。

4 對於專門從事續航時間為 72 h 或更少且距最近陸地 50n.mile 以內的航行的油船，如果該油船僅在本公約一個締約國境內的港口或裝

卸站之間從事營運，主管機關可免除本附則第 29、31 和 32 條的要求。任何這種免除應以下述要求為條件，即該油船應將所有油性混合物留存船上供隨後排入接收設備，並且主管機關確認這些油性混合物的接收設備是足夠的。

見統一解釋 8、9 和 10

5 對本條 4 所指以外的油船，主管機關可免除本附則第 31 和 32 條的要求，如果：

- .1 該油船是本附則第 1.28.3 條定義的在 1982 年 6 月 1 日或以前交船，第 2.5 條所指的專門從事特定營運的載重量 40,000 t 或以上的油船，並且本附則第 2.6 條規定的條件均符合；或
- .2 該油船專門從事下述一種或多種航行：
 - .2.1 在特殊區域內航行；或
 - .2.2 在特殊區域外，距最近陸地 50n mile 以內航行，且該油船是從事：
 - .2.2.1 本公約某一締約國境內的港口或裝卸站之間的營運；或
 - .2.2.2 主管機關所確定的有限航程，時間為 72 h 或更少；

見統一解釋 9

但須同時符合所有下列條件：

.2.3 所有油性混合物留存船以隨後排入接收設備；

見統一解釋 10

.2.4 對於本條 5.2.2 規定的航行，主管機關已確認該油船停靠的裝油港或裝油站有足夠的接收設備，可接收上述油性混合物；

.2.5 在需要時，對《國際防止油污證書》予以簽署，說明該船專門從事本條 5.2.1 和 5.2.2.2 規定的一種或多種航行；和

.2.6 排放的數量、時間和港口記入《油類記錄簿》。

見統一解釋 8

第 4 條

例外

本附則第 15 條和第 34 條應不適用於下述情況：

- .1 將油類或油性混合物排放入海，係為保障船舶安全或救護海上人命所必需者；或
- .2 將油類或油性混合物排放入海，係由於船舶或其設備損壞而導致；
 - .2.1 但須在發生損壞或發現排放後，為防止排放或使排放減至最低限度，已採取了一切合理的預防措施；和

- .2.2 但是，如果船東或船長是故意造成損壞，或輕率行事而又知道可能會招致損壞，則不在此例；或
- .3 將經主管機關批准的含油物質排放入海，用以對抗特定污染事故，以使污染損害減至最低限度。但任何這種排放，均應經擬進行排放所在地區的管轄國政府批准。

第 5 條

等效

見統一解釋 11

1 主管機關可允許在船上安裝任何裝置、材料、設備或器具，以代替本附則所要求者，條件是這種裝置、材料、設備或器具與本附則所要求者至少同等有效。主管機關的這種權力不應擴大到以操作方法達到控制排油並作為等效代替本附則各條所規定的那些設計和構造的特點。

2 允許以某種裝置、材料、設備或器具代替本附則所要求者的主管機關應將其詳細資料送交本組織，以便轉發本公約各締約國，供其參考和採取適當行動（如有時）。

第 2 章

檢驗和發證

第 6 條

檢驗

1 對每艘 150 總噸及以上的油船和 400 總噸及以上的其他船舶應進行下列規定的檢驗：

- .1 初次檢驗，在船舶投入營運前或首次簽發本附則第 7 條所要求的證書之前進行。該檢驗應包括對本附則所涉及船舶的結構、設備、系統、附件、佈置和材料的全面檢驗。該檢驗應確保其結構、設備、系統、附件、佈置和材料完全符合本附則的適用要求。
- .2 換證檢驗，按主管機關規定的間隔期限進行，但不得超過 5 年，但本附則第 10.2.2、10.5、10.6 或 10.7 條適用者除外。換證檢驗應確保其結構、設備、系統、附件、佈置和材料完全符合本附則的適用要求。
- .3 中間檢驗，在證書的第二個周年日之前或之後 3 個月內或第三個周年日之前或之後 3 個月之內進行，並應取代本條 1.4 規定的其中一次年度檢驗。中間檢驗應確保設備及其相關的泵和管系，包括排油監控系統、原油洗艙系統、油水分離設備和濾油系統完全符合本附則的適用要求，並處於良好的工作狀態。該中間檢驗應在按本附則第 7 或 8 條所簽發的證書上予以簽署。

見統一解釋 12

- .4 年度檢驗，在證書的每個周年日之前或之後 3 個月之內進行，包括對本條 1.1 所述的結構、設備、系統、附件、佈置和材料的總體檢查，以確保其已按本條 4.1 和 4.2 的規定進行保養，並確保其繼續滿足船舶預定的營運要求。該年度檢驗應在按本附則第 7 或 8 條所簽發的證書上予以簽署。
-

見統一解釋 12

- .5 附加檢驗，在本條 4.3 規定的檢查結果進行修理後或在任何重大修理或換新後應根據情況進行全面或部分檢驗。該檢驗應確保已有效進行了必要的修理或換新，確保這種修理或換新所用的材料和工藝在各方面均屬合格，並確保船舶在各方面均符合本附則的要求。

2 主管機關對不受本條 1 規定約束的船舶應制訂適當措施，以確保其符合本附則的適用規定。

3.1 為執行本附則規定而對船舶進行的檢驗，應由主管機關的官員進行。但主管機關可將這些檢驗委託給為此目的而指定的驗船師或由其認可的組織辦理。該認可的組織應符合 IMO A.739 (18) 決議通過並可能經修正的指南，以及 IMO A.789 (19) 決議通過並可能經修正的細則，但這些修正案應按照本公約第 16 條規定的適用本附則的修正程序予以通過、生效和實施。

3.2 按本條 3.1 所述指定驗船師或認可組織執行檢驗的主管機關，應至少對任何指定的驗船師或被認可組織授權，使其能：

- .1 要求船舶進行修理；和
- .2 在港口國主管當局要求時執行檢驗。

主管機關應將授權給指定的驗船師或被認可組織的具體職責和條件通知本組織，以便轉發本公約各締約國，供其官員參考。

3.3 當指定的驗船師或被認可組織確定船舶或其設備的狀況在實質上與證書所載內容不符，或會對海洋環境造成不當的危害威脅，因而船舶不適於出海航行時，該驗船師或組織應確保立即採取糾正措施並及時通知主管機關。如未能採取此種糾正措施，則應撤銷證書並立即通知主管機關。如該船是在另一締約國的港口內，則還應立即通知該港口國的有關當局。當主管機關的官員、指定的驗船師或被認可組織通知該港口國的有關當局後，有關的港口國政府應向該官員、驗船師或組織提供履行本條規定的義務所必需的任何幫助。必要時，有關的港口國政府應採取措施，確保該船在未具備對海洋環境不致產生不當的危害威脅前，不得開航或離港駛往最近的可進行修理的修船廠。

3.4 在所有情況下，主管機關均應保證檢驗的完整性和有效性，確保為履行這一職責作出必要的安排。

4.1 船舶及其設備的狀況應保持符合本公約的各項規定，以確保船舶在各方面均繼續適於出海航行，而不會對海洋環境造成不當的危害威脅。

4.2 根據本條 1 的規定對船舶進行的任何檢驗完成以後，未經主管機關許可，經檢驗的結構、設備、系統、附件、佈置或材料不得作任何變動，除非直接替換這種設備和附件。

4.3 當船舶發生事故或發現缺陷，對該船的完整性或對本附則所述及的設備的有效性或完整性產生重大影響時，該船的船長或船東應儘早向負責簽發有關證書的主管機關、被認可組織或指定的驗船師報告。該主管機關、被認可組織或指定的驗船師應立即着手調查以確定是否需要按本條 1 的要求進行檢驗。如果該船在另一締約國的港口內，船長或船東還應立即向該港口國的有關當局報告，而指定的驗船師或被認可組織應查明已進行了此項報告。

第 7 條

證書的簽發或簽署

見統一解釋 13

1 對駛往本公約其他締約國所管轄的港口或近海裝卸站的 150 總噸及以上的油船和 400 總噸及以上的任何其他船舶，在按照本附則第 6 條的規定進行初次檢驗或換證檢驗後，均應簽發《國際防止油污證書》。

2 該證書應由主管機關或經其正式授權的任何個人或組織簽發或簽署。在任何情況下，主管機關對證書負有全部責任。

第 8 條

他國政府簽發或簽署證書

1 本公約締約國政府應主管機關的申請，可對船舶進行檢驗，如確信符合本附則的規定，應對該船簽發或授權簽發《國際防止油污證書》，並在適用時，按本附則的規定，為該船簽署或授權簽署證書。

- 2 證書和檢驗報告副本各一份應儘快送交提出申請的主管機關。
- 3 所發證書應聲明，該證書係根據主管機關的申請簽發，並應與按本附則第 7 條規定所簽發的證書具有同等效力和得到同樣的承認。
- 4 對於懸掛非締約國國旗的船舶，不得簽發《國際防止油污證書》。

第 9 條

證書格式

見統一解釋 14

《國際防止油污證書》應按與本附則附錄 II 所示樣本相一致的格式寫成，並應至少使用英文、法文或西班牙文的其中一種語言。如同時使用發證國的官方語言，則在有爭議或分歧時，應以該國官方語言為準。

第 10 條

證書的有效期限

見統一解釋 15

1 《國際防止油污證書》的有效期限應由主管機關規定，但不得超過 5 年。

2.1 儘管有本條 1 的要求，但如果換證檢驗在現有證書期滿之日前 3 個月內完成，則新證書應從換證檢驗完成之日起，至現有證書期滿之日後不超過 5 年的日期內有效。

2.2 如果換證檢驗在現有證書期滿之日後完成，則新證書應從換證檢驗完成之日起，至現有證書期滿之日後不超過 5 年的日期內有效。

2.3 如果換證檢驗在現有證書期滿之日的前 3 個月前完成，則新證書應從換證檢驗完成之日起不超過 5 年的日期內有效。

3 如果所發證書的有效期限少於 5 年，主管機關可將證書有效期自期滿日延長至本條 1 規定的最長期限，條件是在簽發 5 年期的證書時進行了本附則第 6.1.3 和 6.1.4 條所述的相應的檢驗。

4 如果換證檢驗已完成，而新證書在現有證書期滿之日前不能簽發或不能存放船上，主管機關授權的人員或組織可在現有證書上簽署，簽署後的證書自期滿日起不超過 5 個月的期限內應視為繼續有效。

5 如果證書期滿時船舶不在應進行檢驗的港口，主管機關可延長該證書的有效期，但此項展期僅以能使該船完成其駛抵應進行檢驗的港口的航次為限，並且僅在正當和合理的情況下才能如此辦理。證書的展期不得超過 3 個月。經展期的船舶在抵達應進行檢驗的港口後，不得因有此項展期而在未獲得新證書前駛離該港口。換證檢驗完成後，新證書的有效期應自現有證書展期前的期滿日起不超過 5 年。

6 簽發給短程航行船舶的證書未按本條前述之規定展期時，主管機關可給予自該證書所示的期滿之日起至多 1 個月的寬限期。換證檢驗完成後，新證書的有效期應自現有證書展期前的期滿日起不超過 5 年。

7 在特殊情況下（由主管機關確定），新證書無需按本條 2.2、5 或 6 的要求從現有證書的期滿之日起計算日期。在此特殊情況下，新證書的有效期限應自換證檢驗完成之日起不超過 5 年。

8 如果年度檢驗或中間檢驗在本附則第 6 條規定的期限前完成，則：

- .1 證書上所示的周年日應予以簽署修正，修正後的周年日應不多於檢驗完成之日起 3 個月；
- .2 本附則第 6.1 條要求的其後的年度檢驗或中間檢驗應使用新的周年日按該條規定的間隔期完成；
- .3 如進行一次或多次相應的年度檢驗或中間檢驗，以使本附則第 6.1 條規定的最大檢驗間隔期不被超過，則該期滿日可保持不變。

9 按本附則第 7 或第 8 條規定所簽發的證書，在下列任一情況下即應中止有效：

- .1 如果相關檢驗未在本附則第 6.1 條規定的期限內完成；
- .2 如果證書未按本附則第 6.1.3 或 6.1.4 條的規定予以簽署；
- .3 船舶變更船旗國。只有當換發新證書的政府確信該船符合本附則第 6.4.1 和 6.4.2 條的要求時，才能簽發新的證書。如果變更船旗係在締約國之間進行，則在變更後的 3 個月內，前船旗國政府如收到申請，應儘快將變更船旗前該船所攜證書的副本以及相關的檢驗報告副本（如備有）送交該船新的主管機關。

第 11 條

關於操作要求的港口國控制^①

1 當船舶停靠在另一締約國港口或近海裝卸站時，如有明顯理由確信該船船長或船員不熟悉船上主要的防止油污染程序，該船應接受該締約國正式授權的官員根據本附則進行的有關操作要求的檢查。

2 在本條 1 所述的情況下，該締約國應採取措施，確保該船在按本附則的要求調整至正常狀態前，不得開航。

3 本公約第 5 條規定的港口國控制程序應適用於本條。

4 本條的任何內容均不得解釋為限制締約國在本公約明確規定的操作要求方面進行控制的權利和義務。

^① 參見本組織 A.787(19) 決議通過並經 A.882(21) 決議修正的《港口國控制程序》；見 IMO 出版物，IA650E。

第 3 章

對所有船舶機器處所的要求

A 部分

構造

第 12 條

殘油（油泥）艙

1 每艘 400 總噸及以上的船舶，應參照其機型和航程長短，設置一個或幾個足夠容量的艙櫃，接收本附則要求不能以其他方式處理的殘油（油泥）。

見統一解釋 16

2 可通過第 13 條所述的標準排放接頭或其他任何認可的處理措施從殘油（油泥）艙直接處理殘油（油泥）。殘油（油泥）艙：

- .1 應設置能從殘油（油泥）艙抽吸的用於指定的泵；和
- .2 不應設置至艙底水系統、含油艙底水儲存櫃、內底或含油水分離器的排放接頭，但可設置通往含油艙底水儲存櫃或艙底水阱的洩水管（設有手工操作自閉閥和佈置用於沉積水的後續視覺監控），或替代佈置，但該佈置應不直接連接艙底水管系。

見統一解釋 17

3 進出殘油（油泥）艙的管系，除第 13 條所述的標準排放接頭外，應無直接排向舷外的接頭。

見統一解釋 18

4 對於如第 1.28.2 條定義的在 1979 年 12 月 31 日以後交船的船舶，殘油（油泥）艙的設計和建造，應能便利其清洗和將殘油排入接收設備。對於如第 1.28.1 條定義的在 1979 年 12 月 31 日或以前交船的船舶，應在合理和可行的範圍內盡力符合這一要求。

見統一解釋 19

第 12A 條

燃油艙保護^①

1 本條適用於本附則第 1.28.9 條定義的 2010 年 8 月 1 日或以後交船，總燃油裝載容量為 600 m³ 及以上的所有船舶。

2 在適用本條確定裝載燃油的艙位時，不應排除本附則第 19 條的規定。

3 就本條而言，下列定義適用：

- .1 油類燃料係指船舶所載有並用作其主機和輔機的燃油的任何油類。

^① 決定（MEPC 58/23 文件 6.10），關於單殼油船改建為散貨/礦砂船，第 12A 條應適用於整個散貨/礦砂船的所有新的和現有燃油艙。

- .2 載重線吃水 (d_s) 係指在船長中點自型基線至相應的船舶核定夏季乾舷吃水的水線的垂直距離，m。
 - .3 空載吃水係指與空船重量相應的船艙型吃水。
 - .4 部分裝載線吃水 (d_p) 係指空載吃水加上空載吃水與載重線吃水 d_s 差值的 60%。部分裝載線吃水 (d_p)，m。
 - .5 水線 (d_B) 係指在船長中點自型基線至 30% 型深 D_s 對應水線的垂直距離，m。
 - .6 船寬 (B_s) 係指船舶在最深載重線吃水 (d_s) 處或以下的最大型寬，m。
 - .7 船寬 (B_B) 係指船舶在水線 (d_B) 處或以下的最大型寬，m。
 - .8 船深 (D_s) 係指從舷側船艙處量至上甲板的型深，m。就適用範圍而言，“上甲板”係指水密橫艙壁（尾尖艙艙壁除外）延伸所及的最高層甲板。
 - .9 船長 (L) 係指量自龍骨頂部的最小型深 85% 處水線總長的 96%，或沿該水線首柱前緣至舵桿中心的長度，取大者。對設計為具有傾斜龍骨的船舶，計量該長度的水線應與設計水線平行。船長 (L)，m。
- 紐 10 船寬 (B) 係指船舶的最大寬度，對金屬船殼的船舶是在船艙部量至兩舷肋骨型線，對船殼為任何其他材料的船舶則是在船艙部量至兩舷船殼的外表面，m。

- .11 燃油艙係指裝載燃油的液艙，但不包括在正常操作中不裝燃油的液艙，如溢油艙。
- .12 小燃油艙係指最大單容量不超過 30 m³ 的燃油艙。
- .13 C 係指在燃油艙充裝率為 98%時船舶的總燃油量（包括小燃油艙在內），m³。
- .14 燃油容量係指充裝率為 98%時的艙容，m³。

4 本條規定適用於所有燃油艙，3.12 定義的小燃油艙除外，但這類排除在外的燃油艙的總容量應不大於 600 m³。

5 單個燃油艙的容量不應大於 2,500 m³。

6 除自升式鑽井裝置外，對燃油總容量為 600 m³ 及以上的所有船舶，其燃油艙應位於船底殼板型線以上，且均不應小於下列規定的距離 h ：

$$h = \frac{B}{20}(\text{m}) \text{ 或,}$$

$h = 2.0 \text{ m}$ ，取小者。

h 最小值 = 0.76 m。

在舳部彎曲區域和舳部無明顯彎曲的部位，燃油艙邊界線應與船舳平底線平行，如圖 1 所示。

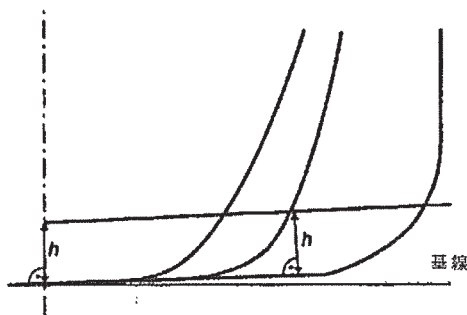


圖 1 - 燃油艙邊界線

7 對燃油總容量 600 m^3 或以上，但小於 $5,000 \text{ m}^3$ 的船舶，其燃油艙應位於舷側殼板型線內側，且均不應小於距離 w 。如圖 2 所示， w 在垂直於舷側殼板的任一橫剖面按下列規定量取：

$$w = 0.4 + \frac{2.4C}{20,000} (\text{m})$$

w 最小值 $= 0.1 \text{ m}$ ，但對燃油容量小於 500 m^3 的各艙，該最小值為 0.76 m 。

8 對燃油總容量 $5,000 \text{ m}^3$ 和以上的船舶，其燃油艙應位於舷側殼板型線內側，且均不應小於距離 w 。如圖 2 所示， w 在垂直於舷側殼板的任一橫剖面按下列規定量取：

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

$w = 2.0 \text{ m}$ ，取較小值。

w 最小值 $= 1.0 \text{ m}$ 。

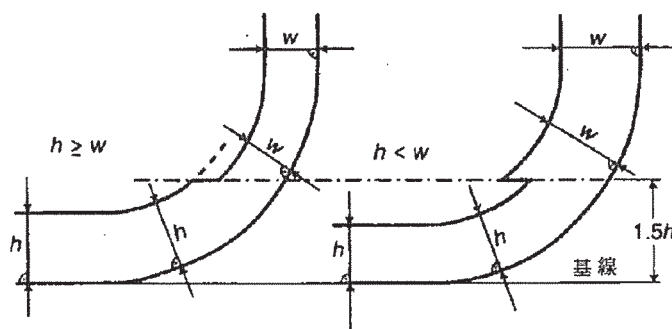


圖 2 - 燃油艙邊界線

9 與船底的距離小於 h (見 6 的定義), 或與船舷的距離小於 w (見 7 和 8 的定義) 的燃油管道, 應在燃油艙內或緊鄰燃油艙安裝閥門或類似關閉裝置。應能從一個隨時可進入的圍閉處所內將這些閥門投入使用。該圍閉處所應能從駕駛室或主機控制位置進入, 而不需穿過露天乾舷甲板或上層建築甲板。閥門應在遙控系統發生故障 (關閉位置故障) 時關閉。任何時候只要艙內裝有燃油, 這些閥門在航行途中就應保持關閉狀態, 但在燃油過駁作業時可打開。

10 燃油艙內的吸阱可伸入由距離 h 所定義的邊界線以下的雙層底內, 但這種吸阱應儘實際可能小且阱底與船底殼板之間的距離應不小於 $0.5h$ 。

11 或者, 作為 6 以及 7 或 8 規定的替代, 船舶應符合下述燃油意外洩漏狀況標準:

- .1 應以下列平均洩油量參數為基礎, 對碰撞或擱淺情況下的燃油污染的防護程度進行評估:

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

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

式中：

O_M =平均洩油量參數；

C =燃油總容量。

.2 計算平均洩油量參數時，下列一般假定適用：

.2.1 應假定船舶裝載至部分裝載線吃水 d_p ，無縱傾或橫傾；

.2.2 應假定所有燃油艙裝至其容量的 98%；

.2.3 燃油的名義密度 (p_n) 一般應取 1,000 kg/m³。如燃油密度明確限定為一較小值，則可採用該較小值；和

.2.4 除另有證明外，就洩油量的這些計算而言，每個燃油艙的滲透率取 0.99。

.3 組合洩油量參數時，應採用下列假定：

.3.1 應分別計算船側破損和船底破損的平均洩油量參數，然後組合成一無因次的洩油量參數 O_M 如下：

$$O_M = \frac{0.4O_{MS} + 0.6O_{MB}}{C}$$

式中：

O_{MS} =船側破損平均洩油量，m³；

O_{MB} =船底破損平均溢油，m³；

C =燃油總容量。

- .3.2 對船底破損，應分別計算 0 m 和 2.5 m 潮汐狀況下的平均洩油量，然後組合如下：

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

式中：

$O_{MB(0)}$ = 0 m 潮汐狀況下的平均洩油量；和

$O_{MB(2.5)}$ = 2.5 m 潮汐狀況下的平均洩油量， m^3 。

- .4 船側破損平均洩油量 O_{MS} 按下式計算：

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

式中：

i = 表示所計及的每個燃油艙；

n = 燃油艙總數；

$P_{S(i)}$ = 貫穿燃油艙 i 的船側損壞的概率，按本條 11.6 計算；

$O_{S(i)}$ = 燃油艙 i 船側破損的洩油量， m^3 ，假定相等於燃油艙 i 在充裝率為 98% 時的總容積。

- .5 應按每種潮汐狀況，分別計算船底破損平均洩油量如下：

$$.5.1 \quad O_{MB(0)} = \sum_i^n P_{B(i)} O_{B(i)} C_{DB(i)} \quad (m^3)$$

式中：

i = 表示所計及的每個燃油艙；

n = 燃油艙總數；

$P_{B(i)}$ = 貫穿燃油艙 i 的船側損壞的概率，按本條
11.7 計算；

$O_{B(i)}$ = 燃油艙 i 的洩油量， m^3 ，按本條 11.5.3
計算；和

$C_{DB(i)}$ = 11.5.4 定義的計算留存油量的因數。

$$.5.2 \quad O_{MB(2.5)} = \sum_i^n P_{B(i)} O_{B(i)} C_{DB(i)} \quad (m^3)$$

式中：

i 、 n 、 $P_{B(i)}$ 和 $C_{DB(i)}$ = 見上述 .5.1 定義；

$O_{B(i)}$ = 潮汐變化後燃油艙 i 的洩油量， m^3 。

.5.3 每個燃油艙的洩油量 $O_{B(i)}$ 應以壓力平衡原理為基礎，按照下列假定進行計算：

.5.3.1 船舶應假定為擱淺且縱傾和橫傾均為零，潮汐變化前的擱淺吃水等於部分裝載吃水 d_p 。

.5.3.2 破損後的燃油油位應按下式計算：

$$h_F = \frac{(d_p + t_c - Z_l) p_s}{p_n}$$

式中：

h_F = Z_1 以上的燃油平面高度，m；

t_c = 潮汐變化，m。潮汐的減少以負值表示；

Z_1 = 基線以上燃油艙內最低點的高度，m；

p_s = 海水密度，取 1,025 kg/m³；和

p_n = 燃油名義密度，見 11.2.3 定義。

5.3.3 與船殼底板接界的任何艙的洩油量 $O_{B(i)}$ 不應小於下式所得值，但不大於艙容量：

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

式中：

H_W = 1.0 m，當 $Y_B = 0$ ；

$H_W = \frac{B_B}{50}$ ，但不大於 0.4 m，而 Y_B 大於 $\frac{B_B}{5}$

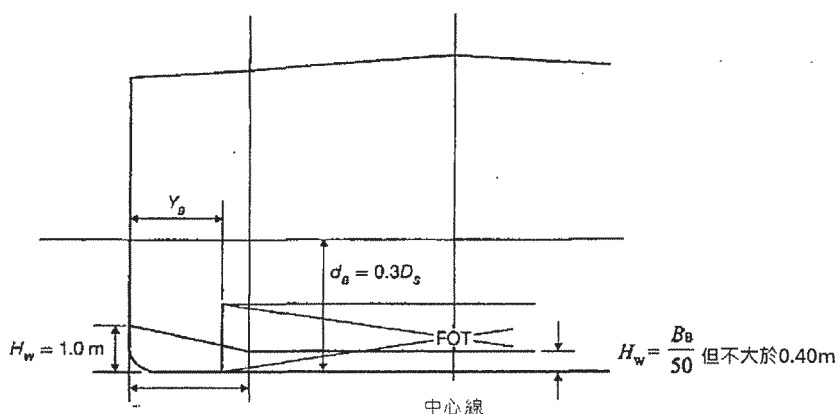
或 11.5 m，取小者；

“ H_W ”應自船舳平底線向上量取。在舳部彎曲區域和無明顯彎曲的部位， H_W 應自船舳平底的平行線量取，如圖 1 的距離 “ h ”。

如 Y_B 至船外側達 $\frac{B_B}{5}$ 或 11.5 m，取小者，則應以線性內插法求 H_W 值。

Y_B = 燃油艙長度範圍內 Y_B 的最小值， Y_B 為 d_B 水線處舷殼與 d_B 水線處或以下燃油艙間橫向距離。

A = 燃油艙自艙底至 H_w 水線的最大水平投影面積。



$\frac{B_B}{5}$ 或 11.5m，取小者（在船舷內側垂直於 d_B 水線處中心線量取）

圖 3 - 最小洩油量計算尺度

5.4 在船底破損情況下，一個燃油艙洩出的一部分油可能被非載油的艙室留存。每艙受此影響的情況以因數 $C_{DB(i)}$ 近似表達，該因數取值如下：

$C_{DB(i)} = 0.6$ ，對下面以非載油艙室為界限的燃油艙；

$C_{DB(i)} = 1$ ，對其他情況。

6 船側破損導致的艙室損壞的概率 P_s 按下式計算：

$$6.1 \quad P_s = P_{SL} \cdot P_{SV} \cdot P_{ST}$$

式中：

$P_{SL} = (1 - P_{Sf} - P_{Sa})$ = 破損延伸至由 X_a 和 X_f 為界限的垂向區域的概率；

$P_{SV} = (1 - P_{Su} - P_{Sl})$ = 破損延伸至由 Z_l 和 Z_u 為界限的垂向區域的概率；

$P_{ST} = (1 - P_{Sy})$ = 破損橫向延伸超越由 y 定義的界限以外的概率；

11.6.2 P_{Sa} 、 P_{Sf} 、 P_{Su} 和 P_{Sl} 以線性內插法從 11.6.3 提供的船側破損概率表求得，並根據 11.6.3 提供的公式計算 P_{Sy} ，式中：

P_{Sa} = 破損完全位於 $\frac{X_a}{L}$ 位置後部的概率；

P_{Sf} = 破損完全位於 $\frac{X_f}{L}$ 位置前部的概率；

P_{Sl} = 破損完全位於燃油艙以下的概率；

P_{Su} = 破損完全位於燃油艙以上的概率；和

P_{Sy} = 破損完全位於燃油艙舷外的概率。

艙室界限 X_a 、 X_f 、 Z_l 、 Z_u 和 y 應按如下方式確定：

X_a = 自 L 最後端至所計及艙室最後一點的縱向距離，m；

X_f = 自 L 最後端至所計及艙室最前一點的縱向距離，m；

Z_l =自型基線至所計及艙室最低一點的垂直距離，m。如 Z_l 大於 D_s ，則 Z_l 應取 D_s ；

Z_u =自型基線至所計及艙室最高一點的垂直距離，m。如 Z_u 大於 D_s ，則 Z_u 應取 D_s ；和

y = 在所計及艙室與船側外板之間垂直於中心線量取的最小水平距離，m^①。

在舳部彎曲處，如 h 為 $B/10$ 和 3 m 中的較小者，或艙頂，則在基線以上距離小於 h 的情況下無需考慮 y 。

.6.3 船側破損概率表

$\frac{X_a}{L}$	P_{sa}	$\frac{X_f}{L}$	P_{sf}	$\frac{Z_l}{D_s}$	P_{sl}	$\frac{Z_u}{D_s}$	P_{su}
0.00	0.000	0.00	0.967	0.00	0.000	0.00	0.968
0.05	0.023	0.05	0.917	0.05	0.000	0.05	0.952
0.10	0.068	0.10	0.867	0.10	0.001	0.10	0.931
0.15	0.117	0.15	0.817	0.15	0.003	0.15	0.905
0.20	0.167	0.20	0.767	0.20	0.007	0.20	0.873
0.25	0.217	0.25	0.717	0.25	0.013	0.25	0.836
0.30	0.267	0.30	0.667	0.30	0.021	0.30	0.789
0.35	0.317	0.35	0.617	0.35	0.034	0.35	0.733
0.40	0.367	0.40	0.567	0.40	0.055	0.40	0.670
0.45	0.417	0.45	0.517	0.45	0.085	0.45	0.599
0.50	0.467	0.50	0.467	0.50	0.123	0.50	0.525
0.55	0.517	0.55	0.417	0.55	0.172	0.55	0.452
0.60	0.567	0.60	0.367	0.60	0.226	0.60	0.383

① 對於對稱的貨油艙佈置，僅考慮所有“y”尺寸在船舶同一側測量的破損。對於不對稱的佈置，參見本組織 MEPC.122 (52) 決議通過並經修正的《關於意外溢油性能的解釋性說明》。

$\frac{X_a}{L}$	P_{Sa}	$\frac{X_f}{L}$	P_{Sf}	$\frac{Z_l}{D_S}$	P_{Sl}	$\frac{Z_u}{D_S}$	P_{Su}
0.65	0.617	0.65	0.317	0.65	0.285	0.65	0.317
0.70	0.667	0.70	0.267	0.70	0.347	0.70	0.255
0.75	0.717	0.75	0.217	0.75	0.413	0.75	0.197
0.80	0.767	0.80	0.167	0.80	0.482	0.80	0.143
0.85	0.817	0.85	0.117	0.85	0.553	0.85	0.092
0.90	0.867	0.90	0.068	0.90	0.626	0.90	0.046
0.95	0.917	0.95	0.023	0.95	0.700	0.95	0.013
1.00	0.967	1.00	0.000	1.00	0.775	1.00	0.000

P_{Sy} 應按如下各式計算：

$$P_{Sy} = (24.96 - 199.6) \frac{y}{B_s} \quad \text{當 } \frac{y}{B_s} \leq 0.05$$

$$P_{Sy} = 0.749 + (5 - 44.4(\frac{y}{B_s} - 0.05))(\frac{y}{B_s} - 0.05) \quad \text{當 } 0.05 < \frac{y}{B_s} < 0.1$$

$$P_{Sy} = 0.888 + 0.56(\frac{y}{B_s} - 0.1) \quad \text{當 } \frac{y}{B_s} \geq 0.1$$

P_{Sy} 取值不應大於 1。

7 船側破損導致的艙室損壞的概率 P_B 應按下式計算：

$$7.1 \quad P_B = P_{BL} \cdot P_{BT} \cdot P_{BV}$$

式中：

$P_{BL} = (1 - P_{Bf} - P_{Ba}) =$ 破損延伸至由 X_a 和 X_f 為界限的垂向區域的概率；

$P_{BT} = (1 - P_{Bp} - P_{Bs}) =$ 破損延伸至由 Y_p 和 Y_s 為界限的橫向區域的概率；和

$P_{BV} = (1 - P_{Bz}) =$ 破損垂直延伸超越由 z 定義的界限以外的概率；

11.7.2 P_{Ba} 、 P_{Bf} 、 P_{Bp} 和 P_{Bs} 以線性內插法從 11.7.3 提供的船底破損概率表求得，並根據 11.7.3 提供的公式計算 P_{Bz} ，式中：

P_{Ba} =破損完全位於 $\frac{X_a}{L}$ 位置後部的概率；

P_{Bf} =破損完全位於 $\frac{X_f}{L}$ 位置前部的概率；

P_{Bp} =破損完全位於燃油艙左舷的概率；

P_{Bs} =破損完全位於燃油艙右舷的概率；

P_{Bz} =破損完全位於燃油艙以下的概率。

艙室界限 X_a 、 X_f 、 Y_p 、 Y_s 和 z 按如下方式確定：

X_a 和 X_f 的定義見 11.6.2；

Y_p =從位於水線 d_B 處或以下艙室的最左的一點，至位於船舶中心線右舷 $\frac{B_B}{2}$ 處垂直平面的橫向距離，m；

Y_s =從位於水線 d_B 處或以下艙室的最右的一點，至位於船舶中心線右舷 $\frac{B_B}{2}$ 處垂直平面的橫向距離，m；和

z = 艙室長度範圍內 z 的最小值，在其中任一給定的縱向位置上， z 為該縱向位置處船底板下端至該縱向位置處艙室下端的垂直距離。

.7.3 船底破損概率表

$\frac{X_a}{L}$	P_{Ba}	$\frac{X_f}{L}$	P_{Bf}	$\frac{Y_p}{B_B}$	P_{Bp}	$\frac{Y_s}{B_B}$	P_{Bs}
0.00	0.000	0.00	0.969	0.00	0.844	0.00	0.000
0.05	0.002	0.05	0.953	0.05	0.794	0.05	0.009
0.10	0.008	0.10	0.936	0.10	0.744	0.10	0.032
0.15	0.017	0.15	0.916	0.15	0.694	0.15	0.063
0.20	0.029	0.20	0.894	0.20	0.644	0.20	0.097
0.25	0.042	0.25	0.870	0.25	0.594	0.25	0.133
0.30	0.058	0.30	0.842	0.30	0.544	0.30	0.171
0.35	0.076	0.35	0.810	0.35	0.494	0.35	0.211
0.40	0.096	0.40	0.775	0.40	0.444	0.40	0.253
0.45	0.119	0.45	0.734	0.45	0.394	0.45	0.297
0.50	0.143	0.50	0.687	0.50	0.344	0.50	0.344
0.55	0.171	0.55	0.630	0.55	0.297	0.55	0.394
0.60	0.203	0.60	0.563	0.60	0.253	0.60	0.444
0.65	0.242	0.65	0.489	0.65	0.211	0.65	0.494
0.70	0.289	0.70	0.413	0.70	0.171	0.70	0.544
0.75	0.344	0.75	0.333	0.75	0.133	0.75	0.594
0.80	0.409	0.80	0.252	0.80	0.097	0.80	0.644
0.85	0.482	0.85	0.170	0.85	0.063	0.85	0.694
0.90	0.565	0.90	0.089	0.90	0.032	0.90	0.744
0.95	0.658	0.95	0.026	0.95	0.009	0.95	0.794
1.00	0.761	1.00	0.000	1.00	0.000	1.00	0.844

P_{Bz} 應按下式計算：

$$P_{Bz} = \left(14.5 - \frac{67z}{D_s} \right) \left(\frac{z}{D_s} \right) \quad \text{當 } \frac{z}{D_s} \leq 0.1 ,$$

$$P_{Bz} = 0.78 + 1.1 \left(\frac{z}{D_s} - 0.1 \right) \quad \text{當 } \frac{z}{D_s} > 0.1 .$$

P_{Bz} 取值不應大於 1。

- .8 就維護和檢查而言，所有與外殼板不接界的燃油艙應與船底外板相距不應小於 6 所規定的最小值 h ，並與舷側外板相距不應小於 7 或 8 中適用的最小值 w 。

12 主管機關在批准按本條規定擬建造船舶的設計和構造時，應充分考慮包括為維修和檢查邊艙和雙層底艙或處所所必需的總體安全性。

見統一解釋 20、21 和 22

第 13 條 標準排放接頭

為了使接收設備的管路能與船上機艙艙底和殘油（油泥）艙殘餘物的排放管路相連結，在這兩條管路上均應裝有符合下表的標準排放接頭：

排放接頭法蘭的標準尺寸

項目	尺寸
外徑	215 mm
內徑	按照管路的外徑
螺栓圈直徑	183 mm
法蘭槽口	直徑為 22 mm 的孔 6 個等距分佈在上述直徑的螺栓圈上，開槽口至法蘭盤外沿。槽口寬 22 mm。
法蘭厚度	20 mm
螺栓和螺帽：數量、直徑	6 個，每個直徑 20 mm，長度適當
法蘭應設計為能接受最大內徑為 125 mm 的管路，以鋼或其他同等材料製成，表面平整。這種法蘭，連同一個油密材料的墊圈，應能承受 600 kPa 的工作壓力。	

B 部分**設備****第 14 條****濾油設備**

見統一解釋 23

1 除本條 3 規定之外，任何 400 總噸及以上但小於 10,000 總噸的船舶，應裝有符合本條 6 規定的濾油設備。任何可按第 16.2 條規定將留存在燃油艙內的壓載水排放入海的此類船舶，均應符合本條 2 的規定。

見統一解釋 24 和 25

2 除本條 3 規定之外，任何 10,000 總噸及以上的船舶，應裝有符合本條 7 規定的濾油設備。

見統一解釋 25

3 除不載運貨物的遷移航程外，固定不動的旅館船和水上倉庫之類船舶不必安裝濾油設備。這種船舶應設有儲存櫃，其容積足夠留存船上所有含油艙底水，並使主管機關滿意。所有含油艙底水均應留存船上以隨後排入接收設備。

4 主管機關應確保小於 400 總噸的船舶儘可能設有將油類或油性混合物留存船上或按本附則第 15.6 條進行排放的設備。

5 主管機關可對下述船舶免除本條 1 和 2 的要求：

- .1 任何專門從事在特殊區域內航行的船舶，或
- .2 任何按《國際高速船安全規則》發證（或其尺度和設計在該規則範圍之內），從事定期營運且返程時間不超過 24 h 的船舶，並包括這些船舶不載運旅客/貨物的遷移航程，
- .3 對於上述.1 和.2 的規定，下列條件應予滿足：
 - .3.1 船舶設有儲存櫃，其容積足夠留存船上含油艙底水的總量，並使主管機關滿意；
 - .3.2 所有含油艙底水均留存船上以隨後排入接收設備；
 - .3.3 主管機關確認在船舶停靠的足夠數量的港口或裝卸站設有足夠的接收設備接收該含油艙底水；
 - .3.4 當需要持有《國際防止油污證書》時，應在證書中簽署，說明該船係專門從事在特殊區域內的航行或就本條而言已被視為高速船和有確定業務；和

見統一解釋 26

- .3.5 排放的數量、時間和港口記入《油類記錄簿》第 I 部分。

見統一解釋 8

6 本條 1 所述的濾油設備的設計應經主管機關批准，並且應確保通過該系統排放入海的含油混合物的含油量不超過 15 ppm。在審議這類設備的設計時，主管機關應考慮到本組織推薦的技術條件¹。

7 本條 2 所述的濾油設備應符合本條 6 的規定。此外，該系統應裝有報警裝置，在不能保持這一標準時發出報警。該系統還應裝有在排出物的含油量超過 15 ppm 時能確保自動停止油性混合物排放的裝置。在審批這類設備的設計時，主管機關應考慮到本組織推薦的技術條件^①。

C 部分

操作性排油的控制

第 15 條

排油的控制

見統一解釋 23 和 27

1 除本附則第 4 條和本條 2、3 及 6 的規定外，應禁止將任何油類或油性混合物排放入海。

A 特殊區域以外的排放

2 應禁止 400 總噸及以上的船舶將油類或油性混合物排放入海，但全部滿足下列條件者除外：

.1 船舶在航行途中；

① 參見本組織 A.393 (X) 大會決議通過的《油水分離設備和油分計國際性能和試驗技術條件建議案》或海上環境保護委員會 MEPC.60 (33) 決議通過的《船舶機器處所艙底水防污染設備指南和技術條件》或海上環境保護委員會 MEPC.205 (62) 決議通過的《2011 年用以升級符合 MEPC.60 (33) 決議規定的濾油設備的附加設備指南和技術條件》或海上環境保護委員會 MEPC.107 (49) 決議通過的《修訂的船舶機器處所艙底水防污染設備指南和技術條件》。

見統一解釋 28

- .2 油性混合物經本附則第 14 條要求的瀘油設備予以處理；
- .3 未經稀釋的排出物含油量不超過 15 ppm；
- .4 油性混合物不是來自於油船的貨泵艙的艙底；和
- .5 如是油船，油性混合物未混有貨油殘餘物。

B 特殊區域以內的排放

3 應禁止 400 總噸及以上的船舶將油類或油性混合物排放入海，但全部滿足下列條件者除外：

- .1 船舶在航行途中；
- .2 油性混合物經本附則第 14.7 條要求的瀘油設備予以處理；
- .3 未經稀釋的排出物含油量不超過 15 ppm；
- .4 油性混合物不是來自於油船的貨泵艙的艙底；和
- .5 如是油船，油性混合物未混有貨油殘餘物。

4 就南極區域而言，禁止任何船舶將任何油類或油性混合物排放入海。

5 本條中的任何規定，並不禁止僅有部分航程在特殊區域內的船舶在特殊區域以外按本條的規定進行排放。

C 對南極區域以外任何區域內小於 400 總噸船舶的要求

6 對小於 400 總噸的船舶，應按下列規定將油類和油性混合物留存船上以隨後排放至接收設備或排放入海：

- .1 船舶在航行途中；
- .2 船舶所設的由主管機關進行設計認可的設備正在運轉以確保未經稀釋的排出物含油量不超過 15 ppm；
- .3 油性混合物不是來自於油船的貨泵艙的艙底；和
- .4 如是油船，油性混合物未混有貨油殘餘物。

D 一般要求

7 任何時候在緊鄰船舶或其跡流的水面上或水面下發現可見的油跡時，本公約締約國政府有權在其合理可行的範圍內對有無違反本條規定的有關事實立即進行調查。這種調查特別應包括風況和海況、該船的航跡和航速、附近的這種明顯油跡的其他可能來源，以及任何有關的排油記錄。

8 任何含有在數量或濃度上會危害海洋環境的化學品或其他物質，或是借以違避本條所列排放條件的化學品或其他物質，均不得排放入海。

9 按照本條的規定不能排放入海的殘油應留存船上以隨後排入接收設備。

第 16 條

油類與壓載水的分隔和首尖艙內載油

1 除本條 2 規定者外，第 1.28.2 定義的在 1979 年 12 月 31 日以後交船的 4000 總噸及以上的非油船以及第 1.28.2 定義的在 1979 年 12

月 31 日以後交船的 150 總噸及以上的油船，不得在任何燃油艙內裝載壓載水。

2 如需載運大量燃油，致使必需在任何燃油艙中裝載不是清潔壓載的壓載水時，該壓載水應排入接收設備，或使用本附則第 14.2 條規定的設備，按本附則第 15 條規定排放入海，並將這一情況記入《油類記錄簿》。

見統一解釋 29

3 在 1982 年 1 月 1 日以後訂立建造合同，或無建造合同，在 1982 年 7 月 1 日以後安放龍骨或處於類似建造階段的 400 總噸及以上的船舶，其首尖艙內或防撞艙壁之前的艙內不得裝載油類。

4 本條 1 和 3 規定以外的所有船舶應在合理和可行的範圍內，儘量符合上述規定。

見統一解釋 30

第 17 條

《油類記錄簿》第 I 部分 – 機器處所的作業

1 每艘 150 總噸及以上的油船，以及 400 總噸及以上的非油船，均應備有《油類記錄簿》第 I 部分（機器處所的作業）。該《油類記錄簿》不論是作為船上的正式航海日誌的一部分或作為其他文件，均應按本附則附錄 III 中所規定的格式。

2 每當船舶進行下列任何一項機器處所的作業時，均應逐艙填寫《油類記錄簿》第 I 部分：

- .1 燃油艙的壓載或清洗；
- .2 燃油艙污壓載水或洗艙水的排放；
- .3 殘油（油泥）的收集和處理；
- .4 機器處所所積存的艙底水向舷外排放或處理；和
- .5 添加燃油或散裝潤滑油。

3 如發生本附則第 4 條所述的排放油類或油性混合物的情況時，或者發生該條所未予除外的意外排放或其他特殊排油情況時，應在《油類記錄簿》第 I 部分中說明這種排放的情況和理由。

4 應及時將本條 2 中所述的每項作業詳細地記入《油類記錄簿》第 I 部分，以使與該項作業相應的所有項目均有記錄，每項完成的作業，應由高級船員或有關作業的負責人簽字，且每填完一頁應由船長簽字。對持有《國際防止油污證書》的船舶，《油類記錄簿》第 I 部分中的記錄應至少使用英文、法文或西班牙文的其中一種語言。如同時使用船旗國的官方語言，則在有爭議或分歧時，應以該國官方語言為準。

5 濾油設備的任何故障均應記入《油類記錄簿》第 I 部分。

6 《油類記錄簿》第 I 部分的存放位置應易於在任何合理時間隨時可供檢查，並且除未配備船員的被拖船舶外，均應存放船上。《油類記錄簿》第 I 部分應在進行最後一項記錄後保存三年。

7 本公約締約國政府的主管當局，可對停靠本國港口或近海裝卸站的適用本附則的任何船舶檢查《油類記錄簿》第 I 部分，並可將該記錄簿中任何記錄製成副本，也可要求船長證明該副本是該項記錄的真實副本。任何經船長證明為船上《油類記錄簿》第 I 部分中某項記錄的真實副本者，在任何法律訴訟中應可作為該項記錄中所述事實的證據。主管當局根據本項規定對《油類記錄簿》第 I 部分的檢查和製作正確無誤的副本應儘速進行，而不對船舶造成不當延誤。

第 4 章

對油船貨物區域的要求

A 部分

構造

第 18 條

專用壓載艙

見統一解釋 31

在 1982 年 6 月 1 日以後交船的載重量為 20,000 噸及以上的油船

1 每艘第 1.28.4 條定義的在 1982 年 6 月 1 日以後交船的載重量為 20,000 噸及以上的原油油船以及每艘載重量為 30,000 噸及以上的成品油油船，均應設置專用壓載艙，並符合本條 2、3 和 4 或 5 的相應規定。

2 專用壓載艙容量的確定，應使該船除本條 3 或 4 所規定的情況外，可以不依靠利用貨油艙裝載壓載水而安全地進行壓載航行。但在所有情況下，專用壓載艙的容量應至少能使船舶的吃水和吃水差，在航行的任何部分，不論處於何類壓載狀態，包括僅空載加壓載水的情況在內，均應符合下列各項要求：

- .1 船中部型吃水（ d_m ），m，（不考慮任何船舶變形）應不小於：

$$d_m = 2.0 + 0.02 L$$

- .2 在首、尾垂線處的吃水，應相當於由本條 2.1 規定所確定的船中部吃水（ d_m ），但向尾縱傾的吃水差不得大於 $0.015 L$ ；和
- .3 尾垂線處的吃水，無論如何不得小於達到螺旋槳全部浸沒所必需的吃水。

3 除下述情況外，貨油艙不得裝載壓載水：

- .1 在氣候情況非常惡劣的少數航次，船長認為必須在貨油艙中加裝額外壓載水以保證船舶安全時；和
- .2 在例外情況下，由於油船的具體營運特性，使其必需加裝超過本條 2 要求數量的壓載水，但該油船的這種操作應屬於本組織確立的例外情況的範疇內。

見統一解釋 32

這種額外壓載水應按本附則第 34 條的規定進行處理和排放，並應記入本附則第 36 條中所指的《油類記錄簿》第 II 部分內。

4 對於原油油船，本條 3 所許可的額外壓載水應只裝載在該船駛離卸油港或卸油站之前業已按本附則第 35 條以原油清洗過的貨油艙內。

5 儘管有本條 2 的規定，但對船長小於 150 m 的油船，其專用壓載條件應使主管機關滿意。

見統一解釋 33

在 1982 年 6 月 1 日或以前交船的載重量為 40,000 噸及以上的原
油油船

6 除本條 7 的規定外，每艘第 1.28.3 條定義的在 1982 年 6 月 1 日或以前交船的載重量為 40,000 噸及以上的原油油船，均應設置專用壓載艙，並應符合本條 2 和 3 的要求。

7 本條 6 所述的原油油船，除預定用於裝運不適於原油洗艙的原油外，可按本附則第 33 和 35 條的規定採用原油洗艙的貨艙清洗程序，以代替設置專用壓載艙。

見統一解釋 34

在 1982 年 6 月 1 日或以前交船的載重量為 40,000 噸及以上的成
品油油船

8 每艘第 1.28.3 條定義的在 1982 年 6 月 1 日或以前交船的載重量為 40,000 噸及以上的成品油油船，均應設置專用壓載艙，並應符合本條 2 和 3 的要求，或按下列規定採用清潔壓載艙的辦法：

- .1 成品油油船應有專供裝載本附則第 1.17 條定義的清潔壓載的足夠艙容，以符合本條 2 和 3 的要求。

- .2 清潔壓載艙的佈置和操作程序，應符合主管機關所制定的要求。此項要求，至少應包括本組織 A.495 (XII) 決議通過的《修訂的清潔壓載艙油船技術條件》的全部規定。
- .3 成品油油船應裝有主管機關根據國際海事組織建議的技術條件^①所認可的油分計，以能對排放的壓載水中的含油量進行監督。

見統一解釋 36

- .4 每艘採用清潔壓載艙的成品油油船，均應備有一份詳細說明該系統並列有操作程序的《清潔壓載艙操作手冊》^②，該手冊應使主管機關滿意，並應包括本條 8.2 所述技術條件中所列的全部資料。如果進行影響該清潔壓載艙系統的變更，則該操作手冊應作相應的修訂。

見統一解釋 34 和 35

可視為具有專用壓載艙的油船

9 任何按本條 1、6 或 8 未要求設置專用壓載艙的油船，如符合本條 2 和 3 或 5 的要求者，可視為具有專用壓載艙的油船。

① 對於安裝在 1986 年 10 月 2 日以前建造的油船上的油分計，參見本組織 A.393 (X) 決議通過的《油水分離設備和油分計國際性能和試驗技術條件建議案》。對於安裝在 1986 年 10 月 2 日或以後建造的油船上的作為排油監控系統部件的油分計，參見本組織 A.586(14) 決議通過的《油船排油監控系統指南和技術條件》。對於安裝在 2005 年 1 月 1 日或以後建造的油船上的作為排油監控系統部件的油分計，參見本組織 MEPC.108 (49) 決議通過的《經修訂的油船排油監控系統指南和技術條件》。

② 該手冊的標準格式見 A.495 (XII) 決議。

在 1982 年 6 月 1 日或以前交船的具有特殊壓載佈置的油船

10 第 1.28.3 條定義的在 1982 年 6 月 1 日或以前交船的具有特殊壓載佈置的油船

- .1 如一艘第 1.28.3 條定義的在 1982 年 6 月 1 日或以前交船的油船，其構造或操作在任何時候均能符合本條 2 所述的吃水和吃水差的要求而無需使用壓載水，則該油船應被視為符合本條 6 中所述的專用壓載艙的要求，但應符合所有下列條件：
 - .1.1 操作程序和壓載佈置經主管機關認可；
 - .1.2 當吃水和吃水差的要求通過操作程序而達到時，主管機關與本公約的有關締約港口國政府之間已達成協議；和
 - .1.3 在《國際防止油污證書》上已簽署該油船採用特殊壓載佈置。
- .2 除氣候情況非常惡劣的少數航次，船長認為必須在貨油艙中加裝額外壓載水以保證船舶安全外，不得在貨油艙中裝載壓載水。這種額外壓載水應按本附則第 34 條的規定和第 29、31 和 32 條的要求進行處理和排放，並應記入本附則第 36 條中所指的《油類記錄簿》內。
- .3 已按本條 10.1.3 規定對證書進行簽署的主管機關，應將該證書的各項細節通知國際海事組織，以便轉發本公約各締約國。

在 1979 年 12 月 31 日以後交船的載重量為 70,000 噸及以上的
油船

11 第 1.28.2 條定義的在 1979 年 12 月 31 日以後交船的載重量為 70,000 噸及以上的油船應設置專用壓載艙，並相應地符合本條 2、3 和 4 或 5 的要求。

專用壓載的保護位置

12 專用壓載艙的保護位置

每艘第 1.28.4 條定義的在 1982 年 6 月 1 日以後交船的載重量為 20,000 噸及以上的原油油船以及載重量為 30,000 噸及以上的成品油油船，除符合第 19 條要求者外，其所需提供的符合本條 2 要求容量的位於貨艙長度範圍內的專用壓載艙，均應按本條 13、14 和 15 的要求進行佈置，以提供一種在發生擱淺或碰撞時防止油類外流的保護措施。

見統一解釋 37

13 在貨艙長度（ L_t ）範圍之內的專用壓載艙以及非油艙的處所，其佈置應符合下述的要求：

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

式中：

PA_c = 每一專用壓載艙或非油艙的處所按型尺度在舷側的投影面積（ m^2 ），

PA_s = 每一上述的艙或處所按型尺度在船底的投影面積（ m^2 ），

L_t = 貨油艙前後末端之間的長度 (m)，

B = 本附則第 1.22 條中定義的船舶最大寬度 (m)，

D = 型深 (m)，在船中舷側處從龍骨板上緣量至乾舷甲板橫樑上緣的垂直距離。對舷緣為圓弧形的船舶，型深應量至甲板型線與舷側殼板型線延伸線的交點，即將舷緣視為方角形的設計，

J = 0.45，對載重量為 20,000 噸的油船；0.30，對載重量為 200,000 噸及以上的油船，但尚可依照本條 14 的規定予減少。

對載重量為中間值時， J 值按內插法求得。

任何本段所用符號在本條中出現時，其含義與本段定義者相同。

見統一解釋 37

14 對載重量為 200,000 噸及以上的油船， J 值可減小如下，

$$J_{\text{減少}} = \left[J - \left(a - \frac{O_c + O_s}{4O_A} \right) \right] \text{或 } 0.2, \text{ 取較大者。}$$

式中：

$a=0.25$ 對載重量為 200,000 噸的油船，

$a=0.40$ 對載重量為 300,000 噸的油船，

$a=0.50$ 對載重量為 420,000 噸及以上的油船。

對載重量為中間值時， a 值按內插法求得。

O_C =見本附則第 25.1.1 的規定，

O_S =見本附則第 25.1.2 的規定，

O_A =見本附則第 26.2 規定許可的油流出量。

見統一解釋 37

15 在確定專用壓載艙或非油艙處所的 PA_C 和 PA_S 時，適用下述規定：

- .1 不論其是每一邊艙或處所的最小寬度伸展到舷側全深或是從甲板至雙層底內底板，應不小於 2 m。該寬度應自舷側向中心線垂直量取。如寬度小於 2 m，則在計算保護面積 PA_C 時，該邊艙或處所應不予考慮；和
- .2 每一雙層底艙或處所的最小垂直深度，應為 $\frac{B}{15}$ 或 2 m，取較小者。如深度小於此值，則在計算保護面積 PA_C 時，該底艙或處所應不予考慮。

對邊艙和雙層底艙最小寬度與深度的量取，應避開舳部，同時，對最小寬度的量取，還應避開任何圓弧形的舷緣部分。

見統一解釋 37

第 19 條

對 1996 年 7 月 6 日或以後交船的油船^①的雙殼體和雙層底的要求

見統一解釋 13、31 和 38

1 本條應適用於第 1.28.6 條定義的在 1996 年 7 月 6 日或以後交船的載重量為 600 噸及以上的油船，具體如下：

2 每艘載重量為 5,000 噸及以上的油船：

.1 如適用，應符合本條 3 的要求，以代替第 18 條中 12 至 15 的要求，除非其符合本條 4 和 5 的規定；和

.2 如適用，應符合第 28.6 條的要求。

3 整個貨油艙長度應由下述壓載艙或非載運油類的艙室處所加以保護：

.1 邊艙或處所

邊艙或處所應伸展到舷側全深或是從雙層底頂端到最上層甲板，無論船舶的舷緣是否為圓弧形。各邊艙或處所應佈置成使得全部貨油艙皆位於這些艙或處所殼板型線的內側面。在與舷側殼板垂直的任何剖面處測得的距離 w 值，如圖 1 所示，不得小於下式計算值：

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

$w = 2.0 \text{ m}$ ，取小者。

① 參見 MSC-MEPC.5/Circ.5 通函《距離測量的統一解釋》。

最小值 $w=1.0\text{ m}$ 。

.2 雙層底艙或處所

每一雙層底艙或處所的任一剖面的垂直深度應為：貨油艙

雙層底與船底殼板型線之間的垂直距離 h ，如圖 1 所示，

不得小於下式計算值：

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

$h=2.0\text{ m}$ ，取小者。

最小值 $h=1.0\text{ m}$ 。

.3 舳部彎曲區域或舳部無明顯彎曲的部位

當 h 和 w 兩者距離不等時， w 值應在基線以上超過 $1.5h$

處選取，如圖 1 所示。

見統一解釋 39

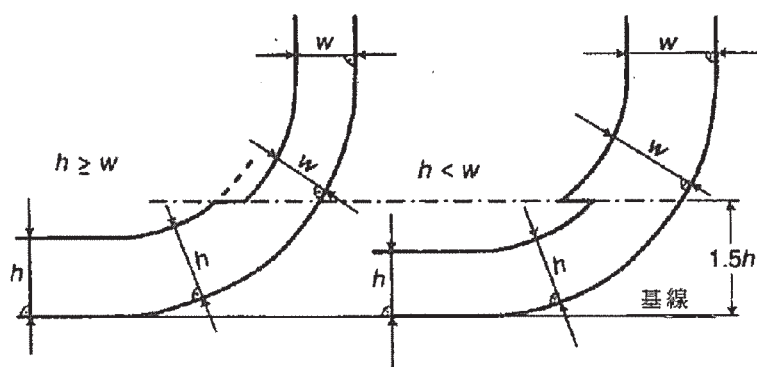


圖 1 - 貨油艙邊界線

.4 各壓載艙的總容量

對載重量為 20,000 噸及以上的原油油船和載重量為 30,000 噸及以上的成品油油船，各邊艙、雙層底艙、首尖艙和尾尖艙的總容量應不小於為滿足本附則第 18 條所必需的專用壓載艙的容量。用於滿足第 18 條要求的各邊艙或處所和雙層底艙應儘可能均勻地沿貨油艙長度佈置。為減少船體總樑彎曲應力、船舶縱傾等所附加的專用壓載艙的容量可佈置在船內的任何位置。

.5 貨油艙吸阱

貨油艙內的吸阱可以凸入到由距離 h 所定義的雙層底艙邊界線下面。但這種吸阱應儘可能小，並且阱底與船底殼板之間距離應不小於 $0.5 h$ 。

.6 壓載和貨油管路

壓載管路和諸如壓載艙的測深管和透氣管等其他管路不得通過貨油艙。貨油管路和貨油艙的類似管路不得通過壓載艙。對全焊接或等效的短管，可同意免除這一要求。

4 下列規定適用於雙層底艙或處所

- .1 如果油船設計成使得作用在構成貨油和海水之間單一分界面的船底殼板上的貨油壓力和蒸氣壓力之和不超過外部海水靜壓力，如下列公式所示，則可不必設有本條 3.2 所要求的雙層底艙或處所：

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

式中：

h_c =在船底殼板上的貨油高度，m；

p_c =最大貨油密度，kg/m³；

d_n =預計裝載工況下的最小營運吃水，m；

p_s =海水密度，kg/m³；

P =供貨油艙用的壓力/真空閥的最大調定壓力，Pa；

f =安全系數=1.1；

g =標準重力加速度（9.81 m/s²）。

- .2 用於滿足上述要求所需的任何水平隔板，應位於基線以上不低於 $B/6$ 或 6 m 高度處，取小者，但不高於 $0.6 D$ ， D 為船中部型深。
- .3 各邊艙或處所的位置應按本條 3.1 的定義，但基線以上低於 $1.5 h$ 的部位除外， h 由本條 3.2 定義，其貨油艙邊界線可以垂直向下到船底板，如圖 2 所示。

見統一解釋 40

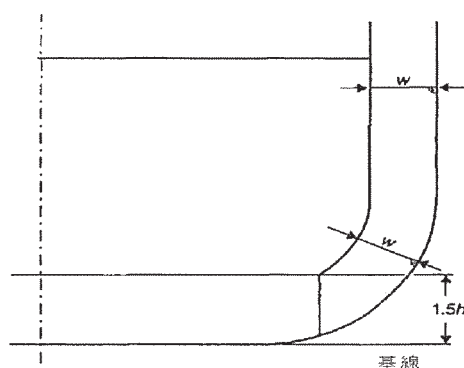


圖 2 - 貨油艙邊界線

5 油船設計和構造的其他方法，也可以接受作為本條 3 所述要求的替代方案，但此種方法應確保在碰撞或擱淺事故中防止油污染方面至少有相同的保護水平，並應經海上環境保護委員會根據本組織制定的指南¹原則上批准。

6 每艘載重量 5,000 噸以下的油船應符合本條 3 和 4 的要求，或應：

- .1 至少設有雙層底艙或處所，其高度，即本條 3.2 所規定的 h 距離，符合下列條件：

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

最小值 $h=0.76 \text{ m}$ ；

在艙部彎曲區域和艙部無明顯彎曲的部位，貨油艙邊界線應與船中部橫剖面平底線平行，如圖 3 所示；和

- .2 各貨油艙應按照每艙容積不超過 700 m^3 進行佈置，除非邊艙或處所按照本條 3.1 佈置並滿足下列要求：

$$w = 0.4 + \frac{2.4DW}{20000} (\text{m}) \quad \text{最小值 } w=0.76 \text{ m}。$$

見統一解釋 41

¹ 參見本組織海上環境保護委員會 MEPC.110 (49) 決議通過的《經修訂的批准油船設計和建造替代方法的臨時指南》。

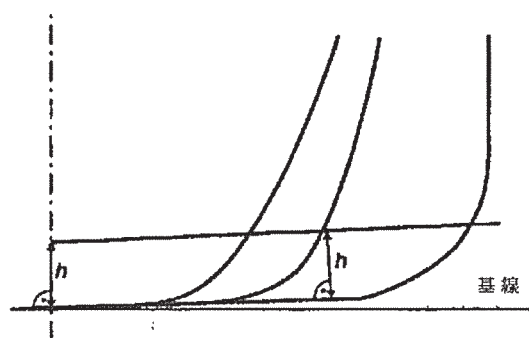


圖 3 - 貨油艙邊界線

7 根據經修正的《1974 年國際海上人命安全公約》第 II-1/11 條規定^①，位於自防撞艙壁向前延伸的任何處所內不應載油。對於按該條規定不要求設置防撞艙壁的油船，也不應在位於垂直於中心線橫剖面處向前延伸的任何處所內載油，此時該處被視為根據該條要求設置的防撞艙壁。

8 主管機關在批准按本條規定擬建造油船的設計和構造時，應充分考慮包括為維修和檢查邊艙和雙層底艙或處所所必需的總體安全性。

第 20 條

對 1996 年 7 月 6 日以前交船的油船的雙殼體和雙層底的要求

見統一解釋 31

1 除另有明確規定外，本條應：

① 參見本組織 MSC.216 (82) 決議通過的 2006 年修正案（第 II-1、II-2、III 和 XII 章及附錄）。

- .1 適用於本附則第 1.28.5 條定義的在 1996 年 7 月 6 日以前交船的載重量為 5,000 噸及以上的油船；和
- .2 不適用於本附則第 1.28.5 條定義的在 1996 年 7 月 6 日以前交船，但符合第 19 和第 28 條（關於 28.6）的油船；
- .3 不適用於上述.1 中符合本附則第 19.3.1 條和 19.3.2 條或 19.4 條或 19.5 條的規定，但不必完全滿足從貨油艙界限面到船側板和船底板的最小距離要求的油船。在這種情況下，船側保護距離應不小於《國際散化規則》對 2 型船舶貨油艙位置所規定的距離，並且船底中線處的底部保護距離應符合本附則第 18.15.2 條的規定。

2 就本條而言：

- .1 重柴油係指除那些用本組織接受的方法^①試驗時，在不超過 340°C 溫度下有 50%(體積)以上餾化的餾分油以外的柴油。
- .2 燃油係指重餾分油或原油的殘油或性質相當於本組織接受的規格^①，擬用於產生熱量或電力的燃料的此類物質的混合物。

3 就本條而言，油船劃分為下列幾類：

- .1 第 1 類油船係指不符合本附則第 1.28.4 條定義的在 1982 年 6 月 1 日以後交付的油船的要求，且載重量為 20,000 噸及以上載運原油、燃油、重柴油或潤滑油作為貨物的油船，以及載重量為 30,000 噸及以上載運除上述油類以外的其他油類的油船；

① 參見美國材料與試驗協會的標準試驗方法（D86）。

① 參見美國材料與試驗協會的 4 號燃油規格（D396）或更重的油。

- .2 第 2 類油船係指符合本附則第 1.28.4 條定義的在 1982 年 6 月 1 日以後交付的油船的要求，且載重量為 20,000 噸及以上載運原油、燃油、重柴油或潤滑油作為貨物的油船，以及載重量為 30,000 噸及以上載運除上述油類以外的其他油類的油船；

見統一解釋 42

- .3 第 3 類油船係指載重量為 5,000 噸及以上但低於上述.1 或.2 規定的載重量的油船。

4 適用本條的油船應不遲於 2005 年 4 月 5 日或下表規定的日期或年份的船舶交船周年日符合本附則第 19 條中 2 至 5、7 和 8 以及第 28 條（關於 28.6）的要求：

油船類型	日期或年份
第 1 類	2005 年 4 月 5 日，在 1982 年 4 月 5 日或以前交船的船舶 2005 年，在 1982 年 4 月 5 日以後交船的船舶
第 2 類和第 3 類	2005 年 4 月 5 日，在 1977 年 4 月 5 日或以前交船的船舶 2005 年，在 1977 年 4 月 5 日以後，但在 1978 年 1 月 1 日以前交船的船舶 2006 年，在 1978 年和 1979 年交船的船舶 2007 年，在 1980 年和 1981 年交船的船舶 2008 年，在 1982 年交船的船舶 2009 年，在 1983 年交船的船舶 2010 年，在 1984 年或以後交船的船舶

見統一解釋 43

5 儘管有本條 4 的規定，對於僅設有不用於裝油且延伸至整個貨油艙長度的雙層底或雙邊艙的第 2 類或第 3 類油船，或者設有不用於裝油且延伸至整個貨油艙長度的雙殼體處所，但不滿足根據本條 1.3 規定的予以免除條件的第 2 類或第 3 類油船，主管機關可允許這類油船在本條 4 規定的日期之後繼續營運，但須：

- .1 該船在 2001 年 7 月 1 日處於營運狀態；
- .2 主管機關對該船符合上述規定的條件的正式記錄的驗證感到滿意；
- .3 上述規定的船舶狀況保持不變；和
- .4 這種繼續營運未超過該船交船日期後的 25 年。

6 交船日期後達 15 年及以上船齡的第 2 類或第 3 類油船，應符合海上環境保護委員會以 MEPC.94 (46) 決議通過的經修正的《狀況評估計劃》的規定，但所作修正應根據本公約第 16 條有關本附則附錄適用的修正程序的規定予以通過、生效並實施。

見統一解釋 44

7 主管機關可允許第 2 類或第 3 類油船在本條 4 規定的日期之後繼續營運，只要主管機關認為狀況評估計劃的結果令人滿意，船舶適於繼續這種營運，但該營運不得超過 2015 年的交船周年日或交船日期之後 25 年，以較早者為準。

8.1 允許懸掛其國旗的船舶實施本條 5，或允許、中止、撤銷或拒絕實施本條 7 的本公約締約國主管機關，應立即將有關詳細資料送交本組織，以便轉發本公約各締約國，供其參考和採取適當行動（如有時）。

8.2 本公約締約國有權拒絕按下列規定營運的油船進入其管轄範圍內的港口或近海裝卸站：

- .1 本條 5，超過 2015 年的交船周年日；或
- .2 本條 7。

在這種情況下，該締約國應將有關詳細資料送交本組織，以便轉發本公約各締約國供其參考。

第 21 條

防止載運重級別貨油的油船造成污染

1 本條應：

- .1 適用於載重量為 600 噸及以上載運重級別貨油的油船，不論其交船日期；和
- .2 不適用於上述.1 中符合本附則第 19.3.1 條和 19.3.2 條或 19.4 條或 19.5 條的規定，但不必完全滿足從貨油艙界限到船側板和船底板的最小距離要求的油船。在這種情況下，船側保護距離應不小於《國際散化規則》對 2 型船舶貨油艙位置所規定的距離，並且船底中線處的底部保護距離應符合本附則第 18.15.2 條的規定。

2 就本條而言，重級別油係指下述任何油類：

- .1 在 15°C 時密度高於 900 kg/m³ 的原油；

.2 在 15°C 時密度高於 900 kg/m³ 或在 50°C 時運動黏度高於 180 mm²/s 的原油以外的油類；或

.3 瀝青、焦油及其乳化物。

3 適用本條的油船除應符合第 20 條的適用規定外，還應符合本條 4 至 8 的規定。

4 除本條 5、6 和 7 的規定外，適用本條的油船：

.1 如載重量為 5,000 噸及以上，應不遲於 2005 年 4 月 5 日符合本附則第 19 條的要求；或

.2 如載重量為 600 噸及以上但小於 5,000 噸，應不遲於 2008 年交船日期周年日設置符合本附則第 19.6.1 條規定的雙層底艙或處所，以及按第 19.3.1 條佈置並符合第 19.6.2 條要求的距離 w 的邊艙或處所。

5 對於載重量為 5,000 噸及以上載運重級別貨油，僅設有不用於裝油且延伸至整個貨油艙長度的雙層底或雙邊艙，或設有不用於裝油且延伸至整個貨油艙長度的雙殼體處所，但不滿足根據本條 1.2 規定予以免除的條件的油船，主管機關可允許這類船舶在本條 4 規定的日期之後繼續營運，但須：

.1 該船在 2003 年 12 月 4 日處於營運狀態；

.2 主管機關對該船符合上述規定的條件的正式記錄的驗證感到滿意；

.3 上述規定的船舶狀況保持不變；和

.4 這種繼續營運未超過該船交船日期後的 25 年。

6.1 主管機關可允許載重量為 5,000 噸及以上載運 15°C 時密度高於 900 kg/m³ 但低於 945 kg/m³ 的原油的油船，在本條 4.1 規定的日期之後繼續營運，只要主管機關認為第 20.6 條所述的狀況評估計劃的結果令人滿意，船舶適於繼續這種營運，且考慮到該船的尺度、船齡、營運區域和結構條件，但該營運不得超過交船日期之後 25 年。

見統一解釋 45

6.2 主管機關可允許載重量為 600 噸及以上但小於 5,000 噸，載運重級別貨油的油船在本條 4.2 規定的日期之後繼續營運，只要主管機關認為船舶適於繼續這種營運，且考慮到該船的尺度、船齡、營運區域和結構條件，但該營運不得超過交船日期之後 25 年。

7 本公約締約國的主管機關可對載重量為 600 噸及以上載運重級別貨油的油船免除本條的規定，條件是該油船：

- .1 專門從事在其管轄區域內的航行，或設在其管轄區域內的作為重級別油浮動儲存裝置進行作業；或
- .2 專門在另一締約國管轄區域內從事航行，或設在另一締約國管轄區域內的作為重級別油浮動儲存裝置進行作業，但該油船在該締約國管轄區域內作業應事先徵得其同意。

8.1 允許、中止、撤銷或拒絕懸掛其國旗的船舶實施本條 5、6 或 7 的本公約締約國主管機關，應立即將有關詳細資料送交本組織，以便轉發本公約各締約國，供其參考和採取適當行動（如有時）。

8.2 按國際法的規定，本公約締約國有權拒絕按本條 5 或 6 的規定營運的油船進入其管轄範圍內的港口或近海裝卸站，或拒絕在其管轄的區域內進行船對船過駁重級別油，但為保障船舶安全或救護海上

人命所必需者除外。在這種情況下，該締約國應將有關詳情通告本組織，以便轉發本公約各締約國供其參考。

第 22 條

泵艙底的保護

1 本條適用於在 2007 年 1 月 1 日或以後建造的載重量為 5,000 噸及以上的油船。

2 泵艙應設有雙層底且在任一橫截面，各雙層底艙或處所的深度應使泵艙底和船舶基線之間垂直於船舶基線量取的距離 h 不小於下列規定的值：

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

$h = 2 \text{ m}$ ，取其小者。

h 的最小值 = 1 m。

3 如果泵艙的底板高出基線至少達上述 2 所要求的最小高度（例如平底船尾式設計），則在泵艙處不需要雙層底構造。

4 壓載水泵應予合適佈置，確保有效地從雙層底艙抽水。

5 儘管有上述 2 和 3 的規定，但如泵艙進水後不會使壓載水或貨油的泵吸系統無法運行，則不必設置雙層底。

第 23 條

意外洩油性能

1 本條應適用於第 1.28.8 條定義的在 2010 年 1 月 1 日或以後交船的油船。

2 就本條而言，下列定義應適用：

- .1 載重線吃水 (d_s) 係指自船中處的型基線至相應於船舶核定夏季乾舷的水線之間的垂直距離，m。儘管核定的吃水可能超過 d_s ，諸如熱帶載重線，有關本條的計算應以吃水 d_s 為基礎。
- .2 水線 (d_B) 係指自船中處的型基線至相應於 30% 船深 D_s 的水線之間的垂直距離，m。
- .3 船寬 (B_s) 係指在最深載重線吃水處 d_s 處或下面的船舶最大的型寬，m。
- .4 船寬 (B_B) 係指在水線 d_B 處或下面的船舶最大的型寬，m。
- .5 船深 (D_s) 係指自船中處量至上甲板舷側的型深，m。
- .6 船長 (L) 和載重量 (DW) 分別如第 1.19 條和 1.23 條的定義。

3 為了提供在碰撞或擱淺事故中防止油污染的足夠保護，應符合下列規定：

- .1 對 5,000 載重噸 (DWT) 及以上的油船，平均洩油量參數應為：

$$O_M \leq 0.015 \quad \text{當 } C \leq 200,000 \text{ m}^3$$

$$O_M \leq 0.012 + \frac{0.003}{200,000} (400,000 - C) \quad \text{當 } 200,000 \text{ m}^3 < C < 400,000 \text{ m}^3$$

$$O_M \leq 0.012 \quad \text{當 } C \geq 400,000 \text{ m}^3$$

對 5,000 DWT 和 200,000 m³ 之間的兼用船，可應用下列平均洩油量參數，但須送交所作計算並使主管機關滿意，證明考慮了兼用船增加的強度以後，其意外洩油性能至少等同於尺度相同且 $O_M \leq 0.015$ 的標準雙殼油船。

$$O_M \leq 0.021 \quad \text{當 } C \leq 100,000 \text{ m}^3$$

$$O_M \leq 0.015 + \frac{0.006}{100,000} (200,000 - C) \quad \text{當 } 100,000 \text{ m}^3 < C \leq 200,000 \text{ m}^3$$

式中：

O_M = 平均洩油量參數；

C = 98% 滿艙時貨油的總容積，m³。

.2 對小於 5,000 載重噸（DWT）的油船，每一貨油艙的長度不得超過 10 m 或下列各值之一，取較大者：

.2.1 未在貨油艙內設置縱向艙壁時：

$$\left(0.5 \frac{b_i}{B} + 0.1\right) L \quad \text{但不超過 } 0.2 L。$$

.2.2 在貨油艙內中心線上設置縱向艙壁時：

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

.2.3 如在貨油艙內設置兩個或以上縱向艙壁時：

.2.3.1 對於邊貨油艙： $0.2 L$

.2.3.2 對於中間貨油艙：

.2.3.2.1 如 $\frac{b_i}{B} \geq 0.2L$ ，則： $0.2 L$

.2.3.2.2 如 $\frac{b_i}{B} < 0.2L$ ，則：

.2.3.2.2.1 未設置中心線縱向艙壁時：

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

.2.3.2.2.2 設置中心線縱向艙壁時：

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

b_i 是指在相應於核定的夏季乾舷水平面上，自舷側向艙內中心線垂直量取的，從船側到相關貨艙外側縱向艙壁之間的最小距離。

4 在計算平均洩油量參數時，應作下列一般的假定：

- .1 貨物區段長度在所有載運貨油的貨艙前後兩端的延伸，包括污油水艙。
- .2 本條所指的貨油艙應理解為包括位於貨物區段長度內的所有貨油艙、污油水艙和燃油艙。
- .3 船舶應假定為裝載至載重線吃水 d_s 處，而無縱傾或橫傾。
- .4 所有貨油艙應假定為裝載至其 98% 的容積。貨油的名義密度 (p_n) 應按如下計算：

$$p_n = \frac{1,000(\text{DWT})}{C} \quad (\text{kg/m}^3)$$

.5 就洩油量的計算而言，除非另有規定，在貨物區段範圍內的每一個處所，包括貨油艙、壓載艙和其他非載油處所的滲透率應取 0.99。

.6 在確定艙室位置時，吸阱可忽略不計，但該阱應儘可能小，並且阱底和底部外板的距離不小於 $0.5 h$ ，其中 h 係第 19.3.2 條所定義的高度。

5 在組合洩油量參數時，應採用下列假定：

.1 側向破損和底部破損的平均洩油量應分別進行計算，然後按如下組合無因次洩油量參數 O_M ：

$$O_M = \frac{0.4O_{MS} + 0.6O_{MB}}{C}$$

式中：

O_{MS} =側向破損平均洩油量， m^3 ；和

O_{MB} =底部破損平均洩油量， m^3 。

.2 對於底部破損，應分別進行 0 m 和 -2.5 m 潮汐條件下的平均洩油量計算，然後如下組合：

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

式中：

$O_{MB(0)}$ = 0 m 潮汐條件下的平均洩油量；和

$O_{MB(-2.5)}$ = -2.5 m 潮汐條件下的平均洩油量， m^3 。

6 側向破損平均洩油量 O_{MS} 應如下計算：

$$O_{MS} = C_3 \sum_i^n P_{s(i)} O_{s(i)} \quad (\text{m}^3)$$

式中：

i 表示所考慮的每個貨油艙；

n = 貨油艙的總數；

$P_{s(i)}$ = 按本條 8.1 計算的貫穿貨油艙 i 側向破損的概率；

$O_{s(i)}$ = 除非應用了第 19.5 條所述的指南證明將留存很大的貨油容積，貨油艙 i 側向破損的洩油量， m^3 ，其假定相等於貨油艙 i 在 98% 裝載率時的總容積；和

C_3 = 對於在貨油艙內具有兩個縱向艙壁的船舶為 0.77，但這些艙壁在貨物區段範圍內應是連續的並且 $P_{s(i)}$ 係按本條 10 的要求確定。對於所有其他船舶或當 $P_{s(i)}$ 係按本條的要求確定時， C_3 為 1.0。

7 應如下計算每一個潮汐條件下的底部破損的平均洩油量：

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

式中：

i 表示所考慮的每個貨油艙；

n = 貨油艙的總數；

$P_{B(i)}$ = 按本條 9.1 計算的貫穿貨油艙 i 底部破損的概率；

$O_{B(i)}$ = 按本條 7.3 計算的貨油艙 i 的洩油量， m^3 ；和

$C_{DB(i)}$ = 如本條 7.4 所述的考慮留存油量的系數。

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

式中：

i 、 n 、 $P_{B(i)}$ 和 $C_{DB(i)}$ = 定義同上述 .1；

$O_{B(i)}$ = 潮汐變化後貨油艙 i 的洩油量， m^3 。

.3 每個貨油艙的洩油量 $O_{B(i)}$ 應以壓力平衡原則為基礎按照下列假定進行計算：

.3.1 船舶應假定為擱淺且縱傾和橫傾均為零，潮汐變化前的擱淺吃水等於載重線吃水 d_s 。

.3.2 破損後貨油油位的計算如下：

$$h_c = \frac{d_s + t_c - Z_1(p_s) - \frac{1,000p}{g}}{P_n}$$

式中：

h_c = Z_1 以上貨油的高度， m ；

t_c = 潮汐變化， m 。潮汐的減少以負值表達；

Z_1 = 在基線以上貨油艙內最低點的高度， m ；

p_s =海水密度，應取 $1,025 \text{ kg/m}^3$ ；

p =如安裝惰性氣體系統，正常的超壓，kPa，應取不小於 5 kPa ；如未安裝惰性氣體系統，超壓可取為 0 ；

見統一解釋 47

g =重力加速度，應取為 9.81 m/s^2 ；和

P_n =按本條 4.4 計算的名義貨油密度。

.3.3 除非另有規定，對於以船底板為界限的貨油艙，洩油量 $O_{B(i)}$ 應不小於貨油艙 i 所載貨油總量的 1% ，以考慮初次交換損失和因海流和波浪引起的動力影響。

.4 在底部破損中，貨油艙洩出的一部分油可能被非載油的艙室留存。這種影響近似於應用如下的每個艙的系數 $C_{DB(i)}$ ：

對由下面為非載油艙室為界限的貨油艙， $C_{DB(i)}=0.6$ ；

對由船底板為界限的貨油艙， $C_{DB(i)}=1.0$ 。

8 劃破艙室的側向破損的概率 P_s 的計算如下：

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

式中：

$P_{SL}=1-P_{Sf}-P_{Sa}$ =由 X_a 和 X_f 為界限的縱向區域內延伸的破損概率；

$P_{SV}=1-P_{Su}-P_{Sl}$ 是由 Z_l 和 Z_u 為界限的垂向區域內延伸的破損概率；和

$P_{ST}=1-P_{Sy}$ 是由 y 定義的界限之外橫向延伸的破損概率。

2. P_{Sa} 、 P_{Sf} 、 P_{Sl} 、 P_{Su} 和 P_{Sy} 應採用線性內插法從本條 8.3 提供的側向破損概率表中獲取，

式中：

P_{Sa} = 破損全部位於 $\frac{X_a}{L}$ 位置後部的概率；

P_{Sf} = 破損全部位於 $\frac{X_f}{L}$ 位置前部的概率；

P_{Sl} = 破損全部在油艙下面的概率；

P_{Su} = 破損全部在油艙上面的概率；和

P_{Sy} = 破損全部在油艙外的概率。

艙室界限 X_a ， X_f ， Z_l ， Z_u 和 y 應按如下方式確定：

X_a = 自船長 L 的最後端至所計及艙室的最後一點的縱向距離，m；

X_f = 自船長 L 的最後端至所計及艙室的最前一點的縱向距離，m；

Z_l = 自型基線至所計及艙室的最低一點的垂直距離，m；

Z_u = 自型基線至所計及艙室的最高一點的垂直距離，m。 Z_u 不應大於 D_s ；和

y = 在所計及艙室和船側外板之間垂直於中心線量取的最小水平距離，m^①。

3 側向破損概率表

$\frac{X_a}{L}$	P_{sa}	$\frac{X_f}{L}$	P_{sf}	$\frac{Z_l}{D_S}$	P_{sl}	$\frac{Z_u}{D_S}$	P_{su}
0.00	0.000	0.00	0.967	0.00	0.000	0.00	0.968
0.05	0.023	0.05	0.917	0.05	0.000	0.05	0.952
0.10	0.068	0.10	0.867	0.10	0.001	0.10	0.931
0.15	0.117	0.15	0.817	0.15	0.003	0.15	0.905
0.20	0.167	0.20	0.767	0.20	0.007	0.20	0.873
0.25	0.217	0.25	0.717	0.25	0.013	0.25	0.836
0.30	0.267	0.30	0.667	0.30	0.021	0.30	0.789
0.35	0.317	0.35	0.617	0.35	0.034	0.35	0.733
0.40	0.367	0.40	0.567	0.40	0.055	0.40	0.670
0.45	0.417	0.45	0.517	0.45	0.085	0.45	0.599
0.50	0.467	0.50	0.467	0.50	0.123	0.50	0.525
0.55	0.517	0.55	0.417	0.55	0.172	0.55	0.452
0.60	0.567	0.60	0.367	0.60	0.226	0.60	0.383
0.65	0.617	0.65	0.317	0.65	0.285	0.65	0.317
0.70	0.667	0.70	0.267	0.70	0.347	0.70	0.255
0.75	0.717	0.75	0.217	0.75	0.413	0.75	0.197
0.80	0.767	0.80	0.167	0.80	0.482	0.80	0.143
0.85	0.817	0.85	0.117	0.85	0.553	0.85	0.092
0.90	0.867	0.90	0.068	0.90	0.626	0.90	0.046
0.95	0.917	0.95	0.023	0.95	0.700	0.95	0.013
1.00	0.967	1.00	0.000	1.00	0.775	1.00	0.000

P_{sy} 應如下計算：

① 對於對稱的貨油艙佈置，僅考慮所有“y”尺寸在船舶同一側測量的破損。對於不對稱的佈置，參見本組織 MEPC.122（52）決議通過並經修正的《關於意外溢油性能的解釋性說明》。

$$P_{Sy} = \left(24.96 - \frac{199.6y}{B_s} \right) \left(\frac{y}{B_s} \right) \quad \text{當 } \frac{y}{B_s} \leq 0.05$$

$$P_{Sy} = 0.749 + \left(5 - 44.4 \left(\frac{y}{B_s} - 0.05 \right) \right) \left(\frac{y}{B_s} - 0.05 \right) \quad \text{當 } 0.05 < \frac{y}{B_s} < 0.1$$

$$P_{Sy} = 0.888 + 0.56 \left(\frac{y}{B_s} - 0.1 \right) \quad \text{當 } \frac{y}{B_s} \geq 0.1$$

P_{Sy} 應取不大於 1。

9 劃破艙室的底部破損的概率 P_B 應如下計算：

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

式中：

$P_{BL} = 1 - P_{Bf} - P_{Ba}$ 是由 X_a 和 X_f 為界限的縱向區域內延伸的破損概率；

$P_{BT} = 1 - P_{Bp} - P_{Bs}$ 是由 Y_p 和 Y_s 為界限的橫向區域內延伸的破損概率；和

$P_{BV} = 1 - P_{Bz}$ 是由 Z 定義的界限之上垂向延伸的破損概率。

.2 P_{Ba} 、 P_{Bf} 、 P_{Bp} 、 P_{Bs} 和 P_{Bz} 應採用線性內插法從本條 9.3 提供的底部破損概率表中獲取，式中：

P_{Ba} = 破損全部位於 $\frac{X_a}{L}$ 位置後部的概率；

P_{Bf} = 破損全部位於 $\frac{X_f}{L}$ 位置前部的概率；

P_{Bp} = 破損全部在油艙左舷外的概率；

P_{Bs} =破損全部在油艙右舷外的概率；和

P_{Bz} =破損全部在油艙之下的概率。

艙室界限 X_a 、 X_f 、 Y_p 、 Y_s 和 z 應按如下方式確定：

X_a 和 X_f 如本條 8.2 的定義；

Y_p =自位於水線 d_B 處或下面的艙室的最左的一點至位於船

舶中心線右舷 $\frac{B_B}{2}$ 垂直平面的橫向距離，m；

Y_s =自位於水線 d_B 處或下面的艙室的最右的一點至位於船

舶中心線右舷 $\frac{B_B}{2}$ 垂直平面的橫向距離，m；和

z =在艙室長度方向上 z 的最小值，在任何給定的縱向位置上， z 為該縱向位置處船底板最低一點至該縱向位置處艙室最低一點之間的垂直距離，m。

3 底部破損概率表

$\frac{X_a}{L}$	P_{Ba}
0.00	0.000
0.05	0.002
0.10	0.008
0.15	0.017
0.20	0.029
0.25	0.042
0.30	0.058
0.35	0.076
0.40	0.096
0.45	0.119
0.50	0.143

$\frac{X_f}{L}$	P_{Bf}
0.00	0.969
0.05	0.953
0.10	0.936
0.15	0.916
0.20	0.894
0.25	0.870
0.30	0.842
0.35	0.810
0.40	0.775
0.45	0.734
0.50	0.687

$\frac{Y_p}{B_B}$	P_{Bp}
0.00	0.844
0.05	0.794
0.10	0.744
0.15	0.694
0.20	0.644
0.25	0.594
0.30	0.544
0.35	0.494
0.40	0.444
0.45	0.394
0.50	0.344

$\frac{Y_s}{B_B}$	P_{Bs}
0.00	0.000
0.05	0.009
0.10	0.032
0.15	0.063
0.20	0.097
0.25	0.133
0.30	0.171
0.35	0.211
0.40	0.253
0.45	0.297
0.50	0.344

0.55	0.171
0.60	0.203
0.65	0.242
0.70	0.289
0.75	0.344
0.80	0.409
0.85	0.482
0.90	0.565
0.95	0.658
1.00	0.761

0.55	0.630
0.60	0.563
0.65	0.489
0.70	0.413
0.75	0.333
0.80	0.252
0.85	0.170
0.90	0.089
0.95	0.026
1.00	0.000

0.55	0.297
0.60	0.253
0.65	0.211
0.70	0.171
0.75	0.133
0.80	0.097
0.85	0.063
0.90	0.032
0.95	0.009
1.00	0.000

0.55	0.394
0.60	0.444
0.65	0.494
0.70	0.544
0.75	0.594
0.80	0.644
0.85	0.694
0.90	0.744
0.95	0.794
1.00	0.844

P_{Bz} 應如下計算：

$$P_{Bz} = \left(14.5 - \frac{67z}{D_s} \right) \left(\frac{z}{D_s} \right) \quad \text{當 } \frac{z}{D_s} \leq 0.1 ,$$

$$P_{Bz} = 0.78 + 1.1 \left(\frac{z}{D_s} - 0.1 \right) \quad \text{當 } \frac{z}{D_s} > 0.1 .$$

P_{Bz} 應取不大於 1。

10 本條應用簡化的概率方法將每個貨油艙對平均洩油量參數的貢獻總和起來。對諸如艙壁/甲板上有台階/凹槽和傾斜的艙壁和/或顯著的船體彎曲部分的某些設計，可以採用更多適當的精密的計算。在這種情況下，可採用下列之一的計算程序：

- .1 上述 8 和 9 中的概率可採用更為精確的假定單元艙的方法進行計算^①。
- .2 上述 8 和 9 中的概率可直接採用包括在第 19.5 條所述導則中的概率密度函數進行計算。
- .3 洩油性能可按第 19.5 條中指南所述的方法進行評估。

① 參見本組織 MEPC.122(52)決議通過並經修正的《關於意外溢油性能的解釋性說明》。

11 下列有關管路佈置的規定應適用：

- .1 通過位於自舷側量起小於 $0.30 B_s$ 或自船底量起小於 $0.30 D_s$ 位置貨油艙的管路，應在其通向任何貨油艙的地方安裝閘門或類似的關閉裝置。只要艙內裝有貨油，這些閘門在航行途中就應隨時保持關閉狀態，除非為必要的貨油作業而需將貨油過駁時，才可開啓。
- .2 通過採用一個應急快速貨油過駁系統或用於減輕事故中洩油量的其他系統時，只有當本組織批准了該系統的有效性和安全因素之後才可考慮確認其洩油量的減少。應按第 19.5 條所述的指南規定提交批准。

第 24 條

破損的假定

1 為了按第 25 條和第 26 條所述計算油船的假定洩油量，船側和船底的平行六面體破損範圍的三維尺度假定如下。對於底部破損，列出了兩種情況，分別適用於油船的所述部位。

.1 側向破損：

- .1.1 縱向範圍 (l_c): $\frac{1}{3}L^{\frac{2}{3}}$ 或 14.5 m，取小者
- .1.2 橫向範圍 (t_c) (在相應核定的夏季乾舷水平面，自舷側向船內中心線垂直量取): $\frac{B}{5}$ 或 11.5 m，取小者
- .1.3 垂向範圍 (v_c): 自基線向上無限制

.2 底部破損：

	自船首垂線起 0.3 L 內	船舶的任何其他 部分
.2.1 縱向範圍 (l_s):	$\frac{L}{10}$	$\frac{L}{10}$ 或 5 m，取小 者
.2.2 橫向範圍 (t_s):	$\frac{B}{6}$ 或 10 m，取小 者，但不小於 5 m	5 m
.2.3 自基線量起的垂向範圍 (v_s):	$\frac{B}{15}$ 或 6 m，取小 者	

見統一解釋 48

2 任何本條所用符號在本章中出現時，其含義與本條所定義者相同。

第 25 條

假定的洩油量

見統一解釋 49

1 在側向破損 (O_c) 和底部破損 (O_s) 時，如沿船長的一切可設想位置的破損導致劃破的艙室如本附則第 24 條所定義的範圍，其假定的洩油量，應按下述公式計算：

.1 對於側向破損：

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

2 對於底部破損：

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

式中：

W_i = 假定由於本附則第 24 條所規定的破損導致劃破的一個邊艙的容積， m^3 ；對於專用壓載艙， W_i 可取為零。

C_i = 假定由於本附則第 24 條所規定的破損導致劃破的一個中間艙的容積， m^3 ；對於專用壓載艙， C_i 可取為零。

$K_i = 1 - b_i/t_c$ ；當 $b_i \geq t_c$ ， K_i 應取為零。

$Z_i = 1 - h_i/v_s$ ；當 $h_i \geq v_s$ ， Z_i 應取為零。

b_i = 所考慮的邊艙寬度（m），在相應於核定的夏季乾舷水平面，自舷側向船內中心線垂直量取。

h_i = 所考慮的雙層底的最小深度（m）；如無雙層底，則 h_i 應取為零。

任何本段所用符號在本章中出現時，其含義與本條所定義者相同。

見統一解釋 50

2 如果長度小於本附則第 24 條所述 l_c 的一個留空處所或專用壓載艙位於兩個邊油艙之間，公式（I）中 O_c 的計算，可按容積 W_i 等於與之相鄰接的兩個邊艙之一的實際容積（如其容量相等）或其中較小者的實際容積（如其容量不等）乘以下述的 S_i ，對在該次碰撞中所涉及的所有其他邊艙，則取實際的全部容積的值。

$$S_i = 1 - \frac{l_i}{l_c}$$

式中 l_i = 所考慮的留空處所或專用壓載艙的長度 (m)。

3.1 對於雙層底艙，只有在空艙或裝載清潔水，且其上面的艙內裝有貨油時，才能計入其影響。

3.2 如雙層底未延伸至所涉及的艙櫃的全長或全寬，則該雙層底應視為不存在，底部破損區域之上的艙櫃容積，即使由於這種局部雙層底的設置而不視為該艙櫃是破損的，其容積仍應計入公式 (II) 中。

3.3 在核定 h_i 值時，吸阱可忽略不計，但該阱的面積應不大，在艙櫃下僅延伸一個最小的距離，並且不得超過雙層底高度的一半。如果這種阱的深度超過雙層底高度的一半，則 h_i 值應等於雙層底的高度減去阱的高度。

用於這類阱的管路如安裝在雙層底內，應在其與艙櫃的連接處裝有閘門或其他關閉裝置，以防止管路損壞時而洩油。該管路的安裝高度應儘可能遠離船底板。任何時候只要艙內裝有貨油，這些閘門在航行途中就應保持關閉狀態，但為船舶的縱傾平衡而需過駁貨油時可打開。

見統一解釋 51

4 如果底部破損同時涉及四個中間艙時，則 O_s 值可按下式計算：

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

5 如果所設置的貨油過駁系統在每個貨油艙內有一個應急的較高吸口，能夠從一個或幾個破艙中將油過駁到專用壓載艙或有多餘艙容

的貨油艙（如能保證這些油艙留有充分的空間），則主管機關可以認為該系統在底部破損時能減少洩油量。對於這樣一種系統作用的信任，取決於在 2 h 運轉中其所能過駁的油量相當於所涉及的破艙中最大的一個破艙容量的一半，並且在壓載艙或貨油艙中能有與此相等的接收容量。這種信任應限於允許按公式（III）計算 O_s 。這種吸口的管路應裝在至少不小於底部破損垂向範圍 v_s 的高度上。主管機關應將其所認可的這種裝置的資料提供給本組織，以便轉發本公約其他各締約國。

6 本條不適用於第 1.28.8 條定義的在 2010 年 1 月 1 日或以後交船的油船。

第 26 條

貨油艙的尺度限制和佈置

- 1 除下述 7 所規定者外，下列船舶應符合本條規定：
 - .1 每艘第 1.28.2 條定義的在 1979 年 12 月 31 日以後交船的 150 總噸及以上的油船，和
 - .2 每艘第 1.28.1 條定義的在 1979 年 12 月 31 日或以前交船的 150 總噸及以上的油船，屬下述兩類之一者：
 - .2.1 在 1977 年 1 月 1 日以後交船的油船；或
 - .2.2 適用下述兩個條件的油船：
 - .2.2.1 交船日期不遲於 1977 年 1 月 1 日；和

.2.2.2 在 1974 年 1 月 1 日以後簽訂建造合同，或如果事先未簽訂建造合同，在 1974 年 6 月 30 日以後安放龍骨或處於類似建造階段。

2 油船貨油艙的尺度和佈置，應能使在船長範圍內的任何位置上，按照本附則第 25 條規定計算的假定流出量 O_c 或 O_s 都不超過 $30,000 \text{ m}^3$ 或 $400 \sqrt[3]{\text{載重噸}}$ ，取較大值，但最大不得超過 $40,000 \text{ m}^3$ 。

3 油船的任何一個邊貨油艙的容積，都不得超過本條 2 中所述假定流出量限額的 75%。任何一個中間貨油艙的容積，不得超過 $50,000 \text{ m}^3$ 。但是，在本附則第 18 條所述的專艙壓載的油船中，位於兩個專用壓載艙（每個艙的長度都超過 l_c ）之間的一個邊貨油艙，如果寬度超過 t_c ，其所許可的容積可增至假定流出量的最大限額。

4 每一貨油艙的長度，不得超過 10 m 或下列各值之一，取較大者：

.1 未在貨油艙內設置縱向艙壁時：

$$\left(0.5 \frac{b_i}{B} - 0.1\right)L \quad \text{但不超過 } 0.2 L$$

.2 如在貨油艙內中心線上設置縱向艙壁時：

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

.3 如在貨油艙內設置兩個或兩個以上縱向艙壁時：

.3.1 對於邊貨油艙： $0.2 L$

.3.2 對於中間貨油艙：

.3.2.1 如 $\frac{b_i}{B}$ 等於或大於 $1/5 : 0.2 L$

.3.2.2 如 $\frac{b_i}{B}$ 小於 $1/5$ 則：

.3.2.2.1 未設置中心線縱向艙壁時：

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

.3.2.2.2 設置中心線縱向艙壁時：

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

b_i 是指在相應於勘定的夏季乾舷水平面上，自舷側向艙內垂直量取的從船側到相關貨艙外側縱向艙壁之間的最小距離。

5 為了不超過本條 2、3 和 4 所定的容積限額，並且不論已被認可的所設貨油過駁系統的型式如何，當該系統連通兩個或兩個以上的貨油艙時，應設置使各艙相互隔開的閥門或其他類似的關閉裝置。當油船在航行途中時，這些閥門或裝置應予關閉。

6 通過位於自舷側量起小於 t_c 或自船底量起小於 v_c 位置貨油艙的管路，應在其通向任何貨油艙的地方安裝閥門或類似的關閉裝置。只要艙內裝有貨油，這些閥門在航行途中就應隨時保持關閉狀態，除非為了船舶的縱傾平衡而需將貨油過駁時，才可開啓。

7 本條不適用於第 1.28.8 條定義的在 2010 年 1 月 1 日或以後交船的油船。

第 27 條

完整穩性

見統一解釋 52

1 每艘第 1.28.7 條定義的在 2002 年 2 月 1 日或以後交船的 5,000 載重噸及以上的油船，在可能出現的貨物和壓載水最惡劣裝載工況（符合良好操作慣例且包括液貨過駁作業的中間階段）下的任何營運吃水，應符合本條 1.1 和 1.2 所規定的完整穩性衡準。在所有情況下，壓載水艙應假定為存在自由液面。

- .1 在港內，按橫傾 0° 時自由液面修正的初穩性高度 GM_o 應不小於 0.15 m；
- .2 在海上，應適用下列衡準：
 - .2.1 復原力臂曲線（GZ 曲線）以下的面積，至橫傾角 $\theta=30^\circ$ 應不小於 0.055 m.rad，至橫傾角 $\theta=40^\circ$ 或其他進水角 θ_f ^①（如果 $\theta_f<40^\circ$ ）應不小於 0.09 m.rad。此外，復原力臂曲線（GZ 曲線）以下的面積在橫傾角 30° 與 40° 之間或 30° 與 θ_f （如果 $\theta_f<40^\circ$ ）之間，應不小於 0.03 m.rad；
 - .2.2 在橫傾角等於或大於 30° 處，復原力臂 GZ 應至少為 0.20 m；
 - .2.3 最大復原力臂最好在橫傾角大於 30° 但不小於 25° 處；

① θ_f 是船體上層建築或甲板室中不能作風雨密關閉的開口浸水時的橫傾角。應用此衡準時，不致於引起累進進水的小開口不必視為開敞的。

和

.2.4 按橫傾 0° 時自由液面修正的初穩性高度 GM_o ，應不小於 0.15 m。

2 本條 1 的要求應通過設計方面的措施予以滿足。對於兼用船，允許採用簡單輔助作業程序。

3 對液貨過駁作業，本條 2 所述的簡單輔助作業程序應指供船長使用的書面程序，這些程序應：

- .1 經主管機關批准；
- .2 指明在液貨過駁的任何特定工況下以及貨物密度可能的範圍內，哪些貨艙和壓載艙可能存在自由液面並仍可滿足穩性衡準要求。這些艙在液貨過駁作業過程中可能發生變化並有各種組合情況，但必須符合穩性衡準；
- .3 易為主管液貨過駁作業的高級船員理解；
- .4 規定貨物/壓載過駁作業的計劃步驟；
- .5 允許採用圖形或表格形式表示的穩性標準，對達到的穩性和要求的穩性作出對比；
- .6 不需要主管高級船員進行大量的數學計算；
- .7 規定在偏離建議值和發生緊急情況時，主管高級船員應採取的糾正措施；和
- .8 醒目地展現於經批准的縱傾和穩性手冊和貨物/壓載過駁控制站以及運行穩性計算的任何計算機軟件中。

第 28 條

分艙和破損穩性

1 每艘第 1.28.2 條定義的在 1979 年 12 月 31 日以後交船的 150 總噸及以上的油船，在本條 2 所述的假定側向或底部破損之後，對於反映與船舶縱傾、強度以及貨物比重相一致的實際部分裝載狀態或滿載狀態的任何營運吃水而言，應符合本條 3 中所規定的分艙和破損穩性衡準。這種損壞應使用於沿船長的一切可設想的位置，其規定如下：

- .1 對於船長超過 225 m 的油船，在船長範圍的任何位置上；
- .2 對於船長大於 150 m 但不超過 225 m 的油船，在船長範圍的任何位置上，但船尾部的機器處所の後艙壁和前艙壁位置除外。機器處所應按單艙浸水處理；
- .3 對於船長不超過 150 m 的油船，除機器處所外，在船長範圍內相鄰橫向艙壁間的任何位置上。對於船長為 100 m 或 100 m 以下的油船，如需要符合本條 3 的全部要求而不能不對其營運性能有重大損壞時，主管機關可以放寬這些要求。

油船在貨油艙內未載有油類（任何殘油除外）時的壓載狀態，應不予考慮。

見統一解釋 53

2 關於假定損壞的範圍和性質規定如下：

.1 側向破損：

.1.1 縱向範圍： $\frac{1}{3} \left(L^{\frac{2}{3}} \right)$ 或 14.5 m，取小者

.1.2 橫向範圍（在夏季載重
線水平面，自舷側向船內
中心線垂直量取）： $\frac{B}{5}$ 或 11.5 m，取小者

.1.3 垂向範圍：自中心線處的船底板型線量起，向上
無限制

.2 底部破損：

自船首垂線起 船舶的任何其他
0.3 L 內 部分

.2.1 縱向範圍： $\frac{1}{3} \left(L^{\frac{2}{3}} \right)$ 或 14.5 m，取小者 $\frac{1}{3} \left(L^{\frac{2}{3}} \right)$ 或 5 m，取小者

.2.2 橫向範圍： $\frac{B}{6}$ 或 10 m，取小者 $\frac{B}{6}$ 或 5 m，取小者

.2.3 垂向範圍： $\frac{B}{15}$ 或 6 m，取小者，自中心線處的船底板型線量起 $\frac{B}{15}$ 或 6 m，取小者，自中心線處的船底板型線量起

.3 如果任何較 2.1 和 2.2 規定的最大範圍為小的損壞會造成更為嚴重的情況，則應對這種損壞予以考慮。

- .4 如考慮出現本條 1.1 和 1.2 中所述的涉及橫向艙壁的損壞，橫向水密艙壁的間距至少應等於 2.1 中所述假定損壞的縱向範圍，才能被認為是有效的。如橫向艙壁的間距較小，在該損壞範圍內的一個或幾個這種艙壁，就確定浸水艙室而言，應假定不存在。
- .5 如考慮出現本條 1.3 中所述的相鄰兩橫向水密艙壁間的損壞，主橫向艙壁或形成邊艙或雙層底艙界線的橫向艙壁，均不應假定為受損壞，除非：
 - .5.1 相鄰艙壁的間距小於 2.1 所規定的假定損壞的縱向範圍；或者
 - .5.2 在橫向艙壁上有一個長度大於 3.05 m 的台階或凹入部分，位於假定損壞的穿透部分。由尾尖艙艙壁和尾尖艙頂部所形成的台階，就本條而言，不應視為台階。
- .6 如果管路、導管或隧道位於假定的損壞範圍內，則應作出安排，以使繼續的浸水不致經由上述管道而延至每一損壞情況下假定可浸艙室以外的艙室。

見統一解釋 54

3 油船如能滿足下列要求，即應認為符合破損穩性衡準：

- .1 考慮到下沉、橫傾和縱傾的最後水線，應在可能發生繼續浸水的任何開口的下緣以下。這種開口應包括空氣管和以風雨密門或風雨密艙蓋關閉的開口，但以水密人孔蓋與平艙口蓋、保持甲板高度完整性的小水密貨油艙口蓋、遙控水密滑動門以及永閉式舷窗等關閉的開口，可以除外。

- .2 在浸水的最後階段，不對稱浸水所產生的橫傾角不得超過 25° ，但如甲板邊緣無浸沒現象，則這一角度最大可增至 30° 。
- .3 對浸水最後階段的穩性應進行研究，如復原力臂曲線在平衡點以外的範圍至少為 20° ，相應的最大剩餘復原力臂，在 20° 範圍內至少為 0.1 m，且在此範圍內曲線下的面積應不小於 0.0175 m 弧度，則該穩性可以認為是足夠的。在此範圍內無保護的開口不應被浸水，除非該開口所在處所是假定浸水的。在此範圍內，3.1 中列舉的任何開口和其他開口能夠關閉保持風雨密者，可以被浸水。
- .4 主管機關應確信在浸水的中間階段穩性是足夠的。
- .5 借助於機械的平衡裝置，例如設有閥或橫貫水平管，不應作為減少橫傾角或獲得剩餘穩性最小範圍的措施以滿足 3.1、3.2 和 3.3 的要求，並且在使用平衡裝置的所有階段中，都應保持有足夠的剩餘穩性。用大橫剖面導管連接的處所可認為是相通的。

4 本條 1 的要求應由計算加以證實，這些計算應考慮到船舶的設計特點，受損艙室的佈置、形狀和容量，以及液體的分佈、比重和自由液面的影響。這些計算應以下列規定為依據：

- .1 應考慮到任何空的或部分裝載的艙櫃、所載貨物的相對密度、以及受損艙室中液體的任何流出量。
- .2 由於破損而浸水的處所的滲透率如下表：

處所	滲透率
供裝載物料的處所	0.60
起居艙室	0.95
機器處所	0.85
空的處所	0.95
供裝載消耗液體的處所	0 至 0.95 ^①
供裝載其他液體的處所	0 至 0.95 ^①

- .3 直接位於側向破損範圍之上的任何上層建築的浮力，不予考慮。但是，在損壞範圍以外的上層建築未浸水部分，只要是以水密艙壁與損壞處所相分隔，並且符合本條 3.1 關於這些未損壞處所的要求，則可予以考慮。在上層建築內的水密艙壁上裝設鉸鏈水密門，是可以接受的。
- .4 對於每一獨立艙室，自由液面的影響應按 5°橫傾角計算。對於部分裝載的艙櫃，主管機關可要求或允許按大於 5°橫傾角計算自由液面的修正。
- .5 在計算消耗液體的自由液面影響時，應假定對於每一類液體，至少橫向有一對艙櫃或者中心線上有一個艙櫃具有自由液面，同時，對之加以考慮的這個艙櫃或這組艙櫃，應是自由液面影響最大者。

5 應按認可的格式，向本附則適用的每艘油船的船長和非自航油船的負責人提供：

① 部分裝載的艙的滲透率應與該艙所載液體的量相一致。裝載液體的艙一旦破損，應假定所載液體從該艙完全流失，並由海水替代至最後平衡時的水線面。

- .1 為確保符合本條各項規定所必需的關於貨物裝載和分配的資料；和
- .2 關於船舶遵照本條所規定破艙穩性的能力資料，包括根據本條 1.3 可能已作放寬的影響。

6 如第 1.28.6 條定義的在 1996 年 7 月 6 日或以後交船的 20,000 載重噸及以上的油船，應在本條 2.2 規定的損壞假定中補充如下假定的底部破損：

- .1 縱向範圍：
 - .1.1 75,000 載重噸及以上的船舶： 自首垂線量起 $0.6 L$ ；
 - .1.2 小於 75,000 載重噸的船舶： 自首垂線量起 $0.4 L$ ；
- .2 橫向範圍：船底任何位置的 $\frac{B}{3}$ ；
- .3 垂直範圍：外部船體的損壞。

第 29 條

污油水艙

1 除本附則第 3 條 4 的規定外，150 總噸及以上的油船，應設有本條 2.1 至 2.3 所要求的污油水艙裝置。對於第 1.28.1 條定義的在 1979 年 12 月 31 日或以前交船的油船，可以指定任一個貨油艙作為污油水艙。

2.1 應有清洗貨油艙和從貨油艙將污壓載水的殘餘物與洗艙水過駁至經主管機關批准的污油水艙的適當設備。

2.2 在該系統中，應設有將油性廢棄物以這樣一種方式過駁至污油水艙或一組污油水艙的裝置，即能使排放入海的任何排出物符合本附則第 34 條的規定。

2.3 污油水艙或一組污油水艙的佈置，應有留存洗艙後所產生的污油水、殘油和污壓載水殘餘物所必需的容量，此總容量不得小於船舶載油容量的 3%。但主管機關可接受下述情況：

- .1 油船設有這樣的洗艙裝置：當污油水艙或一組污油水艙裝入洗艙水後，如果這些水量足以用於洗艙，並供給噴射器（如適用時）作為驅動液，同時該系統無需再添加水，則其污油水艙或一組污油水艙的總容量可減至不小於該船載油容量的 2%；
- .2 按照本附則第 18 條設置專用壓載艙或清潔壓載艙，或按本附則第 33 條設置使用的貨油艙清洗系統，可以接受 2%。對於這種船舶，當污油水艙或一組污油水艙裝入洗艙水後，如果這些水量足以用於洗艙，並供給噴射器（如適用時）作為驅動液，同時該系統無需再添加水，這樣的洗艙佈置，其污油水艙或一組污油水艙的總容量可進一步減至該船載油容量的 1.5%；和
- .3 對於兼用船，如僅在具有平坦艙壁的艙內裝載貨油，污油水艙或一組污油水艙總容量可減至 1%。這個容量可進一步減至 0.8%，其條件是洗艙裝置應為當污油水艙或一

組污油水艙裝入洗艙水後，如果這些水量足以用於洗艙，並供給噴射器（如適用時）作為驅動液，同時該系統無需再添加水。

見統一解釋 55

2.4 污油水艙的設計，特別是其入口、出口、擋板或堰（如設有時）的位置，應能避免油類的過分湍流和被帶走或與水形成乳化。

3 第 1.28.2 條定義的在 1979 年 12 月 31 日以後交船的 70,000 載重噸及以上的油船至少應設置兩個污油水艙。

第 30 條

泵吸、管路和排放佈置

1 每艘油船在其開敞甲板上兩舷應設置連接接收設備的排放匯集管，以排放污壓載水或污油水。

2 每艘 150 總噸及以上的油船，根據本附則第 34 條允許排放貨物區域的壓載水或油污水入海的管路，應通至開敞甲板或通至最深壓載狀態時水線以上的舷側。按本條 6.1 至 6.5 所許可的方式進行作業的不同管路佈置可予接受。

見統一解釋 56

3 第 1.28.2 條定義的在 1979 年 12 月 31 日以後交船的 150 總噸及以上的油船，除按本條 6 允許在水線以下排放者外，應在上甲板或上甲板以上的處所設有停止從貨物區域排放壓載水或油污水入海的裝

置，該處所的位置，應能看見本條 1 所述正在用的匯集管和本條 2 所述管路的排放入海。如果在觀察處所和排放控制處所之間有可靠的通信系統，如電話或無線電裝置，則在觀察處所不必設有停止排放的裝置。

4 需設置專用壓載艙或裝設原油洗艙系統的每艘第 1.28.4 條定義的在 1982 年 6 月 1 日以後交船的油船，應符合下述要求：

- .1 所裝設油管的設計與安裝，應使管路中留存的油量減至最低限度；和
- .2 應設有能在卸貨完成時將所有貨油泵和所有貨油管路洩空的裝置，必要時可連接到掃艙裝置。貨油管和貨油泵的排出物應能被排放岸上並被排至一貨艙或一污水水艙。應有為此而專設的一條小直徑管路用於排放岸上，並連接於貨油匯集管閥門的向舷外的一側。

見統一解釋 57

5 需設置專用壓載艙或裝設原油洗艙系統的每艘第 1.28.3 條定義的在 1982 年 6 月 1 日或以前交船的油船，應符合本條 4.2 的規定。

6 每艘油船從貨物區域排放壓載水或油污水應在水線以上進行，但下述情況除外：

- .1 專用壓載和清潔壓載可在水線以下排放，但須在緊接排放前用目視或其他方式對壓載水表面進行檢查，以確保未發生油污染：
 - .1.1 在港口或在近海裝卸站，或

- .1.2 在海上以重力排放，或
- .1.3 如壓載水按《國際船舶壓載水和沉積物控制和管理公約》第 D-1.1 條的規定進行置換，則在海上以泵排放。
- .2 第 1.28.1 條定義的在 1979 年 12 月 31 日或以前交船的油船，如未經改裝，不能在水線以上排放專用壓載，在海上可在水線以下排放專用壓載，但須在緊接排放前對壓載水表面進行檢查，以確認未發生油污染。
- .3 第 1.28.3 條定義的在 1982 年 6 月 1 日或以前交船的油船，如具有清潔壓載艙而未經改裝，不能在水線以上排放清潔壓載艙的壓載水，可在水線以下排放該壓載，但須按本附則第 18.8.3 條的規定，對該壓載水的排放進行監督。
- .4 每艘油船在海上時，來自貨物區域內非污油水艙的各貨艙的污壓載水或油污水可以重力在水線以下排放，但需有足夠的時間使油/水產生分離，並應在緊接排放之前，用本附則第 32 條規定的油/水界面探測器對壓載水進行檢查，以確保分界面的高度不致使這種排放增加對海上環境的危害風險。
- .5 第 1.28.1 條定義的在 1979 年 12 月 31 日或以前交船的油船在海上時，來自貨物區域的污壓載水或油污水，在按上述 6.4 所述方法或其替代方法排放之後，可在水線以下進行排放，但須：
 - .5.1 把一部分水通過固定管路流向上甲板或上甲板以上的容易接近的位置，該位置在排放操作期間，可用目視觀察；和

- .5.2 這種分流裝置符合主管機關規定的要求，其至少包括本組織通過的《控制舷外排放分流系統的設計、安裝和操作技術條件》^①中所有的規定。

見統一解釋 58

7 每艘第 1.28.8 條定義的在 2010 年 1 月 1 日或以後交船的 150 總噸及以上的油船，如果安裝了一個與貨油管路系統永久相連的海水吸入箱，則應設有一個海水吸入箱閥和一個舷內隔離閥。除了這兩個閥以外，當油船裝貨、運貨或卸貨時，海水吸入箱應能用一種令主管機關滿意的牢靠設備與貨油管路系統相隔離。該牢靠設備是安裝在管路系統中的一種裝置，用以在一切情況下防止海水吸入箱與舷內閥之間的管段注入貨油。

見統一解釋 59

B 部分

設備

第 31 條

排油監控系統

1 除本附則第 3 條 4 和 5 的規定之外，150 總噸及以上的油船應裝有一個經主管機關批准的排油監控系統。

① 見統一解釋附錄 4。

2 在考慮用於該系統的油分計的設計時，主管機關應考慮到本組織所推薦的技術條件^①。該系統應設有一個記錄器，用以提供每海里排放升數和總排放量或含油量和排放率的連續記錄。這種記錄應能鑑別時間和日期，並至少應保存三年。每當有排出物排放入海時，排油監控系統即應開始工作，並應確保在油量瞬間排放率超過本附則第 34 條的規定時，即自動停止排放任何油性混合物。排油監控系統遇到任何故障即應停止排放。排油監控系統如遇任何故障，可使用一種手工操作的替代方法，但該有缺陷的裝置應儘快予以修復。經港口國當局允許，排油監控系統有缺陷的油船在駛往修理港以前，可進行一次壓載航行。

3 排油監控系統的設計和安裝應符合本組織制定的油船排油監控系統指南和技術條件^②。主管機關可接受在該指南和技術條件內詳述的具體佈置。

4 這種系統的操作說明書應符合主管機關批准的操作手冊，該說明書應包括人工和自動操作，並旨在確保除非符合本附則第 34 條規定的條件，否則任何時候都不得排放油類。

① 對安裝在 1986 年 10 月 2 日前建造的油船上的油分計，參見本組織 A.393 (X) 決議通過的《關於油水分離設備和油分計國際性能和試驗技術條件的建議案》。對安裝在 1986 年 10 月 2 日或以後建造的油船上的作為排油監控系統部件的油分計，參見本組織 A.586 (14) 決議通過的《油船排油監控系統指南和技術條件》。對安裝在 2005 年 1 月 1 日或以後建造的油船上的作為排油監控系統部件的油分計，參見本組織 MEPC.108 (49) 決議通過的《修訂的油船排油監控系統指南和技術條件》。

② 按適用情況，參見本組織 A.496 (XII) 決議通過的《油船排油監控系統指南和技術條件》或本組織 A.586 (14) 決議通過的《經修訂的油船排油監控系統指南和技術條件》，或本組織 MEPC.108 (49) 決議通過的《修訂的油船排油監控系統指南和技術條件》。

第 32 條

油/水界面探測器^①

除本附則第 3 條 4 和 5 的規定之外，150 總噸及以上的油船應備有經主管機關認可的有效的油水界面探測器，以能迅速而準確地測定中的油/水分界面，其他艙櫃如需進行油水分離並擬從其中將排出物直接排放入海者，也應有這種探測器。

第 33 條

對原油洗艙的要求

見統一解釋 31

1 每艘第 1.28.4 條定義的在 1982 年 6 月 1 日以後交船的 20,000 載重噸及以上的原油油船應設置使用原油洗艙的貨油艙清洗系統。主管機關應確保該系統在該船第一次載運原油航行以後的一年內或載運適合於原油洗艙的原油的第 3 個航程結束時（兩者發生較晚者）完全符合本條的要求。

2 原油洗艙裝置及其附屬設備與佈置，應符合主管機關所制訂的要求。這些要求，至少應包括經本組織通過的《原油洗艙系統設計、操作和控制技術條件》^②的全部規定。如果對船舶沒有如本條 1 規定的要求，但其設置了原油洗艙裝置，則應符合上述技術條件的安全方面的要求。

① 參見本組織 MEPC.5 (XIII) 決議通過的《油/水界面探測器技術條件》。

② 參見本組織 A.446 (XI) 決議通過並經本組織 A.497 (XII) 決議修正，再經 A.897 (21) 決議修正的《原油洗艙系統設計、操作和控制技術條件》。

3 每一按本附則第 18.7 條規定所設的原油洗艙系統均應符合本條的要求。

C 部分

操作性排油的控制

第 34 條

排油的控制

A 特殊區域外的排放

1 除本附則第 4 條和本條 2 的規定外，應禁止將油船貨物區域的油類或油性混合物排放入海，但全部滿足下列條件者除外：

- .1 油船不在特殊區域之內；
- .2 油船距最近陸地 50 n mile 以上；
- .3 油船在航行途中；
- .4 油量瞬間排放率不超過 30 l/n mile；
- .5 排放入海的總油量，對於第 1.28.1 條定義的在 1979 年 12 月 31 日或以前交船的油船而言，不得超過這項殘油所屬的該種貨油總量的 1/15,000，對於第 1.28.2 條定義的在 1979 年 12 月 31 日以後交船的油船而言，不得超過這項殘油所屬的該種貨油總量的 1/30,000；和

見統一解釋 60

.6 油船所設的本附則第 29 條和 31 條要求的排油監控系統以及污油水艙正在運轉。

2 本條 1 的規定不適用於清潔或專用壓載的排放。

B 特殊區域內的排放

3 除本條 4 的規定外，油船在特殊區域內時，應禁止將其貨物區域的油類或油性混合物排放入海^①。

4 本條 3 的規定不適用於清潔或專用壓載的排放。

5 本條中的任何規定，並不禁止僅有部分航程在特殊區域內的船舶在特殊區域外按本條 1 的規定進行排放。

C 對小於 150 總噸的油船的要求

6 本附則第 29、31 和 32 條的要求不適用於小於 150 總噸的油船，這種船按本條所述的排油控制，是將油留存船上以及隨後將所有的經污染的洗滌液排入接收設備。用於沖洗和流回到儲存櫃中去的全部油和水應排入接收設備，除非設有足夠的裝置對允許排放入海的流出物進行有效的監測以確保符合本條的規定。

D 一般要求

7 任何時候在緊鄰船舶或其跡流的水面上或水面下發現可見的油跡時，本公約締約國政府有權在其合理可行的範圍內對有無違反本條規定的有關事實立即進行調查。這種調查特別應包括風況和海況、該船的航跡和航速、附近的這種明顯油跡的其他可能來源，以及任何有關的排油記錄。

① 參見第 38.6 條。

8 任何含有在數量或濃度上會危害海洋環境的化學品或其他物質，或是借以違避本條所列排放條件的化學品或其他物質，均不得排放入海。

9 按本條 1 和 3 的規定不能排放入海的殘油，應留存船上或排入接收設備。

第 35 條

原油洗艙操作

見統一解釋 31

1 每艘採用原油洗艙系統的油船，均應備有一份詳細說明該系統和設備並列有操作程序的《操作與設備手冊》^①，該手冊應使主管機關滿意，並應包括本附則第 33.2 條所述技術條件中所列的全部資料。如果進行影響該原油洗艙系統的變更，則《操作與設備手冊》應作相應的修訂。

2 關於貨油艙的壓載，應在每一壓載航次開始之前，以原油清洗足夠的貨油艙，以根據該油船營運的方式和預期的氣候情況將壓載水僅裝在經原油清洗的貨油艙內。

3 除非油船載運不適合於原油洗艙的原油，油船應按《操作與設備手冊》操作原油洗艙系統。

^① 參見本組織海上環境保護委員會 MEPC.3 (XII) 決議通過並經 MEPC.81 (43) 決議修正的《原油洗艙操作和設備手冊的標準格式》。

第 36 條

《油類記錄簿》第 II 部分 – 貨油/壓載的作業

1 每艘 150 總噸及以上的油船，應備有《油類記錄簿》第 II 部分（貨油/壓載的作業）。該《油類記錄簿》不論是作為船上的正式航海日誌的一部分或作為其他文件，均應按本附則附錄 III 中所規定的格式。

2 每當船舶進行下列任何一項貨油/壓載的作業時，均應逐艙填寫《油類記錄簿》第 II 部分：

- .1 貨油的裝載；
- .2 航行中貨油的過駁；
- .3 貨油的卸載；
- .4 貨油艙和清潔壓載艙的壓載；
- .5 貨油艙的清洗（包括原油洗艙）；
- .6 壓載的排放，但從專用壓載艙排放者除外；
- .7 排放污油水艙的水；
- .8 污油水艙排放作業後，所使用的閥門或類似裝置的關閉；
- .9 污油水艙排放作業後，為清潔壓載艙與貨油和掃艙管路隔離所需閥門的關閉；
- .10 殘油的處理。

3 對本附則第 34.6 條所述的油船而言，《油類記錄簿》第 II 部分中應有用於洗艙和流回到儲存櫃中的油和水的總量的記錄。

4 如發生本附則第 4 條所述的排放油類或油性混合物的情況時，或者發生該條所未予除外的意外排放或其他特殊排油情況時，應在《油類記錄簿》第 II 部分中說明這種排放的情況和理由。

5 應及時將本條 2 中所述的每項作業詳細地記入《油類記錄簿》第 II 部分，以使與該項作業相應的所有項目均有記錄，每項完成的作業，應由高級船員或有關作業的負責人簽字，且每填完一頁應由船長簽字。《油類記錄簿》第 II 部分中的記錄應至少使用英文、法文或西班牙文的其中一種語言。如同時使用船旗國的官方語言，則在有爭議或分歧時，應以該國官方語言為準。

6 排油監控系統的任何故障均應記入《油類記錄簿》第 II 部分。

7 《油類記錄簿》第 II 部分的存放位置應易於在任何合理時間隨時可供檢查，並且除未配備船員的被拖船舶外，均應存放船上。《油類記錄簿》第 II 部分應在進行最後一項記錄後保存三年。

8 本公約締約國政府的主管當局可對停靠本國港口或近海裝卸站的適用本附則的任何船舶檢查《油類記錄簿》第 II 部分，並可將該記錄簿中任何記錄製成副本，也可要求船長證明該副本是該項記錄的真實副本。任何經船長證明為船上《油類記錄簿》第 II 部分中某項記錄的真實副本者，在任何法律訴訟中應可作為該項記錄中所述事實的證據。主管當局根據本項規定對《油類記錄簿》第 II 部分的檢查和製作正確無誤的副本應儘速進行，而不對船舶造成不當延誤。

9 對於 150 總噸以下的油船，按本附則第 34.6 條進行操作，應由主管機關制訂適合的《油類記錄簿》。

第 5 章

防止油污事故造成的污染

第 37 條

船上油污應急計劃

1 每艘 150 總噸及以上的油船和每艘 400 總噸及以上的非油船，應備有主管機關認可的《船上油污應急計劃》。

見統一解釋 61

2 該應急計劃應以由本組織制定的指南^①為基礎，並應以船長和高級船員的工作語言書寫。該計劃至少應包括：

- .1 根據本組織制定的指南，本公約第 8 條和議定書 I 要求的由船長或其他負責人員報告油污事故所遵循的程序^②；
- .2 在發生油污事故時應與之聯繫的當局或人員名單；
- .3 在事故發生後由船上人員為減少或控制排油所立即採取的措施的詳細說明書；和
- .4 在處理污染時與政府和地方當局協調船上行動的程序和聯絡點。

① 參見本組織 MEPC.54 (32) 決議通過並經 MEPC.86 (44) 決議修正的《船上油污應急計劃編製指南》。

② 參見本組織 A.851 (20) 決議通過並經 MEPC.138 (53) 決議修正的《船舶報告制度和船舶報告要求的一般原則，包括危險品、有害物質和/或海洋污染事故報告的指南》。

3 對於本公約附則 II 第 17 條也適用的船舶，該計劃可與本公約附則 II 第 17 條所要求的船上有毒液體物質海洋污染應急計劃合併。在這種情況下，此計劃的標題應為《船上海洋污染應急計劃》。

4 所有載重量為 5,000 噸或以上的油船均應備有快速接入破損穩性和剩餘結構強度岸基電腦計算程序的裝置。

第 6 章

接收設備

第 38 條

接收設備

見統一解釋 62

A 特殊區域外的接收設備

1 本公約各締約國政府應承擔義務，確保在其裝油站、修理港以及船舶需要排放殘油的其他港口提供足夠的接收油船和其他船舶留存的殘油和油性混合物的設備^①，以滿足船舶使用的需要，而不對船舶造成不當延誤。

2 在下列港、站應設置本條 1 規定的接收設備：

- .1 所有供油船裝載原油的港口和裝油站，而這種油船在到達前剛完成了一次不超過 72 h 或不超過 1,200 n mile 的壓載航行；
- .2 所有裝載原油以外的散裝油類的港口和裝油站，其每日平均裝油量為 1,000 噸以上者；
- .3 所有有修船廠和洗艙設施的港口；
- .4 所有接待設有本附則第 12 條所要求的殘油（油泥）艙的船舶的港口和裝卸站；

① 見 MEPC.83 (44) 決議《確保足夠的港口廢棄物接收設備指南》。

- .5 所有按照本附則第 15 條和第 34 條規定不能排放含油艙底水和其他殘油的港口；和
- .6 所有按照本附則第 34 條規定不能從油類/散貨兩用船排放殘油的散裝貨的裝貨港口。

3 接收設備的容量如下：

- .1 原油裝油站應有充分的接收設備，以接收所有進行本條 2.1 中所述航行的油船按照本附則第 34.1 條規定不能排放的油類和油性混合物；
- .2 本條 2.2 中所述的裝油港和裝油站，應有充分的接收設備，以接收裝載原油以外的散裝油類的油船按照本附則第 34.1 條規定不能排放的油類和油性混合物；
- .3 所有有修船廠和洗艙設施的港口，應有充分的接收設備，在船舶進入這些修船廠或洗艙設施前，接收船上留待處理的所有殘油和油性混合物；
- .4 在本條 2.4 所述港口和裝卸站設置的所有設備，應足以接收可能停靠這些港口和裝卸站的所有船舶按照本附則第 12 條規定所留存的全部殘油；
- .5 在本條所述港口和裝卸站設置的所有設備，應足以接收按照本附則第 15 條規定不能排放的含油艙底水和其他殘油；和
- .6 在散裝貨的裝貨港所設置的設備，應適當地考慮到兼用船的特殊問題。

B 特殊區域內的接收設備

4 其海岸線與任何特殊區域相鄰接的本公約各締約國政府應確保在該特殊區域內的所有裝油站和修理港，都備有足夠的接收和處理來自油船的所有污壓載水和洗艙水的設備。此外，該特殊區域以內的所有港口還應備有足夠的^①接收來自一切船舶的其他殘餘物和油性混合物的設備。這類設備應有足夠的容量，以滿足船舶使用的需要，而不對船舶造成不當延誤。

5 本公約各締約國政府對在其管轄範圍內的淺海航路入口可能要求排放壓載水以減少船舶吃水者，應確保配置本條 4 中所述的設備，但可以附有條件，即需排放污油水或污壓載水的船舶可能導致延誤。

6 紅海海域、海灣海域^②、亞丁灣海域和阿拉伯海的阿曼海域：

- .1 各有關締約國應將按照本條 4 和 5 的規定所採取的措施通知本組織。在收到足夠的通知後，本組織應規定一個本附則第 15 和 34 條的排放要求對所涉及區域開始生效的日期。本組織應至少在上述規定日期之前 12 個月將該日期通知所有締約國。
- .2 在本公約生效之日和上述規定日期之間的這一期間內，船舶在特殊區域內航行時，應遵守本附則第 15 條和 34 條有關特殊區域外排放的要求。
- .3 在該日期之後，在這些特殊區域內尚無這種設備的港口裝貨的油船，也應完全遵守本附則第 15 條和 34 條有關特殊

① 見 MEPC.83 (44) 決議《確保足夠的港口廢棄物接收設備指南》。

② MEPC 經 MEPC.168 (56) 決議決定，本附則第 15 和 34 條對海灣海域特殊區域的排放要求應於 2008 年 8 月 1 日生效。

區域內排放的要求。但是，為裝貨而進入這些特殊區域的油船，應儘量在進入該區域時，船上僅載有清潔壓載。

- .4 在對所涉及特殊區域的要求生效之日後，各締約國應將宣稱設備不足的一切事例通知本組織，以便轉發有關締約國。
- .5 在本公約生效之日起一年後，應至少設有本條 1、2 和 3 所規定的接收設備。

7 儘管有本條 4、5 和 6 的規定，下列規定適用於南極區域：

- .1 本公約各締約國政府對前往或來自南極區域的船舶在其港口時，承擔義務確保儘可能迅速地提供足夠設備以從所有船上接收殘油（油泥）、污壓載水、洗艙水和其他油性殘餘物和混合物，滿足使用該設備的船舶的需要，而不對船舶造成不當延誤。
- .2 本公約各締約國政府應確保所有懸掛其國旗的船舶在進入南極區域前，船上配置具有足夠容量的一個或幾個液艙用以儲存船舶在該區域航行時的所有殘油（油泥）、污壓載水、洗艙水和其他油性殘餘物和混合物，並已做好在離開該區域之後將這些油性殘餘物排放至接收設備的安排。

C 一般要求

8 各締約國應將按本條規定設置的設備被宣稱不足的一切情況通知本組織，以便轉發各有關締約國。

第 7 章

對固定或浮動平台的特殊要求

第 39 條

對固定或浮動平台的特殊要求

見統一解釋 63

1 本條適用於固定或浮動平台，包括鑽井裝置，用於近海採油和儲油的浮式生產儲存和卸貨設施（FPSO），以及用於近海採油儲存的浮式儲存裝置（FSU）。

2 從事於海底礦物資源的勘探、開發和相關聯的近海加工的固定或浮動平台和其他平台，應符合本附則中適用於 400 總噸及以上非油船的要求，但下列情況除外：

- .1 在切實可行的範圍內，應設置本附則第 12 條和 14 條中所要求的裝置；
- .2 應按主管機關批准的格式，對所有涉及排放油類或油性混合物的作業均作出記錄；和
- .3 除本附則第 4 條的規定外，應禁止將油類或油性混合物排放入海，但未經稀釋的排放物的含油量不超過 15 ppm 者除外。

3 主管機關在驗證 FPSO 類或 FSU 類平台是否符合本公約的規定時，除上述 2 的要求外，還應考慮到本組織制定的指南^①。

① 參見本組織 MEPC.139（53）決議通過並經 MEPC.142（54）決議修正的《經修訂的 MARPOL 附則 I 要求對 FPSO 和 FSU 的應用指南》。

第 8 章

防止海上油船間過駁貨油造成污染

第 40 條

適用範圍

1 本章各條適用於從事海上油船間過駁貨油（STS 作業）的 150 總噸及以上的油船及其在 2012 年 4 月 1 日或以後進行的 STS 作業。然而，在該日期之前但在主管機關按第 41.1 條要求認可 STS 作業計劃之後進行的 STS 作業應儘可能符合 STS 作業計劃。

2 本章各條不適用於與固定或浮動平台相關的油類過駁作業，包括鑽井裝置，用於近海採油和儲油的浮式生產儲存和卸貨設施（FPSO），以及用於近海採油儲存的浮式儲存裝置（FSU）。

3 本章各條不適用於加油作業。

4 本章各條不適用於為保障船舶安全或救護海上人命、或為對抗特定污染事故以最大限度減少污染造成的損害所必需的 STS 作業。

5 本章各條不適用於涉及船舶為軍艦、海軍輔助船舶或其他國有或國營並暫時只用於政府非商業性服務的船舶的 STS 作業。但各國應採取不損害這類船舶的操作或操作性能的適當措施，以確保其在合理和可行的範圍內按本章的規定進行 STS 作業。

第 41 條

安全和環境保護的一般規定

1 從事 STS 作業的任何油船應不遲於 2011 年 1 月 1 日或以後進行的船舶第一次年度、中間或換證檢驗之日在船上攜有一份規定如何進行 STS 作業的計劃（STS 作業計劃）。每艘油船的 STS 作業計劃應經主管機關認可。STS 作業計劃應使用船上的工作語言編寫。

2 STS 作業計劃應根據本組織確定的 STS 作業最佳操作指南包含的信息制訂^①。如果經修正的 1974 年國際海上人命安全公約第 IX 章要求的現有安全管理體系適用於所述油船，可將 STS 作業計劃納入該現有安全管理體系。

3 受本章約束從事 STS 作業的任何油船應符合其 STS 作業計劃。

4 STS 作業的總負責人應具備履行所有相關職責的資格，並考慮到本組織確定的 STS 作業最佳操作指南包含的資格。

5 STS 作業記錄^②應在船上留存三年，並隨時可供本公約締約國檢查。

① 經修正的 IMO “油污手冊，第 1 節，防止”，和 ICS 和 OCIMF “船對船過駁指南，石油”，2005 年第四版。

② 經修訂的防污公約附則 I 第 3 和 4 章（MEPC.117（52）決議）；油類記錄簿中記錄加油和貨油過駁作業的要求，以及 STS 操作計劃要求的任何記錄。

第 42 條

通知

1 受本章約束的每艘油船，其在本公約某一締約國的領海或專屬經濟區內計劃 STS 作業時，應不遲於計劃的 STS 作業之前 48 h 通知該締約國。如在例外情況下，提前 48 h 無法提供本條 2 所規定的所有信息時，排放貨油的油船應提前 48 h 通知本公約該締約國將發生的 STS 作業，並儘早向該締約國提供本條 2 規定的信息。

2 本條 1 規定的通知應至少包括下列信息^①：

- .1 STS 作業涉及的油船船名、船旗、呼號、IMO 編號和預計到達時間；
- .2 計劃的 STS 作業開始的日期、時間和地理位置；
- .3 是否在錨泊時或航行途中進行 STS 作業；
- .4 油的類型和數量；
- .5 STS 作業的計劃持續時間；
- .6 確定 STS 作業服務提供方或總負責人和聯繫信息；和
- .7 確認油船在船上備有滿足第 41 條要求的 STS 作業計劃。

3 如果油船至 STS 作業位置或區域的預計到達時間變化超過六小時，該油船的船長、船東或代理商應向本條 1 規定的該本公約締約國提供經修改的預計到達時間。

^① 在 2010 年 12 月 31 日 MSC-MEPC.6/Circ.9 文件或其後的修正案中所列的國家操作聯繫點。

第 9 章

在南極區域使用或載運油類的特殊要求

第 43 條

在南極區域使用或載運油類的特殊要求

1 除從事保障船舶安全或搜救作業的船舶外，禁止在附則 I 第 1.11.7 條定義的南極區域將下列物質作為貨物散裝運輸或作為燃料載運和使用：

- .1 在 15°C 時密度高於 900 kg/m³ 的原油；
- .2 在 15°C 時密度高於 900 kg/m³ 或在 50°C 時運動黏度高於 180 mm²/s 的原油以外的油類；或
- .3 瀝青、焦油及其乳化物。

2 如先前操作已包括對上述 1.1 至 1.3 所列油類的載運或使用，則不要求對液艙或管路進行清洗或沖洗。

附則 I 的附錄

附錄 I

油類清單^①**Asphalt solutions**

Blending stocks

Roofers flux

Straight run residue

瀝青溶液

調和油料

屋頂用柏油

直溜渣油

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

油類

澄清油

原油

含原油的混合物

柴油

4 號燃料油

5 號燃料油

6 號燃料油

殘餘燃料油

鋪路瀝青

變壓汽油

芳烴油類（不包括植物油）

潤滑油和調和油料

礦物油

馬達油

滲透潤滑油

錠子油

透平油

Distillates

Straight run

Flashed feed stocks

餾分油

直溜油

閃蒸原料油

Gas oil

Cracked

瓦斯油

裂化瓦斯油

① 該油類清單不應視為是全面的。

Gasoline blending stocks

Alkylates - fuel

Reformates

Polymer - fuel

汽油調和料類

烷基化燃料

重整油

聚合燃料

Gasolines

Casinghead (natural)

汽油類

天然汽油

Automotive

Aviation

Straight run

Fuel oil no.1 (kerosene)

Fuel oil no.1-D

Fuel oil no.2

Fuel oil no.2-D

車用汽油

航空汽油

直溜汽油

1 號燃料油 (煤油)

1-D 號燃料油

2 號燃料油

2-D 號燃料油

Jet fuels

JP-1 (kerosene)

JP-3

JP-4

JP-5 (kerosene, heavy)

Turbo fuel

Kerosene

Mineral spirit

噴氣燃料類

JP-1 (煤油) 噴氣燃料

JP-3 噴氣燃料

JP-4 噴氣燃料

JP-5 (煤油 , 重質) 噴氣燃料

燃氣輪機燃料

煤油

礦物溶劑油

Naphtha

Solvent

Petroleum

Heartcut distillate oil

石腦油

溶劑

石油

窄餾分油

附錄 II**IOPP 證書和附件格式^①****國際防止油污證書**

（註：本證書應附有構造和設備記錄）

經.....政府授權，

（國家全稱）

由.....

（按公約規定經授權的適任人員或組織的全稱）

根據經修正的《經 1978 年議定書修訂的 1973 年國際防止船舶造成污染公約》（以下稱“公約”）的規定簽發。

船舶概況^②

船名.....

船舶編號或呼號.....

船籍港.....

總噸位.....

船舶載重量（噸）^③.....

① IOPP 證書應至少使用英文、法文或西班牙文的其中一種語言。如同時使用發證國的官方語言，則在有爭議或分歧時，應以該國官方語言為準。

② 船舶概況也可在表格中橫向排列。

③ 對油船而言。

IMO 編號^①

船舶類型^② :

油船

屬於公約附則 I 第 2.2 條規定的設有貨油艙的非油船

除上述船舶以外的任何其他船舶

茲證明：

1. 該船已按公約附則 I 第 6 條的規定進行了檢驗；和
2. 檢驗表明，該船的結構、設備、系統、附件、佈置和材料及其狀況在各方面均屬合格，且該船符合公約附則 I 的適用要求。

本證書有效期至（年/月/日）止^③，在此期間應按公約附則 I 第 6 條規定接受檢驗。

本證書基於的檢驗完成日期：年/月/日

簽發於

（證書簽發地點）

年/月/日

（簽發日期）

（經正式授權的發證官員簽字）

（主管當局蓋章或鋼印）

① 參見本組織 A.600（15）決議通過的《IMO 船舶編號體系》。

② 不適用者劃去。

③ 填入主管機關根據公約附則 I 第 10.1 條規定的期滿日期。該日期如未按公約附則 I 第 10.8 條作過修正，其日、月相當於公約附則 I 第 1.27 條所定義的周年日。

年度檢驗和中間檢驗的簽署

茲證明業已按公約附則 I 第 6 條的要求進行了檢驗，查明該船符合公約的有關規定。

年度檢驗 簽字

(經正式授權的官員簽字)

地點

日期 (年/月/日)

(主管當局蓋章或鋼印)

年度檢驗/中間檢驗^① 簽字

(經正式授權的官員簽字)

地點

日期 (年/月/日)

(主管當局蓋章或鋼印)

年度檢驗/中間檢驗^① 簽字

(經正式授權的官員簽字)

地點

日期 (年/月/日)

(主管當局蓋章或鋼印)

① 不適用者劃去。

年度檢驗

簽字

(經正式授權的官員簽字)

地點

日期 (年/月/日)

(主管當局蓋章或鋼印)

按第 10.8.3 條進行的年度/中間檢驗

茲證明業已按公約附則 I 第 10.8.3 條的要求進行了年度/中間^①檢驗，查明該船符合公約的有關規定：

簽字

(經正式授權的官員簽字)

地點

日期 (年/月/日)

(主管當局蓋章或鋼印)

在適用第 10.3 條情況下，有效期少於 5 年的證書展期簽署

該船符合公約的有關規定，本證書根據公約附則 I 第 10.3 條應視為有效，有效期限至 (年/月/日)止。

① 不適用者劃去。

簽字

（經正式授權的官員簽字）

地點

日期（年/月/日）

（主管當局蓋章或鋼印）

在已完成換證檢驗並適用第 10.4 條情況下的簽署

該船符合公約的有關規定，本證書根據公約附則 I 第 10.4 條應視為有效，有效期限至（年/月/日） 止。

簽字

（經正式授權的官員簽字）

地點

日期（年/月/日）

（主管當局蓋章或鋼印）

在適用第 10.5 或 10.6 條情況下，將證書有效期展期至駛抵進行檢驗的港口或給予寬限期的簽署

本證書根據公約附則 I 第 10.5 或 10.6 條^①應視為有效，有效期限至（年/月/日） 止。

① 不適用者劃去。

簽字

(經正式授權的官員簽字)

地點

日期 (年/月/日)

(主管當局蓋章或鋼印)

在適用第 10.8 條情況下，周年日提前的簽署

根據公約附則 I 第 10.8 條，新的周年日為(年/月/日).....

簽字

(經正式授權的官員簽字)

地點

日期 (年/月/日)

(主管當局蓋章或鋼印)

根據公約附則 I 第 10.8 條，新的周年日為(年/月/日).....

簽字

(經正式授權的官員簽字)

地點

日期 (年/月/日)

(主管當局蓋章或鋼印)

附錄

格式 A

國際防止油污證書（IOPP 證書）

附件

非油船船舶構造和設備記錄

按照《經 1978 年議定書修訂的 1973 年國際防止船舶造成污染公約》（以下稱“公約”）附則 I 的規定。

註：

1 本格式用於 IOPP 證書中列為第 3 種類型的船舶，即“上述各類以外的船舶”。對油船和按公約附則 I 第 2.2 條規定的設有貨油艙的非油船，應使用格式 B。

2 本記錄應永久附於 IOPP 證書之後，IOPP 證書應隨時保存在船上。

3 記錄正本的文字應至少使用英文、法文或西班牙文的其中一種語言。如同時使用發證國的官方語言，則在有爭議或分歧時，應以該國官方語言為準。

4 方格內填入（x）表示“是”和“適用”，填入（—）表示“否”和“不適用”。

5 本記錄所述規則係指公約附則 I 的規則，所述決議係指國際海事組織通過的決議。

1 船舶概況

1.1 船名.....

- 1.2 船舶編號或呼號
- 1.3 船籍港
- 1.4 總噸位
- 1.5 建造日期
- 1.5.1 簽訂建造合同日期
- 1.5.2 安放龍骨或船舶處於類似建造階段的日期
- 1.5.3 交船日期
- 1.6 重大改建（如適用）
- 1.6.1 簽訂改建合同日期
- 1.6.2 改建開工日期
- 1.6.3 改建完工日期
- 1.7 由於交船的意外延遲，主管機關已接受該船作為第 1.28.1 條所指的“在 1979 年 12 月 31 日或以前交船的船舶”☐

2 控制機器處所艙底水和燃油艙排油的設備（第 16 條和第 14 條）

2.1 在燃油艙內裝載壓載水：

- 2.1.1 該船在正常條件下能在燃油艙內裝載壓載水☐

2.2 所裝濾油設備的型式：

- 2.2.1 濾油設備（15 ppm）（第 14.6 條）☐

2.2.2 具有報警和自動停止裝置的濾油設備（15 ppm）

(第 14.7 條) ☐

2.3 認可標準^①：

2.3.1 油水分離器/濾油設備：

.1 已按 A.393 (X) 決議認可； ☐

.2 已按 MEPC.60 (33) 決議認可； ☐

.3 已按 MEPC.107 (49) 決議認可； ☐

.4 已按 A.233 (VII) 決議認可； ☐

.5 已按國家標準認可，但國家標準未基於 A.393 (X)
或 A.233 (VII) 決議； ☐

.6 未經認可。 ☐

2.3.2 處理設備已按 A.444 (XI) 決議認可 ☐

2.3.3 油分計：

.1 已按 A.393 (X) 決議認可； ☐

.2 已按 MEPC.60 (33) 決議認可； ☐

.3 已按 MEPC.107 (49) 決議認可。 ☐

2.4 該系統的最大排量為 m³/h

① 參見本組織 1977 年 11 月 14 日 A.393 (X) 決議通過的《關於油水分離設備和油分計國際性能和試驗技術條件的建議案》，該決議替代 A.233 (VII) 決議。進一步參見本組織海上環境保護委員會 MEPC.60 (33) 決議通過並於 1993 年 7 月 6 日生效的《機艙底水防污染設備指南和技術條件》，該決議替代 A.393 (X) 和 A.444 (XI) 決議，MEPC.205 (62) 決議通過的《2011 年用以升級符合 MEPC.60 (33) 決議規定的濾油設備的附加設備指南和技術條件》和本組織海上環境保護委員會 MEPC.107 (49) 決議通過並自 2005 年 1 月 1 日起生效的《修訂的船舶機器處所防污染設備指南和技術條件》，該決議替代 MEPC.60 (33)、A.393 (X) 和 A.444 (XI) 決議。

2.5 第 14 條的免除：

2.5.1 按照第 14.5 條的規定，該船免除第 14.1 或 14.2 條的要求。

2.5.1.1 該船專門從事在特殊區域.....內航行 ☐

2.5.1.2 該船按《國際高速船安全規則》予以核准，從事定期營運
且周轉期不超過 24 h.....☐

2.5.2 該船設有如下儲存櫃用於留存船上所有含油艙底水：

液艙（編號）	液艙位置		容積 （ m ³ ）
	肋骨號 （從） - （至）	橫向位置	
總容積：.....			m ³

2A.1 要求船舶按第 12A 條建造並符合下列規定：

第 6 段和第 7 或第 8 段（雙殼結構）.....☐

第 11 段（燃油意外洩漏狀況）。.....☐

2A.2 不要求船舶符合第 12A 條的規定。.....☐

3 殘油（油泥）的留存和處理措施（第 12 條）和含油艙底水儲存櫃^①

3.1 該船設有如下殘油（油泥）艙用於留存船上的殘油（油泥）：

液艙（編號）	液艙位置		容積 （ m ³ ）
	肋骨號 （從） - （至）	橫向位置	
總容積：.....			m ³

① 本公約未要求含油艙底水儲存櫃，如設置，應在表 3.3 中列出。

3.2 殘油（油泥）艙內留存的殘油（油泥）的處理措施：

3.2.1 殘油（油泥）焚燒爐，最大處理能力 kW 或 kcal/h

（不適用者劃去）.....☐

3.2.2 適用於燃燒殘油（油泥）的輔鍋爐.....☐

3.2.3 其他可接受的措施，詳細說明.....☐

3.3 該船設有如下儲存櫃用於留存船上的含油艙底水：

液艙（編號）	液艙位置		容積 （m ³ ）
	肋骨號 （從）-（至）	橫向位置	
總容積：.....m ³			

4 標準排放接頭（第 13 條）

4.1 該船設有將機器處所的艙底水殘餘物排至接收設備的管路，
並裝有一隻符合第 13 條規定的標準排放接頭.....☐

5 船上油污應急計劃（第 37 條）

5.1 該船備有符合第 37 條規定的船上油污應急計劃.....☐

5.2 該船備有符合第 37.3 條規定的船上海洋污染應急計劃.....☐

6 免除

6.1 根據第 3.1 條的規定，公約附則 I 第 3 章的一些要求業經主管
機關准許免除，免除項目列於本記錄中的：.....☐

7 等效（第 5 條）

7.1 附則 I 中某些要求的等效措施業經主管機關認可，其認可項目列於本記錄中的：.....□

茲證明該記錄在各方面均正確無誤。

簽發於.....

（記錄簽發地點）

.....

（簽發日期）（經正式授權簽發記錄的官員簽字）

（發證主管當局蓋章或鋼印）

格式 B

國際防止油污證書（IOPP 證書）**附件****油船船舶構造和設備記錄**

按照《經 1978 年議定書修訂的 1973 年國際防止船舶造成污染公約》（以下稱“公約”）附則 I 的規定。

註：

1 本格式用於 IOPP 證書中列為前二種類型的船舶，即油船和按公約附則 I 第 2.2 條規定的設有貨油艙的非油船，對 IOPP 證書中列為第 3 種類型的船舶，應使用格式 A。

2 本記錄應永久附於 IOPP 證書之後，IOPP 證書應隨時保存在船上。

3 記錄正本的文字應至少使用英文、法文或西班牙文的其中一種語言。如同時使用發證國的官方語言，則在有爭議或分歧時，應以該國官方語言為準。

4 方格內填入（x）表示“是”和“適用”，填入（—）表示“否”和“不適用”。

5 除另有規定外，本記錄所述條文係指公約附則 I 的條文，所述決議係指國際海事組織通過的決議。

1 船舶概況

1.1 船名

1.2 船舶編號或呼號

1.3 船籍港

- 1.4 總噸位
- 1.5 船舶裝載容積.....(m^3)
- 1.6 船舶載重量.....(t)(第 1.23 條)
- 1.7 船長.....(m)(第 1.19 條)
- 1.8 建造日期：
- 1.8.1 簽訂建造合同日期
- 1.8.2 安放龍骨或船舶處於類似建造階段的日期
- 1.8.3 交船日期
- 1.9 重大改建（如適用）：
- 1.9.1 簽訂改建合同日期
- 1.9.2 改建開工日期
- 1.9.3 改建完工日期
- 1.10 交船的意外延遲：
- 1.10.1 由於交船的意外延遲，主管機關同意該船作為第 1.28.1 條
所指的“在 1979 年 12 月 31 日或以前交船的船舶”☐
- 1.10.2 由於交船的意外延遲，主管機關同意該船作為第 1.28.3 條
所指的“在 1982 年 6 月 1 日或以前交船的船舶”☐
- 1.10.3 由於交船的意外延遲，不要求該船符合第 26 條的規定 ...☐
- 1.11 船舶種類：
- 1.11.1 原油油船☐

- 1.11.2 成品油油船 ☐
- 1.11.3 不載運第 20.2 條所述的燃油或重柴油，或潤滑油的成品油油船 ☐
- 1.11.4 原油/成品油油船 ☐
- 1.11.5 兼用船 ☐
- 1.11.6 按公約附則 I 第 2.2 條規定為設有貨油艙的非油船 ☐
- 1.11.7 專用於裝載第 2.4 條所指成品油的油船 ☐
- 1.11.8 該船既作為具有 COW 的“原油油船”，也作為具有 CBT 的“成品油油船”，為此已分別簽發單獨的 IOPP 證書 ☐
- 1.11.9 該船既作為具有有 CBT 的“成品油油船”，也作為具有 COW 的“原油油船”，為此已分別簽發單獨的 IOPP 證書 ☐
- 2 控制機器處所艙底水和燃油艙排油的設備(第 16 條和第 14 條)**
- 2.1 在燃油艙內裝載壓載水：
- 2.1.1 該船在正常條件下能在燃油艙內裝載壓載水 ☐
- 2.2 所裝濾油設備的型式：
- 2.2.1 濾油設備（15 ppm）（第 14.6 條） ☐
- 2.2.2 具有報警和自動停止裝置的濾油設備（15 ppm）（第 14.7 條） ☐

2.3 認可標準^①：

2.3.1 油水分離器/濾油設備：

- .1 已按 A.393 (X) 決議認可；☐
- .2 已按 MEPC.60 (33) 決議認可；☐
- .3 已按 MEPC.107 (49) 決議認可；☐
- .4 已按 A.233 (VII) 決議認可；☐
- .5 已按國家標準認可，但國家標準未基於 A.393 (X) 或 A.233 (VII) 決議；☐
- .6 未經認可。☐

2.3.2 處理設備已按 A.444 (XI) 決議認可☐

2.3.3 油分計：

- .1 已按 A.393 (X) 決議認可；☐
- .2 已按 MEPC.60 (33) 決議認可；☐
- .3 已按 MEPC.107 (49) 決議認可。☐

2.4 該系統的最大排量為m³/h

① 參見本組織 1977 年 11 月 14 日 A.393 (X) 決議通過的《關於油水分離設備和油分計國際性能和試驗技術條件的建議案》，該決議替代 A.233 (VII) 決議。進一步參見本組織海上環境保護委員會 MEPC.60(33) 決議通過並於 1993 年 7 月 6 日生效的《機器處所艙底水防污染設備指南和技術條件》，該決議替代 A.393 (X) 和 A.444 (XI) 決議，MEPC.205 (62) 決議通過的《2011 年用以升級符合 MEPC.60 (33) 決議規定的濾油設備的附加設備指南和技術條件》和本組織海上環境保護委員會 MEPC.107 (49) 決議通過並自 2005 年 1 月 1 日起生效的《修訂的船舶機器處所防污染設備指南和技術條件》，該決議替代 MEPC.60 (33)、A.393 (X) 和 A.444 (XI) 決議。

2.5 第 14 條的免除：

2.5.1 按照第 14.5 條，該船免除 14.1 條或 14.2 條的要求。

該船專門從事在特殊區域.....內航行 ☐

2.5.2 該船設有如下儲存櫃用於留存船上所有含油艙底水：.....☐

液艙（編號）	液艙位置		容積 (m^3)
	肋骨號 (從) - (至)	橫向位置	
總容積：..... m^3			

2.5.3 該船設有將艙底水輸至污水水艙的裝置以代替儲存櫃.....☐

2A.1 要求船舶按第 12A 條建造並符合下列規定：

第 6 段和第 7 或第 8 段（雙殼結構）.....☐

第 11 段（燃油意外洩漏狀況）。.....☐

2A.2 不要求船舶符合第 12A 條的規定。.....☐

3 殘油（油泥）的留存和處理措施（第 12 條）和含油艙底水儲存櫃^①

3.1 該船設有如下殘油（油泥）艙用於留存船上的殘油（油泥）：

液艙（編號）	液艙位置		容積 (m^3)
	肋骨號 (從) - (至)	橫向位置	
總容積：..... m^3			

① 本公約未要求艙底水儲存櫃，3.3 下的表自願填寫。

3.2 殘油（油泥）艙內留存的殘油（油泥）的處理措施：

3.2.1 殘油（油泥）焚燒爐，最大處理能力 kW 或 kcal/h

（不適用者劃去）☐

3.2.2 適用於燃燒殘油（油泥）的輔鍋爐.....☐

3.2.3 其他可接受的措施，說明是.....☐

3.3 該船設有如下儲存櫃用於留存船上的含油艙底水：

液艙（編號）	液艙位置		容積 （ m ³ ）
	肋骨號 （從） - （至）	橫向位置	
總容積：.....m ³			

4 標準排放接頭（第 13 條）

4.1 該船設有將機器處所的艙底水殘餘物排至接收設備的管路，
並裝有一隻符合第 13 條規定的標準排放接頭.....☐

5 構造（第 18、19、20、23、26、27 和 28 條）

5.1 按第 18 條要求，該船：

5.1.1 需設有 SBT、PL 和 COW.....☐

5.1.2 需設有 SBT 和 PL.....☐

5.1.3 需設有 SBT.....☐

5.1.4 需設有 SBT 或 COW.....☐

5.1.5 需設有 SBT 或 CBT.....☐

5.1.6 不需符合第 18 條規定 ☐

5.2 專用壓載艙 (SBT) :

5.2.1 該船設有符合第 18 條規定的 SBT ☐

5.2.2 該船設有符合第 18 條規定的 SBT，其保護位置 (PL) 的
佈置符合第 18.12 至 18.15 條的規定 ☐

5.2.3 SBT 的分佈如下：

艙別	容積 (m ³)	艙別	容積 (m ³)
		總容積： m ³	

5.3 清潔壓載艙 (CBT) :

5.3.1 該船設有符合第 18.8 條規定的 CBT，並可作為成品油油船
營運 ☐

5.3.2 CBT 的分佈如下：

艙別	容積 (m ³)	艙別	容積 (m ³)
		總容積： m ³	

5.3.3 該船備有一份有效的《清潔壓載艙操作手冊》，日期 ☐

5.3.4 該船 CBT 壓載與裝卸貨油是使用公共的管路和泵裝置 ... ☐

5.3.5 該船 CBT 壓載是使用分開獨立的管路和泵裝置 ☐

5.4 原油洗艙（COW）：

- 5.4.1 該船設有符合第 33 條規定的 COW 系統.....☐
- 5.4.2 該船設有符合第 33 條規定的 COW 系統，但尚未按第 33.1 條和修訂的 COW 技術條件（經 A.497（XII）和 A.897（21）決議修正的 A.446（XI）決議）中 4.2.10 的規定進行效用驗證.....☐
- 5.4.3 該船備有一份有效的《原油洗艙操作和設備手冊》，日期.....☐
- 5.4.4 該船不要求設置 COW，但已設有符合修訂的 COW 技術條件（經 A.497（XII）和 A.897（21）決議修正的 A.446（XI）決議）中安全方面的規定.....☐

5.5 免除第 18 條：

- 5.5.1 該船僅從事於.....之間的特定運輸，按第 2.5 條規定免除第 18 條的要求.....☐
- 5.5.2 該船按第 18.10 條規定，具有特殊壓載佈置，因而免除第 18 條的要求.....☐

5.6 貨油艙的尺度限制和佈置（第 26 條）：

- 5.6.1 該船需按第 26 條規定建造，並符合該條要求.....☐
- 5.6.2 該船需按第 26.4 條規定建造，並符合該條要求（見第 2.2 條）.....☐

5.7 分艙和穩性（第 28 條）：

5.7.1 該船需按第 28 條規定建造，並符合該條要求.....☐

5.7.2 已根據第 28.5 條要求，按認可的格式向該船提供了資料和數據.....☐

5.7.3 該船需按第 27 條規定建造，並符合該條要求.....☐

5.7.4 已根據第 27 條對兼用船的要求，按主管機關認可的書面程序向該船提供了資料和數據.....☐

5.8 雙殼體結構：

5.8.1 該船需按第 19 條規定建造並符合下列要求：

.1 第 3 段（雙殼體結構）.....☐

.2 第 4 段（具有雙舷結構的中高甲板油船）.....☐

.3 第 5 段（經海上環境保護委員會認可的替代方案）....☐

5.8.2 該船需按第 19.6 條規定建造並符合其要求.....☐

5.8.3 該船不需符合第 19 條的要求.....☐

5.8.4 該船受第 20 條的約束，且：

.1 對於第 28.6 條，要求不遲於.....符合第 19 條的 2 至 5、7 和 8 以及第 28 條.....☐

.2 被允許按第 20.5 條繼續營運至.....止.....☐

.3 被允許按第 20.7 條繼續營運至.....止.....☐

5.8.5 該船不受第 20 條的約束，且：

- .1 該船小於 5,000 載重噸.....☐
- .2 該船符合第 20.1.2 條.....☐
- .3 該船符合第 20.1.3 條.....☐

5.8.6 該船受第 21 條的約束，且：

- .1 要求不遲於.....符合第 21.4 條.....☐
- .2 被允許按第 21.5 條繼續營運至.....止.....☐
- .3 被允許按第 21.6.1 條繼續營運至.....止.....☐
- .4 被允許按第 21.6.2 條繼續營運至.....止.....☐
- .5 按第 21.7.2 條免除第 21 條的規定.....☐

5.8.7 該船不受第 21 條的約束，且：

- .1 該船小於 600 載重噸.....☐
- .2 該船符合第 19 條（載重噸 \geq 5,000）.....☐
- .3 該船符合第 21.1.2 條.....☐
- .4 該船符合第 21.4.2 條（600 \leq 載重噸 $<$ 5,000）.....☐
- .5 該船不載運防污公約附則 I 第 21.2 條定義的“重級別油”.....☐

5.8.8 該船受第 22 條的約束，且：

- .1 符合第 22.2 條的要求.....☐

.2 符合第 22.3 條的要求.....☐

.3 符合第 22.5 條的要求.....☐

5.8.9 該船不受第 22 條的約束.....☐

5.9 意外洩油性能

5.9.1 該船符合第 23 條要求.....☐

6 將油類留存船上（第 29、31 和 32 條）

6.1 排油監控系統：

6.1.1 該船按 A.496（XII）決議或 A.586（14）決議^①（不適用者
劃去）的定義列為.....類油船.....☐

6.1.2 排油監控系統已按 MEPC.108（49）決議認可.....☐

6.1.3 該系統包括：

.1 控制裝置.....☐

.2 計算裝置.....☐

.3 運算裝置.....☐

6.1.4 該系統設有：

.1 起動連鎖裝置.....☐

.2 自動停止裝置.....☐

① 在 1986 年 10 月 2 日或以後安放龍骨或處於類似建造階段的油船應安裝根據 A.586（14）決議認可的系統。

6.1.5 油分計係按 A.393 (X) 或 A.586 (14) 或 MEPC.108 (49)

決議^② (不適用者劃去) 認可, 適用於:

.1 原油 ☐

.2 黑色成品油 ☐

.3 白色成品油 ☐

6.1.6 該船已備有一份《排油監控系統操作手冊》 ☐

6.2 污水水艙:

6.2.1 該船設有 個專用污水水艙,

總容積為 m³, 佔載油量的 %, 係根據:

.1 第 29.2.3 條 ☐

.2 第 29.2.3.1 條 ☐

.3 第 29.2.3.2 條 ☐

.4 第 29.2.3.3 條 ☐

6.2.2 已有貨油艙指定作為污水水艙 ☐

6.3 油/水界面探測器:

② 關於安裝在 1986 年 10 月 2 日以前建造的油船上的油分計, 參見本組織 A.393 (X) 決議通過的《關於油水分離設備和油分計國際性能和試驗技術條件的建議案》。關於安裝在 1986 年 10 月 2 日及以後建造的油船上的作為排油監控系統部件的油分計, 參見本組織 A.586 (14) 決議通過的《油船排油監控系統指南和技術條件》; 關於安裝在 2005 年 1 月 1 日或以後建造的油船上的作為排油監控系統部件的油分計, 參見本組織 MEPC.108 (49) 決議通過的《修訂的油船排油監控系統指南和技術條件》。

6.3.1 該船設有按 MEPC.5 (XIII) 決議^①要求認可的油/水界面探測器.....☐

6.4 第 29、31 和 32 條的免除：

6.4.1 按照第 2.4 條規定，該船免除第 29、31 和 32 條的要求...☐

6.4.2 按照第 2.2 條規定，該船免除第 29、31 和 32 條的要求...☐

6.5 第 31 條和第 32 條的免除：

6.5.1 按照第 3.5 條規定，該船免除第 31 和 32 條的要求。該船專門從事：

.1 根據第 2.5 條的特殊貿易航行：.....☐

.2 在特殊區域內航行：.....☐

.3 在特殊區域以外距最近陸地 50 n.mile 以內航行，航程時間為 72 h 或更少且限於：.....☐

7 泵系、管系和排放佈置（第 30 條）

7.1 專用壓載的舷外排放口位於：

7.1.1 水線以上.....☐

7.1.2 水線以下.....☐

7.2 除排放總管外，清潔壓載的舷外排放口位於^①：

7.2.1 水線以上.....☐

① 參見本組織海上環境保護委員會 MEPC.5 (XIII) 決議通過的《油/水界面探測器技術標準》。

① 僅指可被監控的排出口。

7.2.2 水線以下 ☐

7.3 除排放總管外，用於排放污壓載水或來自貨油艙區域的油污水的舷外排放口位於^①：

7.3.1 水線以上 ☐

7.3.2 水線以下，連同符合第 30.6.5 條的分流裝置 ☐

7.3.3 水線以下 ☐

7.4 貨油泵和貨油管的排油（第 30.4 和 30.5 條）：

7.4.1 卸油完成後將所有貨油泵和貨油管路洩空的措施：

.1 將洩出物排至某一貨油艙或污油水艙 ☐

.2 專設一小直徑管路將洩出物排至岸上 ☐

8 船上油污應急計劃（第 37 條）

8.1 該船備有符合第 37 條規定的船上油污應急計劃 ☐

8.2 該船備有符合第 37.3 條規定的船上海洋污染應急計劃 ☐

8A 海上船對船油類過駁作業（第 41 條）

8A.1 該油船備有符合第 41 條規定的 STS 作業計劃。 ☐

9 免除

9.1 根據第 3.1 條規定，公約附則 I 第 3 章中的一些要求業經主管機關准許免除，免除項目列於本記錄中的： ☐

10 等效（第 5 條）

10.1 附則 I 中某些要求的等效措施業經主管機關認可，其認可項目列於本記錄中的：☐

茲證明該記錄在各方面均正確無誤。

簽發於.....

（記錄簽發地點）

年/月/日

（簽發日期）

（經正式授權簽發記錄的官員簽字）

（發證主管當局蓋章或鋼印）

附錄 III

《油類記錄簿》格式^①

油類記錄簿

第 I 部分 — 機器處所的作業

(所有船舶)

船名

船舶編號或呼號

總噸位

時間從 至

註：每艘 150 總噸及以上的油船和 400 總噸及以上的非油船，均應備有《油類記錄簿》第 I 部分，以記錄有關機器處所的作業。對於油船，還應備有《油類記錄簿》第 II 部分，以記錄有關貨油/壓載的作業。

引言

本節以下幾頁為貨物和壓載作業項目清單，應按《經 1978 年議定書修訂的 1973 年國際防止船舶造成污染公約》附則 I 第 17 條規定，將作業情況相應記入《油類記錄簿》。各項目已按作業分組，每組以一個字母表示。

^① 參見 MEPC.1/Circ.736/Rev.2 通函《油類記錄簿第 I 部分 — 機器處所的作業（所有船舶）的作業記錄指導》。

填寫《油類記錄簿》第 I 部分時，日期、作業組別和項目編號應填入相應的欄內，所要求的細節應按時間順序填入空欄。

每項完成的作業，應由高級船員或主管高級船員簽字並註明日期。每填完一頁，應由船長簽字。

《油類記錄簿》第 I 部分有許多處記載油量。油艙測量裝置的有限精度、溫度變化和油垢皆可影響到這些讀數的精確性。對《油類記錄簿》第 I 部分中的記錄，應予相應的考慮。

如發生意外排油或其他特殊排油時，應在《油類記錄簿》第 I 部分中說明這種排放的情況和理由。

濾油設備的任何故障均應記入《油類記錄簿》第 I 部分。

對持有《國際防止油污證書》的船舶，《油類記錄簿》第 I 部分中的記錄應至少使用英文、法文或西班牙文的其中一種語言。如同時使用船旗國的官方語言，則在有爭議或分歧時，應以該國官方語言為準。

《油類記錄簿》第 I 部分的存放位置應易於在任何合理時間隨時可供檢查，並且除未配備船員的被拖船舶外，均應存放船上。《油類記錄簿》第 I 部分應在進行最後一項記錄後保存三年。

本公約締約國政府的主管當局可對停靠本國港口或近海裝卸站的適用本附則的任何船舶檢查《油類記錄簿》第 I 部分，並可將該記錄簿中任何記錄製成副本，也可要求船長證明該副本是該項記錄的真實副本。任何經船長證明為船上《油類記錄簿》第 I 部分中某項記錄的真實副本者，在任何法律訴訟中應可作為該項記錄中所述事實的證據。主管當局根據本項規定對《油類記錄簿》第 I 部分的檢查和製作正確無誤的副本應儘速進行，而不對船舶造成不當延誤。

應記錄的項目清單

(A) 燃油艙的壓載或清洗

- 1 壓載燃油艙的編號。
- 2 從上次裝油後是否已清洗，如未清洗，說明上次所裝的油類。
- 3 清洗過程：
 - .1 清洗開始和結束的船舶位置和時間；
 - .2 對具體油艙已採用的一種或其他種方法的清洗（用化學品沖洗、蒸洗、清洗；使用的化學品種類和數量， m^3 ）；
 - .3 駁入清洗水的油艙的編號和數量， m^3 。
- 4 壓載：
 - .1 壓載開始和結束的船舶位置和時間；
 - .2 如油艙未清洗時的壓載量， m^3 。

(B) 從(A)部分所述燃油艙排放污壓載水或洗艙水

- 5 燃油艙的編號。
- 6 開始排放時的船舶位置。
- 7 完成排放時的船舶位置。
- 8 排放期間的船舶速度。
- 9 排放方法：

.1 通過 15 ppm 設備；

.2 排往接收設備。

10 排放量， m^3 。

(C) 殘油（油泥）的收集、過駁和處理

11 殘油（油泥）的收集

留存船上的殘油（油泥）量，應每周記錄一次^①：（當船舶航程大於一周時，殘油量應每周記錄一次。）

.1 油艙的編號

.2 油艙的艙容..... m^3

.3 留存總量..... m^3

.4 手動作業收集的殘餘物量..... m^3

（如殘油（油泥）駁入殘油（油泥）儲存櫃，操作員開始實施手動收集。）

12 殘油（油泥）的過駁或處理方法

說明過駁或處理的殘油數量，排空的油艙和留存的油量， m^3 ：

.1 排至接收設備（註明港口）^②

.2 駁入另一（或其他）油艙（註明油艙和油艙總容量）；

① 僅指用於殘油（油泥）的 IOPP 證書附件格式 A 和格式 B 中第 3.1 項所列的油艙。

② 船長應從包括駁船和液罐車在內的接收設備經營者處得到一份收據或證明，在其內詳細記錄過駁的洗艙水、污壓載水、殘餘物或油性混合物的數量，以及過駁的時間和日期。該收據或證明如果附於《油類記錄簿》第 I 部分，可有助於船長證明其船舶未涉入所指控的污染事故。該收據或證明應與《油類記錄簿》第 I 部分一同保存。

.3 已焚燒（註明焚燒作業的總時間）；

.4 其他方法（予以說明）。

（D）機器處所積存的艙底水非自動開始排放舷外、過駁或其他方法的處理

13 排放、過駁或處理的數量， $m^{\text{①}}$ 。

14 排放、過駁或處理的時間（開始和結束）。

15 排放、過駁或處理的方法：

.1 通過 15 ppm 設備（說明開始和結束時的船舶位置）；

.2 排至接收設備（註明港口）^②；

.3 排至污水水艙或儲存櫃或其他艙櫃（註明艙櫃號；註明留存在艙櫃內的數量， m^3 ）。

（E）機器處所積存的艙底水自動開始排放舷外、過駁或其他方法的處理

16 通過 15 ppm 設備，將該系統定為自動向舷外排放的作業方式時的時間和船舶位置。

17 將該系統定為自動將艙底水輸入儲存櫃（註明櫃號）的作業方式時的時間。

18 將該系統定為手動作業方式時的時間。

① 如果從儲存櫃中排放或處理壓載水，應註明儲存櫃的編號和容量以及儲存櫃中留存的數量。

② 船長應從包括駁船和液罐車在內的接收設備經營者處得到一份收據或證明，在其內詳細記錄過駁的洗艙水、污壓載水、殘餘物或油性混合物的數量，以及過駁的時間和日期。該收據或證明如果附於《油類記錄簿》第 I 部分，可有助於船長證明其船舶未涉入所指控的污染事故。該收據或證明應與《油類記錄簿》第 I 部分一同保存。

船舶編號或呼號.....

機器處所作業

日期	代號（字母）	項目（編號）	作業記錄/主管高級船員 簽字

船長簽字.....

(F) 濾油設備的狀況

- 19 系統故障時間^①。
- 20 系統已修復運轉時間。
- 21 故障原因。

(G) 意外或其他異常的排油

- 22 發生的時間。
- 23 發生時船舶所在地點或船位。
- 24 油的大概數量和種類。
- 25 排放或逸漏的情況、原因和一般說明。

(H) 燃油或散裝潤滑油的灌裝

- 26 灌裝：
 - .1 灌裝的地點；
 - .2 灌裝的時間；
 - .3 燃油的品種和數量並註明油艙編號（說明補充的數量和油艙的總容量）；
 - .4 潤滑油的品種和數量並註明油艙編號（說明補充的數量和油艙的總容量）。

(I) 附加的操作程序和一般說明

船名

① 濾油設備的狀況也涉及報警和自動停止裝置（如適用）。

油類記錄簿

第 II 部分 – 貨油/壓載的作業
(油船)

船名.....

船舶編號或呼號總噸位.....

時間從.....至.....

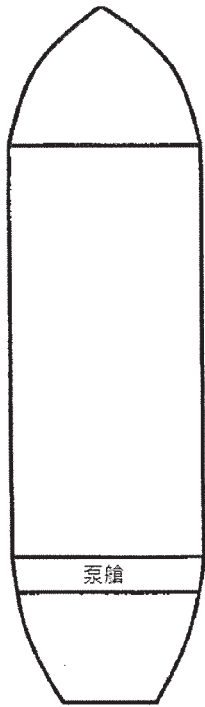
註：每艘 150 總噸及以上的所有油船應備有《油類記錄簿》第 II 部分，用以記錄有關貨油/壓載的作業。該油船還應備有《油類記錄簿》第 I 部分用以記錄有關機器處所的作業。

船名.....

船舶編號或呼號.....

液貨艙和污油水艙平面圖

(船上填寫)



艙室編號	容積
污油水艙深度	

(註明每艙容積和污油水艙深度)

引言

本節以下幾頁為貨物和壓載作業項目清單，應按《經 1978 年議定書修訂的 1973 年國際防止船舶造成污染公約》附則 I 第 36 條規定，將作業情況相應記入《油類記錄簿》第 II 部分。各項目已按作業分組，每組以一個字母表示。

填寫《油類記錄簿》第 II 部分時，日期、作業組別和項目編號應填入相應的欄內，所要求的細節應按時間順序填入空欄。

每項完成的作業，應由高級船員或主管高級船員簽字並註明日期。每填完一頁，應由船長會簽。

對於按《73/78 防污公約》附則 I 第 2.5 條的規定從事特定貿易的油船，《油類記錄簿》第 II 部分中的相應記載應由港口國主管當局簽署。^①

《油類記錄簿》第 II 部分有許多處記載油量。油艙測量裝置的有限精度、溫度變化和油垢皆可影響到這些讀數的精確性。對《油類記錄簿》第 II 部分中的記錄，應予相應的考慮。

如發生意外排油或其他特殊排油時，應在《油類記錄簿》第 II 部分中說明這種排放的情況和理由。

排油監控系統的任何故障均應記入《油類記錄簿》第 II 部分。

對持有《國際防止油污證書》的船舶，《油類記錄簿》第 II 部分中的記錄應至少使用英文、法文或西班牙文的其中一種語言。如同時使用船旗國的官方語言，則在有爭議或分歧時，應以該國官方語言為準。

^① 這句僅應加在從事特定貿易油船的《油類記錄簿》中。

《油類記錄簿》第 II 部分的存放位置應易於在任何合理時間隨時可供檢查，並且除未配備船員的被拖船舶外，均應存放船上。《油類記錄簿》第 II 部分應在進行最後一項記錄後保存三年。

本公約締約國政府的主管當局可對停靠本國港口或近海裝卸站的適用本附則的船舶檢查《油類記錄簿》第 II 部分，並可將該記錄簿中任何記錄製成副本，也可要求船長證明該副本是該項記錄的真實副本。任何經船長證明為船上《油類記錄簿》第 II 部分中某項記錄的真實副本者，在任何法律訴訟中應可作為該項記錄中所述事實的證據。主管當局根據本項規定對《油類記錄簿》第 II 部分的檢查和製作正確無誤的副本應儘速進行，而不對船舶造成不當延誤。

應記錄的項目清單

(A) 貨油的裝載

- 1 裝油的地點。
- 2 所裝油類和油艙編號。
- 3 裝油總量（說明補充的裝油量， m^3 （ 15°C ）和油艙的總容量， m^3 ）。

(B) 航行中貨油在船內的調駁

- 4 油艙編號：
 - .1 從：
 - .2 至：（說明調駁油量和油艙的總量（ m^3 ））。

5 4.1 的油艙是否駁空? (如未駁空, 說明剩餘量 (m^3))。

(C) 貨油的卸載

6 卸油的地點。

7 已卸油艙的編號。

8 油艙是否卸空? (如未卸空, 說明剩餘量 (m^3))。

(D) 原油洗艙 (僅適合於採用原油洗艙的油船)

(經原油清洗的每一油艙均應填寫)

9 進行原油洗艙的港口或船舶位置 (如在兩個卸貨港之間進行洗艙)。

10 已洗油艙的編號。^①

11 使用洗艙機的數量。

12 洗艙開始的時間。

13 採用的洗艙方式。^②

14 洗艙管路的壓力。

15 洗艙結束或中止的時間。

16 說明用何方法證實油艙是乾的。

17 備註。^①

① 當個別艙所具備的洗艙機台數多於《操作與設備手冊》所述的能同時作業的洗艙機台數時, 則該艙用原油清洗的部分應予註明, 例如: No.2 中間艙前部。

② 根據《操作與設備手冊》寫明是採用一段清洗法還是多段清洗法。如採用多段清洗法, 則應寫明這些洗艙機在該段作業中沖洗的垂向範圍和次數。

③ 如果《操作與設備手冊》中的程序未被遵守, 則應在備註欄內寫明原因。

(E) 貨油艙的壓載

- 18 壓載開始和結束時的船位。
- 19 壓載過程：
 - .1 壓載的油艙編號；
 - .2 壓載開始和結束的時間；
 - .3 接納的壓載量。說明進行作業的每個油艙的壓載總量 (m^3)。

(F) 清潔壓載艙的壓載（僅適合於採用清潔壓載艙的油船）

- 20 壓載艙的編號。
- 21 水沖洗時的船舶位置或清潔壓載艙裝入壓載水的港口。
- 22 泵和管路中留存物被沖洗至污油水艙時的船舶位置。
- 23 沖洗管路後駁入污油水艙內或預備存放污油水的貨油艙內的含油污水量（註明油艙編號），說明總量 (m^3)。
- 24 清潔壓載艙裝入補充壓載水時的船舶位置。
- 25 關閉用於隔離清潔壓載艙與貨油艙和掃艙管路的閥門的時間和船舶位置。
- 26 船上所裝清潔壓載的數量 (m^3)。

(G) 貨油艙的清洗

- 27 已清洗的油艙編號。
- 28 港口或船舶位置。

29 清洗所用的時間。

30 清洗方法。^①

31 洗艙廢液駁至：

.1 接收設備（註明港口和數量， m^3 ）^②；

.2 污油水艙或指定作為污油水艙的貨油艙（註明油艙編號；說明駁入量和總量， m^3 ）。

（H） 污壓載水的排放

32 油艙編號。

33 開始排放入海時的船舶位置。

34 完成排放入海時的船舶位置。

35 排放入海的數量（ m^3 ）。

36 排放時的船舶速度。

37 排放時排油監控系統是否工作？

38 對廢液和排放處水面是否保持經常性檢查？

39 駁入污油水艙的含油污水的數量（註明污油水艙編號），說明總量（ m^3 ）。

① 人工水龍沖洗、機械清洗和/或化學品清洗。如用化學品清洗，則應說明化學品的名稱和使用的數量。

② 船長應從包括駁船和液罐車在內的接收設備經營者處得到一份收據或證明，在其內詳細記錄過駁的洗艙水、污壓載水、殘餘物或油性混合物的數量，以及過駁的時間和日期。該收據或證明如果附於《油類記錄簿》第 II 部分，可有助於船長證明其船舶未涉入所指控的污染事故。該收據或證明應與《油類記錄簿》第 II 部分一同保存。

40 排入岸上接收設備（註明港口名稱和說明總量， m^3 ）^①。

(I) 污油水艙水的排放入海

41 污油水艙的編號。

42 自上次駁入殘餘物後沉澱的時間，或

43 自上次排放後沉澱的時間。

44 開始排放的時間和船舶位置。

45 開始排放時總存量的液面上部空檔值。

46 開始排放時油/水界面的上部空檔值。

47 逐次排放的數量（ m^3 ）和排放率（ m^3/h ）。

48 最終排放的數量（ m^3 ）和排放率（ m^3/h ）。

49 終止排放的時間和船舶位置。

50 排放時排油監控系統是否工作？

51 終止排放時油/水界面的上部空檔值。

52 排放時的船舶速度。

53 對廢液和排放處水面是否保持經常性檢查？

54 確認污油水艙水的排放完畢時，船舶管路系統中所使用的
閥門均已關閉。

① 船長應從包括駁船和液罐車在內的接收設備經營者處得到一份收據或證明，在其內詳細記錄過駁的洗艙水、污壓載水、殘餘物或油性混合物的數量，以及過駁的時間和日期。該收據或證明如果附於《油類記錄簿》第 II 部分，可有助於船長證明其船舶未涉入所指控的污染事故。該收據或證明應與《油類記錄簿》第 II 部分一同保存。

(J) 殘油和其他未經處理油性混合物的處理

55 油艙的編號。

56 每一油艙過駁或處理的數量。(註明留存數量， m^3)。

57 過駁或處理方法：

.1 處理至接收設備(註明港口和數量)^①。

.2 與貨油混合(註明數量)；

.3 駁入或駁自(一個)其他油艙，包括駁自機器處所、殘油(油泥)和含油艙底水艙(註明油艙編號，過駁的數量和油艙內總量， m^3)；和

.4 其他方法(予以說明)；說明處理的數量， m^3 。

(K) 貨艙內的清潔壓載的排放

58 開始排放清潔壓載時的船舶位置。

59 排放艙的編號。

60 排放完畢時艙內是否排空？

61 如與 58 所述不同，排放完畢時的船舶位置。

62 對排出水和排放處水面是否保持經常性檢查？

(L) 清潔壓載艙的排放(僅適用於採用清潔壓載艙的油船)

63 排放艙的編號。

① 船長應從包括駁船和液罐車在內的接收設備經營者處得到一份收據或證明，在其內詳細記錄過駁的洗艙水、污壓載水、殘餘物或油性混合物的數量，以及過駁的時間和日期。該收據或證明如果附於《油類記錄簿》第 II 部分，可有助於船長證明其船舶未涉入所指控的污染事故。該收據或證明應與《油類記錄簿》第 II 部分一同保存。

64 開始排放清潔壓載入海的時間和船舶位置。

65 完成排放入海的時間和船舶位置。

66 排放量：(m³)

.1 排放入海；或

.2 排入接收設備（註明港口）^①。

67 在排放入海前或排放中，壓載水有無任何油污跡象？

68 是否用油分計進行排放檢測？

69 壓載水排放完畢，關閉用於隔離清潔壓載艙與貨油艙和掃艙管路的閥門的時間和船舶位置。

(M) 排油監控系統的情況

70 系統故障發生時間。

71 系統已修復運轉時間。

72 故障原因。

(N) 意外或其他異常的排油

73 發生的時間。

74 發生時船舶所在港口或船位。

75 油的大概數量和種類。

① 船長應從包括駁船和液罐車在內的接收設備經營者處得到一份收據或證明，在其內詳細記錄過駁的洗艙水、污壓載水、殘餘物或油性混合物的數量，以及過駁的時間和日期。該收據或證明如果附於《油類記錄簿》第 II 部分，可有助於船長證明其船舶未涉入所指控的污染事故。該收據或證明應與《油類記錄簿》第 II 部分一同保存。

76 排放或逸漏的情況、原因和一般說明。

(O) 附加的操作程序和一般說明

從事特定貿易的油船

(P) 壓載水的裝載

77 壓載艙的編號。

78 壓載時的船舶位置。

79 裝載壓載水的總量， m^3 。

80 備註。

(Q) 船內壓載水的重新配置

81 重新配置的原因。

(R) 壓載水排入接收設備

82 排放壓載水時所在港口。

83 接收設備的名稱或牌號。

84 排放壓載水的總量， m^3 。

85 港口當局的官員簽字、印章和日期。

船名

船舶編號或呼號

貨油/壓載作業（油船）

日期	代號（字母）	項目（編號）	作業記錄/主管高級船員簽字

船長簽字

附則 I 的統一解釋

註：就本統一解釋而言，使用下列縮寫詞：

防污公約	經 1978 年和 1997 年議定書修訂的 1973 年防污公約
規則	防污公約附則 I 的規則條文
IOPP 證書	國際防止油污證書
SBT	專用壓載艙
CBT	清潔壓載艙
COW	原油洗艙系統
IGS	惰性氣體系統
PL	專用壓載艙的保護位置
CAS	狀況評估計劃

1 定義

第 1.1 條 含油碎布的處理

1.1 防污公約附則 V 的實施指南中定義的含油碎布，應按照附則 V 和指南中所列程序予以處理。

第 1.5 條 油船的定義

1.2 FPSO 和 FSU 不是油船，不得用於運輸石油，除非經船旗國和相關沿海國根據航程予以明確同意，可在異常和罕見情況下將所採石油運至港口。

2 重大改建

第 1.9 條 2.1 用於確定附則 I 的規定是否適用的載重噸，指油船在勘劃載重線時所定的載重噸。如因改變載重噸而重定載重線時船舶構造不作改變，這種載重線的改變帶來的載重噸的任何重大變化，不應被解釋為第 1.9 條定義的重大改建。但 IOPP 證書應僅寫明一種載重噸，並在每次重定載重線時更新。

2.2 如一艘 40,000 載重噸及以上，符合原油洗艙要求，且如第 1.28.3 條所定義的在 1982 年 6 月 1 日或以前交船的原油油船改變其運輸貨種裝運成品油時^①，該船需要改建清潔壓載艙或專用壓載艙並重新簽發 IOPP 證書。這種改建不應視為第 1.9 條定義的“重大改建”。

2.3 如油船僅用於儲存油，而後用於運油時，這種功能的改變不應解釋為第 1.9 條定義的“重大改建”。

2.4 現有油船改建成兼用船，或通過除掉一段貨油艙而改短油船，即構成第 1.9 條所定義的“重大改建”。

2.5 現有油船通過增加一段艙而改建為專用壓載艙油船，只有在其增加了油船載貨能力時，才構成第 1.9 條所定義的“重大改建”。

2.6 如作為兼用船建造的船舶僅從事散貨運輸時，可作為非油船對待，且應對此類船舶簽發格式 A《結構和設備記錄》。由散貨運輸改為油類運輸時，此類船舶不應解釋為第 1.9 條定義的“重大改建”。

① “成品油”係指第 1.2 條定義的原油以外的任何其他油類。

3 “專用壓載”的定義

第 1.18 條 3.1 專用壓載系統根據第 1.18 條的要求，應是“與貨油和燃油系統完全隔絕的系統”。但是可通過一可拆短管與一個貨泵相連接的方法，在緊急時排放專用壓載。在這種情況下，專用壓載的連接管上應裝有止回閥，以防止油進入專用壓載艙。可拆短管應裝在泵艙內明顯的位置，其附近應顯著放有限制其使用的永久性告示。

3.2 為延伸管路，當貨油或燃油管路穿過專用壓載艙，以及專用壓載管路穿過貨油或燃油艙時，滑動型連接器不應採用。本解釋適用於 1992 年 7 月 1 日或以後安放龍骨或處於類似建造階段的船舶。

4 交船的意外延遲

第 1.28 條 4.1 就第 1.28 條關於船舶類別的定義而言，對原定於在規則規定的日期以前簽訂建造合同（或安放龍骨）及交船，但由於造船者和船東所無法控制的不可預見的情況而不得不延遲到所定日期之後交船的船舶，主管機關可將其視為與預計交船日期相關類別船舶予以接受。對待這類船舶，主管機關應視具體情況予以處理，並注意特別情況。

4.2 重要的是，由於不可預見的延誤而在所規定日期之後交船，且主管機關允許作為與預計交船日期相關類別船舶對待的船舶，港口國應同樣予以接受。為保證這一點，建議各主管機關在考慮這類船舶的申請時，遵循以下做法：

- .1 主管機關應根據具體情況，深入地考慮這類申請，並注意特別情況。在這過程中，對於在外國建造的船舶，主管機關可要求造船國主管當局出具一份正式報告，說明延遲交船係由造船者和船東所無法控制的不可預見的情況所造成；
- .2 如某一船舶按這種情況和申請被作為與預計交船日期相關類別的船舶對待時，應為該船簽署 IOPP 證書，以表明該船被主管機關視為這類船舶；和
- .3 主管機關應向本組織報告船舶的身份以及該船被接受為這類船舶的理由。

5 “類似建造階段”的定義

第 1.28、 類似建造階段係指在此階段：

- 1.30 條
- .1 可辨認出某一具體船舶建造開始；和
 - .2 該船業已開始的裝配量至少為 50 t，或為全部結構材料估算重量的 1%取較小者。

6 船舶代別的定義

第 1.28.2、 就第 1.28.2、1.28.4、1.28.6、1.28.7、1.28.8 和 1.28.9
1.28.4、 條對船舶的定義而言，歸入其中的 1、2、3、4.1、4.2
1.28.6、 或 4.3 中所列任一類別的船舶，應視為歸入相應的定義。
1.28.7、
1.28.8、
1.28.9 條

7 物理性能妨礙成品油/水的有效分離和監測的附則 I 物質

第 2.4 條 7.1 作為接收方的締約國政府應規定相應的措施，以確保 7.2 的規定得到遵守。

7.2 除 7.3 的規定外，已卸貨的艙應予清洗，且所有受污染的洗艙水應在船舶駛離卸貨港前往另一港口之前排入接收設備。

7.3 經船長要求，作為接收方的締約國政府如對以下各項確信無疑，可對船舶免除 7.2 所述要求：

- .1 已卸貨的艙將重新裝載同種物質或與前一種物質相容的另一種物質，且該油船在裝貨之前不予洗艙或壓載；和
- .2 如果該船駛往另一港口，已卸貨的艙在海上既不清洗也不壓載，除非已書面確認該港口的接收設備是可用的且足以接收殘餘物和清洗作業所需的溶劑。

7.4 7.3 中所指的免除應僅由作為接收方的締約國政府對航行前往本公約其他締約國管轄下的港口或裝卸站的船舶予以許可。當這種免除被許可時，作為接收方的締約國政府應以書面形式確認。

7.5 對於船舶將其殘餘物留存船上並駛往本公約其他締約國管轄下的港口或裝卸站，建議作為接收方的締約國政府將船舶和殘餘物的詳細情況通知下一個停靠港口，供其參考和採取相應措施，以便偵查違章行為和實施本公約。

8 豁免條件

第 3.4、
3.5、
14.5.3 條 《國際防止油污證書》應附有充分的資料，以使港口國確定船舶是否符合關於“主管機關所確定的有限航程”這一措詞的豁免條件。這種資料可包括港口一覽表、具有接收設備的港口之間航程的最長持續時間，或主管機關所規定的類似條件。

9 續航時間為 72 h 或更少

第 3.4、
3.5.2.2.2 條 第 3.4 和 3.5.2.2.2 條中的時間限制“續航時間為 72 h 或更少”應根據下述情況計算：

- .1 當航程起始於某一特殊區域時，自油船駛離該特殊區域時起；或
- .2 自油船駛離特殊區域以外的某一港口時起，至油船進入某一特殊區域時止。

10 “所有油性混合物”的定義

第 3.4、
3.5.2.2.3 條 第 3.4 和 3.5.2.2.3 條中的“所有油性混合物”這一措辭包括來自貨油艙的所有壓載水和洗艙殘餘物。

11 等效

第 5 條 按第 5 條規定，主管機關接受任何裝置、材料、設備或器具與附則 I 要求等效時，包括對等效於 A.393(X)

①決議規定的防污設備的型式認可，應按第 5.2 條規定，將等效的細節（包括作為等效認可基礎的測試結果）通知本組織。關於第 5.2 條中的“適當行動（如有時）”一詞，任何本公約締約國對另一締約國提出的等效如有反對意見，應在本組織將此種等效轉告所有締約國之後一年內，將此反對意見通知本組織以及允許此種等效的締約國。對等效持有反對意見的締約國應說明其反對意見是否與船舶進入其港口有關。

12 檢驗和檢查

- 第 6.1.3、 不要求持有 IOPP 證書的船舶的中間檢驗和年度檢驗
- 6.1.4 條 第 6.1.3 和 6.1.4 條是否適用於不要求持有 IOPP 證書的船舶，應由主管機關確定。

13 確定油船類別

- 第 7、19 條 13.1 IOPP 證書上必須寫明：油船是“原油油船”、“成品油油船”或“原油/成品油油船”。另外，第 19 條對按船齡分類的“原油油船”和“成品油油船”的要求是有區別的，IOPP 證書上應記載其符合這些規定。不同類別的油船獲准裝運的油類如下：

① 對船舶機艙艙底水油水分離設備，參見本組織海上環境保護委員會 MEPC.60 (33) 決議通過並於 1993 年 7 月 6 日生效的《機器處所艙底水防污染設備指南和技術條件》（該決議取代 A.393 (X) 決議，MEPC.205 (62) 決議通過的《2011 年用以升級符合 MEPC.60 (33) 決議規定的濾油設備的附加設備指南和技術條件》和本組織 MEPC.107 (49) 決議通過的《經修訂的機器處所艙底水防污染設備指南和技術條件》。對安裝在 1986 年 10 月 2 日以前建造的油船上的排油監控系統，參見《油船排油監控系統指南和技術條件》，而對安裝在 1986 年 10 月 2 日以後建造的油船上的排油監控系統，參見《經修訂的油船排油監控系統指南和技術條件》，此兩份文件分別為本組織 A.496 (XII) 和 A.586 (14) 決議通過；見 IMO 出版物 I646E。對安裝在 2005 年 1 月 1 日或以後安放龍骨或處於類似建造階段的油船上的排油監控系統，參見本組織 MEPC.108 (49) 決議通過的《經修訂的油船排油監控系統指南和技術條件》。

.1 原油/成品油油船，可裝運原油或成品油，或兩者同時裝運；

.2 原油油船，可裝運原油，但禁止裝運成品油；和

.3 成品油油船，可裝運成品油，但禁止裝運原油。

13.2 在根據符合專用壓載艙、壓載艙的保護位置、清潔壓載艙和原油洗艙的要求確定記入 IOPP 證書的油船類別時，應使用下列標準。

13.3 第 1.28.4 條定義的在 1982 年 6 月 1 日以後交船的 20,000 載重噸以下的油船 13.3.1 這類油船可指定為“原油/成品油油船”。

13.4 第 1.28.4 條定義的在 1982 年 6 月 1 日以後交船的 20,000 載重噸及以上的油船

13.4.1 符合專用壓載艙+壓載艙保護位置+原油洗艙要求的油船，可指定為“原油/成品油油船”。

13.4.2 符合專用壓載艙+壓載艙保護位置要求、但不符合原油洗艙要求的油船，應指定為“成品油油船”。

13.4.3 20,000 載重噸及以上但在 30,000 載重噸以下的，不載運原油、燃油、重柴油或潤滑油，未設有專用壓載艙和壓載艙保護位置的油船，應指定為“成品油油船”。

13.5 第 1.28.3 條定義的在 1982 年 6 月 1 日或以前交船，但在第 1.28.2 條定義的 1979 年 12 月 31 日以後交船的 70,000 載重噸及以上的油船

13.5.1 符合專用壓載艙要求的這類油船可指定為“原油/成品油油船”。

13.6 第 1.28.3 條定義的在 1982 年 6 月 1 日或以前交船的 40,000 載重噸以下的油船

13.6.1 這類油船可指定為“原油/成品油油船”。

13.7 第 1.28.3 條定義的在 1982 年 6 月 1 日或以前交船的 40,000 載重噸及以上的油船

13.7.1 符合專用壓載艙要求的油船，應指定為“原油/成品油油船”。

13.7.2 僅符合原油洗艙要求的油船，應指定為“原油油船”。

13.7.3 符合清潔壓載艙要求的油船，應指定為“成品油油船”。

14 IOPP 證書或其附件的新格式

第 9 條

如果 IOPP 證書或其附件格式經過修正，且這種修正並不造成船舶 IOPP 證書有效期的縮短，當修正案生效時證書或附件的現有格式可保持有效直至證書有效期滿為止，只要在修正案生效之日後的第一次檢驗中，在現有證書或附件中通過適當的修改方式，指明必要

的變更內容，例如，劃掉無效的生效日期並打印上新的生效日期。

15 IOPP 證書的恢復生效

第 10 條 如防污公約附則 I 第 6 條要求的年度或中間檢驗未在該條規定的期限內進行時，IOPP 證書中止有效。如在其後進行了相應要求的檢驗，則可恢復證書的有效期，而無需變更原證書的周年和期滿日期，但應在證書上對此作出簽署。此種檢驗的徹底程度與嚴格性，取決於推遲規定檢驗的期間，以及船舶的狀況。

16 油泥艙艙容

第 12.1 條 16.1 為協助主管機關確定油泥艙的足夠艙容，可使用下列衡準作為指導。這些衡準不應解釋為確定在給定時間內由機械裝置產生的油類殘餘量。但是，油泥艙的艙容可按任何其他合理的假定計算。對在 1990 年 12 月 31 日或以後安放龍骨或處於類似建造階段的船舶，下列 .4 和 .5 中給出的指導應作為 .1 和 .2 中的指導的替代。

.1 不用燃油艙裝壓載水的船舶，其最小油泥艙艙容（ V_1 ）應按下列公式計算：

$$V_1 = K_1 CD \text{ (m}^3\text{)}$$

式中： $K_1 = 0.01$ ，對主機使用淨化重燃油的船舶；
或 0.005 ，對使用柴油或用前不需淨化的重燃油的船舶；

C =日燃油消耗量（噸）；和

D =可將油泥排放岸上的港口間最長航行時間（天）。如無精確數據，應採用 30 天。

- .2 當這類船舶設有勻化器，油泥焚燒爐或其他經認可的船上油泥控制裝置時，用以代替上述規定的最小油泥艙艙容（ V_1 ）應為：

$V_1=1 \text{ m}^3$ ，對 400 總噸及以上但小於 4,000 總噸的船舶；或 2 m^3 ，對 4,000 總噸及以上的船舶。

- .3 對用燃油艙裝壓載水的船舶，其最小油泥艙艙容（ V_2 ）應按下列公式計算：

$$V_2=V_1+K_2B \text{ (m}^3\text{)}$$

式中： V_1 =上述 .1 或 .2 所定油泥艙艙容， m^3 ；

$K_2=0.01$ ，對重燃油艙；或 0.005 ，對柴油艙；和

B =也可用於裝燃油的壓載水艙艙容（ t ）。

- .4 對不用燃油艙裝壓載水的船舶，其最小油泥艙艙容（ V_1 ）應按下列公式計算：

$$V_1=K_1CD \text{ (m}^3\text{)}$$

式中： $K_1=0.015$ ，對主機使用淨化重燃油的船舶；或 0.005 ，對使用柴油或用前不需淨化的重燃油的船舶；

$C=$ 日燃油消耗量 (m^3)；和

$D=$ 可將油泥排放岸上的港口間最長航行時間 (天)。如無精確數據，應採用 30 天。

.5 對在 2010 年 7 月 1 日以前簽訂建造合同或 (無建造合同) 安放龍骨，且設有勻化器以及油泥焚燒爐或其他經認可的船上油泥控制裝置的船舶，其最小油泥艙容應為：

.5.1 按上述 .4 計算的數值的 50%；或

.5.2 $1 m^3$ ，對 400 總噸及以上但小於 4,000 總噸的船舶；或 $2 m^3$ ，對 4,000 總噸及以上的船舶；取大者。

16.2 主管機關應確定，在 1990 年 12 月 31 日或以後安放龍骨或處於類似建造階段的船舶也有足夠艙容 (可包括上述 16.1 所指的油泥艙) 可用於來自機械裝置的漏油、放油和廢油。對現有裝置，應儘可能在合理和可行的範圍內予以考慮。

17 用於處理的指定泵

第 12.2.1 條 指定泵應解釋為通過第 13 條所述的標準排放接頭用於處理殘油 (油泥) 的任何泵，或用於將殘油 (油泥)

駁入其他任何認可的處理措施（例如 IOPP 證書附件格式 A 或 B 的 3.2 所述的焚燒爐、適用於燃燒殘油（油泥）的輔鍋爐或其他可接受的措施）的任何泵。

第 12.2.2 條 油泥艙排放管路

1 第 12.2.2 條不應追溯適用於在 2014 年 1 月 1 日以前交船的船舶^①。

2 油泥艙排放管路與艙底污水管路（引至第 13 條所指的標準排放接頭的可共用管路除外）之間不應互相連接。

3 對於在 2014 年 1 月 1 日以前交船的船舶¹。如殘油（油泥）艙設置至含油艙底水儲存櫃內底或含油水分離器的排放接頭，可接受現有佈置。

18 殘油（油泥）艙的舷外接頭

第 12.3 條 除第 13 條所述標準排放接頭外，1993 年 4 月 4 日以前安裝的進出殘油（油泥）艙的管路在舷外有排出口的船舶，可在這種管路上安裝斷開裝置以符合第 12.3 條的要求。

19 殘油（油泥）艙的清洗和殘餘物排放

第 12.4 條 為協助主管機關確定殘油（油泥）艙的設計和建造的足夠程度，以便於其清洗和將殘餘物排至接收設備，提供以下指導，對在 1990 年 12 月 31 日或以後安放龍骨或處於類似建造階段的船舶有效：

① 在 2014 年 1 月 1 日以前交船的船舶係指：

.1 在 2011 年 1 月 1 日以前簽訂建造合同的船舶；或
.2 無建造合同，在 2012 年 1 月 1 日以前安放龍骨或處於類似建造階段的船舶；或
.3 在 2014 年 1 月 1 日以前交船的船舶。

- .1 考慮到殘油（油泥）艙的內部結構，應設置足夠的人孔，以便對殘油（油泥）艙的所有部位進行清洗；
- .2 使用需要淨化的重油的船舶，其殘油（油泥）艙應裝設足夠的加熱裝置或其他適當裝置，以方便艙容物的抽吸和排放；
- .3 殘油（油泥）艙應裝設將艙容物排放至接收設備的指定泵。該泵應具有合適的型式、容量和排放壓頭，應考慮到所泵液體的性質和艙櫃尺寸和位置以及整個排放時間；
- .4 任何直接輸送殘油（油泥）至 IOPP 證書附件格式 A 或 B 中 3.2 規定的殘油（油泥）處理設備的殘油（油泥）艙（即殘油（油泥）日用櫃^①），如其配備合適的排放裝置，則可不適用上述 .3 的要求。

20 燃油艙保護

第 12A.6、
12A.7、
12A.8 條

20.1 用於按防污公約附則 I 第 12A 條的 6、7 和 8 規定的燃油艙的閥位置可視為按防污公約附則 I 第 12A.10 條類似燃油艙吸舫的處理方式，即可位於距船底不小於 $h/2$ 的位置。

20.2 根據防污公約附則 I 第 12A.11 條燃油意外溢油性能標準允許佈置在距船底或舷側小於 h 或 w 的位置的燃油艙，其閥可分別位於小於 h 或 w 的位置。

① 殘油（油泥）日用櫃係指經 MEPC.1/Circ.676 通函和 MEPC.1/Circ.760 通函修正的 MEPC.1/Circ.642 通函附件的附錄 5.3.3 定義的準備焚燒殘油（油泥）的艙櫃。

20.3 燃油艙的空氣透氣管和溢流管不視為“燃油管路”，因此可位於距舷側小於 w 的位置。

20.4 防污公約附則 I 第 12A.10 條所述的吸阱尺寸，除儘實際可能小外，還應適合於吸管尺寸和覆蓋的面積。

21 測量距離 “ h ”

第 12A.6、21.1 距離 “ h ” 應垂直於船底殼板型線處量起（第 12A 條，圖 1）。

12A.7、.1 對設計為具有尾鰭的船舶，尾鰭不視作對燃油艙提供保護。對在尾鰭寬度內的區域，距離 “ h ”
12A.8、應在尾鰭和船底殼板型線的交點處垂直於基線的
12A.11.8 條 平行線量起，如圖 A 所示。

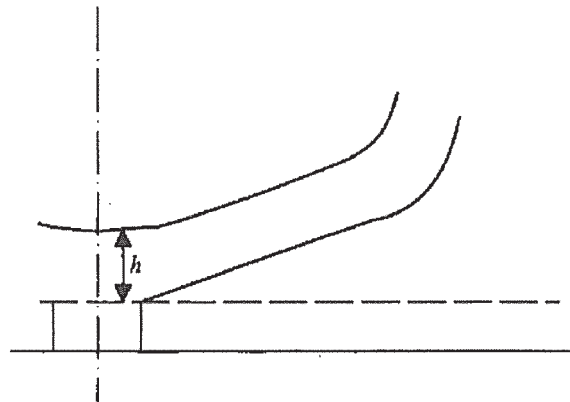


圖 A

.2 對設計為固定縱傾的船舶，基線應用作一參考點。距離 “ h ” 應在保護燃油艙櫃的相關肋骨處垂直於船底殼板型線量起。

21.2 對設計為底部升高的船舶，距離“ $1.5 h$ ”應從船底殼板型線量起，但垂直於基線，如圖 B 所示。

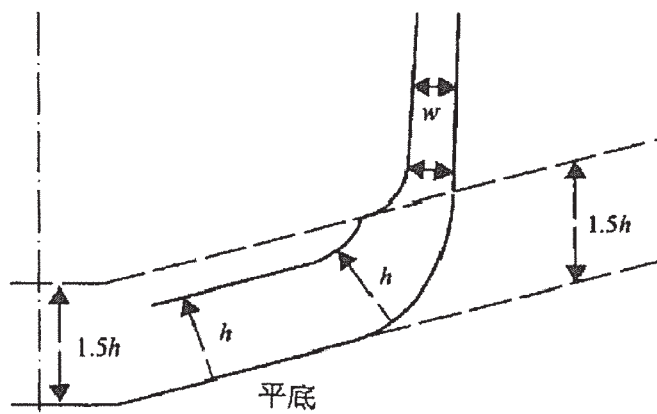


圖 B

21.3 上述 1、2 也適用於對第 12A.11.8 條中距離“ h ”的參照。

22 第 12A 條對 MODU 的適用範圍

第 12A.7、
12A.8 條 在對 MODU 規則中定義的柱穩定式平台 (MODU) 應用防污公約的附則 I 第 12A 條設置燃油艙時，本條 7 和 8 的位置限制適用於以下易受損壞的區域：

- .1 只有在平台周圍的立柱、水下船體和支架應假定受到損壞，且損壞應假定位於立柱、水下船體和支架的暴露部分；
- .2 立柱和支架應假定 MODU 在正常和惡劣天氣情況下作業的操作手冊中規定的吃水範圍 5 m 以上與 3 m 以下之間的任何水位上受到損壞；和

- .3 水下船體和支座在考慮其形狀後，應假定以上述.1
和.2 所述的同樣方式在移航狀態操作時受到損壞。

23 第 15.3.2 條要求的自動停止裝置

第 14、15 條 第 15.3.2 條包括了對第 14.7 條的參照，要求有一個 15 ppm 的報警器和一個 15 ppm 的停止裝置以確保在排出物含油量超過 15 ppm 時自動停止排放。但是，由於第 14 條對 10,000 總噸以下的船舶無此要求，此類船舶如不在特殊區域內從機器處所艙底排放排出物，則其無需裝設這種報警器和停止裝置。反之，未裝設這種 15 ppm 的報警器和 15 ppm 自動停止裝置的船舶在特殊區域內進行排放，即使排出物含油量低於 15 ppm，也構成違反本公約。

24 對燃油艙壓載水排放的控制

第 14.1 條 24.1 對第 14.1 條的第二句應作如下解釋：

任何 400 總噸及以上但小於 10,000 總噸的船舶：

- .1 如不用燃油艙裝壓載水，應裝設 15 ppm 濾油設備，以控制機器處所艙底污水的排放；
- .2 如用燃油艙裝壓載水，則應裝設第 14.2 條要求的設備，以控制機器處所艙底污水和燃油艙中污壓載水的排放。船舶裝設此種設備為不合理時，應將燃油艙中的污壓載水留存船上並排至接收設備。

24.2 上述設備應有足夠容量處理排放的排出物量。

25 濾油設備

第 14.1、第 14.1 和 14.2 條中規定的濾油設備係指 15 ppm 艙底
14.2 條水分離器，可包括一個分離器、過濾器或粗粒化器的
任意組合，也可是一個設計用於產生的排出物含油量
不超過 15 ppm 的單一裝置。

26 限制航程的豁免

第 14.5.3.4 條 《國際防止油污證書》應附有充分的資料，以使港口
國確定船舶是否符合關於“經主管機關確定的限制航
程”這一措詞的豁免條件。這種資料可包括港口一覽
表、具有接收設備的港口之間航程的最長持續時間，
或由主管機關所規定的類似條件。

27 排油的控制

第 15 條 油船的非貨油類含油殘餘物駁至污水水艙

27.1 如將非貨油類含油殘餘物駁至油船的污水水艙時，
這些殘餘物的排放應符合第 34 條的要求。

27.2 上述解釋不應理解為對禁止連接機艙和可能使貨油
進入機器處所污水水艙的管路佈置的現有規定有任何放
鬆。任何供機器處所污水排入污水水艙的佈置中都應設有
適當的裝置，以防止任何液體貨物和氣體向機器處所回
流。任何這類佈置都不構成放寬第 14 條中有關濾油設備
的要求。

28 “在航行途中”的定義

第 15.2.1 條 在航行途中係指船舶在海上包括偏離最短直線航道的航行。就實際航行目的而言，會造成海上大範圍實際又合乎情理的排放。

29 燃油

第 16.2 條 大量燃油

29.1 第 16.2 條中“大量燃油”一詞，是針對因其營運和運輸的具體特點而需要在海上待很長持續時間的船舶而提出的。根據已考慮的情況，此類船舶將需要在其空燃油艙中加入壓載水，以保持足夠的穩性和安全航行條件。

29.2 此類船舶可包括特別是某些大型漁船和遠洋拖輪。某些其他類型的船舶，因為安全的原因（如穩性）可能需要用燃油艙裝壓載水，也可包括在這一範疇之內。

30 第 16.4 條的適用範圍

第 16.4 條 當第 16.4 條所述的船舶上燃油艙與壓載艙的分隔為不合理或不可行時，可用燃油艙裝壓載水，但這種壓載水應按第 15.2、15.3、15.5 和 15.6 條規定排放入海，或按第 15.9 條規定排入接收設備。

31 用於儲存污壓載的油船

**第 18、19、
20、33、
35 條** 當油船用作浮動設施接收其他油船排放的污壓載時，這類油船不要求符合第 18、19、20、33 和 35 條的規定。

32 專用壓載艙、清潔壓載艙、原油洗艙和壓載艙保護位置的要求

第 18.3.2 條 專用壓載艙的容量

就第 18.3.2 條的適用範圍而言，油船的下述操作視為屬於例外情況的範疇：

- .1 當兼用船需要在裝/卸貨起重架下操作時；
- .2 當油船需通過矮橋時；
- .3 當地港口或運河規則要求安全航行的具體吃水時；
- .4 當裝載和卸載裝置要求油船具有一個比所有專用壓載艙滿載狀況下所達到的更深的吃水時；
- .5 如規範允許用筏進行近觀檢查或/和鋼板測厚時；和
- .6 進行液艙流體靜壓試驗時。

33 對船長小於 150 m 的油船的專用壓載條件

第 18.5 條 33.1 對船長小於 150 m 油船在確定其最小吃水和吃水差以具備作為專用壓載艙油船時，主管機關應遵循附錄 1 中的指導。

33.2 附錄 1 中列出的公式替代第 18.2 條中的公式，這類油船如要具備作為專用壓載艙油船，還應符合第 18.3 和 18.4 條中的條件。

**34 設有清潔壓載艙和原油洗艙且第 1.28.3 條定義的
40,000 載重噸及以上的油船**

第 18.7、 34.1 設有清潔壓載艙和原油洗艙並在 IOPP 證書附件
18.8 條 中指定為“原油/成品油油船”且第 1.28.3 條定義的
40,000 載重噸及以上的油船，應按下述規定運行：

- .1 應始終設有清潔壓載艙並不得在清潔壓載艙中
裝載原油或成品油；和
- .2 當全部或部分裝運原油時，還應在裝運原油的
艙中設有原油洗艙以控制油泥。

34.2 對於為貨物和（清潔壓載艙）壓載作業設有共用或
專用的獨立管路和泵吸佈置的油船，只要沒有允許在清
潔壓載艙狀態中裝運原油的規定，則應可繼續接受經主
管機關批准的原油洗艙狀態和清潔壓載艙狀態的轉換程
序。

35 清潔壓載艙的容量

第 18.8 條 為確定清潔壓載艙的容量，可包括下列艙櫃：

- .1 專用壓載艙；和
- .2 隔離艙和首尾尖艙，但須專門用於裝載壓載水，並且
與壓載水泵有固定管路接連。

36 清潔壓載艙油分計

第 18.8.3 條 清潔壓載艙中壓載的排放應由第 18.8.3 條所要求的油分計進行連續監測（但不必記錄），而使壓載水中的含油量（如有）能隨時得到觀測。這種油分計不需要自動起動。

37 專用壓載艙的保護位置

第 18.12 至 18.15 條 37.1 應測量邊艙的最小寬度和雙層底艙的最小垂直深度，且保護區域數值（ PA_c 和 PA_s ）的計算應按附錄 2 “對第 18.12 至 18.15 條（專用壓載艙的保護位置）的統一解釋的臨時建議” 的要求進行。

37.2 按本解釋建造的船舶應視為達到第 18.12 至 18.15 條的要求，即便以後的解釋導致不同的要求時，也無需改建。

37.3 如果主管機關未考慮上述臨時建議而認為，任何在 1980 年 7 月 1 日以前安放龍骨或處於類似建造階段的油船符合第 18.12 – 18.15 條的要求，該主管機關可接受此類船舶為符合第 18.12 至 18.15 條規定的油船。

38 具有獨立液艙的油船

第 19 條 具有獨立液艙的油船視為雙殼油船，只要其貨油艙界限面與船底板和舷側外板之間的最小距離的設計和構造符合第 19 條的規定。

39 在舳部彎曲區域的邊艙寬度和雙層底艙高度

第 19.3.3 條 關於舳部彎曲區域的第 19.3.3 條的要求適用於整個液艙長度。

40 壓載艙的總容量

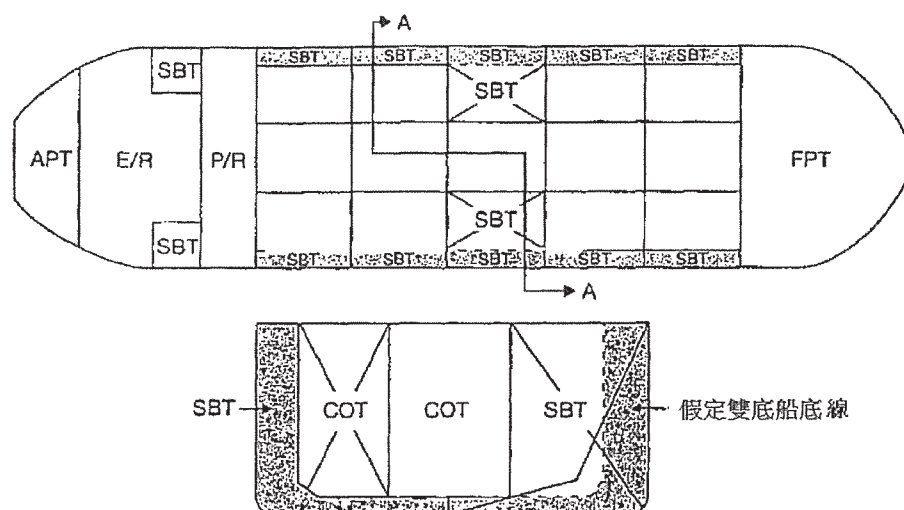
第 19.4 條 40.1 任何在雙殼體的局部船內延伸處、凹口或凹進處載運的壓載，例如橫艙壁台座，按第 18 條應為超出專用壓載艙容量的最低要求的額外壓載。

40.2 在計算第 19.3.4 條的總容量時，應考慮下列因素：

- .1 機器處所壓載艙的容量應不包括在壓載艙總容量之內；
- .2 位於雙殼體內壓載艙的容量應不包括在壓載艙總容量之內（見圖 1）；

41 雙邊艙定義

第 19.6.2 條 就符合第 21.4.2 條而言，第 19.6.2 條所要求的對整個貨油艙長度保護的邊艙，當船舶各貨油艙按每艙容積不超過 700 m³ 進行佈置時，可用作貨油艙裝運除重級別油之外的油類。



剖面 A-A

SBT：專用壓載艙

APT：尾尖艙

COT：貨油艙

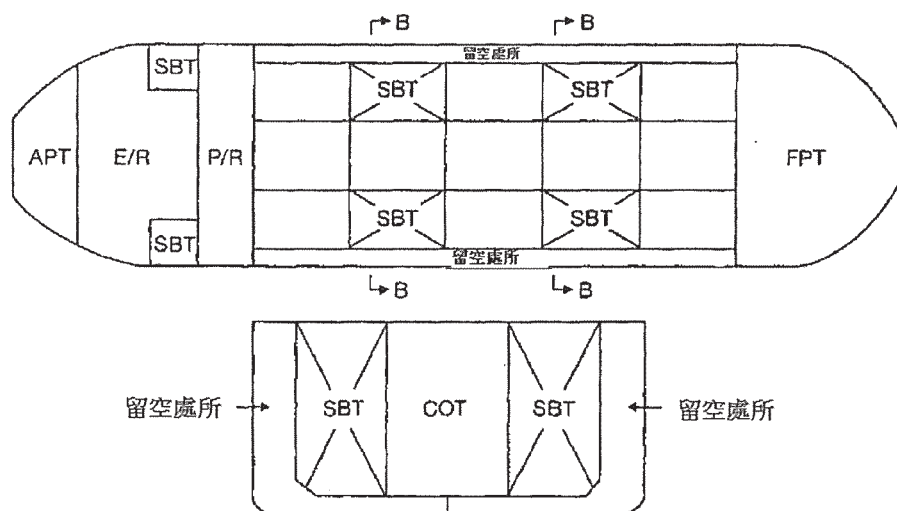
E/R：機艙

FPT：首尖艙

P/R：泵艙

圖 1

- .3 位於雙殼體且在貨油艙長度範圍內的留空處所，應包括在壓載艙的總容量內（見圖 2）。



剖面 B-B

SBT：專用壓載艙

APT：尾尖艙

COT：貨油艙

E/R：機艙

FPT：首尖艙

P/R：泵艙

圖 2

42 2 類油船的定義

第 20.3.2 條 任何 2 類油船必須設有位置受到保護的專用壓載艙 (SBT/PL)。

43 與第 20.4 條有關的重大改建

第 20.4 條 就確定防污公約附則 I 第 20.4 條要求的生效日期而言，如對油船已進行防污公約附則 I 第 1 條定義的重大改建，從而更換了包括整個載貨分段在內的前體，則該油船重大改建的完成日期應視為防污公約附則 I 第 20.4 條所指的交船日期，但應符合以下條件：

- .1 該油船的改建在 1996 年 7 月 6 日以前完成；
- .2 該項改建包括更換整個載貨分段和前體，且該油船在重大改建完成之日符合防污公約附則 I 所有適用的相關規定；
- .3 在按防污公約附則 I 第 20.6 條完成首次 CAS 檢驗方面計及 15 年船齡界限時，該油船的原交船日期將適用。

44 用於裝壓載水的第 1.28.5 條定義的油船邊艙和雙層底處所

第 20.6 條 如第 20.6 條中所指的邊艙和雙層底艙用於裝壓載水，則壓載佈置應至少符合經修訂的設有清潔壓載艙的油船技術條件（A.495（XII）決議）。

45 關於狀況評估計劃（CAS）的要求

第 21.6.1 條 首次 CAS 檢驗應與首次中間或換證檢驗同時進行：

-2005 年 4 月 5 日以後，或

-船齡滿 15 年之日以後，

以較遲者為準。

46 泵艙艙底的保護

第 22.5 條 46.1 術語“泵艙”係指貨泵艙。壓載管系被允許位於泵艙雙層底內，但任何管系的損壞不得導致“泵艙”內的泵失效。

46.2 保護“泵艙”的雙層底可以是空艙、壓載艙或者，在不受其他規則禁止時為燃油艙。

46.3 在雙層底中可允許設置污水阱，但該污水阱應儘可能小，並且污水阱底部與船舶基線之間垂直於船舶基線量取的距離不小於 $0.5 h$ 。

46.4 如泵艙的部分位於第 22.2 條所要求的最小高度以下，則僅對泵艙的該部分要求雙層底保護。

47 意外洩油性能超壓 (kPa)

第 23.7.3.2 條 如安裝惰性氣體系統，正常的超壓(kPa)應取 5 kPa。

48 艙的尺度限制和破艙穩性

第 24.1.2 條 底部破損的假定

在應用第 24.1.2 條規定的船舶前部底部破損數據進行洩油量和破艙穩性計算時，距首垂線 $0.3 L$ 處應是損壞範圍的最後點。

49 兼用船的假定洩油量

第 25 條 為計算兼用船的假定洩油量：

- .1 貨油艙的容積，不論艙口的結構如何，應包括量至艙口圍板上緣的艙口容積，但可不包括任何艙蓋的容積；和
- .2 測量至型線的容積時，不應減去內部結構的容積。

50 假定洩油量的計算

第 25.1.2 條 如果某邊艙沿其長度方向的寬度 b_i 不相等，在估算假定流出油量 O_c 和 O_s 時，應採用該艙最小的 b_i 值。

51 假定洩油量閥的位置

第 25.3.3 條 51.1 按防污公約附則 I 第 25.3.3 條規定的閥或其他關閉裝置的位置可視為按防污公約附則 I 第 12A.10 條類似燃油艙吸阱的處理方式，即可位於距船底不小於 $h/2$ 的位置。

51.2 防污公約附則 I 第 25.3.3 條所述的吸阱尺寸，除面積不太大外，還應適合於吸管尺寸和覆蓋的面積。

52 完整穩性

第 27 條 52.1 船舶應在所有的貨油艙內進行裝載，並使每一艙裝載至一個相當於垂向體積矩加上橫傾角為 0° 時自由液面慣性矩的最大組合。貨物密度應按排水時橫向 KM 達到一個最小值時的有效貨物載重量，假定滿載出港消耗品和總壓載水容量的 1%。最大的自由液面力矩應假定在所有的壓載艙內。為了計算 GM_0 ，自由液面修正應根據適當的正浮自由液面慣性矩。復原力臂曲線可以根據液體移動力矩修正。

52.2 為證明與防污公約附則 I 第 27 條相符合，作為對防污公約統一解釋 45.1 中描述的裝載情況的替代，可以選擇對貨物和壓載艙裝載的所有可能組合進行大量分析。對於這些大量分析的條件，需要考慮：

- .1 所有液艙的重量、重心座標和自由液面力矩應根據計算中的實際容量取值；和
- .2 大量計算應根據如下條件進行：
 - .2.1 吃水的變化範圍應介於空壓載和結構吃水之間；
 - .2.2 應考慮相應於 97%、50%和 10%容量的消耗品，這些消耗品應包括但不限於燃油、柴油和淡水；
 - .2.3 對於每一吃水和消耗品的變化，可用的載重量應包括壓載和貨物，以便包含介於最大壓載和最小貨物載重量之間與最小壓載和最大貨物載重量之間的所有組合情況。在所有情況下，所選擇的壓載艙和貨油艙的數量應反映 VCG 和自由液面影響的最不利組合情況。不容許用操作的方法限制考慮為同時未裝滿的液艙的數量，也不容許對某些特定液艙作例外的考慮。所有壓載艙應至少有 1%的壓載量；
 - .2.4 應考慮擬裝載的貨物密度介於最大值和最小值之間；和
 - .2.5 應對所有限制範圍內足夠多的步長階段進行檢查，以確保識別出最不利的情況。對於貨物和壓載容量的範圍，從總容量的

1%到 99%之間，至少應檢查 20 步。在接近容量範圍的臨界處可能需要更小的步長。

在每一階段，均應符合第 27.1 條中所述的衡準。

53 營運吃水

第 28.1 條 關於“反映實際部分裝載狀態或滿載狀態的任何營運吃水”一語，所需資料應能使對船舶在與其預期的營運相同或相似的條件下的破艙穩性作出評估。

54 吸阱

第 28.2 條 為按第 28.2 條規定確定假定破損範圍，吸阱可忽略不計，但該阱面積應不過大，並且延伸艙下部分的距離應最短，該距離在任何情況下不得超過雙層底高度的一半。

55 有平滑壁的艙

第 29.2.3.3 條 “有平滑壁的艙”應包括“油類/散貨/礦砂船”的主貨艙，這類艙可建有小深度的垂直框架。垂直波形艙壁可視作平滑壁。

56 泵吸和管路佈置

第 30.2 條 水線以上排放管路佈置

56.1 按第 30.2 條規定，在水線以上向海中排放用的管路必須通到：

- .1 在最深壓載狀態時，位於水線以上的船舷排出口；或
- .2 船中部排放匯集管，或在上甲板之上的一個船尾或船首裝載/排放設備（如設有）。

56.2 在 56.1.1 中所述船舷排出口，應處於當船舶在壓載航行中將壓載加至最大量時，排出口下沿不會浸沒水中的位置，應考慮到船的類型及其運輸情況。在下述壓載狀態下，位於水線以上的排放出口，應被接受為符合本要求的排出口：

- .1 無專用壓載艙或清潔壓載艙的油船，船上同時裝有正常離港壓載和正常清潔壓載時的壓載狀態；和
- .2 設有專用壓載艙或清潔壓載艙的油船，在專用或清潔壓載艙中裝有壓載水，並按第 18.3 條規定，在貨油艙中裝有額外壓載時的壓載狀態。

56.3 船上通至位於離港壓載水線以上但在最深壓載狀態時不位於水線以上的船舷排出口的管路，如於 1981 年 1 月 1 日以前安裝，主管機關可接受這種管路佈置。

56.4 第 30.2 條規定雖然並不排除使用 56.1.2 中所述設備排放壓載水的做法，但一般認為，此種設備是不理想的，並強烈建議船舶應安裝 56.1.1 中所述舷側排放出口或安裝第 30.6.5 條規定的分流裝置。

57 小直徑管路

第 30.4.2 條 57.1 為實施第 30.4.2 條的規定，小直徑管路的橫剖面面積不應超過：

- .1 對第 1.28.4 條定義的在 1982 年 6 月 1 日以後交船的油船或對尚未裝小直徑管路的第 1.28.3 條定義的在 1982 年 6 月 1 日或以前交船的油船，船上主卸貨管路直徑的 10%；或
- .2 對已裝這種管路的第 1.28.3 條定義的在 1982 年 6 月 1 日或以前交船的油船，船上主卸貨管路直徑的 25%。(見經本組織 A.497(XII)和 A.897(21)決議修正的 A.446(XI)決議“經修訂的原油洗艙技術條件”4.4.5)。

57.2 小直徑管路與匯集管閥門的連接

關於向岸上排放的小直徑管路的“連接於向舷外一側”一詞，應解釋為：係指在卸貨時油船左右兩舷甲板匯集管閥門出口一側的連接。這種佈置可在油船匯集管閥門關閉時，通過與主貨油管路相同的連接，將貨油管路中殘留的貨油泵至岸上（見附錄 3 中的示意圖）。

58 分流系統技術條件

第 30.6.5.2 條 第 30.6.5.2 條所述的“控制舷外排放分流系統的設計、安裝和操作技術條件”，見附錄 4。

59 牢靠設備實例

第 30.7 條 牢靠設備的實例可以是盲板、眼鏡形盲板、管路蓋、抽吸或真空系統，或空壓或水壓系統。如果使用抽吸或真空系統，或空壓或水壓系統，這些系統應裝有壓力計和報警系統，以能連續監測海水吸入箱與舷內閥之間管段的狀態以及閥的完整性。

60 總排油量

第 34.1.5 條 第 34.1.5 條所述的“這項殘油所屬的該種貨油總量”，指上一航次裝運的該種貨油總量，而不應解釋為僅與其後裝入壓載水的貨油艙內貨油總量有關。

61 船上油污應急計劃

第 37.1 條 油污應急計劃適用要求的等效規定

任何從事海牀礦物資源勘探、開發或相關的近海加工的固定式或浮動式鑽井裝置或其他近海裝置，如具有與沿海國規定的程序相協調且經批准的油污應急計劃，應視為符合第 37 條的要求。

62 第 2.4 條規定的物質的足夠接收設備

第 38 條 接收第 2.4 條規定的物質（特別包括高密度油類）的卸貨港口，應具有用於這種物質的足夠設施，可在港口內進行全部貨艙清洗作業，並按統一解釋 7.2 的規定，應具備足夠的接受設備，用於合理排放和接收貨物殘餘以及清洗作業所必需的溶劑。

63 對固定或浮動平台的要求

第 39 條 防污公約的適用範圍

2 (3) (b) (ii) 條

與本條所涉及的從事礦物資源勘探和開發的固定或浮動平台作業有關的排放有五類，即：

- .1 機器處所的排放；
- .2 近海加工的排放；
- .3 生產用水的排放；
- .4 排出水的排放；和
- .5 用於作業後產生的受污染海水，例如採油櫃的清洗水、採油櫃靜水壓力試驗用水、採油櫃用筏進行檢查的壓載水。

僅機器處所的排放和受污染壓載水的排放應受防污公約的約束（見附錄 5 中的示意圖）。

附則 I 統一解釋的附錄

附錄 1

關於船長小於 150 m 的專用壓載艙油船建議吃水深度的 主管機關實用導則

引言

1 作為指導，就船長小於 150 m 的專用壓載艙油船最小吃水要求提出三種計算公式，供各主管機關運用。

2 這些公式基於理論研究和不同結構形狀油船的實踐檢驗，這些不同的結構外形反映了有關推進器露出水面、振動、拍擊、失速、橫搖、進塢及其他因素的變化程度。此外，還包括一些有關假定的海況資料。

3 認識到這一基本工作的性質，小油船的構造大不相同以及每艘船對風和海況有其獨特的敏感性，因此無法找到一個建議單一公式的依據。

注意事項

4 必須注意：所提供的資料應供主管機關作為一般性指導之用。對某一具體船舶的特殊營運要求，主管機關應確信該油船有足夠的壓載能力進行安全營運。在任何情況下，穩性都應單獨進行審查。

5 公式 A

.1 平均吃水 (m) = 0.200 + 0.032 L

$$.2 \text{ 最大吃水差} = (0.024 - 6 \times 10^{-5} L) L$$

6 這些數據是研究了 26 艘船長從 50 m 至 150 m 不等的油船之後得出的。在有些情況下，吃水是從船舶縱傾和穩性計算書中摘錄的，並代表了離港壓載狀態。壓載狀態表示在風力高至（並包括）蒲氏 5 級時的氣候中的航行條件。

7 公式 B

$$.1 \text{ 最小首吃水 (m)} = 0.700 + 0.0170 L$$

$$.2 \text{ 最小尾吃水 (m)} = 2.300 + 0.030 L \text{ 或}$$

$$.3 \text{ 最小平均吃水 (m)} = 1.550 + 0.023 L$$

$$.4 \text{ 最大吃水差 (m)} = 1.600 + 0.0130 L$$

8 這些數據是基於理論研究、模型及實船試驗而進行調查研究的結果。這些公式是以 6 級浪（國際浪級表）為基礎的。

9 公式 C

$$.1 \text{ 最小後吃水 (m)} = 2.0000 + 0.0275 L$$

$$.2 \text{ 最小前吃水 (m)} = 0.5000 + 0.0225 L$$

10 這些數據提供了加深的吃水，以幫助較大船長的船舶防止推進器露出水面及產生拍擊。

附錄 2

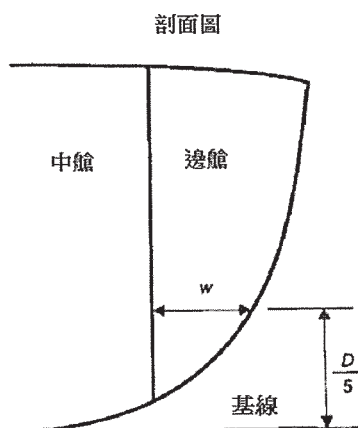
對第 18.12 至 18.15 條（專用壓載艙的保護位置）統一解釋 的臨時建議

1 防污公約附則 I 第 18.15 條涉及針對位於船舶兩端無明顯舭部的液艙，量取邊艙的 2 m 最小寬度和量取雙層底艙的 2 m 或 $B/15$ 最小垂直深度，應按下文所述予以解釋。位於有明顯舭部的船舶平行中段的液艙，其量取不存在困難。本條未說明應如何量取。

2 邊艙的最小寬度應在基線以上的高度 $D/5$ 處量取，此係假定 $D/5$ 任何情況下均在船中舭部上沿以上，以提供一個合理的基準面，在其之上應適用 2 m 寬度的碰撞保護（見圖 1）。雙層底艙的最小高度應在基線以上 $D/5$ 的水平線與船殼相交處向舷內 $D/5$ 的垂直平面上量取（見圖 2）。

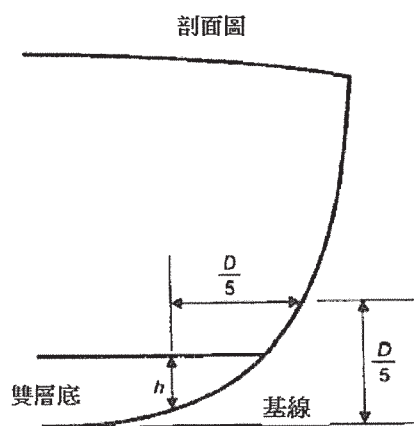
3 整個艙長範圍內最小寬度不足 2 m 的邊艙， PA_c 值為零；該艙中最小寬度超過 2 m 的部分，不作考慮。任何雙層底艙如在其全長中有任何部分達不到最小深度的要求，在評估 PA_s 時也不作考慮。然而，如果在雙層底以上的貨油艙底的投影面完全位於滿足最低高度要求的雙層底艙或處所範圍內，且如果該上面液貨艙的限界側壁為垂直的或相對於垂直的斜度不大於 45° ，則雙層底艙由該貨油艙底的投影所界定的部分可以算入。在雙層底以上的邊艙為專用壓載艙或空艙的類似情況下，也可作這種考慮。但是，垂直或水平保護分別符合第 18.15 條中規定的最小距離，並不排除在上述第一例中算入 PA_s 值，在第二例中算入 PA_c 值。

4 投影面的使用應如圖 3 至 8 的例子所示。圖 7 和 8 表示艙頂傾斜的雙層底艙計算 PA_c 時對高度的量取。圖 9 和 10 表示計算 PA_s 時將部分或全部雙層底艙算入的情況。



對用於 PA_c 計算的艙，沿整個艙的全長 w 必須至少為 2 m。

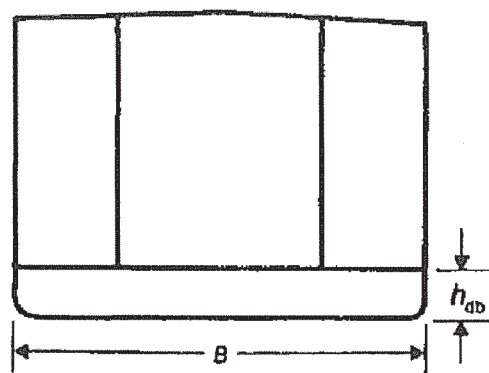
圖 1 位於船舶兩端的邊壓載艙最小寬度的量取



對用於 PA_s 計算的艙，沿整個艙的全長 h 必須至少為 2 m 或 $B/15$ ，取小者。

圖 2 位於船舶兩端的雙層底艙最小高度的量取

剖面圖



如沿整個艙長的 h_{db} 至少為 2 m 或 $B/15$ ，取小者，

$$PA_c = h_{db} \times \text{雙層底艙長} \times 2$$

$$PA_s = B \times \text{雙層底艙長}$$

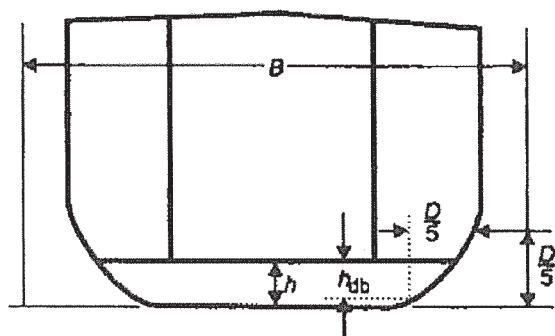
如 h_{db} 小於 2 m 或 $B/15$ ，取小者，

$$PA_c = h_{db} \times \text{雙層底艙長} \times 2$$

$$PA_s = 0$$

圖 3 船中部雙層底艙 PA_c 和 PA_s 的計算

剖面圖



如沿整個艙長的 h_{db} 至少為 2 m 或 $B/15$ ，取小者，

$$PA_c = h \times \text{雙層底艙長} \times 2$$

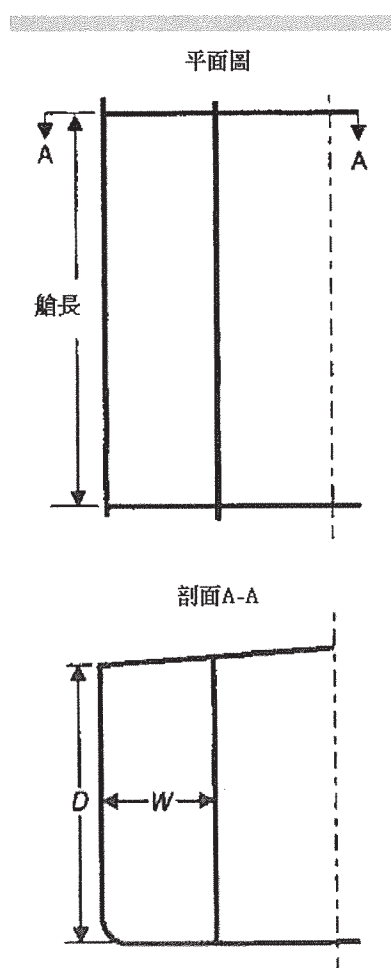
$$PA_s = B \times \text{雙層底艙長}$$

如 h_{db} 小於 2 m 或 $B/15$ ，取小者，

$$PA_c = h \times \text{雙層底艙長} \times 2$$

$$PA_s = 0$$

圖 4 船舶兩端雙層底艙 PA_c 和 PA_s 的計算



如 W 為 2 m 或以上，

$PA_c = D \times \text{艙長} \times 2^{①}$

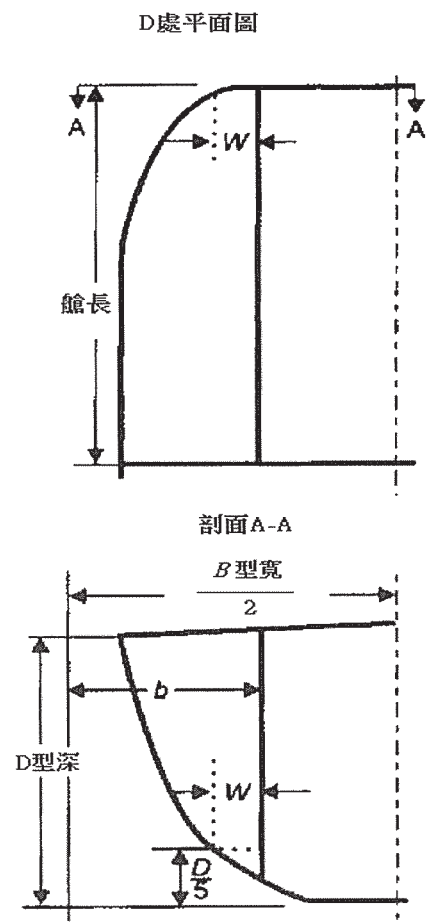
$PA_s = W \times \text{艙長} \times 2^{①}$

如 W 小於 2 m，

$PA_c = 0$

$PA_s = W \times \text{艙長} \times 2^{①}$

圖 5 位於船中部邊艙 PA_c 和 PA_s 的計算



如 W 為 2 m 或以上，

① 包括左舷和右舷。

$$PA_c = D \times \text{艙長} \times 2^{①}$$

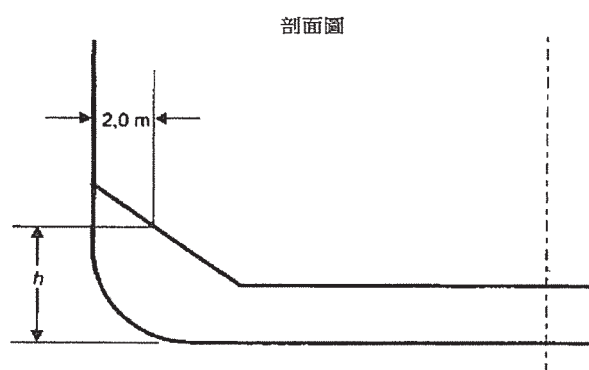
$$PA_s = b \times \text{艙長} \times 2^{①}$$

如 W 小於 2 m ,

$$PA_c = 0$$

$$PA_s = b \times \text{艙長} \times 2^{①}$$

圖 6 位於船端邊艙 PA_c 和 PA_s 的計算



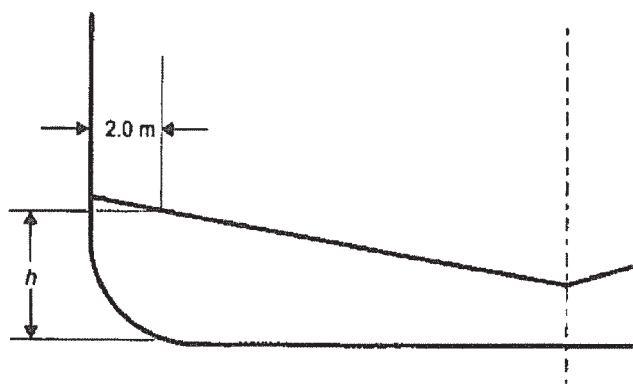
$$PA_c = h \times \text{雙層底艙長} \times 2^{①}$$

圖 7 艙頂傾斜的雙層底艙計算 PA_c 時 h 的量取 (1)

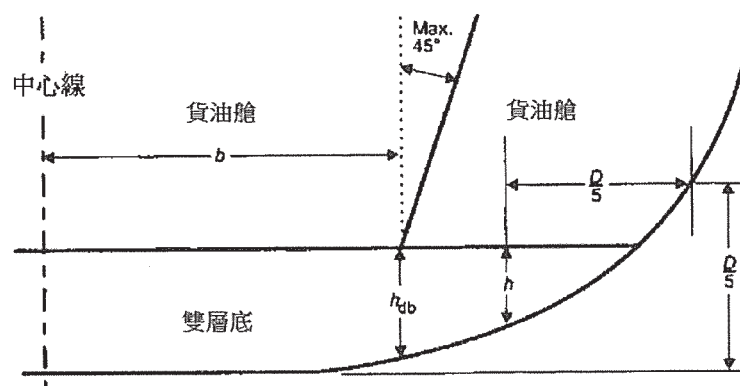
① 包括左舷和右舷。

① 包括左舷和右舷。

剖面圖



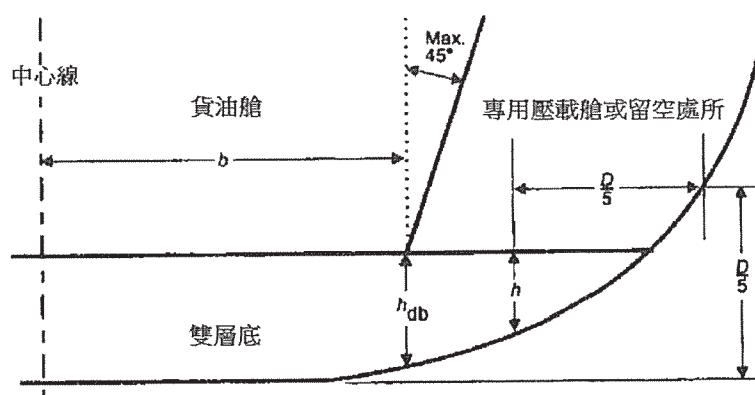
$$PA_c = h \times \text{雙層底艙長} \times 2^{\text{①}}$$

圖 8 艙頂傾斜的雙層底艙計算 PA_c 時 h 的量取 (2)

如沿整個艙長的任何地方 h 小於 2 m 或 $B/15$ ，取小者，但是 h_{db} 沿艙全長在 $2b$ 寬度範圍之內，至少為 2 m 或 $B/15$ ，取小者，則：

$$PA_s = 2b \times \text{貨油艙長}$$

圖 9 未明確確定舳彎曲區域的雙層底艙的 PA_s 計算（當邊艙為貨油艙時）



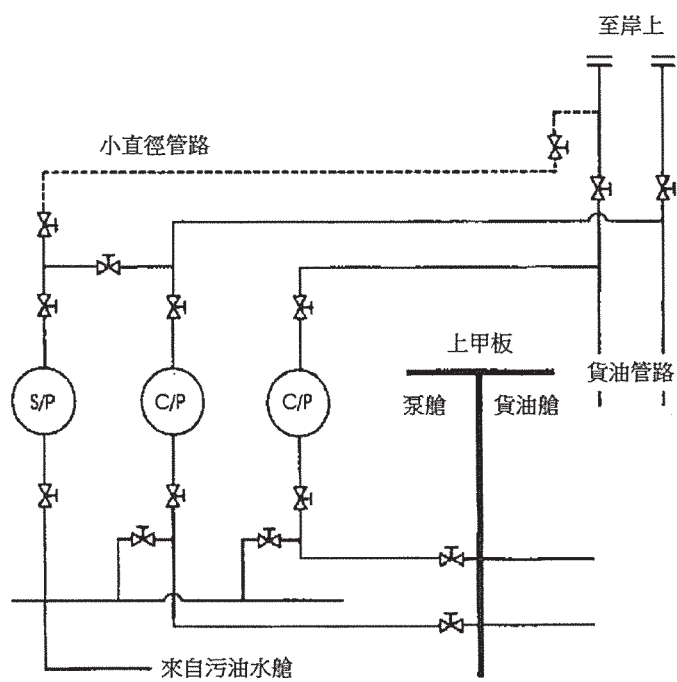
如沿整個艙長的任何地方 h 小於 2 m 或 $B/15$ ，取小者，但是 h_{db} 沿艙全長在 $2b$ 寬度範圍之內，至少為 2 m 或 $B/15$ ，取小者，則：

$$PA_s = B \times \text{貨油艙長}$$

圖 10 未明確確定舳彎曲區域的雙層底艙的 PA_s 計算（當邊艙為專用壓載艙或空艙時）

附錄 3

小直徑管路與匯集管閥門的連接



附錄 4

控制舷外排放分流系統的設計、安裝和操作技術條件

1 目的

1.1 本技術條件的目的，是為《經 1978 年議定書修訂的 1973 年國際防止船舶造成污染公約》（防污公約）附則 I 第 30.6.5 條所述分流系統提供具體設計衡準和安裝及操作要求。

2 適用範圍

2.1 第 1.28.1 條定義的在 1979 年 12 月 31 日或以前交船的油船，可按防污公約附則 I 第 30.6.5 條，在水線之下從貨油艙區域排放污壓載水和油污水，但排放水流的分流應經一條固定管路通至上甲板或以上的一個易於接近的位置，此處可在排放操作中對分流情況作目視觀察，並且所作佈置應符合主管機關規定的要求，該要求應至少包括本技術條件中的全部規定。

2.2 分流概念所依據的原則是，對舷外排出物代表性分流的觀察相當於對該排出物全流的觀察。本技術條件提供了分流系統的設計、安裝和操作方面的細節。

3 一般規定

3.1 所安裝的分流系統應能有效提供有代表性的舷外排出物樣水，以便在所有正常操作條件下進行視覺顯示。

3.2 分流系統在許多方面與排油監、控系統的取樣系統相似，但泵和管系應與該取樣系統分開，或為主管機關所接受的組合的等效裝置。

3.3 分流的顯示部分應安排在上甲板或以上的一個圍蔽的且易於接近的位置，並應獲主管機關批准，（如泵艙入口處）。應注意，在分流顯示處與排放控制處之間應有有效的通信聯繫。

3.4 樣水應取自舷外排放管路有關的管段，經固定管系通到顯示裝置。

3.5 分流系統應包括下列部件：

- .1 取樣探頭；
- .2 樣水管系；
- .3 樣水輸送泵；
- .4 顯示裝置；
- .5 樣水排放裝置；以及根據樣水管路的直徑；
- .6 沖洗裝置。

3.6 分流系統應符合適用的安全要求。

4 系統佈置

4.1 取樣點

4.1.1 取樣點位置：

- .1 取樣點的位置應設在能夠從通過排放作業所用的水線下排出口的排出物中得到有關樣水的地方。
- .2 取樣點應儘可能位於一般可出現紊流的管段。

- .3 取樣點應儘可能佈置在排放管路垂直管段的易於接近的部位。

4.1.2 取樣探頭：

- .1 取樣探頭應佈置成其伸入管路的深度一般相當於該管路管徑的四分之一。
- .2 取樣探頭應容易拆卸，以便清洗。
- .3 分流系統的每一個取樣探頭附近都應裝有一個截止閥，但當取樣探頭裝在貨油管路上時，同一取樣管路上應串聯兩個截止閥。
- .4 取樣探頭應由耐腐蝕，耐油的材料製成，有足夠的強度，並正確連接和支撐。
- .5 取樣探頭應為不易於被排出物含有的顆粒物體阻塞的形狀，並不會在取樣端產生高流體壓力。圖 1 是一個取樣探頭的適當形狀舉例。
- .6 取樣探頭應有與樣水管路一致的公稱孔徑。

4.2 樣水管路

- .1 取樣點和顯示裝置之間的樣水管路應儘可能筆直。應避免能存集油和沉積物的銳彎和凹槽。
- .2 樣水管路的佈置應能把樣水在 20 s 之內送到顯示裝置，管中的流速不得小於 2 m/s。

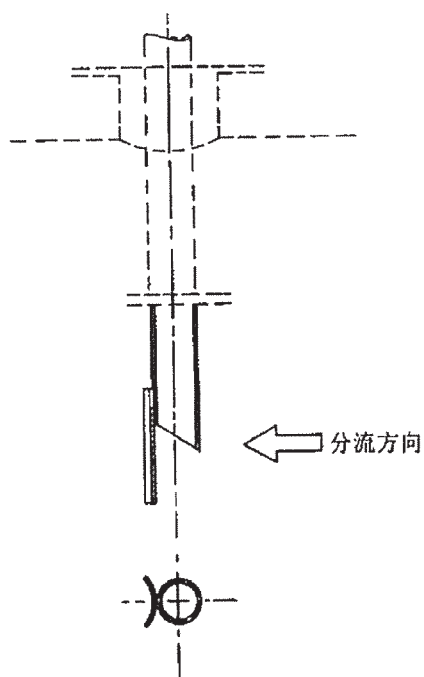


圖 1 分流顯示系統的取樣探頭

- .3 如未裝設固定沖洗裝置，管路的直徑不得小於 40 mm，如裝設有 4.4 中所詳述的壓力沖洗裝置，則管路的直徑不得小於 25 mm。
- .4 樣水管路應由防腐蝕、耐油的材料製成，有足夠的強度，並正確的連接和支撐。
- .5 如裝有數個取樣點，樣水管應接在位於樣水輸送泵吸入邊的一個閥箱上。

4.3 樣水輸送泵

- .1 樣水輸送泵的能量應適於使樣水流速達到 4.2.2 中的標準。

4.4 沖洗裝置

- .1 如果樣水管路直徑不足 40 mm，則應裝設與海水或淡水壓力管系固定連接的裝置，以便能沖洗樣水管系。

4.5 顯示裝置

- .1 顯示裝置由一個裝有觀察玻璃的顯示室構成。該室的大小應使得至少能在 200 mm 的距離，清楚地觀察到樣水的自由流程。主管機關可批准等效裝置。
- .2 顯示裝置應與閥門和管路連接起來使部分樣水繞過顯示室，以在室中顯示層流。
- .3 顯示裝置應設計成易於打開和清洗。
- .4 顯示室內，除後壁外，應為白色，後壁應塗有助於觀察樣水水質任何變化的顏色。
- .5 顯示室的下部，應為漏斗狀，以收集樣水。
- .6 應裝有一隻採集樣水的試驗龍頭，以便對顯示室之外的樣水進行檢查。
- .7 顯示裝置應有充足的照明，便於對樣水的目視觀察。

4.6 樣水排放裝置

- .1 離開顯示裝置的樣水，應經固定的具有足夠管徑的管路通至大海或污油水艙。

5 操作

5.1 當通過水線下排出口排放貨艙區域的污壓載水或其他油污水時，分流系統應在任何時候從有關排放口提供樣水。

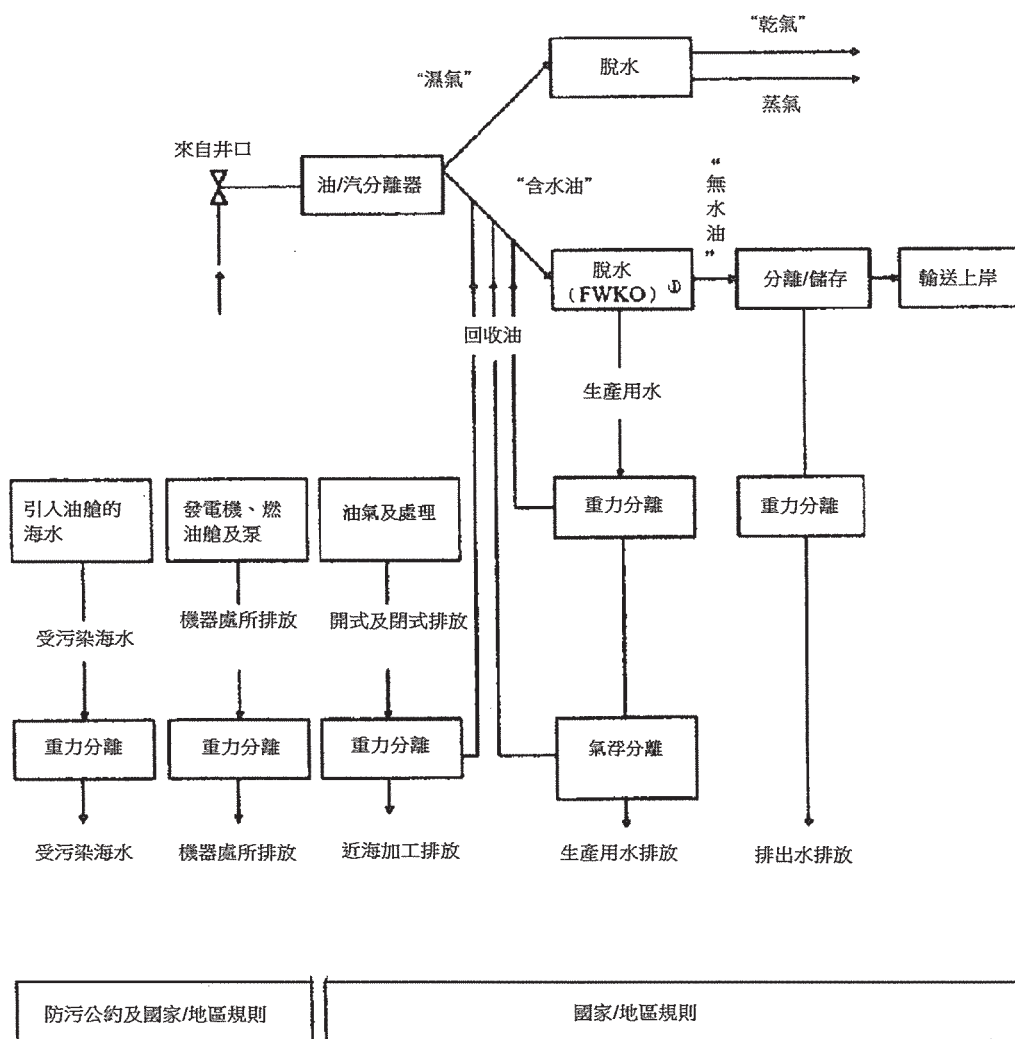
5.2 在排水作業中最可能出現油污染階段時，應特別注意觀察樣水，一旦水流中出現任何可見油跡，及油分計讀數表明含油量超過許可限度時，應停止排放。

5.3 裝有沖洗裝置的系統，在觀測到油污之後，應沖洗樣水管路，此外，建議在每一使用期之後，沖洗樣水管路。

5.4 船舶的貨物和壓載裝卸手冊，可行時還在原油洗艙系統或清潔壓載艙操作所需用的手冊中，應明確寫明在排放壓載和執行污油水艙排放程序時結合使用分流系統。

附錄 5

固定或浮動平台的排放



① FWKO 係指游離水分離。

防污公約附則 II

控制散裝有毒液體物質污染規則

第 1 章

總則

第 1 條

定義

就本附則而言，

1 **周年日期**係指與《國際防止散裝運輸有毒液體物質污染證書》期滿之日對應的每年的該月該日。

2 **相關管系**係指從貨艙吸入點至岸接頭的用於卸貨的管系，包括與卸貨管路公開連接的船舶所有管系、泵和過濾器。

3 壓載水

清潔壓載係指裝入一個艙內的壓載水，該艙自上次用於裝載含有 X，Y 或 Z 類物質的貨物以來，已予徹底清洗，所產生的殘餘物也已按本附則的相應要求全部排空。

專用壓載係指裝入一個艙內的壓載水，該艙與貨物和燃油系統完全隔離並固定用於裝載壓載水、或固定用於裝載本公約各附則中所定義的各種油類或有毒液體物質以外的壓載水或貨物。

4 化學品規則

散裝化學品規則係指由本組織海上環境保護委員會 MEPC.20 (22) 決議通過並經本組織修正的《散裝運輸危險化學品船舶構造和設備規則》，但這些修正案應按本公約第 16 條規定的有關附則附錄的修正程序予以通過和生效。

國際散裝化學品規則係指由本組織海上環境保護委員會 MEPC.19 (22) 決議通過並經本組織修正的《國際散裝運輸危險化學品船舶構造和設備規則》，但這些修正案應按本公約第 16 條規定的有關附則附錄的修正程序予以通過和生效。

5 水深係指海圖深度。

6 航行途中係指船舶在海上包括偏離最短直線航道的航行，就實際可行的航行目的而言，其任何排放將遍及於一個合理可行的大的海域範圍。

7 液體物質係指在溫度為 37.8°C 時，絕對蒸氣壓力不超過 0.28 MPa 的物質。

8 手冊係指根據本附則附錄 IV 所示的樣本編寫的《程序和佈置手冊》。

9 最近陸地。“距最近陸地”一詞，係指距按照國際法劃定領土所屬領海的基線，但下述情況除外：就本公約而言，在澳大利亞東北海面“距最近陸地”，係指澳大利亞海岸下述各點的連線：

自南緯 11°00' 東經 142°08' 的一點起，

至南緯 10°35' 東經 141°55' 的一點，

然後至南緯 10°00' 東經 142°00' 的一點，
然後至南緯 9°10' 東經 143°52' 的一點，
然後至南緯 9°00' 東經 144°30' 的一點，
然後至南緯 10°41' 東經 145°00' 的一點，
然後至南緯 13°00' 東經 145°00' 的一點，
然後至南緯 15°00' 東經 146°00' 的一點，
然後至南緯 17°30' 東經 147°00' 的一點，
然後至南緯 21°00' 東經 152°55' 的一點，
然後至南緯 24°30' 東經 154°00' 的一點，
然後至澳大利亞海岸南緯 24°42' 東經 153°15' 的一點所畫的一條連線。

10 有毒液體物質係指《國際散裝化學品規則》第 17 或 18 章的污染類別欄中所指明的或根據第 6.3 條規定經臨時評定列為 X、Y 或 Z 類的任何物質。

11 PPM 係指 ml/m^3 。

12 殘餘物係指任何需處理的有毒液體物質。

13 殘餘物/水混合物係指以任何目的加入水的殘餘物（例如油艙清洗、加壓載水、艙底含油污水）。

14 船舶建造

14.1 建造的船舶係指安放龍骨或處於類似建造階段的船舶。船舶改建為化學品液貨船時，不論其建造日期為何時，開始改建的日期應視作化學品液貨船的建造日期。該改建規定不適用於符合下列全部條件的船舶改裝：

- .1 1986 年 7 月 1 日以前建造的船舶；和
- .2 船舶已核准根據《散裝化學品規則》僅載運由該規則確定的只具有污染危害物質的貨品。

14.2 類似建造階段係指在此階段：

- .1 可辯認出某一具體船舶建造開始；和
- .2 該船業已開始的裝配量至少為 50 t，或為全部結構材料估算重量的 1%，取較小者。

15 固化/非固化

15.1 固化物質係指有毒液體物質，其：

- .1 物質的溶點低於 15°C，處於卸載時溶點以上不到 5°C 的溫度；或
- .2 物質的溶點等於或高於 15°C，處於卸載時溶點以上不到 10°C 的溫度。

15.2 非固化物質係指不是固化的有毒物質。

16 液貨船

16.1 化學品液貨船係指經建造為或改建用於散裝運輸《國際散裝化學品規則》第 17 章所列的任何一種液體貨品的船舶。

16.2 NLS 液貨船係指經建造為或改建用於散裝運輸有毒液體物質貨物的船舶，包括本公約附則 I 定義的核准用於散裝運輸全部或部分有毒液體物質貨物的油船。

17 黏度

17.1 高黏度物質係指在卸貨溫度下黏度等於或高於 50 mPa·s 的 X 或 Y 類有毒液體物質。

17.2 低黏度物質係指非高黏度物質的有毒液體物質。

第 2 條

適用範圍

1 除另有明文規定外，本附則的規定應適用於所有核准散裝運輸有毒液體物質的船舶。

2 受本公約附則 I 規定約束的貨物，如裝載於 NLS 液貨船的裝貨處所，還應適用本公約附則 I 的相應要求。

第 3 條

例外

1 如屬下列情況，本附則的排放要求應不適用於有毒液體物質或含有這種物質的混合物排放入海：

.1 此排放係為保障船舶安全或救護海上人命所必需者；或

.2 由於船舶或其設備損壞而導致：

.2.1 如果在發生損壞或發現排放後，為防止排放或使排放減至最低限度，已採取了一切合理的預防措施；和

- .2.2 但是，如果船東或船長是故意造成損壞，或輕率行事而又知道可能會招致損壞，則不在此例；或
- .3 此排放係經主管機關批准用以對抗特定污染事故，以便使污染損害減至最低限度。但任何這種排放，均應經擬進行排放所在地區的管轄國政府批准。

第 4 條

免除

1. 對於因物質分類升級而對載運要求的修正，下列情況應適用：
- .1 如本附則、《國際散裝化學品規則》和《散裝化學品規則》的修正涉及因某些物質載運要求的升級而對結構或設備和裝置進行改變，並且立即實施該修正案為不合理或不可行時，主管機關可對那些在該修正案生效日之前建造的船舶實施該修正案的時間予以修改或推遲一段時間。對每一物質的此類放寬應予以確定；
- .2 按本段所述允許放寬實施修正案的主管機關，應向本組織提交報告，詳述有關的船舶、核准裝運的貨物、各船所從事的貿易和放寬的理由，以便轉發本公約各締約國，供其參考和採取適當行動（如有時），並應在本附則第 7 條或第 9 條所述的證書上反映出該免除；
- .3 儘管有上述規定，對於 IBC 規則第 17 章內相關腳註確定為核准載運單個標識的植物油類的船舶，主管機關可免除第 11 條的載運要求，但該船舶應符合下列條件：

.3.1 除本條規定外，NLS 液貨船應符合 IBC 規則中對確定為 3 型船舶的所有要求，但貨艙位置除外；

.3.2 根據本條，貨艙應位於下述內側距離內。貨艙全長應由壓載艙或載運油類以外的液艙處所保護：

.3.2.1 邊艙或處所的佈置應使貨艙位於舷側外板型線內側均不小於 760 mm 處；

.3.2.2 雙層底艙或處所的佈置應使貨艙底部與從右角至底部外板測量的底部外板型線的距離不小於 $B/15$ (m) 或從中線測量 2.0 m，取較小者。最小距離應為 1.0 m；

.3.3 相關證書應顯示所給予的免除。

2 除本條 3 的規定外，第 12.1 條的規定不必適用於 1986 年 7 月 1 日以前建造並經主管機關確定為航行於下列港口或裝卸站之間限制航線的船舶：

- .1 本公約締約國內的港口或裝卸站；或
- .2 本公約各締約國之間的港口或裝卸站。

3 本條 2 的規定應僅適用於 1986 年 7 月 1 日以前建造的船舶，如果：

- .1 每次含有 X、Y 或 Z 類物質或其混合物的液貨艙應進行清洗或壓載時，洗艙符合主管機關按本附則附錄 VI 批准的預洗程序進行，且洗艙水排至接收設備；

- .2 其後的洗艙水或壓載水排至接收設備或按本附則其他規定在海上排放；
- .3 上述港口或裝卸站的接收設備就本段而言，其足夠程度已經這些港口或裝卸站所在的本公約締約國政府認可；
- .4 船舶航行於本公約其他締約國管轄的港口或裝卸站時，主管機關將該免除的詳細資料送交本組織，以便轉發本公約各締約國供其參考和採取適當行動（如有時）；和
- .5 按本附則要求的證書經簽署說明該船僅航行於此種限制航線。

4 對因構造和操作特點，其貨艙無需壓載並僅在修理或進塢時才需要洗艙的船舶，如符合下列所有條件，主管機關可允許免除第 12 條的規定：

- .1 船舶的設計、構造和設備經主管機關按其預定用途予以批准；
- .2 在修理或進塢之前可能進行的洗艙所產生的任何污油水排至接收設備，該設備的足夠程度經主管機關確定；
- .3 按本附則要求的證書表明：
 - .3.1 每一經核准載運有限數量類似物質的貨艙，無需立即清洗就可裝載其他貨物；和
 - .3.2 免除的詳細資料；
- .4 船舶攜有一份經主管機關批准的操作手冊；和

- .5 船舶航行於本公約其他締約國管轄的港口或裝卸站時，主管機關將該免除的詳細資料送交本組織，以便轉發本公約各締約國供其參考和採取適當行動（如有時）。

第 5 條

等效

1 主管機關可允許在船上安裝任何裝置、材料、設備或器具，以代替本附則所要求者，條件是這種裝置、材料、設備或器具與本附則所要求者至少同等有效。主管機關的這種權力不應擴大到以操作方法達到控制排放有毒液體物質並作為等效代替本附則各條所規定的那些設計和構造的特點。

2 允許以某種裝置、材料、設備或器具代替本附則所要求者的主管機關應按本條 1 將其詳細資料送交本組織，以便轉發本公約各締約國，供其參考和採取適當行動（如有時）。

3 儘管有本條 1 和 2 的規定，但核准裝運在適用的《氣體運輸船規則》中所列有毒液體物質的液化氣船的構造和設備，應視為等效於本附則第 11 和 12 條所含要求的構造和設備，但該氣體運輸船應符合下列所有條件：

- .1 按核准裝運散裝液化氣體的船舶所適用的《氣體運輸船規則》，持有適裝證書；
- .2 持有國際散裝運輸有毒液體物質防污染證書，其核准該氣體運輸船僅可裝運相應的《氣體運輸船規則》所確定和所列的有毒液體物質；

- .3 提供專用壓載佈置；
- .4 提供泵吸和管系佈置，以確保在卸貨後艙內及其有關管系內的貨物殘餘量不超過第 12.1、12.2 或 12.3 條所要求的適用量，並使主管機關滿意；和
- .5 備有一份主管機關批准的手冊，確保操作中無任何貨物殘餘物與水混合在一起，並在使用手冊中規定的通風程序後，艙內無任何貨物殘餘物。

第 2 章

有毒液體物質的分類

第 6 條

有毒液體物質及其他物質的分類和清單

- 1 就本附則而言，有毒液體物質應分為下列 4 類：
 - .1 X 類 – 這類有毒液體物質如從洗艙或排壓載的作業中排放入海，將被認為會對海洋資源或人類健康產生重大危害，因而應嚴禁向海洋環境排放該類物質。
 - .2 Y 類 – 這類有毒液體物質如從洗艙或排壓載的作業中排放入海，將被認為會對海洋資源或人類健康產生危害，或對海上的休憩環境或其他合法利用造成損害，因而對排放入海的該類物質的質和量應採取限制措施。
 - .3 Z 類 – 這類有毒液體物質如從洗艙或排壓載的作業中排放入海，將被認為會對海洋資源或人類健康產生較小的危害，因而對排放入海的該列物質應採取較嚴格的限制措施。
 - .4 其他物質：以 OS（其他物質）形式被列入《國際散裝化學品規則》第 18 章污染類別欄目中的物質，並經評定認為不能列入本附則第 6.1 條定義的 X、Y 或 Z 類物質之內，因為這些物質如從洗艙或排壓載的作業中排放入海，目前認為對海洋資源、人類健康、海上休憩環境或其他合法利用並無危害。排放僅含有被列為“其他物質”的物質的艙底

水或壓載水或其他殘餘物或混合物，不受本附則任何要求的約束。

2 用於有毒液體物質分類的指南載於本附則附錄 I。

3 如擬散裝運輸的液體物質尚未按本條 1 予以分類，則與該作業有關的本公約締約國政府，應以本條 2 所述的指南為基礎商定一個暫定的類別。在各有關政府之間未取得完全一致意見之前，這種物質不應裝運。在達成協議後，製造或運輸國政府及締約國政府應儘快（但不遲於 30 天）通知本組織並提供這種物質的細節和暫定的類別，以便每年向所有締約國通報一次，供其參考。在所有此類物質被正式編入 IBC 規則前，本組織應保存一份此類物質和暫定類別的記錄。

第 3 章

檢驗和發證

第 7 條

化學品液貨船的檢驗和發證

儘管有本附則第 8、9 和 10 條的規定，但本公約締約國按相應的《國際散裝化學品規則》或《散裝化學品規則》規定已進行檢驗並發證的化學品液貨船，應視為已符合所述各條的規定，按《規則》簽發的證書應與按本附則第 9 條簽發的證書具有同等效力並得到同樣的承認。

第 8 條

檢驗

- 1 散裝運輸有毒液體物質的船舶應進行下述檢驗：
 - .1 初次檢驗，在船舶投入營運前或首次簽發本附則第 9 條所要求的證書之前進行。該檢驗應包括對本附則所述及的船舶結構、設備、系統、附件、佈置及材料的全面檢驗。該檢驗應確保其結構、設備、系統、附件、佈置和材料完全符合本附則的適用要求。

- .2 換證檢驗，按主管機關規定的間隔期限進行，但不得超過 5 年，但本附則第 10.2、10.5、10.6 或 10.7 條適用者除外。換證檢驗應確保其結構、設備、系統、附件、佈置和材料完全符合本附則的適用要求。
- .3 中間檢驗，在證書的第二個周年日之前或之後 3 個月內或第三個周年日之前或之後 3 個月內進行，並應取代本條 1.4 規定的其中一次年度檢驗。中間檢驗應確保設備及其相關的泵和管系完全符合本附則的適用要求，並處於良好的工作狀態。該中間檢驗應在按本附則第 9 條所簽發的證書上予以簽署。
- .4 年度檢驗，在證書的每個周年日之前或之後 3 個月內進行，包括對本條 1.1 所述的結構、設備、系統、附件、佈置和材料的總體檢查，以確保其已按本條 3 的規定進行保養，並確保其繼續滿足船舶預定的營運要求。該年度檢驗應在按本附則第 9 條所簽發的證書上予以簽署。
- .5 附加檢驗，在按本條 3 規定的檢查結果進行修理後或在任何重大修理或換新後應根據情況進行全面或部分檢驗。該檢驗應確保已有效進行了必要的修理或換新，確保這種修理或換新所用的材料和工藝在各方面均屬合格，並確保該船在各方面均符合本附則的要求。

2.1 為執行本附則規定而對船舶進行的檢驗，應由主管機關的官員進行。但主管機關可將這些檢驗委託給為此目的而指定的驗船師或由其認可的組織辦理。

2.2 本條 2.1 所述的被認可組織應符合 IMO A.739 (18) 決議^①通過、並可能經修正的指南，以及 IMO A.789 (19) 決議通過、並可能經修正的細則。但這些修正案應按照本公約第 16 條規定的適用本附則的修正程序予以通過、生效和實施。

2.3 按本條 2.1 所述指定驗船師或認可組織執行檢驗的主管機關，應至少對任何指定的驗船師或被認可組織授權，使其能：

- .1 要求船舶進行修理；和
- .2 在港口國主管當局要求時執行檢驗。

2.4 主管機關應將授權給指定的驗船師或被認可組織的具體職責和條件通知本組織，以便轉發本公約各締約國，供其官員參考。

2.5 當指定的驗船師或被認可組織確定船舶或其設備的狀況在實質上與證書所載內容不符，或會對海洋環境造成不當的危害威脅，因而船舶不適於出海航行時，該驗船師或組織應確保立即採取糾正措施並及時通知主管機關。如未能採取此種糾正措施，則應撤銷證書並立即通知主管機關。如該船是在另一締約國的港口內，則還應立即通知該港口國的有關當局。當主管機關的官員、指定的驗船師或被認可組織通知該港口國的有關當局後，有關的港口國政府應向該官員、驗船師或組織提供履行本條規定的義務所必需的任何幫助。必要時，有關的港口國政府應採取措施，確保該船在未具備對海洋環境不致產生不當的危害威脅前，不得開航或離港駛往最近的可進行修理的修船廠。

2.6 在所有情況下，主管機關均應保證檢驗的完整性和有效性，確保為履行這一職責作出必要的安排。

^① 經 MSC.208 (81) 決議修正。

3.1 船舶及其設備的狀況應保持符合本公約的各項規定，以確保船舶在各方面均繼續適於出海航行，而不會對海洋環境造成不當的危害威脅。

3.2 根據本條 1 的規定對船舶進行的任何檢驗完成以後，未經主管機關許可，經過檢驗的結構、設備、系統、附件、佈置或材料不得作任何變動，除非直接替換這種設備和附件。

3.3 當船舶發生事故或發現缺陷，對該船的完整性或對本附則所述及的設備的有效性或完整性產生重大影響時，該船的船長或船東應儘早向負責簽發有關證書的主管機關、被認可組織或指定的驗船師報告。該主管機關、被認可組織或指定的驗船師應立即着手調查以確定是否需要按本條 1 的要求進行檢驗。如果該船在另一締約國的港口內，船長或船東還應立即向該港口國的有關當局報告，而指定的驗船師或被認可組織應查明已進行了此項報告。

第 9 條

證書的簽發或簽署

1 對駛往本公約其他締約國管轄的港口或裝卸站的擬散裝運輸有毒液體物質的船舶，在按本附則第 8 條的規定進行初次檢驗或換證檢驗後，應簽發《國際防止散裝運輸有毒液體物質污染證書》。

2 該證書應由主管機關或經其正式授權的任何個人或組織簽發或簽署。在任何情況下，主管機關對證書負有全部責任。

3.1 本公約締約國政府應主管機關的申請，可對船舶進行檢驗，如確信符合本附則的規定，應對該船簽發或授權簽發《國際防止散裝運輸有毒液體物質污染證書》，並在適用時，按本附則的規定，為該船簽署或授權簽署證書。

3.2 證書和檢驗報告副本各一份應儘快送交提出申請的主管機關。

3.3 所發證書上應聲明該證書係根據主管機關的申請簽發，並應與按本條 1 規定所簽發的證書具有同等效力和得到同樣的承認。

3.4 對於懸掛非締約國國旗的船舶，不得簽發《國際防止散裝運輸有毒液體物質污染證書》。

4 《國際防止散裝運輸有毒液體物質污染證書》應按與本附則附錄 III 所示樣本相一致的格式寫成，並應至少使用英文、法文或西班牙文的其中一種語言。如同時使用船旗國的官方語言，則在有爭議或分歧時，應以該國官方語言為準。

第 10 條

證書的有效期限

1 《國際防止散裝運輸有毒液體物質污染證書》的有效期限由主管機關規定，但不得超過 5 年。

2.1 儘管有本條 1 的要求，但如果換證檢驗在現有證書期滿之日前 3 個月內完成，則新證書應從換證檢驗完成之日起，至現有證書期滿之日後不超過 5 年的日期內有效。

2.2 如果換證檢驗在現有證書期滿之日後完成，則新證書應從換證檢驗完成之日起，至現有證書期滿之日後不超過 5 年的日期內有效。

2.3 如果換證檢驗在現有證書期滿之日的前 3 個月前完成，則新證書應從換證檢驗完成之日起不超過 5 年的日期內有效。

3 如果所發證書的有效期限少於 5 年，主管機關可將證書有效期自期滿日延長至本條 1 規定的最長期限，條件是在簽發 5 年期的證書時進行了本附則第 8.1.3 和 8.1.4 條所述的相應的檢驗。

4 如果換證檢驗已完成，而新證書在現有證書期滿之日前不能簽發或不能存放船上，主管機關授權的人員或組織可在現有證書上簽署，簽署後的證書自期滿日起不超過 5 個月的期限內應視為繼續有效。

5 如果證書期滿時船舶不在應進行檢驗的港口，主管機關可延長該證書的有效期，但此項展期僅以能使該船完成其駛抵應進行檢驗的港口的航次為限，並且僅在正當和合理的情況下才能如此辦理。證書的展期不得超過 3 個月。經展期的船舶在抵達應進行檢驗的港口後，不得因有此項展期而在未獲得新證書前駛離該港口。換證檢驗完成後，新證書的有效期應自現有證書展期前的期滿日起不超過 5 年。

6 簽發給短程航行船舶的證書未按本條前述之規定展期時，主管機關可給予自該證書所示的期滿之日起至多 1 個月的寬限期。換證檢驗完成後，新證書的有效期應自現有證書展期前的期滿日起不超過 5 年。

7 在特殊情況下（由主管機關確定），新證書無需按本條 2.2、5 或 6 的要求從現有證書的期滿之日起計算日期。在此特殊情況下，新證書的有效期應自換證檢驗完成之日起不超過 5 年。

8 如果年度檢驗或中間檢驗在本附則第 8 條規定的期限前完成，則：

- .1 證書上所示的周年日期應予以簽署修正，修正後的周年日應不多於檢驗完成之日起 3 個月；
- .2 本附則第 8 條要求的其後的年度檢驗或中間檢驗應使用新的周年日按該條規定的間隔期內完成；
- .3 如進行一次或多次相應的年度檢驗或中間檢驗，以使本附則第 8 條規定的最大檢驗間隔期不被超過，則期滿日可保持不變。

9 按本附則第 9 條規定所簽發的證書，在下列任一情況下即應中止有效：

- .1 如果相關檢驗未在本附則第 8.1 條規定的期限內完成；
- .2 如果證書未按本附則第 8.1.3 或 8.1.4 條的規定予以簽署；
- .3 船船變更船旗國。只有當換發新證書的政府確信該船符合本附則第 8.3.1 和 8.3.2 條的要求時，才能簽發新的證書。如果變更船旗係在締約國之間進行，則在變更後的 3 個月內，前船旗國政府如收到申請，應儘快將變更船旗前該船所攜證書的副本以及相關的檢驗報告副本（如備有）送交該船新的主管機關。

第 4 章

設計、構造、佈置和設備

第 11 條

設計、構造、設備和操作

1 核准散裝運輸《國際散裝化學品規則》第 17 章確定的有毒液體物質的船舶的設計、構造、設備和操作，應符合下列規定，以使此類物質不受控制排放入海的情況減至最低限度：

- .1 在 1986 年 7 月 1 日或以後建造的化學品液貨船應符合《國際散裝化學品規則》；或
- .2 《散裝化學品規則》1.7.2 適用於：
 - .2.1 在 1973 年 11 月 2 日或以後簽訂建造合同，但在 1986 年 7 月 1 日以前建造的，航行至本公約其他締約國所轄港口或裝卸站航程的船舶；和
 - .2.2 在 1983 年 7 月 1 日或以後、但在 1986 年 7 月 1 日以前建造的，懸掛本國國旗專門航行於該船旗國內的港口或裝卸站之間航程的船舶。
- .3 《散裝化學品規則》1.7.3 適用於：
 - .3.1 在 1973 年 11 月 2 日以前簽訂建造合同的，航行至本公約其他締約國所轄港口或裝卸站航程的船舶；和

.3.2 在 1983 年 7 月 1 日以前建造的，懸掛本國國旗專門航行於該船旗國內的港口或裝卸站之間航程的船舶。

2 對核准散裝運輸《國際散裝化學品規則》第 17 章確定的有毒液體物質的非化學品液貨船或非液化氣體運輸船，主管機關應根據本組織制定的《指南》^①制定適當措施，以確保此類物質不受控制排放入海的情況減至最低限度。

第 12 條

泵吸、管路、卸貨設施和污油水艙

1 在 1986 年 7 月 1 日以前建造的每艘船舶均應設置泵吸和管路，以確保每一核准裝運 X 或 Y 類物質的艙內及其相關管路內的殘餘物不超過 300 l，並確保每個核准裝運 Z 類物質的艙內及其相關管路內的殘餘物不超過 900 l。應根據本附則附錄 V 進行性能試驗。

2 在 1986 年 7 月 1 日或以後，但在 2007 年 1 月 1 日前建造的每艘船舶均應設置泵吸和管路，以確保每個核准裝運 X 或 Y 類物質的艙內及其相關管路內的殘餘物不超過 100 l，並確保每個核准裝運 Z 類物質的艙內及其相關管路內的殘餘物不超過 300 l。應根據本附則附錄 V 進行性能試驗。

3 在 2007 年 1 月 1 日或以後建造的每艘船舶均應設置泵吸和管路，以確保核准裝運 X、Y 或 Z 類物質在每個艙內及其相關管路內的殘餘物不超過 75 l。應根據本附則附錄 V 進行性能試驗。

① 參見經 MEPC.158 (55) 決議修正的 A.673 (16) 決議和 MEPC.148 (54) 決議。

4 對 2007 年 1 月 1 日以前建造且未能符合本條 1 和 2 所述為 Z 類物質設置泵吸和管路要求的非化學品液貨船，均不適用數量要求。如液艙排空到最實際的程度，視為達到符合標準。

5 本條 1、2 和 3 所述及的泵吸性能試驗和條件應經主管機關批准。泵吸性能試驗應使用水作為試驗介質。

6 核准裝運 X、Y 或 Z 類物質的船舶，應開設一個或幾個水下排放口。

7 對 2007 年 1 月 1 日以前建造並核准載運 Z 類物質的船舶，本條 6 所要求的水下排放口無強制性規定。

8 水下排放口應位於貨物區域內艙部彎曲處附近，其佈置應避免在船舶吸入海水時將殘餘物/水混合物重新吸入。

9 水下排放口的佈置，應使排放入海的殘餘物/水混合物不通過船舶的邊界層。為此，當排放方向與船殼板成直角時，排放口的最小直徑由下列公式得出：

$$d = \frac{Q_d}{5L_d}$$

式中：

d =排放口最小直徑（m）

L_d =從艙垂線到排放口距離（m）

Q_d =船舶通過排放口排放殘餘物/水混合物所選的最高速率（m³/h）。

10 當排放方向與船殼外板成一角度時，上述關係應加以修正，用垂直於船殼板的、通過以 Q_d 的分量替換 Q_d 。

11 污油水艙

雖然本附則並不要求配置專用污油水艙，但某些沖洗程序可能需要污油水艙。液貨艙可被用作污油水艙。

第 5 章

有毒液體物質殘餘物作業排放

第 13 條

有毒液體物質殘餘物排放控制

除本附則第 3 條規定外，對有毒液體物質的殘餘物或壓載水、洗艙水或其他含有該類物質的混合物的排放控制應符合下列要求。

1 排放規定

1.1 應禁止將 X、Y 或 Z 類物質或臨時評定為此類物質的殘餘物或含有此類物質的壓載水、洗艙水或其他混合物排放入海，除非此類排放完全符合本附則所含的適用操作要求。

1.2 在根據本條進行的任何預洗或排放程序前，相關液貨艙應根據手冊中所規定的程序最大限度地被排空。

1.3 禁止裝載本附則第 6 條述及的未經分類、臨時評定的物質，或含有此類殘餘物的壓載水、洗艙水或其他混合物，同時禁止此類物質排放入海。

2 排放標準

2.1 如果本條規定允許將 X、Y 或 Z 類物質或臨時評定為此類物質的殘餘物或含有此類物質的壓載水、洗艙水或其他混合物排放入海，應符合下列排放標準：

- .1 船舶在海上航行，自航船航速至少為 7 節，或非自航船航速至少為 4 節；

- .2 在水線以下通過水下排放口進行排放，不超過水下排放口的最高設計速率；和
- .3 排放時距最近陸地不小於 12 海里，水深不小於 25 m。

2.2 在 2007 年 1 月 1 日以前建造的船舶，對於將 Z 類物質或臨時評定為此類物質的殘餘物或含有此類物質的壓載水、洗艙水或其他混合物在水線以下排放入海並無強制規定。

2.3 對 Z 類物質，主管機關可對僅在本國主權或所轄水域內航行的懸掛其國旗的船舶免除 2.1.3 關於排放時距最近陸地不小於 12 海里的要求。此外，主管機關還可對在其鄰近國家主權或所轄水域內航行的懸掛其國旗的特定船舶免除同樣的排放時距最近陸地不小於 12 海里的要求，條件是該兩個沿海國家制定了不會影響任何第三方的書面免除協議。應將此類協議的資料在 30 天內送交本組織，以便進一步通報本公約各締約國，供其參考和採取適當行動（如有時）。

3 貨物殘餘物的通風

經主管機關認可的通風程序可用以驅除艙內的貨物殘餘物。此類程序應符合本附則附錄 VII 的要求。驅除殘餘物後輸進艙的任何水應被視為清潔水，並不應受本附則排放要求的影響。

4 預洗免除

如滿足下列要求，接收方政府可根據船長要求，准予預洗免除：

- .1 卸完貨的艙擬再裝載相同物質或另一種與前者相容的物質，並且該艙在裝貨前不予清洗或壓載；或

- .2 卸完貨的艙在海上既沒被清洗也沒被壓載。按本條適用條款，可在另一港口進行預洗，但應有書面證明該港口有足夠的接收設備；或
- .3 根據本附則附錄 VII，貨物殘餘物應通過經主管機關認可的通風程序予以清除。

5 清潔劑或添加劑的使用

5.1 如使用非水清洗介質（諸如礦物油或氯化溶劑）替代水清洗貨艙，其排放應符合附則 I 或附則 II 的規定。如果該介質被作為貨物裝運，則這些規定適用於該介質。涉及使用這類介質的貨艙清洗程序應在《手冊》中明確規定並經主管機關批准。

5.2 如果為了方便貨艙清洗而在水中加入少量清潔添加劑（洗滌產品），則含 A 類污染成分的添加劑不得使用，除非這些防污成分有生物降解功能，並所現總濃度不超過清潔添加劑的 10%。清潔添加劑除了前載貨物的原因而適用於貨艙外，沒有其他使用限制。

6 X 類物質殘餘物的排放

6.1 除 1 的規定外，下列規定應適用：

- .1 已被卸完 X 類物質貨物的貨艙，在船舶離開卸貨港口之前，應予以預洗。清洗的殘餘物其濃度重量處於或低於 0.1% 之前應被排至接收設備。其濃度指標由檢查員從排至接收設備的殘餘物中提取樣品進行分析後確定。當濃度達到要求後，應將艙內剩餘的洗艙水繼續排至接收設備，直至該艙排空。這些作業應在《貨物記錄簿》中作相應記錄，並由第 16.1 條所述的檢查員簽署。

- .2 參照本條 13.2 的排放標準，預洗後灌入艙內的任何水均可被排放入海。
- .3 如果接收方的締約國政府確信，要測量排出物中的物質濃度而不對船舶造成不當延誤不可行時，該締約國可接受相當於 13.6.1.1 中測量所要求濃度的替換程序，但須：
 - .3.1 按主管機關批准的程序對液貨艙進行預洗，並符合本附則附錄 VI 的要求；和
 - .3.2 對《貨物記錄簿》作相應記錄，並由第 16.1 條所述的檢查員簽署。

7 Y 和 Z 類物質殘餘物的排放

7.1 除 1 的規定外，下列規定應適用：

- .1 關於 Y 或 Z 類物質殘餘物排放程序，本條 13.2 的排放標準應適用。
- .2 如果 Y 或 Z 類物質未按《手冊》要求進行卸載，在船舶離開卸貨港口之前，應予以預洗，除非採取了使本附則第 16.1 條所述的檢查員滿意的、從船上去除本附則規定數量的貨物殘餘物的其他措施。預洗後的洗艙水應被排放至卸貨港口的接收設備，或排放至有合適接收設備的另一港口，但應有書面確認該港口的接收設備足以用於該用途。
- .3 關於 Y 類高黏度或固化物質，下列情況應適用：
 - .3.1 附錄 VI 中規定的預洗程序應適用；

.3.2 預洗時產生的殘餘物/水混合物應被排放至接收設備，直至貨艙排空；和

.3.3 隨後灌入艙內的任何水可按第 13.2 條的排放標準排放入海。

7.2 壓載和排壓載的操作要求

7.2.1 卸貨後及預洗後（如有要求），可對液貨艙進行壓載。這類壓載水的排放程序在第 13.2 條中有明確規定。

7.2.2 如船舶位於距最近陸地不小於 12 海里，且水深不小於 25 m 的水域中，而灌入已清洗液貨艙的，含前次所載物質的量小於 1 ppm 的壓載水，可排放入海，而無需考慮其排放率、船速及排放口位置。這是指當按附錄 VI 規定進行了預洗，且對 1994 年 7 月 1 日以前建造的船舶其後又用清洗機進行完整周期清洗，或用不小於 $k=1.0$ 計算值的水量清洗後，已達到液貨艙要求的清潔程度。

7.2.3 本附則的要求不適用清潔或專用壓載水的排放情況。

8 南極區域排放

8.1 南極區域，係指南緯 60°以南海域。

8.2 禁止任何有毒液體物質或含有此類物質的混合物排放入南極海域。

第 14 條

程序和佈置手冊

1 核准裝運 X、Y、或 Z 類物質的每艘船舶應備有經主管機關批准的《手冊》。該手冊應有符合本附則附錄 IV 的標準格式。如為國際航行船舶，其所使用的語言既非英語、法語，也非西班牙語，則文本內容應包括其中一種語言的譯文。

2 《手冊》的主要目的是為船舶高級船員確定實際佈置和為符合本附則要求所必須遵循的貨物裝卸、洗艙、污水處理及液貨艙壓載和排壓載的所有操作程序。

第 15 條

貨物記錄簿

1 適用本附則的船舶，應備有一份《貨物記錄簿》，記錄簿不論是作為船舶正式航海日誌的一部分或作為其他文件，均應按本附則附錄 II 所規定的格式。

2 在完成了本附則附錄 II 規定的任何操作後，均應將該操作立即記入《貨物記錄簿》。

3 任何有毒液體物質或含有這種物質的混合物的意外排放，或發生本附則第 3 條所述的排放時，均應記入《貨物記錄簿》，說明這種排放的情況和理由。

4 每項記錄應由高級船員或有關作業的負責人簽字，且每填完一頁應由船長簽字。對持有《國際防止散裝運輸有毒液體物質污染證書》或本附則第 7 條所述證書的船舶，《貨物記錄簿》中的記錄應至少使用英文、法文或西班牙文的其中一種語言。如同時使用船旗國的官方語言，則在有爭議或分歧時，應以該國官方語言為準。

5 《貨物記錄簿》的存放位置應易於在任何合理時間隨時可供檢查，並且除未配備船員的被拖船舶外，均應存放船上。《貨物記錄簿》應在進行最後一項記錄後保存三年。

6 締約國政府的主管當局可對適用於本附則的任何船舶在港時上船檢查《貨物記錄簿》，並可將該記錄簿中的任何記錄製成副本，也可要求船長證明該副本是該項記錄的真實副本。任何經船長證明為船上《貨物記錄簿》中某項記錄的真實副本者，在任何法律訴訟中應可作為該項記錄中所述事實的證據。主管當局根據本項規定對《貨物記錄簿》的檢查和製作正確無誤的副本應儘速進行，而不對船舶造成不當延誤。

第 6 章

港口國控制措施

第 16 條

控制措施

1 本公約各締約國政府應指定或授權若干檢查員實施本條要求。檢查員應按本組織制定的控制程序執行控制。^①

2 如果本公約締約國政府指定或授權的檢查員已驗證操作是按《手冊》要求進行，或已同意免除預洗，則該檢查員應在《貨物記錄簿》中作相應記錄。

3 核准載運散裝有毒液體物質船舶的船長應確保該船已符合第 13 條和本條的規定，並且每當遇有第 15 條所述的作業，均按該條填寫《貨物記錄簿》。

4 裝運 X 類物質的貨艙，應按第 13.6 條的要求予以預洗。這些操作應在《貨物記錄簿》中作相應記錄，並由本條 1 所述的檢查員簽署。

5 如果接收締約方政府確信，要測量排出物中的物質濃度而不對船舶造成不當延誤不可行時，該締約國可接受第 13.6.3 條所述的替代程序，但本條 1 所述的檢查員應在《貨物記錄簿》中證明：

- .1 液貨艙、泵和管系均已排空；和
- .2 已按本附則附錄 VI 的規定進行了預洗；和

^① 參見本組織 A.787(19) 決議通過並經 A.882(21) 決議修正的《港口國控制程序》。

.3 由這種預洗所產生的洗艙水已排至接收設備，且該艙已排空。

6 如果第 13.4 條所述的條件之一得到滿足，則接收締約方政府可應船長的申請，免除第 13 條相應部分所述對該船的預洗要求。

7 對航行於本公約其他締約國管轄的港口或裝卸站的船舶，只有接收締約方政府才可准予本條 6 所述的免除。如果給予此種免除，應在《貨物記錄簿》中作相應記錄，並由本條 1 所述的檢查員簽署。

8 如果液貨卸載未按本附則附錄 V 為基礎並在主管機關批准的泵吸條件下進行，可採取替代措施清除船上液貨殘餘，達到第 12 條所適用的規定數量。該替代措施應使本條 1 所述的檢查員滿意。應在《貨物記錄簿》中作相應記錄。

9 關於操作要求的港口國控制^①

9.1 當船舶停靠在另一締約國港口時，如有明顯理由確信該船船長或船員不熟悉船上主要的防止有毒液體物質污染的程序，該船應接受該締約國正式授權的官員根據本附則進行的有關操作要求的檢查。

9.2 在本條 9.1 所述的情況下，該締約國應採取措施，確保該船在按本附則的要求調整至正常狀態前，不得開航。

9.3 本公約第 5 條規定的港口國控制程序應適用於本條。

9.4 本條的任何內容均不得解釋為限制締約國在本公約明確規定的操作要求方面進行控制的權利和義務。

① 參見本組織 A.787 (19) 決議通過並經 A.882 (21) 決議修正的《港口國控制程序》。

第 7 章

防止有毒液體物質事故引起的污染

第 17 條

船上有毒液體物質海洋污染應急計劃

1 每艘 150 總噸及以上核准裝載散裝有毒液體物質的船舶，應攜有一份主管機關批准的《船上有毒液體物質海洋污染應急計劃》。

2 該應急計劃應以本組織制定的指南^①為基礎，並應以船長和高級船員的工作語言書寫。該計劃至少應包括：

- .1 根據本組織制定的指南，本公約第 8 條和議定書 I 要求的由船長或其他負責人員報告有毒液體物質污染事故所遵循的程序^②；
- .2 在發生有毒液體物質污染事故時應與之聯繫的當局或人員名單；
- .3 在事故發生後由船上人員為減少或控制排除有毒液體物質所立即採取的措施的詳細說明書；
- .4 在處理污染時與政府及地方當局協調船上行動的程序和聯絡點。

① 參見本組織海上環境保護委員會 MEPC.85 (44) 決議通過並經 MEPC.137 (53) 決議修正的《制訂船上油類和/或有毒液體物質海洋污染應急計劃的指南》。

② 參見本組織 A.851 (20) 決議通過並經 MEPC.138 (53) 決議修正的《船舶報告制度和船舶報告要求的一般原則，包括危險品、有害物質和/或海洋污染物事故報告指南》。

3 對本公約附則 I 第 37 條也適用的船舶，此計劃可以與本公約附則 I 第 37 條所要求的《船上油污應急計劃》結合使用。在此情況下，該計劃的標題應為“船上海洋污染應急計劃”。

第 8 章

接收設備

第 18 條

接收設備和卸貨站設施

1 本公約各締約國政府應承擔義務，為確保船舶使用其港口、裝卸站或修理港的需要而提供如下接收設備：

- .1 船舶貨物裝卸港、站應設有足夠的設備，以接收船舶由於執行本附則而留待處理的含有有毒液體物質的殘餘物和含有該有毒物質殘餘物的混合物，而不對相關船舶造成不當延誤；
- .2 從事 NLS 船修理的船舶修理港，應設有足夠設備，以接收到達該港的船舶所含有有毒液體物質的殘餘物和混合物。

2 各締約國政府應確定在其領土內的每一貨物裝卸港、站和船舶修理港為執行本條 1 所設置的設備型式，並通知本組織。

3 其海岸線處於所規定的特殊區域邊緣的本公約各締約國政府應共同確定一個完成本條 1 所要求的日期，並應使第 13 條有關該區域所適用的要求從該日期起實施，並至少提前六個月將該確定的日期通知本組織。本組織隨後應立即將該日期通知所有締約國。

4 本公約各締約國政府應承擔義務，確保在其卸貨站提供設施，以便利在這些卸貨站卸載有毒液體物質的船舶進行液貨艙的掃艙。裝卸站的貨物軟管及管系內由船上卸出有毒液體物質時所接收的這些物質不得洩回船上。

5 各締約國應將按本條 1 所要求的設備或本條 3 所要求的裝置被
宣稱不足的一切情況通知本組織，以便轉發各有關締約國。

附則 II 的附錄

附錄 I 有毒液體物質的分類指南^①

根據 GESAMP 有害曲線圖所反映的對物質性質的評定，將貨品編入污染類別，如下表所示：

規則	A1 生物積聚	A2 生物退化	B1 急性毒性	B2 慢性毒性	D3 長期健康影響	E2 對海洋野生生物及海底生態環境的影響	類別
1			≥5				X
2	≥4		4				
3		NR	4				
4	≥4	NR			CMRTNI		
5			4				Y
6			3				
7			2				
8	≥4	NR		非 0			
9				≥1			
10						Fp、F 或 S 如非無機物	
11					CMRTNI		
12	任何不符合規則 1 至 11 以及 13 衡準的貨品						Z
13	所有如下貨品：A1 欄中≤2；A2 欄中為 R；D3 欄中為空白；E2 欄中為非 Fp、F 或 S（如非有機物）；以及在 GESAMP 有害曲線圖中所有其他欄中為 0（零）的貨品						OS

① 參見 MEPC.1/Circ.512 通函《經修訂的散裝運輸液體物質臨時評定指南》。

經修訂的 GESAMP 有害評定程序縮略圖例

A 欄和 B 欄 - 水環境					
	A			B	
	生物積聚和生物退化			水生生物毒性	
數字比率	A1 ¹⁾ 生物積聚		A2 ¹⁾ 生物退化	B1 ¹⁾ 急性毒性	B2 ¹⁾ 慢性毒性
	LOG POW	BCF		LC/EC/IC ₅₀ (mg/l)	NOCE (mg/l)
0	<1 或 >ca.7	不可測量		>1000	>1
1	≥1-<2	≥1-<10		>100-≤1000	>0.1-≤1
2	≥2-<3	≥10-<100		>10-≤100	>0.01-≤0.1
3	≥3-<4	≥100-<500	NR: 不易生物退化 inorg: 非有機物質	>1-≤10	>0.001-≤0.01
4	≥4-<5	≥500-<4000		>0.1-≤1	≤0.001
5	≥5-<ca.7	≥4000		>0.01-≤0.1	
6				≤0.01	

C 欄和 D 欄 - 人類健康 (對哺乳動物的有毒危害)						
	C			D		
	急性哺乳動物毒性			刺激、腐蝕及長期健康影響		
數字比率	C1 口服毒性 LD ₅₀ (mg/kg)	C2 皮膚接觸毒性 LD ₅₀ (mg/kg)	C3 吸入毒性 LC ₅₀ (mg/l)	D1 皮膚刺激和腐蝕	D2 眼睛刺激和腐蝕	D3 ¹⁾ 長期健康影響
0	>2000	>2000	>20	非刺激	非刺激	C-致癌
1	>300-≤2000	>1000-≤2000	>10-≤20	中等刺激	中等刺激	M-突變
2	>50-≤300	>200-≤1000	>2-≤10	刺激	刺激	R-生殖中毒
3	>5-≤50	>50-≤200	>0.5-≤2	強刺激或腐蝕 3A Corr. (≤4hr) 3B Corr. (≤1hr) 3C Corr. (≤3hr)	強刺激	S-導致過敏 A-吸入有害物 T-目標器官系統中毒 L-肺部損害 N-神經中毒 I-免疫系統中毒
4	≤5	≤50	≤0.5			

① 這些列項用於定義污染分類。

E 欄 - 對海洋其他用途的妨害			
E1 污染	E2 ^① 對野生生物及海底生態環境的影響	E3 對海岸休憩環境的妨害	
		數字比率	說明與措施
NT: 非污染(經檢測) T: 污染檢測為陽性	Fp: 持續性漂浮物 F: 漂浮物 S: 沉澱物質	0	無妨害 無警告
		1	輕度危害 警告, 不關閉休憩場所
		2	中等危害 可能要關閉休憩場所
		3	高度危害 關閉休憩場所

① 這些列項用於定義污染分類。

附錄 II

散裝運輸有毒液體物質船舶貨物記錄簿格式

散裝運輸有毒液體物質船舶貨物記錄簿

船名

船舶編號或呼號

IMO 編號

總噸位

時間從 至

船名

船舶編號或呼號

液貨艙和污油水艙平面圖

(船上填寫)

	艙室編號	容積

註明每艙容積（立方米）

引言

以下幾頁為貨物和壓載作業項目清單，應按經修正的《經 1978 年議定書修訂的 1973 年國際防止船舶造成污染公約》附則 II 第 15.2 條規定，將作業情況逐艙相應記入《貨物記錄簿》。各項目已按作業分組，每組以一個字母表示。

填寫《貨物記錄簿》時，日期、作業組別和項目編號應填入相應的欄內，所要求的細節應按時間順序填入空欄。

每項完成的作業，應由高級船員或主管高級船員以及，如適用，由船舶卸貨所在國主管當局授權的檢查員簽字並註明日期。每填完一頁，應由船長會簽。

應予記載的項目一覽表

要求只填寫涉及所有類別物質的作業。

(A) 裝貨

- 1 裝貨地點。
- 2 液貨艙、物質的名稱及類別。

(B) 貨物的內部駁運

- 3 駁運貨物的名稱及類別。
- 4 液貨船名稱：

.1 吸自：

.2 駁至：

5 第 4.1 項中的液貨艙是否已駁空？

6 如未駁空，寫明艙內剩餘數量。

(C) 卸貨

7 卸貨地點。

8 卸載的液貨艙名稱。

9 液貨艙是否已卸空？

.1 如已卸空，確認卸空和掃艙的程序係按船舶的《程序和佈置手冊》規定完成。(即：橫傾、縱傾、掃艙溫度)。

.2 如未卸空，寫明艙內剩餘數量。

10 船舶的《程序和佈置手冊》是否有預洗和隨後處理至接收設備的要求？

11 泵吸和/或掃艙系統故障：

.1 故障的時間和性質；

.2 故障原因；

.3 系統恢復作業的時間。

(D) 按照船舶的《程序和佈置手冊》進行強制預洗

12 液貨艙、物質和分類的名稱。

13 清洗方法：

- .1 每一液貨艙洗艙機數量；
- .2 洗艙時間/洗艙循環數；
- .3 熱/冷清洗。

14 預洗污油水駁至：

- .1 卸貨港接收設備（註明港口）^①；
- .2 其他接收設備（註明港口）^①。

（E）除強制預洗外的液貨艙清洗（其他預洗作業、最後清洗、通風等）

15 註明時間、液貨艙名稱、物質名稱和分類，並註明：

- .1 使用的洗艙程序；
- .2 清潔劑（名稱及數量）；
- .3 使用的通風程序（註明所用風扇數量，通風時間）。

16 洗艙水駁至：

- .1 海中；
- .2 接收設備（註明港口）^①；
- .3 污油水收集艙（註明液艙）。

（F）洗艙水排放入海

17 註明液艙：

① 船長應從包括駁船和液罐車在內的接收設備經營者處得到一份收據或證明，在其內詳細記錄過駁的洗艙水數量以及過駁的時間和日期。該收據或證明應與《貨物記錄簿》一同保存。

.1 清洗貨艙時，是否排放洗艙水？如果這樣，排放率多少？

.2 洗艙水是否由污油水收集艙排放？如是這樣，註明數量及排放率。

18 啓泵及停泵時間。

19 排放時的船速。

(G) 液貨艙壓載

20 壓載的液貨艙名稱。

21 開始壓載的時間。

(H) 液貨艙壓載水排放

22 液貨艙名稱

23 壓載水排至：

.1 海中；

.2 接收設備（註明港口）^①。

24 排放壓載水的起訖時間。

25 排放時的船速。

(I) 意外的或其他例外排放

26 發生的時間。

① 船長應從包括駁船和液罐車在內的接收設備經營者處得到一份收據或證明，在其內詳細記錄過駁的洗艙水數量以及過駁的時間和日期。該收據或證明應與《貨物記錄簿》一同保存。

- 27 大概數量、物質名稱及類別。
- 28 排放或逸漏的環境及一般說明。

(J) 由授權檢查員控制

- 29 註明港口。
- 30 液貨艙名稱，排至岸上的物質名稱及類別。
- 31 液貨艙、泵及管系是否已排空？
- 32 是否已按照船舶的《程序和佈置手冊》進行了預洗？
- 33 是否已將預洗產生的洗艙水排至岸上？是否已經排空？
- 34 同意強制預洗的免除。
- 35 免除的理由。
- 36 授權的檢查員姓名及簽字。
- 37 檢查員工作的組織、公司或政府機構。

(K) 附加作業程序及說明

船名.....

船舶編號或呼號.....

IMO 編號.....

貨物/壓載作業

日期	代號 (字母)	項目 (編號)	作業記錄/主管高級船員簽字/經授權的 檢查員的姓名和簽字

船長簽字.....

附錄 III

國際防止散裝運輸有毒液體物質污染證書格式^①

國際防止散裝運輸有毒液體物質污染證書

經.....政府授權，

（國家全稱）

由.....

（按公約規定經授權的適任人員或組織的全稱）

根據經修正的《經 1978 年議定書修訂的 1973 年國際防止船舶造成污染公約》（以下稱“公約”）的規定簽發。

船舶概況

船名.....

船舶編號或呼號.....

IMO 編號^②.....

船籍港.....

總噸位.....

茲證明：

① NLS 證書應至少使用英文、法文或西班牙文的其中一種語言。如同時使用船旗國的官方語言，則在有爭議或分歧時，應以該國官方語言為準。

② 參見本組織 A.600（15）決議通過的《船舶編號體系》。

1 該船已按公約附則 II 第 8 條的規定進行了檢驗。

2 檢驗表明該船的結構、設備、系統、附件、佈置和材料及其狀況在各方面均屬合格，且該船符合公約附則 II 的適用要求。

3 該船已按公約附則 II 第 14 條的要求，配備了程序和佈置手冊，並且手冊中規定的船舶佈置與設備，在各方面均屬合格。

4 如遵守公約附則 II 所有相關規定，該船符合防污公約附則 II 中關於散裝運輸下列有毒液體物質的要求。

有毒液體物質	載運條件（液艙數量等）	污染類別
見經簽字和註明日期的續頁		

本證書有效期至（年/月/日）.....止，在此期間應按公約附則 II 第 8 條規定接受檢驗。

本證書基於的檢驗完成日期（年/月/日）.....

簽發於.....

（證書簽發地點）

（年/月/日）.....

（簽發日期） （經正式授權的發證官員簽字）

（主管當局蓋章或鋼印）

年度檢驗和中間檢驗的簽署

茲證明，在按公約附則 II 第 8 條要求進行的一次檢驗中表明該船符合公約的有關規定：

年度檢驗 簽字

(經正式授權的官員簽字)

地點

日期 (年/月/日)

(主管當局蓋章或鋼印)

年度檢驗/中間檢驗^① 簽
字

(經正式授權的官員簽字)

地點

日期 (年/月/日)

(主管當局蓋章或鋼印)

年度檢驗/中間檢驗^① 簽字

(經正式授權的官員簽字)

地點

日期 (年/月/日)

(主管當局蓋章或鋼印)

① 不適用者劃去。

年度檢驗

簽字

(經正式授權的官員簽字)

地點

日期 (年/月/日)

(主管當局蓋章或鋼印)

按第 10.8.3 條進行的年度/中間檢驗

茲證明業已按公約附則 II 第 10.8.3 條規定進行了年度/中間檢驗

①，查明該船符合公約的有關規定：

簽字

(經正式授權的官員簽字)

地點

日期 (年/月/日)

(主管當局蓋章或鋼印)

在適用第 10.3 條情況下，有效期少於 5 年的證書展期簽署

該船符合公約的有關規定，本證書根據公約附則 II 第 10.3 條應視為有效，有效期至 (年/月/日)止。

簽字

(經正式授權的官員簽字)

① 不適用者劃去。

地點

日期（年/月/日）

（主管當局蓋章或鋼印）

在已完成換證檢驗並適用第 10.4 條情況下的簽署

該船符合公約的有關規定，本證書根據公約附則 II 第 10.4 條應視為有效，有效期限至（年/月/日） 止。

簽字

（經正式授權的官員簽字）

地點

日期（年/月/日）

（主管當局蓋章或鋼印）

在適用第 10.5 或 10.6 條情況下，將證書有效期展期至駛抵進行檢驗的港口或給予寬限期的簽署

本證書根據公約附則 II 第 10.5 或 10.6 條^①應視為有效，有效期限至（年/月/日） 止。

簽字

（經正式授權的官員簽字）

① 不適用者劃去。

地點

日期（年/月/日）

（主管當局蓋章或鋼印）

在適用第 10.8 條情況下，周年日提前的簽署

根據公約附則 II 第 10.8 條，新的周年日為（年/月/日）

簽字

（經正式授權的官員簽字）

地點

日期（年/月/日）

（主管當局蓋章或鋼印）

根據公約附則 II 第 10.8 條，新的周年日為（年/月/日）

簽字

（經正式授權的官員簽字）

地點

日期（年/月/日）

（主管當局蓋章或鋼印）

附錄 IV

程序和佈置手冊的標準格式

註 1：標準格式包括引言和每一節標題的標準化文本。該標準化文本應編入為每艘船舶提供的《手冊》，後應接有為具體船舶準備的每節內容。當某一節不適用時，應填入“NA”，以不致引起標準格式要求的所計數字的混淆。對於標準格式中以斜體字形式出現的段落，則應對具體船舶描述所需的信息。《手冊》的內容將因船舶的設計、貿易範圍和擬運載貨物的不同而改變。如文本字體非斜體，則應將標準格式中的該段文字不作任何修改地抄錄至《手冊》中。

註 2：如主管機關要求或接受除該標準格式所述內容之外的其他資料及操作說明，則應包括在《手冊》的補遺 D 部分。

標準格式

防污公約附則 II

程序和佈置手冊

船名.....

船舶編號或呼號.....

IMO 編號.....

船籍港.....

主管機關批准印章：

引言

1 經 1978 年議定書修訂的 1973 年國際防止船舶造成污染公約(以下稱防污公約)的制定是為防止船舶排放有害物質或含這些有害物質的流出物入海而污染海洋環境。為達到其目的，防污公約所含的六個附則對有關主要的 6 類有害物質在船上處理和排放入海或排入大氣規定了詳細規則，即附則 I(礦物油)、附則 II(散裝運輸的有毒物質)、附則 III(包裝形式運輸的有害物質)、附則 IV(生活污水)、附則 V(垃圾)和附則 VI(空氣污染)。

2 防污公約附則 II(以下稱附則 II)第 13 條禁止將 X、Y 或 Z 類有毒液體物質或含有這些物質的壓載水、洗艙水、或其他殘餘物或混合物排放入海，但符合規定的條件除外，包括以國際海事組織(IMO)制定的標準為基礎的程序和佈置，以確保滿足針對各類物質而規定的標準。

3 附則 II 要求的程序和佈置標準，要求核准散裝運載有毒液體物質的每艘船舶都應配備一份程序和佈置手冊(以下稱《手冊》)。

4 本《手冊》已按附則 II 第 14 條寫成，涉及清洗液貨艙和從這些作業中排放殘餘物和混合物時海洋環境諸方面的問題。《手冊》不是安全指南，而應參考專門用於評估安全性危險的其他出版物。

5 《手冊》的目的是確定能符合附則 II 所需的佈置和設備，以及為船舶高級船員確定為符合附則 II 的要求所必須遵循的有關貨物裝卸、洗艙、污水處理、殘餘物排放、壓載和排壓載的所有操作程序。

6 此外，《手冊》連同船舶的《貨物記錄簿》，以及按附則 II 簽發的證書^①，將一起被主管機關用作控制目的，以確保船舶完全符合附則 II 的要求。

7 船長應確保對含有 X、Y 或 Z 類物質的貨物殘餘或殘餘物/水混合物不排放入海，除非這種排放完全符合本《手冊》中所規定的操作程序。

8 《手冊》已經主管機關批准，未經主管機關的事先同意，不得對其中的任何部分作變動或修改。

章節索引

- 1 防污公約附則 II 的主要特性
- 2 船舶設備和佈置的說明
- 3 卸貨程序和掃艙
- 4 關於液貨艙清洗、殘餘物排放、壓載和排壓載的程序
- 5 資料與程序

① 僅包括簽發給某一船舶的證書：即國際散裝運輸有毒液體物質防污染證書，或散裝運輸危險化學品適裝證書，或國際散裝運輸危險化學品適裝證書。

第 1 節

防污公約附則 II 的主要特性

1.1 附則 II 的要求適用於所有散裝運輸有毒液體物質的船舶。對海洋環境造成危害威脅的物質分成 X、Y 和 Z 三類。X 類物質是對海洋環境威脅最大的物質，而 Z 類物質的威脅最小。

1.2 附則 II 禁止將含有屬於這幾類物質的任何排出物排放入海，除非排放是在針對每類物質詳細規定的條件下進行。這些條件，如適用，包括下列參數：

- .1 每個液貨艙可能排放入海的最大物質數量；
- .2 排放期間的船速；
- .3 排放期間距最近陸地的最小距離；
- .4 排放期間所在海域的最小深度；和
- .5 在水線以下實行排放的必需性。

1.3 對於某些確定為“特殊區域”的海域，適用更為嚴格的排放標準。根據附則 II，特殊區域係指南極區域。

1.4 附則 II 要求每艘船舶配備泵吸和管路系統，以確保指定運載 X、Y 和 Z 類的每一液貨艙在卸貨後所留存的殘餘物量不超過本附則中規定的量對於擬運載這些物質的每一液貨艙，都必須評定殘餘物量。只有當所評定的殘餘物量小於本附則中規定的量時，液貨艙才可准許運載 X、Y 或 Z 類物質。

1.5 除上述條件外，附則 II 還包括一個重要要求，即某些貨物殘餘物、液貨艙清洗和通風作業的排放只可按照批准的程序和佈置進行。

1.6 為能符合 1.5 的要求，本《手冊》第 2 節包含船舶設備和佈置的所有詳細資料，第 3 節包含卸貨和掃艙的作業程序，以及第 4 節包含可能適用於船舶核准裝載物質的貨物殘餘物、洗艙水、污油水、壓載和排壓載的排放程序。

1.7 只要遵循本《手冊》所規定的程序，將確保船舶符合防污公約附則 II 的所有有關要求。

第 2 節

船舶設備和佈置的說明

2.1 本節包括能使船員遵循第 3 節和第 4 節規定的作業程序所必需的設備和佈置的所有細節。

2.2 船舶總佈置圖和液貨艙的說明

本節應包括船舶液貨區域的簡要說明，包括液貨艙的主要特點和位置。

應包括表明船舶總佈置的簡圖，並表明液貨艙和加熱裝置的位置和編號。

2.3 貨泵泵吸及管路佈置和掃艙系統說明

本節應包括貨泵泵吸和管路佈置以及掃艙系統的說明。

應提供表明下列內容的示意圖並在必要時作文字說明：

- .1 液貨管路（註明直徑）佈置；
- .2 液貨泵（註明泵量）佈置；
- .3 掃艙系統的管路（註明直徑）佈置；
- .4 掃艙系統（註明泵容量）的泵吸佈置；
- .5 每一液貨艙內液貨管路和掃艙管路的吸點位置；
- .6 如設置，吸阱的位置和容積；
- .7 管路洩放和掃艙或吹除佈置；和
- .8 管路吹除所需的氮氣或空氣的壓力和容量（如適用）。

2.4 壓載艙、壓載泵吸及管路佈置的說明

本節應包括壓載艙、壓載泵吸及管路佈置的說明。

應提供表明下列內容的簡圖和表格：

- .1 表明專用壓載艙及擬用作壓載艙的液貨艙連同其容量（ m^3 ）的總佈置圖；
- .2 壓載管路佈置；
- .3 可以用作壓載艙的液貨艙的泵吸容量；和
- .4 壓載管路和水下出口系統之間的任何相互連接件。

2.5 專用污油水艙連同相關的泵吸和管路佈置的說明

本節應包括專用污油水艙（如設有）連同相關的泵吸和管路佈置的說明。

應提供表明下列內容的簡圖：

- .1 專用污油水艙以及這些艙的容量；
- .2 專用污油水艙的泵吸和管路佈置，註明管路直徑及其水下排放口的連接件。

2.6 含有有毒液體物質排出物的水下排放口說明

本節應包括水下排放口的位置和最大流量的資料，以及這些出口與液貨艙和污油水艙之間的連接件。

應提供表明下列內容的簡圖：

- .1 水下排放口的位置和數量；
- .2 與水下排放口的連接件；
- .3 與水下排放口有關的所有海水進入的位置。

2.7 流量指示和記錄裝置的說明

已刪除。

2.8 液貨艙通風系統的說明

本節應包括液貨艙通風系統的說明。

應提供表明下列內容的示意圖表，並在必要時作文字說明：

- .1 核准船舶適裝的有毒液體物質，其在 20°C 時的蒸氣壓力大於 5 kPa 時適合於用通風清除，應在本《手冊》4.4.10 中列出；
- .2 通風管路和風機；

- .3 通風開口的位置；
- .4 足夠通風至液貨艙底部和所有部位的通風系統的最小流量；
- .5 影響通風的液貨艙內構件的位置；
- .6 貨物管路系統、泵和過濾器等的通風方法；和
- .7 確保液貨艙乾燥的方式。

2.9 洗艙佈置和洗艙水加熱系統的說明

本節應包括液貨艙洗艙佈置和洗艙水加熱系統以及所有必需的洗艙設備的說明。

應提供表明下列內容的簡圖和表格或圖表：

- .1 專門用於液貨艙洗艙的管路及其管路直徑；
- .2 洗艙機的类型、容量和額定壓力；
- .3 能同時工作的洗艙機最大數量；
- .4 液貨艙洗艙的加班開口的位置；
- .5 確保能完全沖洗到液貨艙壁所需的洗艙機數量及其位置；
- .6 用所裝設的加熱設備能加熱至 60°C 的洗艙水的最大容量；
和
- .7 能在 60°C 時同時工作的洗艙機最大數量。

第 3 節

卸貨程序和掃艙

3.1 本節包括必須遵循的卸貨和掃艙的作業程序，以確保符合附則 II 的要求。

3.2 卸貨

本節應包括要遵循的程序，包括供每一液貨艙使用的泵、卸貨管路和吸入管路。可給出替代的方法。

應給出泵的作業方法和所有閥門的操作順序。

基本要求是儘最大可能卸去貨物。

3.3 液貨艙掃艙

本節應包括每一液貨艙掃艙期間要遵循的程序。

程序應包括下列內容：

- .1 掃艙系統的作業；
- .2 橫傾和縱傾的要求；
- .3 管路洩放和清掃或吹除佈置（如適用）；
- .4 水試驗掃艙時間。

3.4 貨物溫度

本節應包括關於貨物加熱要求的資料，其已明確在卸貨時需處於某一最低溫度。

應給出有關加熱系統控制和溫度測量方法的資料。

3.5 當液貨艙不能按要求的程序卸貨時應遵循的程序

本節應包括由於下述情況而不能滿足 3.3 和/或 3.4 中規定的要求時應遵循程序的資料：

- .1 液貨艙掃艙系統故障；和
- .2 液貨艙加熱系統故障。

3.6 貨物記錄簿

貨物作業完成後，應在《貨物記錄簿》中的相應位置處填寫。

第 4 節

關於液貨艙清洗、殘餘物排放、壓載和排壓載的程序

4.1 本節包括貨艙清洗，壓載和污油水處置等方面必須遵循的作業程序，以確保滿足附則 II 的要求。

4.2 下列概述要採取行動的順序，並包括為確保有毒液體物質排放部隊海洋環境造成有害威脅所需的重要資料。

4.3 已刪除。

4.4 制定貨物殘餘物排放、液貨艙清洗、壓載和排壓載程序所必需的資料，應考慮到下列諸因素：

.1 物質類別

應從相關證書中獲取物質類別。

.2 液貨艙泵吸系統的掃艙效率

本節內容取決於船舶設計以及是否為新船或現有船舶（見流程圖和泵吸/掃艙要求）。

.3 特殊區域內或外的船舶

本節應包括關於洗艙水能否在特殊區域（如 1.3 中的定義）內或特殊區域外排放入海的說明。不同的要求應予澄清並取決於船舶設計和貿易範圍。

在南極區域（南緯 60°以南海域）不得排放有毒液體物質殘餘物或含有這些物質的混合物。

.4 固化或高黏度物質

物質的性質應從運輸單證中查得。

.5 水中的溶解性

已刪除。

.6 含有其他物質的污油水相容性

本節應包括允許和不允許貨物污油水相混合的說明。應參考相容性指南。

.7 排放至接收設備

本節應明確哪些物質的殘餘物要求預洗並排放至接收設備。

.8 排放入海

本節應包括關於明確能否將殘餘物/水混合物排放入海所應考慮因素的資料。

.9 使用清潔劑或添加劑

本節應包括關於使用和處理清潔劑（例如用語洗艙的散裝溶劑）以及在洗艙水中加入的添加劑（例如除垢劑）的資料。

.10 使用通風程序進行液貨艙清除

本節應參考所有物質以確定採用適合的通風程序。

4.5 在對上述這些資料評定後，用第 5 節中的說明和流程圖確定應遵循的正確作業程序。在《貨物記錄簿》中應作相應記載，指明所採用的程序。

第 5 節

資料與程序

本節應包括取決於船齡和泵吸效率的程序。補遺 A 中給出了本節所述的流程圖例子，並包括適合於新船和現有船舶的綜合要求。具體船舶的《手冊》應只包括專門適合於該船的那些要求。

對熔點等於或大於 0°C 或在 20°C 時黏度等於或大於 50 mPa·s 的物質的相關熔點和黏度值資料應從運輸單證中獲得。

對允許運載的物質，可參考相關證書。

《手冊》應包括：

表 1：已刪除。

表 2：液貨艙資料。

補遺 A：流程圖。

補遺 B：預洗程序。

補遺 C：通風程序。

補遺 D：主管機關要求或接受的附加資料和作業說明。

表格和補遺的要點如下。

表 2 – 液貨艙資料

艙號 ^①	容積 (m ³)	掃艙量 (l)

① 艙號應與船舶適航證書中所示一致。

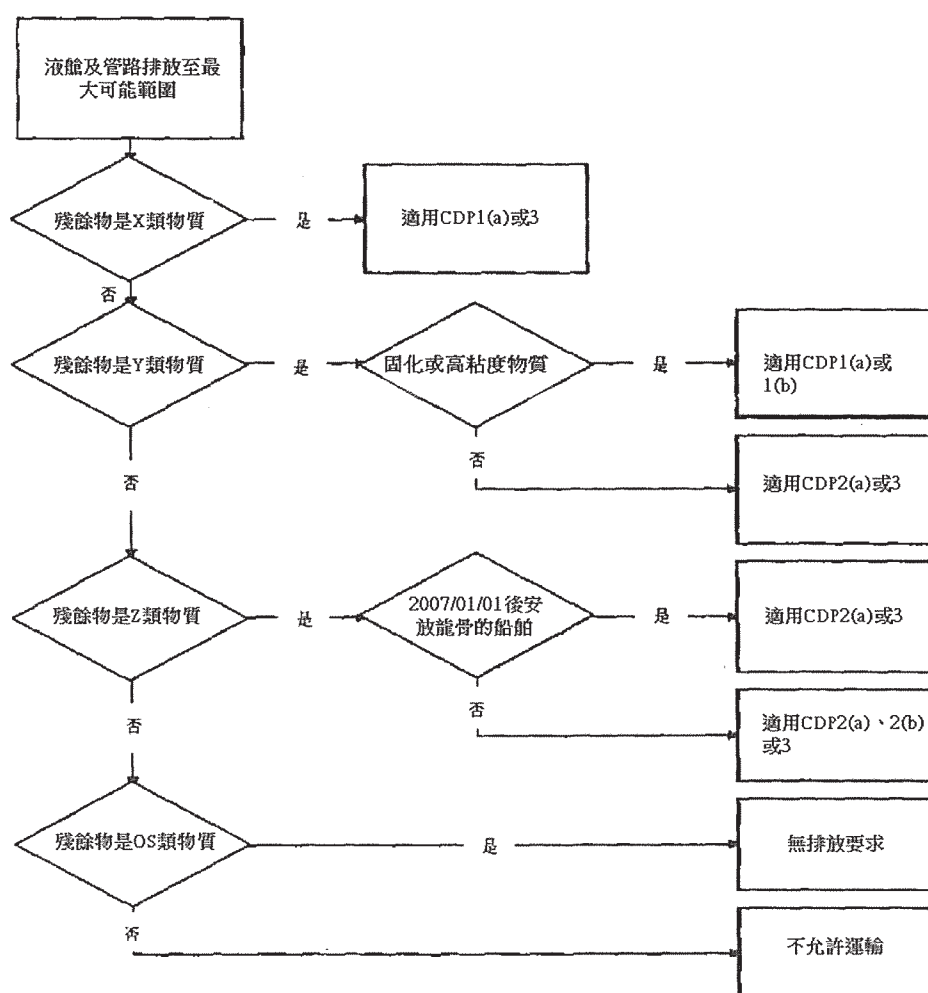
補遺 A

流程圖 — 含有 X、Y 和 Z 類物質殘餘物的液貨艙清洗及洗艙水/壓載
水的處理

註 1：本流程圖給出適用於所有船齡組船舶的基本要求，且僅作為指南。

註 2：所有排放入海的排放物均由附則 II 規定。

註 3：在南極區域禁止將有毒液體物質或含此類物質的混合物排放入海。



船舶詳述	掃艙要求（單位：l）		
	X 類	Y 類	Z 類
新船：2007 年 1 月 1 日以後安放龍骨	75	75	75
至 2007 年 1 月 1 日的 IBC 船舶	允差 100+50	允差 100+50	允差 300+50
BCH 船舶	允差 300+50	允差 300 +50	允差 900+50
其他船舶：2007 年 1 月 1 日以前安放龍骨	N/A	N/A	最大限度清空

清潔和處理程序（CDP）						
（根據 CDP 規定的編號從頂欄開始，並按標有“X”標誌的順序完成每一個程序）						
編號	作業	程序編號				
		1(a)	1(b)	2(a)	2(b)	3
1	至少根據本手冊第 3 節中的程序，最大程度地清掃貨艙和管路	X	X	X	X	X
2	按本手冊附錄 B，進行預洗並將殘餘物排至接收設備	X	X			
3	除預洗外，還應按下列要求實施隨後沖洗： 對 1994 年 7 月 1 日以前建造的船舶，使用一個或多個完整循環的洗艙機； 對 1994 年 7 月 1 日或以後建造的船舶，清洗水量不小於以“k”=1.0 計算的值		X			
4	按本手冊補遺 C 實施通風程序					X
5	壓載液貨艙或洗艙至商業要求	X		X	X	X
6	加到液貨艙的壓載水		X			
7	壓載水/殘餘物/水混合物（預洗艙水除外）的排放條件：					
	.1 距陸地大於 12 n mile	X		X	X	
	.2 船速大於 7 kn	X		X	X	
	.3 水深 25 m 以上	X		X	X	
	.4 使用水下排放（不超過允許的排放率）	X		X		
8	壓載水的排放條件：					
	.1 距陸地大於 12 n mile		X			
	.2 水深 25 m 以上		X			
9	隨後灌入液貨艙的任何水，可不受限制而排放入海	X	X	X	X	X

補遺 B**預洗程序**

《手冊》中的本補遺應包括以附則 II 中附錄 VI 為基礎的預洗程序。這些程序應包括使用在具體船上配置的洗艙設施和設備的特殊要求，並包括下列內容：

- .1 擬使用的洗艙機位置；
- .2 污油水泵出程序；
- .3 熱洗要求；
- .4 洗艙機的循環次數（或時間）；和
- .5 最小作業壓力。

補遺 C**通風程序**

《手冊》中的本補遺應包括以附則 II 中附錄 VII 為基礎的通風程序。這些程序應包括使用在具體船上配置的液貨艙通風系統或設備的特定要求，並包括下列內容：

- .1 擬使用的通風系統位置；
- .2 風機的最小流量或速度；
- .3 對貨物管路、泵、過濾器等通風的程序；和

.4 確保完工後液貨艙乾燥的程序。

補遺 D

主管機關要求或接受的附加資料和作業說明

《手冊》中的本補遺應包括主管機關要求或接受的附加資料及作業說明。

附錄 V

液貨艙、泵及相關管路內殘餘物量的評定

1 引言

1.1 目的

1.1.1 本附錄的目的是提供試驗液貨泵吸系統效率的程序。

1.2 背景

1.2.1 液貨艙泵吸系統的能力是否符合第 12.1、12.2 或 12.3 條規定，通過本附錄第 3 節規定的程序進行試驗予以確定，測得的量稱之為“掃艙量”。每一液貨艙的掃艙量應記錄在船舶《手冊》中。

1.2.2 在確定了一個液貨艙的掃艙量後，如果主管機關認為該液貨艙的泵吸系統是類似的，並處於正確運轉狀態，主管機關可將確定的量值用於其他類似的液貨艙。

2 設計衡準及性能試驗

2.1 液貨艙泵吸系統應設計成滿足附則 II 第 12 條規定的每液貨艙及相關管路殘餘物的最大數量的要求以使主管機關滿意。

2.2 按照第 12.5 條，液貨泵吸系統應用水進行試驗，以驗證系統的性能。此種水試驗應用測量方法表明該系統是否滿足第 12 條的要求，根據第 12.1 及 12.2 的規定，每艙的允差為 50 l。

3 水性能試驗

3.1 試驗條件

3.1.1 船舶的縱、橫傾狀態應有利於吸口處的排泄。水試驗時，船舶的尾傾不應超過 3° ，橫傾不應超過 1° 。

3.1.2 水試驗時選擇的縱、橫傾狀態，應記錄在案。並且應為水試驗期間最小有利縱、橫傾狀態。

3.1.3 在水試驗時，應設有保持液貨艙卸貨匯集管處的背壓不低於 100 kPa 的設施（見圖 5-1 和 5-2）。

3.1.4 應記錄每個液貨艙完成水試驗所用的時間，它可能由於接下去的試驗而需要進行修改。

3.2 試驗程序

3.2.1 確保擬試驗的液貨艙機器相關管路已清洗乾淨以及能安全進入液貨艙。

3.2.2 將水注入液貨艙達到卸貨程序正常結束時所必需的深度。

3.2.3 按照提出的程序對液貨艙及其相關管路進行排空並排放洗艙水。

3.2.4 將留存在液貨艙機器相關管路內的水收集在經校準的容器內進行計量。除其他因素外，留存水應從下列各點收集：

- .1 液貨艙吸口點及其鄰近處所；
- .2 液貨艙底部各匯集阱區域；
- .3 貨泵的低點洩放管；和

.4 所有液貨艙相關管路的最低點洩放管直到匯集管截止閥為止。

3.2.5 上述收集到的總水容積確定液貨艙的掃艙量。

3.2.6 如果一組液貨艙共用一個泵或管路，則公用系統的水試驗殘餘物可按比例分配至各液貨艙，但下述操作限制應包含在船舶的批准《手冊》內：“對於依次卸貨的液貨艙群，泵或管路在液貨艙群的所有液貨艙全部卸完之前不得進行清洗。”

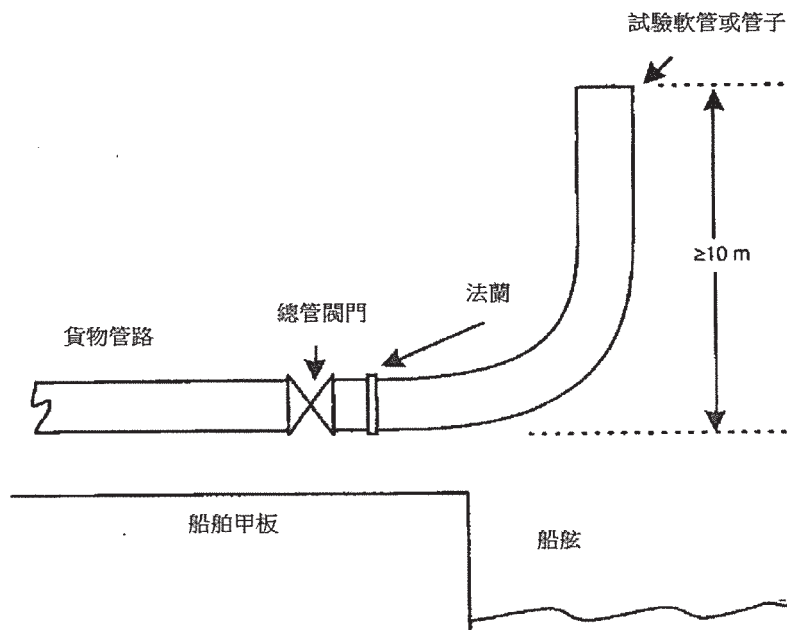


圖 5-1

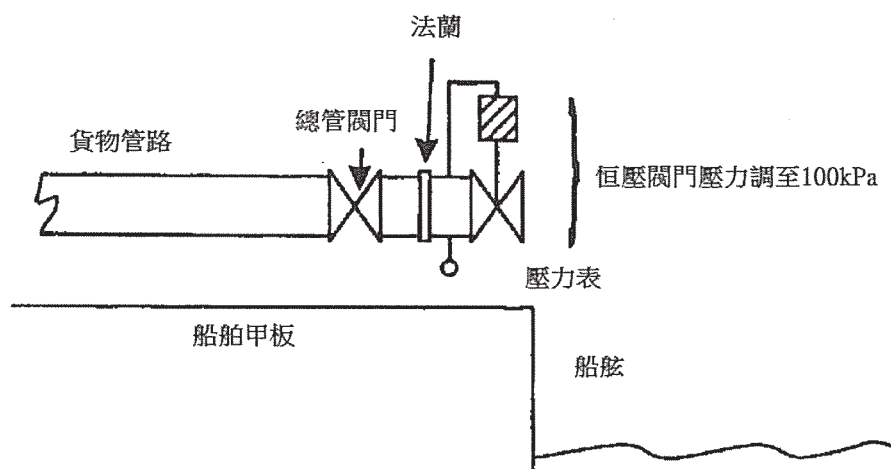


圖 5-2

上述兩圖說明試驗設施將提供液貨艙卸貨總管處不小於 100 kPa 的背壓。

附錄 VI

預洗程序

A 適用 1994 年 7 月 1 日以前建造的船舶

為滿足附則 II 的某些要求，需要預洗程序。本附錄解釋應如何進行這些預洗程序。

非固化物質的預洗程序

1 液貨艙應採用有足夠高的水壓力的旋轉噴射水柱的方法進行沖洗，對於 X 類物質，洗艙機的運行位置應能沖洗到所有液貨艙表面。對於 Y 類物質只需使用一個位置。

2 在洗艙時，利用持續泵出污油水並促使其流向吸入點的方法（順着縱傾和橫傾），將艙內水的總量減至最少。如果不能滿足此條件，洗艙程序應重複三次，每次沖洗完畢進行徹底掃艙。

3 對黏度在 20°C 時等於或大於 50 mPa·s 的物質，應用熱水（溫度至少 60°C）洗艙，除非該類物質的性質使得洗艙的效果不大。

4 所使用的洗艙機運轉循環數應不少於表 6-1 的規定，洗艙機運轉一個循環定義為：洗艙機處在同一方位上運轉連續兩次間的周期（旋轉 360°）。

5 洗艙後，洗艙機應保持繼續運轉足夠長的時間用以沖洗管路、泵和濾器，並且應持續向岸上接收設備進行排放直至液貨艙排空。

固化物質的預洗程序

1 液貨艙在卸貨後應儘早進行洗艙。如有可能，液貨艙洗艙前應進行加熱。

- 2 預洗前，最好能清除艙口及人孔上的殘餘物。
- 3 液貨艙應採用有足夠高的水壓力的旋轉噴射水柱的方法進行沖洗，並且應位於確保所有液貨艙表面都沖洗到的位置。
- 4 在洗艙時，利用持續泵出污油水並促使其流向吸入點的方法（順着縱傾和橫傾），將艙內水的總量減至最少。如果不能滿足此條件，洗艙程序應重複三次，每次沖洗完畢進行徹底掃艙。
- 5 液貨艙應用熱水（溫度至少 60°C）洗艙，除非該類物質的性質使得洗艙的效果不大。
- 6 所使用的洗艙機運轉循環數應不少於表 6-1 的規定。洗艙機運轉一個循環定義為：洗艙機處在同一方位上運轉連續兩次間的周期（旋轉 360°）。
- 7 洗艙後，洗艙機應保持繼續運轉足夠長的時間用以沖洗管路、泵和濾器，並且應持續向岸上接收設備進行排放直至液貨艙排空。

表 6-1 – 洗艙機運轉在每一位置上的循環數

物質類別	洗艙機運轉循環數	
	非固化物質	固化物質
X 類	1	2
Y 類	1/2	1

B 適用 1994 年 7 月 1 日或以後建造的船舶，並建議適用 1994 年 7 月 1 日以前建造的船舶

為滿足附則 II 的某些要求，需要預洗程序。本附錄解釋應如何進行這些預洗程序，以及應如何確定所使用的洗艙介質的最小容量。少量的洗艙介質可在使主管機關滿意的實際驗證試驗基礎上使用。如減少的容量予以批准，必須在《手冊》中予以相應記錄。

如使用除水以外的介質進行預洗，第 13.5.1 條的規定適用。

無循環的非固化物質的預洗程序

1 液貨艙應採用有足夠高的水壓力的旋轉噴射水柱的方法進行沖洗，對於 X 類物質，洗艙機的運行位置應能沖洗到所有液貨艙表面。對於 Y 類物質，只需使用一個位置。

2 在洗艙時，利用持續泵出污油水並促使其流向吸入點的方法，將艙內油污水的總量減至最少。如果不能滿足此條件，洗艙程序應重複三次，每次沖洗完畢進行徹底掃艙。

3 對黏度在 20°C 時等於或大於 50 mPa·s 的物質，應用熱水（溫度至少 60°C）洗艙，除非該類物質的性質使得洗艙的效果不大。

4 所使用洗艙水的數量應不少於 20 中規定的數量或 21 中確定的數量。

5 預洗後，液貨艙和管路應予以徹底清掃。

無循環的固化物質的預洗程序

6 液貨艙在卸貨後應儘早進行洗艙。如有可能，液貨艙洗艙前應進行加熱。

7 預洗前，最好能清除艙口及人孔上的殘餘物。

8 液貨艙應採用有足夠高的水壓力的旋轉噴射水柱的方法進行沖洗，並且應位於確保所有液貨艙表面都沖洗到的位置。

9 在洗艙時，利用持續泵出污油水並促使其流向吸入點的方法，將艙內污油水的總量減至最少。如果不能滿足此條件，洗艙程序應重複三次，每次沖洗完畢進行徹底掃艙。

10 液貨艙應用熱水（溫度至少 60°C）洗艙，除非該類物質的性質使得洗艙的效果不大。

11 所使用洗艙水的數量應不少於 20 中規定的數量或 21 中確定的數量。

12 預洗後，液貨艙和管路應予以徹底清掃。

循環利用洗艙介質的預洗程序

13 可採用循環的洗艙介質的方法，用於一個以上液貨艙的洗艙。在確定數量時，必須充分注意液貨艙中預期的殘餘物數量和洗艙介質的性能，以及是否採用初步漂洗或沖洗。除非提供足夠數據，洗艙介質中的貨物殘餘物的最終計算濃度應不超過基於常規掃艙量的 5%。

14 循環的洗艙介質應僅用於清洗含有相同或類似的物質的液貨艙。

15 為能連續洗艙，應添加足夠量的洗艙介質至擬沖洗的一個或多個液貨艙中。

16 所有液貨艙表面應採用有足夠高壓力的旋轉噴射水柱的方法進行清洗。洗艙介質的再循環可在擬沖洗的艙內進行，也可通過另一液艙，如污油水艙進行。

17 洗艙應連續進行直至累積的通過量不少於 20 中規定的對應相關數量，或 21 中確定的數量。

18 當水用作洗艙介質時，固化物質以及那些在 20°C 時黏度等於或大於 50 mPa.s 的物質，應用熱水（溫度至少 60°C）洗艙，除非這些物質的性質使得洗艙效果不大。

19 當循環洗艙達到 17 中規定的程度結束洗艙後，洗艙介質應排放掉並對液貨艙進行徹底掃艙。此後，液貨艙應用清潔洗艙介質進行漂洗，持續排出並排至接收設備。漂洗應至少覆蓋艙底並充分沖洗管路、泵和濾器。

用於預洗的最小水量

20 預洗中所用的最小水量由艙內有毒液體物質的殘餘量、液貨艙大小、貨物性質、洗艙水排出物的許可濃度以及操作區域予以確定。由下列公式計算最小水量：

$$Q = k (15r^{0.8} + 5r^{0.7} \times V/1,000)$$

式中：

Q =要求的最小水量， m^3

r =每液貨艙的殘餘量， m^3 。 r 值應為實際掃艙效率試驗中顯示的值，但對於艙容為 500 m^3 及以上的液貨艙，應取不低於 0.100 m^3 ，對於艙容為 100 m^3 及以下的液貨艙，應取不低於 0.040 m^3 。對艙容在 100 m^3 和 500 m^3 之間的液貨艙，在計算中允許使用的 r 最小值由線性內插值法求得。

對於 X 類物質， r 值應按《手冊》根據掃艙試驗予以確定，注意上述給出的較低限值，或取 0.9 m^3 。

V = 艙容， m^3 。

k = 具有下列值的系數：

X 類，非固化低黏度物質， $k=1.2$

X 類，固化物質或高黏度物質， $k=2.4$

Y 類，非固化低黏度物質， $k=0.5$

Y 類，固化物質或高黏度物質， $k=1.0$

下表是 k 系數取 1 時用公式計算所得，可作為方便參考。

掃艙容量 (m^3)	艙容 (m^3)		
	100	500	3000
≤ 0.04	1.2	2.9	5.4
0.10	2.5	2.9	5.4
0.30	5.9	6.8	12.2
0.90	14.3	16.1	27.7

21 考慮到船舶核准載運的物質，對預洗容量低於上述 20 中給定的值，可進行驗證試驗並使主管機關滿意和予以批准，以證明滿足第 13 條要求。如此驗證的預洗容量，對於其他預洗條件，應運用上述 20 中定義的系數 k 予以調整。

附錄 VII

通風程序

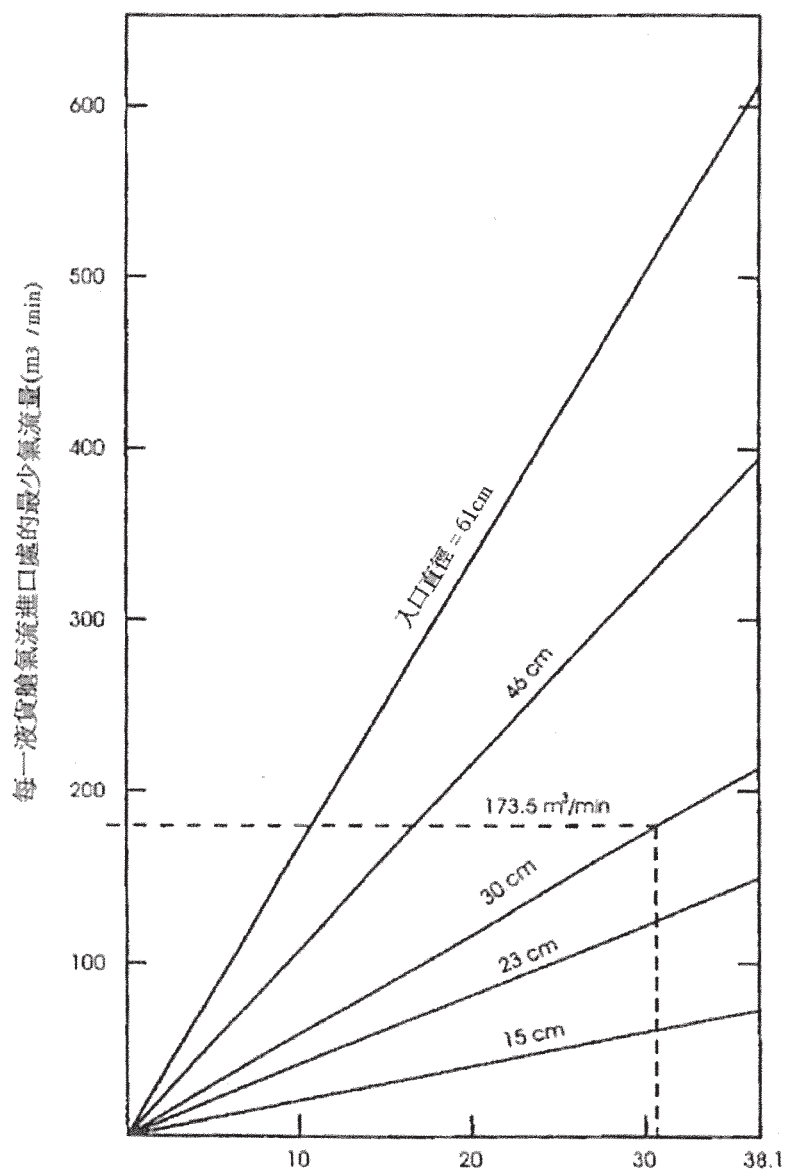
1 物質在 20°C 時蒸氣壓力超過 5 kPa 的液貨殘餘物，可用通風作業從液貨艙中除去。

2 在用通風除去液貨艙內有毒液體物質殘餘物前，應考慮到與液貨易燃性和毒性有關的安全危險。有關安全方面，應參閱經修正的 1974 年 SOLAS 公約、《國際散裝化學品規則》、《散裝化學品規則》中關於液貨艙開口的操作要求，以及國際航運公會（ICS）《液貨船安全指南（化學品）》中的通風程序。

3 港口當局也可以制定液貨艙通風規則。

4 除去液貨艙中液貨殘餘物的通風程序如下：

- .1 管路內液貨應排出，並用通風設備進一步將液體清除；
- .2 船舶橫傾和縱傾應調整到儘可能最小的程度，使艙內殘餘物的揮發得以加強；
- .3 應使用能產生氣流達到液貨艙底部的通風設備。圖 7-1 可用於評估用作液貨艙通風至給定深度的通風設備的足夠程度；
- .4 通風設備應位於最靠近液貨艙匯集阱或吸入點的液貨艙開口處；
- .5 如實際可行，通風設備的位置應使氣流方向對準液貨艙匯集阱或吸入點並儘可能避免影響到液貨艙構件；和
- .6 通風應持續到液貨艙內無可見的液體留存為止，這應通過目視檢查或等效方法予以核實。



進入氣流到達的深度 (m)

圖 7-1 最少氣流量與氣流量到達深度的函數關係。

氣流量到達深度應與艙高度對應。

防污公約附則 III

防止海運包裝有害物質污染規則

第 1 條

適用範圍

1 除另有明文規定外，本附則的規定適用於所有裝運包裝有害物質的船舶。

.1 就本附則而言，“有害物質”係指那些在《國際海運危險貨物規則》（IMDG 規則）^①確定為海洋污染物的物質或滿足本附則附錄所述標準的物質。

.2 就本附則而言，“包裝形式”係指 IMDG 規則中對有害物質所規定的盛裝形式。

2 除符合本附則各項規定外，應禁止裝運有害物質。

3 作為本附則的補充，每一締約國政府應頒佈或促使頒佈關於包裝、標誌、標籤、單證、積載、限量和例外的詳細要求，以防止或最大限度減少有害物質對海洋環境的污染^①。

4 就本附則而言，對以前曾裝運過有害物質的空容器，除已採取足夠的預防措施確保其中已無危害海洋環境的殘餘物外，應視其本身為有害物質。

5 本附則要求不適用於船用物料和設備。

^① 參見本組織 MSC. 122 (75) 決議通過並經海上安全委員會修正的 IMDG 規則。

第 2 條

包裝

根據其所裝的特定物質，包裝件應能使其對海洋環境的危害減至最低限度。

第 3 條

標誌和標籤

1 盛裝有害物質的包裝件應永久標註正確的技術名稱（不應單獨使用商品名稱），並應加以永久標誌或標籤指明該物質為海洋污染物。此類識別標記如有可能還應用其他方法予以補充，例如，使用相應的聯合國編號。

2 在盛裝有害物質的包裝件上標記正確技術名稱和黏貼標籤的方法，應使包裝件在海水中浸泡至少三個月後，其標記內容仍能清晰可辨。在考慮使用合適的標誌和標籤時，應注意到其使用的材料及包裝件表面的耐久性。

3 盛裝少量有害物質的包裝件可免除標記要求^①。

① 參見經修正的 MSC. 122 (75) 決議通過的 IMDG 規則中的具體免除規定。

第 4 條

單證^①

1 在有關海運有害物質的所有單證中，涉及這些物質的名稱時，應使用每種物質的正確技術名稱（不應單獨使用商品名稱），並對該物質另行註明“海洋污染物”字樣。

2 托運人提供的運輸單證，應包括或附以經簽字的證明或申明，說明交付運輸的貨物業已妥善包裝和標識並加有標誌、標籤或標牌，處於適合裝運狀況，對海洋環境的危害已減至最低限度。

3 每艘裝運有害物質的船舶應攜有一份特別清單或艙單，列出船上有害物質及其位置。一份標明船上有害物質位置的詳細積載圖，可用以代替該特別清單或艙單。在將這些有害物質卸船以前，船舶所有人或其代表還應在岸上留存這些單證的副本。船舶離港前應備有一份這些單證的副本，以供港口國當局指定的人員或組織使用。

4 如中途進行了裝卸作業，即使是部分裝卸，應對列明船上所裝有害物質並標明其在船上位置或有詳細積載圖的單證進行修訂，以離港前供港口國當局指定的人員或組織使用。

5 如船舶按經修正的《1974 年國際海上人命安全公約》的要求攜有裝運危險貨物的特別清單或艙單或詳細積載圖時，可將本條所要求的單證與危險貨物單證合併。如果合併單證，應將危險貨物與本附則所述的有害物質加以明確區分。

① 本條中的“單證”並不排除使用電子數據處理（EDP）和電子數據交換（EDI）傳輸技術作為書面單證的輔助手段。

第 5 條

積載

有害物質應予正確積載和繫固，以使對海洋環境的危害減至最低限度，而不損害船舶和船上人員的安全。

第 6 條

限量

對某些有害物質，由於科學和技術上的合理原因，可能需要在禁止運輸或對某一船舶的裝載數量方面加以限制。在限制數量時應充分考慮船舶的大小、構造和設備，同時還應考慮這些物質的包裝和固有性質。

第 7 條

例外

1 禁止將以包裝形式裝運的有害物質拋棄入海，但為保障船舶安全或救護海上人命所必需者除外。

2 在遵守本公約規定的情況下，應根據有害物質的物理、化學和生物學特性採取相應措施，以對其洩漏物沖洗出船外進行控制，但這種措施的執行應不損害船舶和船上人員的安全。

第 8 條

關於操作要求的港口國控制^①

1 當船舶停靠在另一締約國港口或近海裝卸站時，如有明確理由確信該船船長或船員不熟悉船上主要的防止有害物質污染程序，該船應接受該締約國正式授權的官員根據本附則進行的有關操作要求的檢查。

2 在本條 1 所述的情況下，該締約國應採取措施，確保該船在按本附則的要求調整至正常狀態前，不得開航。

3 本公約第 5 條規定的港口國控制程序應適用於本條。

4 本條的任何內容均不得解釋為限制締約國在本公約明確規定的操作要求方面進行控制的權利和義務。

^① 參見本組織 A. 787 (19) 決議通過並經 A. 882 (21) 決議修正的港口國控制程序。

附則 III 的附錄

附錄

包裝形式有害物質的識別標準

就本附則而言，符合下列任何一種識別標準的物質均為有害物質

①：

類別：急性 1

96 hr LC ₅₀ （對魚類）	≤ 1 mg/l 和/或
48 hr EC ₅₀ （對甲殼動物）	≤ 1 mg/l 和/或
72 or 96 hr ErC ₅₀ （對海藻或其他水生植物）	≤ 1 mg/l

類別：慢性 1

96 hr LC ₅₀ （對魚類）	≤ 1 mg/l 和/或
48 hr EC ₅₀ （對甲殼動物）	≤ 1 mg/l 和/或
72 or 96 hr ErC ₅₀ （對海藻或其他水生植物）	≤ 1 mg/l
且該物質不能很快降解和/或 log K _{ow} ≥4（除非經實驗確定 BCF<500）	

類別：慢性 2

96 hr LC ₅₀ （對魚類）	>1 至 ≤ 10mg/l 和/或
48 hr EC ₅₀ （對甲殼動物）	>1 至 ≤ 10mg/l 和/或
72 or 96 hr ErC ₅₀ （對海藻或其他水生植物）	>1 至 ≤ 10mg/l
且該物質不能很快降解和/或 log K _{ow} ≥4（除非經實驗確定 BCF<500），除非慢性毒性 NOEC>1 mg/l	

① 該標準基於聯合國制定的經修正的《化學品分類及標記全球協調制度》（GHS）。本附錄中使用的首字母縮合詞或術語的定義見 IMDG 規則的相關章節。

防污公約附則 IV

防止船舶生活污水污染規則

第 1 章

總則

第 1 條

定義

就本附則而言：

1 新船係指：

- .1 在本附則生效之日或以後訂立建造合同的船舶，或無建造合同但在本附則^①生效之日或以後安放龍骨或處於類似建造階段的船舶；或

見統一解釋 1

- .2 在本附則生效之日後經過 3 年或 3 年以上交船的船舶。

見統一解釋 2

2 現有船舶係非新船的船舶。

3 生活污水係指：

- .1 任何型式的廁所和小便池的排出物和其他廢棄物；

① 附則 IV 於 2003 年 9 月 27 日生效。

.2 醫務室（藥房、病房等）的面盆、洗澡盆和這些處所排水孔的排出物；

.3 裝有活畜禽貨的處所的排出物；或

.4 混有上述排出物的其他廢水。

4 集污艙係指用於收集和儲存生活污水的艙櫃。

5 最近陸地。“距最近陸地”一詞，係指距該領土按國際法劃定其領海的基線，但下述情況除外：就本公約而言，在澳大利亞東北海面“距最近陸地”，係指澳大利亞海岸下述各點的連線而言：

自南緯 11°00'東經 142°08'的一點起，

至南緯 10°35'東經 141°55'的一點，

然後至南緯 10°00'東經 142°00'的一點，

然後至南緯 09°10'東經 143°52'的一點，

然後至南緯 09°00'東經 144°30'的一點，

然後至南緯 10°41'東經 145°00'的一點，

然後至南緯 13°00'東經 145°00'的一點，

然後至南緯 15°00'東經 146°00'的一點，

然後至南緯 17°30'東經 147°00'的一點，

然後至南緯 21°00'東經 152°55'的一點，

然後至南緯 24°30'東經 154°00'的一點，

然後至澳大利亞海岸南緯 24°42'東經 153°15'的一點所畫的一條連線。

6 國際航線係指從某一適用本公約的國家至該國以外某一港口的航線，反之亦然。

7 人員係指船員和乘客。

8 周年日期係指與《國際防止生活污水污染證書》期滿之日對應的每年的該月和該日。

第 2 條

適用範圍^①

1 本附則規定應適用於下列國際航行的船舶：

- .1 400 總噸及以上的新船；和
- .2 小於 400 總噸且核准載運 15 人以上的新船；和
- .3 本附則生效之日 5 年以後的 400 總噸及以上的現有船舶；
和
- .4 本附則生效之日 5 年以後的小於 400 總噸且核准載運 15 人
以上的現有船舶。

2 主管機關應根據本條 1.3 和 1.4 的規定，確保在 1983 年 10 月 2 日以前安放龍骨或處於類似建造階段的現有船舶，應儘實際可能按本附則第 11 條的要求配備排放生活污水的設備。

① 52 屆環保會（2004 年 10 月 11 日至 15 日）確定 2003 年 9 月 27 日為防污公約附則 IV 唯一生效日期（見 MEPC 52/24 文件 6.16 至 6.19）。

第 3 條

例外

1 本附則第 11 條應不適用於下述情況：

- .1 從船上排放生活污水，係為保障船舶及船上人員安全或救護海上人命所必需者；或
- .2 由於船舶或其設備損壞而導致排放生活污水，且在發生損壞前後已採取了一切合理的預防措施防止排放或使排放減至最低限度。

第 2 章

檢驗和發證^①

第 4 條

檢驗

1 對按第 2 條規定，要求符合本附則各項規定的每艘船舶，應進行下列規定的檢驗：

- .1 初次檢驗，在船舶投入營運前或首次簽發本附則第 5 條所要求的證書之前進行。該檢驗應包括對本附則所涉及船舶的結構、設備、系統、附件、佈置及材料的全面檢驗。該檢驗應確保其結構、設備、系統、附件、佈置和材料完全符合本附則的適用要求。
- .2 換證檢驗，按主管機關規定的間隔期限進行，但不得超過 5 年，但本附則第 8.2、8.5、8.6 或 8.7 條適用者除外。換證檢驗應確保其結構、設備、系統、附件、佈置和材料完全符合本附則的適用要求。
- .3 附加檢驗，在本條 4 規定的檢查結果進行修理後或在任何重大修理或換新後應根據情況進行全面或部分檢驗。該檢驗應確保已有效進行了必要的修理或換新，確保這種修理或換新所用的材料和工藝在各方面均屬合格，並確保船舶在各方面均符合本附則的要求。

① 參見可能經本組織修正的本組織 A.883 (21) 決議通過的《全球統一執行檢驗和發證協調系統 (HSSC)》和本組織 A.997 (25) 決議通過的《2007 年檢驗和發證協調系統檢驗指南》。參見 MSC/Circ.1010-MEPC/Circ.382 通函《關於對被認可組織 (RO) 授權的資料送交》，以及通過全球綜合航運信息系統 (GISIS) 收集的信息。

2 主管機關對不受本條 1 規定約束的船舶應制訂適當措施，以確保其符合本附則的適用規定。

3 為執行本附則規定而對船舶進行的檢驗，應由主管機關的官員進行。但主管機關可將這些檢驗委託給為此目的而指定的驗船師或由其認可的組織辦理。

4 按本條 3 所述指定驗船師或認可組織執行檢驗的主管機關，應至少對任何指定的驗船師或被認可組織授權，使其能：

- .1 要求船舶進行修理；和
- .2 在港口國主管當局要求時執行檢驗。

主管機關應將授權給指定的驗船師或被認可組織的具體職責和條件通知本組織，以便轉發本公約各締約國，供其官員參考。

5 當指定的驗船師或被認可組織確定船舶或其設備的狀況在實質上與證書所載內容不符，或會對海洋環境造成不當的危害威脅，因而船舶不適於出海航行時，該驗船師或組織應確保立即採取糾正措施並及時通知主管機關。如未能採取此種糾正措施，則應撤銷證書並立即通知主管機關。如該船是在另一締約國的港口內，則還應立即通知該港口國的有關當局。當主管機關的官員、指定的驗船師或被認可組織通知該港口國的有關當局後，有關的港口國政府應向該官員、驗船師或組織提供履行本條規定的義務所必需的任何幫助。必要時，有關的港口國政府應採取措施，確保該船在未具備對海洋環境不致產生不當的危害威脅前，不得開航或離港駛往最近的可進行修理的修船廠。

6 在所有情況下，有關主管機關均應保證檢驗的完整性和有效性，確保為履行這一職責作出必要的安排。

7 船舶及其設備的狀況應保持符合本公約的各項規定，以確保船舶在各方面均繼續適於出海航行，而不會對海洋環境造成不當的危害威脅。

8 根據本條 1 的規定對船舶進行的任何檢驗完成以後，未經主管機關許可，經過檢驗的結構、設備、系統、附件、佈置或材料不得作任何變動，除非直接替換這種設備和附件。

9 當船舶發生事故或發現缺陷，對該船的完整性或對本附則所涉及的設備的有效性或完整性產生重大影響時，該船的船長或船東應儘早向負責簽發有關證書的主管機關、被認可組織或指定的驗船師報告。該主管機關、被認可組織或指定的驗船師應立即着手調查以確定是否需要按本條 1 的要求進行檢驗。如果該船在另一締約國的港口內，船長或船東還應立即向該港口國的有關當局報告，而指定的驗船師或被認可組織應查明已進行了此項報告。

第 5 條

證書的簽發或簽署

1 對駛往本公約其他締約國所管轄的港口或近海裝卸站的任何船舶，在按照本附則第 4 條的規定進行初次檢驗或換證檢驗後，均應簽發《國際防止生活污水污染證書》。如為現有船舶，則本要求應於本附則生效之日 5 年以後適用。

2 該證書應由主管機關或經其正式授權的任何個人或組織^①簽發或簽署。在任何情況下，主管機關對證書負有全部責任。

第 6 條

他國政府簽發或簽署證書

1 本公約締約國政府應主管機關的申請，可對船舶進行檢驗，如確信符合本附則的規定，應對該船簽發或授權簽發《國際防止生活污水污染證書》，並在適用時，按本附則的規定，為該船簽署或授權簽署證書。

2 證書和檢驗報告副本各一份應儘快送交提出申請的主管機關。

3 所發證書應聲明，該證書係根據主管機關的申請簽發，並應與按本附則第 5 條規定所簽發的證書具有同等效力和得到同樣的承認。

4 對於懸掛非締約國國旗的船舶，不得簽發《國際防止生活污水污染證書》。

第 7 條

證書格式

《國際防止生活污水污染證書》應按與本附則附錄所示樣本相一致的格式寫成，並應至少為英文、法文或西班牙文的其中一種語言。如同時使用發證國的官方語言，則在有爭議或分歧時，應以該國官方語言為準。

^① 參見本組織 A.739 (18) 決議通過的經 MSC.208 (81) 決議修正的《代表主管機關的組織的授權指南》，和可能經本組織修正的本組織 A.789 (19) 決議通過的《被認可組織代表主管機關執行檢驗和發證的細則》。

第 8 條

證書的有效期限^①

1 《國際防止生活污水污染證書》的有效期限由主管機關規定，但不得超過 5 年。

2.1 儘管有本條 1 的要求，但如果換證檢驗在現有證書期滿之日前 3 個月內完成，則新證書應從換證檢驗完成之日起，至現有證書期滿之日後不超過 5 年的日期內有效。

2.2 如果換證檢驗在現有證書期滿之日後完成，則新證書應從換證檢驗完成之日起，至現有證書期滿之日後不超過 5 年的日期內有效。

2.3 如果換證檢驗在現有證書期滿之日的前 3 個月前完成，則新證書應從換證檢驗完成之日起不超過 5 年的日期內有效。

3 如果所發證書的有效期限少於 5 年，主管機關可將證書有效期自期滿日延長至本條 1 規定的最長期限。

4 如果換證檢驗已完成，而新證書在現有證書期滿之日前不能簽發或不能存放船上，主管機關授權的人員或組織可在現有證書上簽署，簽署後的證書自期滿日起不超過 5 個月的期限內應視為繼續有效。

① 參見《IMO 文件證書修正案生效之後簽發的現有證書的替換時間指南》（MSC-MEPC.5/Circ.6 通函）。

5 如果證書期滿時船舶不在應進行檢驗的港口，主管機關可延長該證書的有效期，但此項展期僅以能使該船完成其駛抵應進行檢驗的港口的航次為限，並且僅在正當和合理的情況下才能如此辦理。證書的展期不得超過 3 個月。經展期的船舶在抵達應進行檢驗的港口後，不得因有此項展期而在未獲得新證書前駛離該港口。換證檢驗完成後，新證書的有效期應自現有證書展期前的期滿日起不超過 5 年。

6 簽發給短程航行船舶的證書未按本條前述之規定展期時，主管機關可給予自該證書所示的期滿之日起至多 1 個月的寬限期。換證檢驗完成後，新證書的有效期應自現有證書展期前的期滿日起不超過 5 年。

7 在特殊情況下（由主管機關確定），新證書無需按本條 2.2、5 或 6 的要求從現有證書的期滿之日起計算日期。在此特殊情況下，新證書的有效期應自換證檢驗完成之日起不超過 5 年。

8 按本附則第 5 或 6 條規定所簽發的證書，在下列任一情況下即應中止有效：

- .1 如果相關檢驗未在本附則第 4.1 條規定的期限內完成；或
- .2 船舶變更船旗國。只有當換發新證書的政府確信該船符合本附則第 4.7 和 4.8 條的要求時，才能簽發新的證書。如果變更船旗係在締約國之間進行，則在變更後的 3 個月內，前船旗國政府如收到申請，應儘快將變更船旗前該船所攜證書的副本以及相關的檢驗報告副本（如備有）送交該船的主管機關。

第 3 章

設備和排放控制

第 9 條

生活污水系統

1 凡按第 2 條的規定，要求符合本附則各項規定的每艘船舶，均應配備下列之一的生活污水系統：

- .1 生活污水處理裝置，該裝置應經主管機關型式認可，並考慮到本組織^①制定的標準和試驗方法；或

見統一解釋 3

- .2 經主管機關認可的生活污水粉碎和消毒系統，該系統應配備令主管機關滿意的各項設施，用於船舶在離最近陸地不到 3 n mile 的臨時儲存生活污水；或
- .3 集污艙，該集污艙的容量應參照船舶營運情況、船上人數和其他相關因素，能存放全部生活污水，並使主管機關滿意。集污艙的構造應使主管機關滿意，並應設有能指示其集存數量的目視裝置。

① 參見本組織海上環境保護委員會 MEPC.2 (VI) 決議通過的《關於生活污水處理裝置國際排出物標準的建議和性能試驗導則》，或環保會 MEPC.159 (55) 決議通過的《經修訂的實施生活污水處理裝置排出物標準和性能試驗導則》（見統一解釋 3）。

第 10 條

標準排放接頭

1 為了使接收設備的管路能與船上的排放管路相連結，兩條管路均應裝有符合下表的標準排放接頭：

見統一解釋 4

排放接頭法蘭的標準尺寸

規格	尺寸
外徑	210 mm
內徑	按照管子的外徑
螺栓圈直徑	170 mm
法蘭槽口	直徑 18 mm 的孔 4 個，等距離分佈在上述直徑的螺栓圈上，開槽口至法蘭外沿。槽口寬 18 mm
法蘭厚度	160 mm
螺栓和螺帽：數量、直徑	4 個，每個直徑 16 mm，長度適當
法蘭應設計為能接受最大內徑不大於 100 mm 的管子，以鋼或其他等效材料製成，表面平整，連同一個適當的墊圈，應能承受 600 kPa 的工作壓力。對於型深 5 m 及以下的船舶，排放接頭的內徑可為 38 mm。	

2 對於專項營運的船舶，即客渡船，船舶排放管路可選擇配備一個主管機關接受的排放接頭，如快速連接接頭。

第 11 條

生活污水排放

1 除本附則第 3 條的規定外，應禁止將生活污水排放入海，但下列情況除外：

- .1 船舶在距最近陸地 3 n mile 以外，使用主管機關按照本附則第 9.1.2 條所認可的系統，排放業經粉碎和消毒的生活污水，或在距最近陸地 12 n mile 以外排放未經粉碎和消毒的生活污水。但在任何情況下，不得將集污艙中儲存的生活污水或源自裝有活體動物處所的生活污水頃刻排光，而應在航行途中，船舶以不小於 4 kn 的航速航行時，以中等速率排放；排放率應經主管機關根據本組織制定的標準^①予以批准；或
- .2 船舶所設經批准的生活污水處理裝置正在運轉，該裝置已由主管機關驗證符合本附則第 9.1.1 條所述的操作要求，同時
 - .2.1 該裝置的試驗結果已寫入該船的《國際防止生活污水污染證書》；和
 - .2.2 此外，排出物在其周圍的水中不應產生可見的漂浮固體，也不應使水變色。

① 參見本組織海上環境保護委員會 MEPC.157(55) 決議通過的《船上未經處理的生活污水排放率標準建議案》。

2 上述 1 的規定應不適用於在某一國家所轄水域內營運的船舶，也不適用於來自其他國家的訪問船舶，這些船舶在該水域內按照該國可能施行的較寬要求排放生活污水。

3 如生活污水與防污公約其他附則要求的廢棄物或廢水混在一起時，則除應符合本附則的要求外，還應符合其他附則的要求。

第 4 章

接收設備

第 12 條

接收設備^①

1 要求在其所轄水域內營運的船舶和在其水域內的訪問船舶符合第 11.1 條要求的本公約各締約國政府應承擔義務，確保在其港口和近海裝卸站提供足夠的生活污水接收設備，以滿足船舶使用的需要，而不致造成船舶的延誤。

2 各締約國政府應將按本條規定設置的設備被宣稱不足的一切情況通知本組織，以便轉發各有關締約國政府。

^① 參見《港口接收設備供應商和用戶良好操作指南》(MEPC.1/Circ.671 通函)。

第 5 章

港口國控制

第 13 條

關於操作要求的港口國控制^①

1. 當船舶在另一締約國的港口或近海裝卸站時，如有明顯理由確信該船船長或船員不熟悉船上主要的防止生活污水污染程序，該船應接受該締約國正式授權的官員根據本附則進行的有關操作要求的檢查。

2. 在本條 1 所述的情況下，該締約國應採取措施，確保該船在按本附則的要求調整至正常狀態前，不得開航。

3. 本公約第 5 條規定的港口國控制程序應適用於本條。

4. 本條的任何內容均不得解釋為限制締約國在本公約明確規定的操作要求方面進行控制的權利和義務。

^① 參見本組織 A.787 (19) 決議通過並經 A.882 (21) 決議修正的港口國控制程序；見 IMO 出版物 IA650E。

附則 IV 的附錄

附錄

國際防止生活污水污染證書格式

國際防止生活污水污染證書

經.....政府授權，

（國家全稱）

由.....

（按公約規定經授權的適任人員或組織的全稱）

根據經修正的《經 1978 年議定書修訂的 1973 年國際防止船舶造成污染公約》（以下稱“公約”）的規定簽發。

船舶概況^①

船名.....

船舶編號或呼號.....

船籍港.....

總噸位.....

該船核准載運人數.....

^① 船舶概況也可在表格中橫向排列。

IMO 編號^①

新船/現有船舶^②

安放龍骨或船舶處於類似建造階段的日期或，如適用，

船舶重大改建或改裝工作的開始日期

茲證明：

1 該船已配備如下生活污水處理裝置/粉碎機/集污艙^②和排放管路，並符合公約附則 IV 第 9 和 10 條的要求：

1.1^② 生活污水處理裝置的說明：

生活污水處理裝置的類型

製造廠的名稱

經主管機關核准，該生活污水處理裝置符合 MEPC.2(VI)
決議規定的排放標準。

1.2^② 粉碎機的說明：

粉碎機的類型

製造廠的名稱

消毒後生活污水的標準

① 參見本組織 A.600(15) 決議通過的《IMO 船舶編號體系》。

② 不適用者劃去。

1.3^① 集污艙設備的說明：集污艙的總容量m³

位置

1.4 將生活污水排往接收設備的管路，裝有標準通岸接頭。

2 該船已按公約附則 IV 第 4 條規定接受了檢驗。

3 檢驗表明，該船的結構、設備、系統、附件、佈置和材料及其
狀況在各方面均屬合格，且該船符合公約附則 IV 的適用要求。

本證書有效期至（年/月/日）.....止^②，在此期間應按
公約附則 IV 第 4 條規定接受檢驗。

本證書基於的檢驗完成日期（年/月/日）

簽發於

（證書簽發地點）

日期（年/月/日）.....

（簽發日期） （經正式授權的發證官員簽字）

（主管當局蓋章或鋼印）

① 不適用者劃去。

② 填入主管機關根據公約附則 IV 第 8.1 條規定的期滿日期。該日期的日、月相當於公約附則 IV 第 1.8 條所定義的周年日。

在適用第 8.3 條情況下，有效期少於 5 年的證書展期簽署

該船符合公約的有關規定，本證書根據公約附則 IV 第 8.3 條應視為有效，有效期限至（年/月/日）.....止。

簽字

（經正式授權的官員簽字）

地點

日期（年/月/日）

（主管當局蓋章或鋼印）

在已完成換證檢驗並適用第 8.4 條情況下的簽署

該船符合公約的有關規定，本證書根據公約附則 IV 第 8.4 條應視為有效，有效期限至（年/月/日）.....止。

簽字

（經正式授權的官員簽字）

地點

日期（年/月/日）

（主管當局蓋章或鋼印）

在適用第 8.5 或 8.6 條情況下，將證書有效期展期至

駛抵進行檢驗的港口或給予寬限期的簽署

本證書根據公約附則 IV 第 8.5 或 8.6^①條應視為有效，有效期限至
(年/月/日)止。

簽字

(經正式授權的官員簽字)

地點

日期 (年/月/日)

(主管當局蓋章或鋼印)

① 不適用者劃去。

附則 IV 的統一解釋

1 “類似建造階段”的定義

第 1.1.1 條 “類似建造階段”係指在此階段：

- .1 可辨認出某一具體船舶建造開始；和
- .2 該船業已開始的裝配量至少為 50 t，或為全部結構材料估算重量的 1%，取較小者。

2 建造合同日期、安放龍骨日期和交船日期

第 1.1.2 條 1 根據 SOLAS 公約和防污公約的相關規定，對船舶的規則適用範圍取決於下列日期：

- .1 年/月/日或以後簽訂建造合同；或
- .2 無建造合同，年/月/日或以後安放龍骨或處於類似建造階段；或
- .3 年/月/日或以後交付。

2 為適用這些規定，選擇權船舶簽訂建造合同日期應解釋為船東和船廠之間簽訂的原系列船舶建造合同日期，條件是：

- .1 建造選擇權船舶的選擇權在該系列船舶建造合同簽訂以後一年內最終生效；和
- .2 選擇權船舶具備與該系列船舶相同的設計圖紙且由相同船廠建造。

3 上述 1 要求的規則適用如下：

- .1 如建造合同簽訂日期在系列特定規則修正案規定的合同日期或以後，則適用該系列規則修正案；
- .2 只有當無建造合同時，適用安放龍骨日期衡準，且如船舶安放龍骨日期在該系列特定規則修正案規定的安放龍骨日期或以後，則適用該系列規則修正案；和
- .3 如船舶交船日期在系列特定規則修正案規定的交船日期或以後，則不論其簽訂建造合同日期或安放龍骨日期，適用該系列規則修正案，但主管機關已接受延遲交船係由船廠和船東^①所無法控制的不可預見的情況者除外。

3 2010 年 1 月 1 日或以後安裝上船

第 9.1.1 條 為適用 MEPC.159 (55) 決議，對“2010 年 1 月 1 日或以後安裝上船”解釋如下：

- .1 對於新船而言，係指安裝在 2010 年 1 月 1 日或以後安放龍骨或處於類似建造階段的船上的設備。
- .2 對於現有船舶而言，係指新設備交付船上的合同交付日期為 2010 年 1 月 1 日或以後；或無合同交付日期，實際交付船上的日期為 2010 年 1 月 1 日或以後。

4 標準排放接頭

① 參見統一解釋“交船的意外延遲”（MSC.1/Circ.1247 通函和防污公約附則 I，統一解釋 4）。

第 10.1 條 受附則 IV 約束的所有船舶，不論其大小，也不論其是否安裝了生活污水處理裝置或集污艙，都應配備用於向港口生活污水處理設備排放生活污水的管路和相關的通岸接頭法蘭。

防污公約附則 V
防止船舶垃圾污染規則^①

第 1 條

定義

就本附則而言：

1 垃圾係指產生於船舶正常營運期間並需要持續或定期處理的各種食品、生活和作業廢棄物（不包括鮮魚及其各部分），但本公約其他附則中所規定的或列出的物質除外。

2 最近陸地。“距最近陸地”一詞，係指距該領土按國際法劃定其領海的基線，但下述情況除外：就本公約而言，在澳大利亞東北海面“距最近陸地”，係指澳大利亞海岸下述各點的連線而言：

自南緯 11°00'東經 142°08'的一點起，
至南緯 10°35'東經 141°55'的一點，
然後至南緯 10°00'東經 142°00'的一點，
然後至南緯 09°10'東經 143°52'的一點，
然後至南緯 09°00'東經 144°30'的一點，
然後至南緯 10°41'東經 145°00'的一點，
然後至南緯 13°00'東經 145°00'的一點，
然後至南緯 15°00'東經 146°00'的一點，
然後至南緯 17°30'東經 147°00'的一點，
然後至南緯 21°00'東經 152°55'的一點，

① 參見《防污公約附則 V 實施指南》；見 IMO 出版物 IA656E。

然後至南緯 24°30' 東經 154°00' 的一點，

然後至澳大利亞海岸南緯 24°42' 東經 153°15' 的一點所畫的一條
連線。

3 特殊區域係指這樣的一個海域，在該海域中，由於其海洋學和生態學的情況以及其運輸的特殊性質等公認的技術原因，要求採取特殊的強制辦法以防止垃圾污染海洋。特殊區域應包括本附則第 5 條中所列各區域。

第 2 條

適用範圍

除另有明文規定者外，本附則適用於所有船舶。

第 3 條

在特殊區域外處理垃圾

1 除本附則第 4、5 和 6 條的規定外：

(a) 一切塑料製品，包括但不限於合成纜繩、合成漁網、塑料垃圾袋以及可能包含有毒或重金屬殘餘的塑料製品的焚燒爐灰燼，均禁止處理入海；

(b) 對於下述垃圾，應儘可能遠離最近陸地處理入海，但在任何情況下均禁止在距最近陸地不足：

(i) 25 n mile 將漂浮的墊艙物料、襯料和包裝材料處理入海；

(ii) 12 n mile 將食品廢棄物和一切其他垃圾，包括紙製品、碎布、玻璃、金屬、瓶子、陶器及類似的廢棄物處理入海；

(c) 本條 (b) (ii) 中所述的垃圾，在通過了粉碎機和磨碎機後，可允許儘可能遠離最近陸地處理入海，但在任何情況下禁止在距最近陸地不到 3 n mile 處理入海。這種業經粉碎或磨碎的垃圾應能通過篩眼不大於 25 mm 的粗篩。

2 如果垃圾與具有不同處理或排放要求的其他排放物混在一起時，則應適用其中更為嚴格的要求。

第 4 條

對處理垃圾的特殊要求

1 除本條 2 的規定外，從事於海底礦物資源的勘探、開發以及相關的海上加工的固定或浮動平台，和停靠這種平台或其相距在 500 m 以內的一切其他船舶，禁止處理本附則所規定的任何物料。

2 位於距陸地 12 n mile 以外的這種固定或浮動平台和停靠這種平台或與其相距在 500 m 以內的一切其他船舶，可允許已通過粉碎機或磨碎機的廢棄食物處理入海。這種業經粉碎或磨碎的食品廢棄物應能通過篩眼不大於 25 mm 的粗篩。

第 5 條

在特殊區域內處理垃圾^①

1 就本附則而言，特殊區域為地中海區域、波羅的海區域、黑海區域、紅海區域、“海灣區域”、北海區域、南極區域以及包括墨西哥灣和加勒比海的大勒比海區域，其界限如下：

(a) 地中海區域係指地中海本身，包括其中的各個海灣和海區在內，與黑海以北緯 41°為界，西至直布羅陀海峽，以西經 5°36'為界。

(b) 波羅的海區域係指波羅的海本身以及波的尼亞灣、芬蘭灣和波羅的海入口，以斯卡格拉克海峽中斯卡晏角處的北緯 57°44.8'為界。

(c) 黑海區域係指黑海本身，與地中海以北緯 41°為界。

(d) 紅海區域係指紅海本身，包括蘇伊士灣和亞喀巴灣，南以拉斯西尼（北緯 12°28.5'，東經 43°19.6'）和胡森穆拉得（北緯 12°40.4'，東經 43°30.2'）之間的恆向線為界。

(e) 海灣區域係指位於拉斯爾哈得（北緯 22°30'，東經 59°48'）和拉斯阿爾法斯特（北緯 25°04'，東經 61°25'）之間的恆向線西北的海域。

(f) 北海區域係指北海本身，包括下列界限之內的海區：

(i) 北緯 62°以南和西經 4°以東的北海海域；

^① 參見 MEPC.1/Circ.675/Rev.1 通函《根據防污公約附則 V 向海灣區域、地中海區域和大加勒比海區域排放貨艙洗艙水》。

(ii) 斯卡格拉克海峽，南至斯卡晏角以東北緯 $57^{\circ}44.8'$ ；
和

(iii) 英吉利海峽及其西經 5° 以東和北緯 $48^{\circ}30'$ 以北的入口處。

(g) 南極區域係指南緯 60° 以南的海域。

(h) 大加勒比海區域：如《大加勒比海區域海上環境保護與開發公約》（1983，西印度群島卡塔赫納）第 2 條第 1 款所規定，係指墨西哥灣和加勒比海本身，包括其中的海灣和海區以及由以下邊界組成的 3 大西洋的一部分：在北緯 30° 自佛羅里達向東至西經 $77^{\circ}30'$ ，然後連一條恆向線至北緯 20° 與西經 59° 的交叉點，然後再連一條恆向線至北緯 $7^{\circ}20'$ 與西經 50° 的交叉點，然後再連一條恆向線沿西南方向至法屬圭亞那的東部邊界。

2 除本附則第 6 條的規定外：

(a) 禁止將下述垃圾處理入海：

(i) 一切塑料製品，包括但不限於合成纜繩、合成漁網、塑料垃圾袋以及可能包含有毒或重金屬殘餘的塑料製品的焚燒爐灰燼；和

(ii) 一切其他垃圾，包括紙製品、破布、玻璃、金屬、瓶子、陶器、墊艙物料、襯料和包裝材料；

(b) 除 (c) 的規定以外，廢棄食物處理入海應儘可能遠離陸地，但在任何情況下，應離最近陸地不少於 12 n mile；

- (c) 在大加勒比海區域將已通過粉碎機或磨碎機的廢棄食物處理入海，應儘可能遠離陸地，但在任何情況下，離最近陸地不應小於 3 n mile。這種業經粉碎或磨碎的食品廢棄物應能通過網眼不大於 25 mm 的粗篩。

3 如果垃圾與具有不同處理或排放要求的其他排放物混在一起時，則應適用其中更為嚴格的要求。

4 特殊區域內的接收設備：

- (a) 海岸線與某一特殊區域相鄰接的締約國政府，承擔義務確保按本附則第 7 條的規定，並考慮到在這些區域中營運的船舶的特殊需要，儘早在該特殊區域內的所有港口設置足夠的接收設備。
- (b) 各有關的締約國政府，應將按照上述 (a) 的規定所採取的措施通知本組織。在收到足夠的通知後，本組織應確定一個關於本條要求對該區域開始生效^①的日期，並至少提前 12 個月將該確定的日期通知所有締約國。
- (c) 在該確定的日期之後，停靠在這些特殊區域中尚無接收設備的港口的船舶，也應完全遵守本條的要求。

5 儘管有本條 4 的規定，下列規定仍適用於南極區域：

- (a) 本公約各締約國政府承擔義務確保為在其港口內的來往於南極區域的船舶，按其使用需要儘快設置接收所有船舶垃圾的足夠的設備，而不對船舶造成不當延誤。

① 在出版時，第 5 條的要求已對除黑海區域和紅海區域外的所有特殊區域生效。

- (b) 本公約各締約國政府應確保懸掛本國國旗的船舶在進入南極區域前，船上具有足夠的能力留存在該區域作業時產生的全部垃圾，並已簽訂協議，在船舶離開該區域後將這些垃圾排入接收設備。

第 6 條

例外

本附則第 3、4 和 5 條應不適用於下述情況：

- (a) 船上處理垃圾，係為保障船舶及船上人員安全或救護海上人命所必需者；或
- (b) 由於船舶或其設備損壞而導致垃圾洩漏，且在發生損壞前後已採取了一切合理的預防措施防止洩漏或使洩漏減至最低限度；或
- (c) 合成漁網意外落失，且已採取了一切合理的預防措施防止這種落失。

第 7 條

接收設備^①

1 各締約國政府承擔義務確保在港口和裝卸站提供垃圾接收設備，以滿足船舶使用的需要，而不對船舶造成不當延誤。

① 參見《港口接收設備供應商和用戶良好操作指南》(MEPC.1/Circ.671 通函)。

2 各締約國政府應將按本條規定設置的設備被宣稱不足的一切情況通知本組織，以便轉告各有關締約國。

第 8 條

關於操作要求的港口國控制^①

1 當船舶停靠在另一締約國港口時，如有明顯理由認為該船船長或船員不熟悉船上主要的防止垃圾污染程序，該船應接受該締約國正式授權的官員根據本附則進行的有關操作要求的檢查。

2 在本條 1 所述的情況下，該締約國應採取措施，確保該船在按本附則的要求調整至正常狀態前，不得開航。

3 本公約第 5 條規定的港口國控制程序應適用於本條。

4 本條的任何內容均不得被解釋為限制締約國在本公約明確規定的操作要求方面進行控制的權利和義務。

第 9 條

告示、垃圾管理計劃^②和垃圾記錄保存

1 (a) 總長度為 12 m 或以上的船舶均應張貼告示以使船員和乘客知曉本附則第 3 條和第 5 條關於垃圾處理的規定。

① 參見本組織 A.787 (19) 決議通過並經 A.882 (21) 決議修正的港口國控制程序；見 IMO 出版物 IA650E。

② 參見《垃圾管理計劃編製指南》；見 IMO 出版物 IA656E。

(b) 告示應以船上人員的工作語言書寫，對航行於其他締約國政府管轄權範圍內的港口或近海裝卸站的船舶，告示還應以英文、法文或西班牙文書寫。

2 400 總噸及以上的船舶和核准載運 15 名或以上人員的船舶，均應備有一份船員必須遵守的垃圾管理計劃。該計劃應就收集、儲藏、加工和處理垃圾以及船上設備使用等提供書面程序，還應指定負責執行該計劃的人員。該計劃應按符合本組織制定的指南，並用船員的工作語言書寫。

3 400 總噸及以上的船舶和核准載運 15 名或以上人員的船舶，其航行於其他締約國政府管轄權範圍內的港口或近海裝卸站，以及從事海底礦產勘探和開發的固定和浮動平台，均應備有一份《垃圾記錄簿》。該《垃圾記錄簿》不論是船舶的正式航海日誌的一部分，還是其他形式，均應和本附則的附錄格式相同。

(a) 每項排放作業或完成的焚燒作業均應記入《垃圾記錄簿》，並應由主管高級船員在焚燒或排放當日簽字。《垃圾記錄簿》每填完一頁應由船長簽字。《垃圾記錄簿》中的記錄應至少使用英文、法文或西班牙文的其中一種語言。如同時使用船旗國的官方語言，則在有爭議或分歧時，應以該國官方語言為準。

(b) 每次焚燒或排放記錄應包括日期、時間、船位、垃圾種類和被焚燒或排放的垃圾的估算量。

(c) 《垃圾記錄簿》在船上的存放位置應易於在任何合理時間隨時可供檢查。該記錄簿應在進行最後一項記錄後保留二年。

(d) 如發生本附則第 6 條所述的排放、洩漏或意外落失，應在《垃圾記錄簿》中記入落失的情況和原因。

4 主管機關可對以下船舶免除《垃圾記錄簿》的要求：

(a) 核准載運 15 名或以上人員，航行持續時間為 1 h 或以下的船舶；或

(b) 從事海底礦產勘探和開發的固定或浮動平台。

5 本公約締約國政府的主管當局可對停靠本國港口或近海裝卸站的適用本條的任何船舶檢查《垃圾記錄簿》，並可將該記錄簿中任何記錄製成副本，也可要求船長證明該副本是該項記錄的真實副本。任何經船長證明為船上《垃圾記錄簿》中某項記錄的真實副本者，在任何法律訴訟中應可作為該項記錄中所述事實的證據。主管當局根據本項規定對《垃圾記錄簿》的檢查和製作正確無誤的副本應儘速進行，而不對船舶造成不當延誤。

6 對 1997 年 7 月 1 日以前建造的船舶，本條規定應自 1998 年 7 月 1 日起適用。

附則 V 的附錄

附錄

垃圾記錄簿格式

垃圾記錄簿

船名

船舶編號或呼號

IMO 編號

時間 自：.....至

1 引言

根據經 1978 年議定書修訂的 1973 年國際防止船舶造成污染公約（防污公約）附則 V 第 9 條的規定，應保持對每次排放作業或完成的焚燒作業進行記錄，包括在海上排放，排放至接收設備或排放至其他船舶。

2 垃圾和垃圾管理

垃圾包括產生於船舶正常營運期間並需要持續或定期處理的各種食品、生活和作業廢棄物（不包括鮮魚及其各部分），但防污公約其他附則中所規定的或列出的物質（如油類、生活污水或有毒液體物質）除外。

有關資料還應參照《防污公約附則 V 實施指南》。^①

3 垃圾的種類

- 1 塑料；
- 2 漂浮的墊艙物料、襯料、包裝材料；
- 3 粉碎的紙製品、碎布、玻璃、金屬、瓶子、陶器等；
- 4 貨物殘餘、紙製品、碎布、玻璃、金屬、瓶子、陶器等；
- 5 食品廢棄物；
- 6 焚燒爐灰渣。

4 垃圾記錄簿的填寫

4.1 發生下列情況時，應在垃圾記錄簿上填寫：

（a）當垃圾排放入海時：

（i）排放的日期和時間；

（ii）船舶位置（經度和緯度）。注意：對貨物殘餘的排放，包括排放開始和停止的船舶位置；

（iii）所排放垃圾的種類；

（iv）每種排放垃圾的估算量（ m^3 ）；

（v）負責作業的主管高級船員簽字。

（b）當垃圾排放至岸上接收設備或排放至其他船舶時：

^① 參見《防污公約附則 V 實施指南》；見 IMO 出版物 IA656E。

- (i) 排放的日期和時間；
 - (ii) 港口或設施或船舶的名稱；
 - (iii) 所排放垃圾的種類；
 - (iv) 每種排放垃圾的估算量（ m^3 ）；
 - (v) 負責作業的主管高級船員簽字。
- (c) 當焚燒垃圾時：
- (i) 焚燒的日期和開始及結束時間；
 - (ii) 船位（經度和緯度）；
 - (iii) 焚燒的垃圾的估算量（ m^3 ）；
 - (iv) 負責作業的主管高級船員簽字。
- (d) 垃圾意外或其他例外排放：
- (i) 發生的時間；
 - (ii) 發生時所在港口或船位；
 - (iii) 垃圾的種類和估算量；
 - (iv) 垃圾處理、洩漏或落失發生時的情形、原因以及附註。

4.2 收據

船舶送交垃圾後，船長應向港口接收設備的經營者或接收垃圾的船舶船長收取詳述這批垃圾估算量的收據或證明。該收據或證明必須同船上的《垃圾記錄簿》一起保存二年。

4.3 垃圾的數量

船上的垃圾數量應以立方米估算，如有可能應按類別分別估算。垃圾記錄簿中含有許多垃圾估算量的參考數據。認識到垃圾數量估算的精確度還需詮釋。垃圾加工處理前後的體積估算會有所不同，有些加工處理程序可能無法對體積進行有用的估算，比如持續的廢棄食物處理，因此在填寫記錄和詮釋記錄時應考慮到這些因素。

垃圾排放記錄

船名.....船舶編號或呼號.....IMO 編號.....

垃圾種類：

- 1：塑料製品。
- 2：漂浮的墊艙物料、襯料、包裝材料。
- 3：粉碎的紙製品、碎布、玻璃、金屬、瓶子、陶器等。
- 4：貨物殘餘、紙製品、碎布、玻璃、金屬、瓶子、陶器等。
- 5：食品廢棄物。
- 6：焚燒爐灰渣（可能包含有毒或重金屬殘餘的塑料製品除外）。

註：在特殊區域內禁止排放除食品廢棄物以外的任何垃圾。只有排放入海的垃圾必須分類。除分類 1 外，只有排入接收設備的垃圾需要列出總的估算量。貨物殘餘排放要求應記錄開始和停止的船舶位置。

日期/ 時間	船 位	排放入海的估算量（m³）					排入接收設備或其他船舶的估算量（m³）		焚燒的 估算量 （m³）	證明/ 簽字
		分類 2	分類 3	分類 4	分類 5	分類 6	分類 1	其他		

船長簽字.....日期.....

防污公約附則 VI

防止船舶造成空氣污染規則

第 1 章

總則

第 1 條

適用範圍

除本附則第 3、5、6、13、15、16 和 18 條另有明文規定外，本附則的規定應適用於所有船舶。

第 2 條

定義

就本附則而言：

1 附則係指經 1978 年議定書修訂並經 1997 年議定書修訂，同時經本組織修正的 1973 年國際防止船舶造成污染公約（MARPOL）的附則 VI，但這些修正案應按本公約第 16 條的規定予以通過並生效。

2 類似建造階段係指在此階段：

- .1 可辨認出某一具體船舶建造開始；和
- .2 該船業已開始的裝配量至少為 50 t，或為全部結構材料估算重量的 1%，取較小者。

3 **周年日期**係指與《國際防止空氣污染證書》期滿之日對應的每年的該月該日。

4 **輔助控制裝置**係指船用柴油機上安裝的用於保護柴油機和/或其輔助設備不受可導致其損壞或故障的操作條件的影響或有助於柴油機起動的系統、功能或控制策略。輔助控制裝置也可以是業已證明為非抑制裝置的策略或措施。

5 **連續進料**係指當焚燒爐在正常操作條件下，燃燒室工作溫度在 850°C 和 1,200°C 之間時，無需人工輔助將廢物送入燃燒室的過程。

6 **抑制裝置**係指為激活、調整、推遲或阻礙激活排放控制系統的任何部件或功能而對操作參數（如：發動機速度、溫度、進氣壓力或任何其他參數）進行測量、檢測或響應的裝置，從而在正常操作遇到的工況下降低排放控制系統的有效性，但在適用的排放發證試驗程序中大量使用該裝置者除外。

7 **排放**係指從船舶上向大氣或海洋釋放受本附則控制的任何物質。

8 **排放控制區**係指要求對船舶排放採取特殊強制措施以防止、減少和控制 NO_x 或 SO_x 和顆粒物質或所有 3 種排放類型造成大氣污染以及隨之對人類健康和環境造成不利影響的區域。排放控制區域應包括本附則第 13 和 14 條所列或所指定的區域。

9 **燃油**係指為了船舶推進或運轉而交付船上的用於燃燒的任何燃料，包括餾分燃油和殘餘燃油。

10 **總噸位**係指按 1969 年國際船舶噸位丈量公約或任何後續公約的附則 I 所述的噸位丈量規定計算的總噸位。

11 **裝置**係指與本附則第 12 條有關的在船上安裝的系統、設備、包括手提式滅火器、絕緣體或其他材料，但不包括對以前安裝的系統、設備、絕緣體或其他材料的修理或重新充注、或者對手提滅火器的重新充注。

12 **安裝**係指安裝或擬安裝上船的船用柴油機，包括可移動式輔助船用柴油機，只要其加油、冷卻或排氣系統是船舶的組成部分。加油系統只有在永久附於船上時才可視為船舶的組成部分。該定義包括用於補充或增強船舶已裝動力容量並擬成為船舶組成部分的船用柴油機。

13 **不合理排放控制策略**係指當船舶在正常使用條件下營運時將排放控制系統的有效性降至低於適用的排放試驗程序所預期的水平的任何策略或措施。

14 **船用柴油機**係指本附則第 13 條適用的以液體或雙燃料運行的任何往複式內燃機，包括增壓/複合系統（如適用）。

15 **NO_x 技術規則**係指經本組織修正的 1997 年防污公約締約國大會決議 2 通過的船用柴油機氮氧化物排放控制技術規則，但這些修正案應按照本公約第 16 條的規定予以通過並生效。

16 **消耗臭氧物質**係指在應用或解釋本附則時有效的 1987 年消耗臭氧層物質蒙特利爾議定書第 1（4）條中定義的並在該議定書附件 A、B、C 或 E 中所列的受控制物質。

在船上可能有的消耗臭氧物質包括但不限於下列各項：

Halon 1211 溴氯二氟甲烷

Halon 1301 溴三氟甲烷

Halon 2402	1,2-二溴化物-1,1,2,2-四氟乙烷（亦稱作 Halon 114B2）
CFC-11	三氯氟甲烷
CFC-12	二氯二氟甲烷
CFC-113	1,1,2-三氯-1,2,2-三氟乙烷
CFC-114	1,2-二氯-1,1,2,2-四氟乙烷
CFC-115	氯五氟乙烷

17 **船上焚燒**係指將船舶正常作業時產生的廢物或其他物質在船上進行焚燒。

18 **船上焚燒爐**係指以焚燒為主要目的而設計的船上設備。

19 **建造的船舶**係指安放龍骨或處於類似建造階段的船舶。

20 **殘油**係指來自燃油或潤滑油分離器的油泥，主機或副機的廢棄潤滑油，或艙底水分離器、油過濾裝置或滴油盤的廢油。

21 **液貨船**係指在本公約附則 I 第 1 條中定義的油船或附則 II 第 1 條中定義的化學品船。

第 3 條

例外和免除

一般規定

1 本附則的規定應不適用於下述情況：

.1 任何為保障船舶安全或救護海上人命所必需的排放；或

.2 任何因船舶或其設備遭到損壞的排放：

.2.1 但須在發生損壞或發現排放後，為防止排放或使排放減至最低限度，已採取了一切合理的預防措施；和

.2.2 但是，如果船東或船長是故意造成損壞，或輕率行事而又知道可能會招致損壞，則不在此例。

為船舶減排和控排技術研究進行的試航

2 締約國主管機關可與其他主管機關適當合作，對為制定船舶減排和控排技術及發動機設計程序而進行試航的船舶，簽發對本附則具體規定的免除證書。只有當本附則或經修訂的《2008 年 NO_x 技術規則》中具體規定的應用會妨礙此類技術或程序的研發時，才能給予此種免除。獲得免除證書的船舶應視需要儘可能少，同時應滿足下列規定：

- .1 對於每缸排量低於 30 l 的船用柴油機，試航時間不應超過 18 個月。如需更多時間，授予免除證書的一個或多個主管機關可對免除證書進行換新，增加期限為 18 個月；或
- .2 對於每缸排量為 30 l 或以上的船用柴油機，船舶試航時間不應超過 5 年，並需要發證的一個或多個主管機關在每次中間檢驗時進行進度評審。如試驗未能符合免除條件或確定該技術或程序在船舶減排或控排方面產生有效結果的可能性不大，則基於該評審可撤銷該免除證書。如評審的一個或多個主管機關確定進行某項技術或程序的試驗需要更多時間，則可對免除證書進行換新，增加期限不超過 5 年。

海底採礦活動產生的排放

3.1 按本公約第 2(3)(b)(ii) 條規定，由海底礦藏資源的勘探、開發和相關近海加工直接產生的排放免除本附則的規定。此類排放包括：

- .1 焚燒單獨地和直接地由海底礦藏資源的勘探、開發和相關近海加工產生的物質而造成的排放，包括但不限於在完井和試驗作業期間烴類物質的明火燃燒和掘出物、泥漿和/或井湧液體的燃燒，以及意外情況引起的明火燃燒；
- .2 鑽井液體和掘出物夾帶的氣體和揮發性化合物的釋放；
- .3 只與海底礦藏的加工、處理或貯藏直接相關的排放；和
- .4 單獨用於海底礦藏資源的勘探、開發和相關近海加工的柴油機的排放。

3.2 經主管機關認可，本附則第 18 條的要求應不適用於在現場生產並在現場用作燃料的烴類物質的使用。

第 4 條

等效^①

1 締約國主管機關可允許在船上安裝任何裝置、材料、設備或器具，或允許使用其他程序、替代燃油、或符合方法，以代替本附則所

① 參見 MEPC.184 (59) 決議通過的《2009 年廢氣清洗系統指南》。

要求者，條件是這種裝置、材料、設備或器具或其他程序、替代燃油、或符合方法與本附則，包括第 13 和 14 條所述的任何標準，對減排方面所要求者至少同等有效。

2 允許以某種裝置、材料、設備或器具或其他程序、替代燃油、或符合方法代替本附則所要求者的締約國主管機關應將其詳細資料送交本組織，以便轉發各締約國，供其參考和採取適當行動（如有時）。

3 締約國主管機關應考慮到本組織針對本條等效規定制定的任何相關指南。

4 允許使用本條 1 所述等效者的締約國主管機關應致力於不損害或破壞本國和其他國家的環境、人類健康、財產或資源。

第 2 章

檢驗、發證和控制手段

第 5 條

檢驗

1 對每艘 400 總噸及以上的船舶以及所有固定和移動鑽井平台和其他平台，應進行下列規定的檢驗：

- .1 初次檢驗，在船舶投入營運前或首次簽發本附則第 6 條所要求的證書之前進行。該檢驗應確保其設備、系統、附件、佈置和材料完全符合本附則的適用要求；

- .2 換證檢驗，按主管機關規定的間隔期限進行，但不得超過 5 年，但本附則第 9.2、9.5、9.6 或 9.7 條適用者除外。換證檢驗應確保其設備、系統、附件、佈置和材料完全符合本附則的適用要求；
- .3 中間檢驗，在證書的第二個周年日之前或之後 3 個月內或第三個周年日之前或之後 3 個月內進行，並應取代本條 1.4 規定的其中一次年度檢驗。中間檢驗應確保設備及其佈置完全符合本附則的適用要求，並處於良好的工作狀態。該中間檢驗應在按本附則第 6 或 7 條所簽發的證書上予以簽署；
- .4 年度檢驗，在證書的每個周年日之前或之後 3 個月內進行，包括對本條 1.1 所述的設備、系統、附件、佈置和材料的總體檢查，以確保其已按本條 4 的規定進行保養，並確保其繼續滿足船舶預定的營運要求。該年度檢驗應在按本附則第 6 或 7 條所簽發的證書上予以簽署；和
- .5 附加檢驗，在按本條 4 規定的任何重大修理或換新後，或在按本條 5 規定的檢查結果進行修理後應根據情況進行全面或部分檢驗。該檢驗應確保已有效進行了必要的修理或換新，確保這種修理或換新所用的材料和工藝在各方面均屬合格，並確保該船在各方面均符合本附則的要求。

2 對小於 400 總噸的船舶，主管機關可制定相應措施，以確保其符合本附則的適用規定。

3 為執行本附則規定而對船舶進行的檢驗，應由主管機關的官員進行。

- .1 但主管機關可將這些檢驗委託給為此目的而指定的驗船師或由其認可的組織辦理。這些組織應符合本組織通過的指南^①；
- .2 應按經修訂的《2008 年 NO_x 技術規則》對船用柴油機和設備進行是否符合本附則第 13 條規定的檢驗；
- .3 當指定的驗船師或被認可組織確定設備的狀況在實質上與證書所載內容不符，其應確保採取糾正措施並及時通知主管機關。如未能採取此種糾正措施，主管機關應撤銷證書。如該船是在另一締約國的港口內，則還應立即通知該港口國的有關當局。當主管機關的官員、指定的驗船師或被認可組織通知該港口國的有關當局後，有關的港口國政府應向該官員、驗船師或組織提供履行本條規定的義務所必需的任何幫助；和
- .4 在所有情況下，主管機關均應保證檢驗的完整性和有效性，確保為履行這一職責作出必要的安排。

4 設備應保持符合本附則的各項規定，未經主管機關的專門認可，經過檢驗的設備、系統、附件、佈置或材料不得作任何變動。但允許以符合本附則規定的設備和附件直接替換此類設備和附件。

① 參見本組織 A.739 (18) 決議通過的並經 MSC.208 (81) 決議修正的《代表主管機關的組織的授權指南》，以及本組織 A.789 (19) 決議通過的並可能經本組織修正的《被認可組織代表主管機關執行檢驗和發證職能的細則》。還參見《經修訂的防污公約附則 VI 的檢驗和發證協調系統檢驗指南》(MEPC.180 (59) 決議)。

5 當船舶發生事故或發現缺陷，對本附則所涉及的設備的有效性或完整性產生重大影響時，該船的船長或船東應儘早向負責簽發有關證書的主管機關、指定的驗船師或被認可組織報告。

第 6 條

證書的簽發或簽署

1 在按本附則第 5 條規定進行了初次或換證檢驗後，應為下列簽發《國際防止空氣污染證書》：

- .1 駛往其他締約國管轄範圍的港口或近海裝卸站的所有 400 總噸及以上的船舶；和
- .2 駛往其他締約國主權或管轄海域的平台和鑽井平台。

2 主管機關應在附則 VI 生效後不遲於第一次計劃進塢時，按本條 1 規定，為附則 VI 生效之前建造的船舶簽發《國際防止空氣污染證書》，但在任何情況下均不得遲於該生效日之後 3 年。

3 該證書應由主管機關或經其正式授權的任何個人或組織簽發或簽署。在任何情況下，主管機關對證書負有全部責任。

第 7 條

另一締約國簽發證書

1 締約國應主管機關的申請，可對船舶進行檢驗，如確信符合本附則的規定，應對該船簽發或授權簽發《國際防止空氣污染證書》，並在適用時，按本附則的規定，為該船簽署或授權簽署證書。

- 2 證書和檢驗報告副本各一份應儘快送交提出申請的主管機關。
- 3 所發證書應聲明，該證書係根據主管機關的申請簽發，並應與按本附則第 6 條規定所簽發的證書具有同等效力和得到同樣的承認。
- 4 對懸掛非締約國國旗的船舶，不得簽發《國際防止空氣污染證書》。

第 8 條

證書格式

《國際防止空氣污染證書》應按與本附則附錄 I 所示樣本相一致的格式寫成，並應至少使用英文、法文或西班牙文的其中一種語言。如同時使用發證國的官方語言，則在有爭議或分歧時，應以該國官方語言為準。

第 9 條

證書的有效期限

- 1 《國際防止空氣污染證書》的有效期限應由主管機關規定，但不得超過 5 年。
- 2 儘管有本條 1 的要求：
 - .1 如果換證檢驗在現有證書期滿之日前 3 個月內完成，則新證書應從換證檢驗完成之日起，至現有證書期滿之日後不超過 5 年的日期內有效；

- .2 如果換證檢驗在現有證書期滿之日後完成，則新證書應從換證檢驗完成之日起，至現有證書期滿之日後不超過 5 年的日期內有效；和
- .3 如果換證檢驗在現有證書期滿之日的前 3 個月前完成，則新證書應從換證檢驗完成之日起不超過 5 年的日期內有效。

3 如果所發證書的有效期限少於 5 年，主管機關可將證書有效期自期滿日延長至本條 1 規定的最長期限，條件是在簽發 5 年期的證書時進行了本附則第 5.1.3 和 5.1.4 條所述的相應的檢驗。

4 如果換證檢驗已完成，而新證書在現有證書期滿之日前不能簽發或不能存放船上，主管機關授權的人員或組織可在現有證書上簽署，簽署後的證書自期滿日起不超過 5 個月的期限內應視為繼續有效。

5 如果證書期滿時船舶不在應進行檢驗的港口，主管機關可延長該證書的有效期，但此項展期僅以能使該船完成其駛抵應進行檢驗的港口的航次為限，並且僅在正當和合理的情況下才能如此辦理。證書的展期不得超過 3 個月。經展期的船舶在抵達應進行檢驗的港口後，不得因有此項展期而在未獲得新證書前駛離該港口。換證檢驗完成後，新證書的有效期應自現有證書展期前的期滿日起不超過 5 年。

6 發給短程航行船舶的證書未按本條前述之規定展期時，主管機關可給予自該證書所示的期滿之日起至多 1 個月的寬限期。換證檢驗完成後，新證書的有效期應自現有證書展期前的期滿日起不超過 5 年。

7 在特殊情況下（由主管機關確定），新證書無需按本條 2.1、5 或 6 的要求從現有證書的期滿之日起計算日期。在此特殊情況下，新證書的有效期應自換證檢驗完成之日起不超過 5 年。

8 如年度檢驗或中間檢驗在本附則第 5 條規定的期限前完成，則：

- .1 證書上所示的周年日應予以簽署修正，修正後的周年日應不多於檢驗完成之日起 3 個月；
- .2 本附則第 5 條要求的其後的年度檢驗或中間檢驗應使用新的周年日按該條規定的間隔期完成；和
- .3 如進行一次或多次相應的年度檢驗或中間檢驗，以使本附則第 5 條規定的最大檢驗間隔期不被超過，則該期滿日可保持不變。

9 按本附則第 6 或第 7 條規定所簽發的證書，在下列任一情況下即應中止有效：

- .1 如果相關檢驗未在本附則第 5.1 條規定的期限內完成；
- .2 如果證書未按本附則第 5.1.3 或 5.1.4 條的規定予以簽署；
和
- .3 船舶變更船旗國。只有當換發新證書的政府確信該船符合本附則第 5.4 條的要求時，才能簽發新的證書。如果變更船旗係在締約國之間進行，則在變更後的 3 個月內，前船旗國政府如收到申請，應儘快將變更船旗前該船所攜證書的副本以及相關的檢驗報告副本（如備有）送交該船新的主管機關。

第 10 條

關於操作要求的港口國控制^①

1 當船舶停靠在另一締約國所管轄的港口或近海裝卸站時，如有明顯理由確信該船船長或船員不熟悉船上主要的防止船舶造成空氣污染程序，該船應接受該締約國正式授權的官員根據本附則進行的有關操作要求的檢查。

2 在本條 1 所述的情況下，該締約國應採取措施，確保該船在按本附則的要求調整至正常狀態前，不得開航。

3 本公約第 5 條規定的港口國控制程序應適用於本條。

4 本條的任何內容均不得解釋為限制締約國在本公約明確規定的操作要求方面進行控制的權利和義務。

第 11 條

違章事件的偵查和實施

1 各締約國應使用一切適當和可行的偵查和環境監測措施、合適的報告和證據積累程序，在偵查違章事件和實施本附則規定方面進行合作。

^① 參見本組織 A.787 (19) 決議通過並經 A.882 (21) 決議修正的港口國控制程序；見 IMO 出版物 IA650E。還參見《根據經修訂的防污公約附則 VI 修訂的港口國控制指南》(MEPC.181 (59) 決議)。

2 適用本附則的船舶，在某一締約國的任何港口或近海裝卸站均可能受到由該締約國指定或授權的官員的檢查，以核實該船是否違反本附則的規定而排放了本附則所包括的任何物質。如檢查表明有違反本附則的事件，應向主管機關提交一份報告以便採取適當行動。

3 任何締約國應向該主管機關提供其船舶違反本附則規定已排放任何本附則所包括的物質的證據（如有）。如可行，該締約國的主管當局應將所指控的違章事件通知該船船長。

4 在收到此類證據後，被通知的主管機關應對此事進行調查，並可要求其他締約國對所指控的違章提供進一步的或更完善的證據。如果該主管機關確信有充分的證據可對所指控的違章事件提起訴訟，應按照其法律使此類訴訟儘快進行。該主管機關應將所採取的行動迅速通知報告所指控的違章事件的締約國，以及本組織。

5 如果收到任何締約國的調查請求，連同船舶違反本附則規定在任何地方已排放本附則所包括的任何物質的充分證據，則締約國也可對適用本附則的船舶在其進入該締約國管轄的港口或近海裝卸站時進行檢查。這種調查報告應送交提出請求的締約國以及主管機關，以便根據本公約規定採取適當的行動。

6 在應用或解釋本附則時執行的關於防止、減少和控制船舶造成海洋環境污染的國際法，包括有關實施和保護的法律，均適用於（在細節上作必要的修正）本附則所述的規範和標準。

第 3 章

船舶排放控制要求

第 12 條

消耗臭氧物質

1 本條不適用於無製冷劑充注接頭的永久密封設備或無含有消耗臭氧物質的可拆卸部件的永久密封設備。

2 根據第 3.1 條的規定，應禁止消耗臭氧物質的任何故意排放。故意排放包括在系統或設備的維護、檢修、修理或處置過程中發生的排放，但故意排放不包括與消耗臭氧物質的回收或再循環相關的微量釋放。由消耗臭氧物質洩漏引起的排放，無論此洩漏是否屬於故意，可由各締約國進行管理。

3.1 在下列情況下，應禁止使用含消耗臭氧物質（氫化氯氟烴除外）的裝置：

- .1 在 2005 年 5 月 19 日或以後建造的船舶；或
- .2 對於 2005 年 5 月 19 日以前建造的船舶，設備合同交付船上的日期為 2005 年 5 月 19 日或以後，或者無合同交付日期，實際設備交付船上的日期為 2005 年 5 月 19 日或以後。

3.2 在下列情況下，應禁止使用含氫化氯氟烴的裝置：

- .1 在 2020 年 1 月 1 日或以後建造的船舶；或

- .2 對於 2020 年 1 月 1 日以前建造的船舶，設備合同交付船上的日期為 2020 年 1 月 1 日或以後，或者無合同交付日期，實際設備交付船上的日期為 2020 年 1 月 1 日或以後。

4 本條所述的物質以及含有此類物質的設備，當其從船上卸下時，應送到合適的接收設備中。

5 受第 6.1 條約束的每艘船舶應保存一份含消耗臭氧物質的設備清單^①。

6 擁有含消耗臭氧物質的可重新充注系統的受第 6.1 條約束的每艘船舶應保存一份消耗臭氧物質記錄簿。經主管機關批准，該記錄簿可以是現有航海日誌或電子記錄系統的一部分。

7 消耗臭氧物質記錄簿中的物質應按其質量單位（kg）記錄，且在任何情況下都應及時記入下列內容：

- .1 含消耗臭氧物質的設備的全部或部分重新充注；
- .2 含消耗臭氧物質的設備的修理或維護；
- .3 消耗臭氧物質向大氣的排放：
 - .3.1 故意排放；和
 - .3.2 非故意排放；
- .4 消耗臭氧物質向陸基接收設備的排放；和
- .5 向船舶供應消耗臭氧物質。

① 見附錄 I，國際防止空氣污染證書（IAPP 證書）的附件，第 2.1 節。

第 13 條

氮氧化物（NO_x）

適用範圍

1.1 本條應適用於：

- .1 每台安裝船上的輸出功率超過 130 kW 的船用柴油機；
和
- .2 每台 2000 年 1 月 1 日或以後經重大改裝的、輸出功率超過 130 kW 的船用柴油機，但能證明並使主管機關確信該柴油機與其將替代的柴油機完全相同，且不受本條 1.1.1 規定者除外。

1.2 本條不適用於：

- .1 僅用於應急情況使用的、或僅為安裝船上的僅在應急情況下使用的任何裝置或設備提供動力的船用柴油機，或僅用於安裝救生艇上的在應急情況下使用的船用柴油機；和
- .2 安裝在僅航行於懸掛其國旗的該國主權或管轄範圍水域內的船舶上的船用柴油機，但此類柴油機應受到由該主管機關制定的 NO_x 控制替代方法的控制。

1.3 儘管有本條 1.1 的規定，主管機關可對 2005 年 5 月 19 日以前建造的船舶上安裝的任何船用柴油機或對在 2005 年 5 月 19 日以前經重大改裝的任何船用柴油機免除適用本條要求，只要安裝該柴油機的船舶僅航行在其船旗國的港口或近海裝卸站。

重大改裝

2.1 就本條而言，“重大改裝”係指 2000 年 1 月 1 日或以後對尚未按本條 3、4 或 5.1.1 所述標準核准的船用柴油機的改變，即：

- .1 柴油機由其他船用柴油機代替或新增安裝柴油機，或
- .2 對柴油機進行了經修訂的《2008 年 NO_x 技術規則》中定義的任何實質性改變，或
- .3 與柴油機初始證書上的最大持續額定功率相比，柴油機的最大持續額定功率增加超過 10%。

2.2 如重大改裝涉及船用柴油機被非完全相同的柴油機替代，或涉及新增安裝柴油機，則在替代或新增柴油機時執行的本條標準應適用。僅對替代柴油機而言，如在 2016 年 1 月 1 日或以後其不能符合本條 5.1.1 所述標準（III 級），則該替代柴油機應符合本條 4 所述標準（II 級）。本組織應制定指南，就何時替代柴油機不能滿足本條 5.1.1 的標準規定衡準。

2.3 本條 2.1.2 或 2.1.3 所述的船用柴油機應符合下列標準：

- .1 對於 2000 年 1 月 1 日以前建造的船舶，本條 3 所述標準應適用；和
- .2 對於 2000 年 1 月 1 日或以後建造的船舶，其建造時執行的標準應適用。

I 級

3 本附則第 3 條適用的同時，對 2000 年 1 月 1 日或以後至 2011 年 1 月 1 日以前建造的船上安裝的船用柴油機，除非其 NO_x 排放量（按

NO₂ 總加權排放量計算) 在下列極限值內，其中 n 為發動機額定轉速 (每分鐘曲軸轉速)，否則應禁止使用：

- .1 17.0 g/kWh，當 n 小於 130 rpm；
- .2 $45 \cdot n^{(-0.2)}$ g/kWh，當 n 等於或大於 130 rpm，但小於 2,000 rpm；
- .3 9.8 g/kWh，當 n 等於或大於 2000 rpm。

II 級

4 本附則第 3 條適用的同時，對 2011 年 1 月 1 日或以後建造的船上安裝的船用柴油機，除非其 NO_x 排放量 (按 NO₂ 總加權排放量計算) 在下列極限值內，其中 n 為發動機額定轉速 (每分鐘曲軸轉速)，否則應禁止使用：

- .1 14.4 g/kWh，當 n 小於 130 rpm；
- .2 $44 \cdot n^{(-0.23)}$ g/kWh，當 n 等於或大於 130 rpm，但小於 2000 rpm；
- .3 7.7 g/kWh，當 n 等於或大於 2000 rpm。

III 級

5.1 本附則第 3 條適用的同時，對 2016 年 1 月 1 日或以後建造的船上安裝的柴油機：

- .1 除非該柴油機 NO_x 排放量 (按 NO₂ 總加權排放量計算) 在下列極限值內，其中 n 為發動機額定轉速 (每分鐘曲軸轉速)，否則應禁止使用：

- .1.1 3.4 g/kWh，當 n 小於 130 rpm；
- .1.2 $9 \cdot n^{(-0.2)}$ g/kWh，當 n 等於或大於 130 rpm，但小於 2,000 rpm；和
- .1.3 2.0 g/kWh，當 n 等於或大於 2,000 rpm；
- .2 當船舶在本條 6 指定的排放控制區內航行時，應符合本條 5.1.1 所述標準；和
- .3 當船舶在本條 6 指定的排放控制區外航行時，應符合本條 4 所述標準。

5.2 本條 10 所述評審適用的同時，本條 5.1.1 所述標準不應適用於：

- .1 船長 L （如本公約附則 I 的第 1.19 條定義）小於 24 米、經特殊設計並僅用於娛樂目的的船上安裝的船用柴油機；或
- .2 船上安裝的船用柴油機其組合銘牌顯示柴油機推進功率小於 750 kW，如證明，並使主管機關確信，該船因設計或構造限制而不能符合本條 5.1.1 所述標準。

排放控制區

6 就本條而言，排放控制區應為：

- .1 北美區域，係指本附則附錄 VII 中坐標所述區域；和
- .2 由本組織根據本附則附錄 III 中設定的衡準和程序而指定的任何其他海域，包括任何港口區域。

2000 年 1 月 1 日以前建造的船舶上安裝的船用柴油機

7.1 儘管有本條 1.1.1 的規定，在 1990 年 1 月 1 日或以後但在 2000 年 1 月 1 日以前建造的船舶上安裝的、輸出功率超過 5000 kW 且每缸排量在 90 l 或以上的船用柴油機應符合本條 7.4 所述的排放極限值，但該柴油機的認可方法應已通過締約國主管機關的核准，且進行核准的主管機關已將核准通知提交本組織。應通過以下方法之一證明符合性：

- .1 經使用認可方法文件中規定的驗證程序的檢驗確認對核准認可方法的安裝，包括船舶《國際防止空氣污染證書》對認可方法的相應標誌；或
- .2 柴油機證書確認柴油機的運轉在本條 3、4 或 5.1.1 所述的極限值範圍內，和船舶《國際防止空氣污染證書》對柴油機發證的相應標誌。

7.2 本條 7.1 應不遲於自該段所述的通知交存之後 12 個月或以後進行的首次換證檢驗時適用。如應安裝認可方法的該船船東能夠證明，並使主管機關確信，儘管已盡最大努力但未能購得該認可方法，則應在該船購得該認可方法後的下一個年度檢驗前在船上安裝該認可方法。

7.3 對於裝有輸出功率超過 5000 kW、每缸排量在 90 l 或以上的船用柴油機並在 1990 年 1 月 1 日或以後但在 2000 年 1 月 1 日以前建造的船舶，其《國際防止空氣污染證書》應表明，對於 7.1 適用的船用柴油機已按本條 7.1.1 應用認可方法或已按本條 7.1.2 予以核准，或按本條 7.2 所述，該認可方法尚不存在或尚未購得。

7.4 本附則第 3 條適用的同時，對本條 7.1 所述的船用柴油機，除非其 NO_x 排放量（按 NO₂ 總加權排放量計算）在下列極限值內，其中 n 為發動機額定轉速（每分鐘曲軸轉速），否則應禁止使用：

- .1 17.0 g/kWh，當 n 小於 130 rpm；
- .2 $45 \cdot n^{(-0.2)}$ g/kWh，當 n 等於或大於 130 rpm，但小於 2000 rpm；和
- .3 9.8 g/kWh，當 n 等於或大於 2000 rpm。

7.5 應按經修訂的《2008 年 NO_x 技術規則》第 7 章對認可方法發證，並應包括如下驗證：

- .1 由適用認可方法的基本船用柴油機的設計方驗證：根據經修訂的《2008 年 NO_x 技術規則》中相應的試驗循環進行的測量表明，認可方法的計算影響不會降低柴油機額定功率的 1.0% 以上、不會增加燃油消耗量的 2.0% 以上，或不會對柴油機的壽命或可靠性造成不利影響；和
- .2 認可方法的成本不會過高，該成本通過比較為達到本條 7.4 所述標準而使用認可方法減少的 NO_x 量和購買和安裝該認可方法的費用予以確定。^①

發證

8 經修訂的《2008 年 NO_x 技術規則》應適用於本條所述標準的發證、試驗和測量程序。

① 根據下列成本效益（Ce）公式計算，認可方法的成本不應超過 375 特別提款權/公噸 NO_x：

$$Ce = \frac{\text{認可方法的成本} \cdot 10^6}{p(\text{kW}) \cdot 0.768 \cdot 6000(\text{小時/年}) \cdot 5(\text{年}) \cdot \Delta NO_x(\text{g/kWh})}$$

見 MEPC.1/Circ.678 通函：《防污公約附則 VI 第 13.7.5 條中成本效益公式的定義》。

9 經修訂的《2008 年 NO_x 技術規則》所述的確定 NO_x 的排放程序擬作為柴油機正常運轉的典型。抑制裝置和不合理排放控制策略會有損於這一目的，而不應被允許。本條不應妨礙輔助控制裝置的使用，這些控制裝置用於保護柴油機和/或其輔助設備不受可導致其損壞或故障的操作條件的影響或有助於柴油機的起動。

評審

10 本組織應自 2012 年起並不遲於 2013 年對技術發展狀況進行評審，以實施本條 5.1.1 所述的標準，並在證明必要時，調整 5.1.1 所述的時間段（生效日期）。

第 14 條

硫氧化物（SO_x）和顆粒物質

一般要求

1 船上使用的任何燃油的硫含量不應超過下述極限值：

- .1 2012 年 1 月 1 日以前 4.50% m/m；
- .2 2012 年 1 月 1 日及以後 3.50% m/m；和
- .3 2020 年 1 月 1 日及以後 0.50% m/m。

2 考慮到本組織制定的指南^①，對世界範圍內供船上使用的殘餘燃油的平均硫含量應作監測。

① 參見 MEPC.192 (61) 決議：《2010 年世界範圍內船用燃油的平均硫含量監測指南》。

排放控制區內的要求

3 就本條而言，排放控制區應包括：

- .1 附則 I 第 1.11.2 條中定義的波羅的海區域和附則 V 第 5.1 (f) 條定義的北海海域；
- .2 本附則附錄 VII 中坐標所述的北美區域；和
- .3 由本組織根據本附則附錄 III 中設定的衡準和程序而指定的任何其他海域，包括任何港口區域。

4 當船舶在排放控制區域內航行時，船上使用的燃油的硫含量不應超過下述極限值：

- .1 2010 年 7 月 1 日以前 1.50% m/m；
- .2 2010 年 7 月 1 日及以後 1.00% m/m；和
- .3 2015 年 1 月 1 日及以後 0.10% m/m。

5 本條 1 和 4 中所述的燃油硫含量應由供應商按本附則第 18 條要求提供文件證明。

6 使用不符合本條 4 規定燃油進入或離開本條 3 所述排放控制區域的船舶，應攜有一份書面程序表明燃油轉換如何完成，在其進入排放控制區域之前規定足夠的時間對燃油供給系統進行全面沖洗，以去除硫含量超過本條 4 所規定的適用硫含量的所有燃油。在燃油轉換作業進入排放控制區域以前完成或離開該區域後開始時，應將每一燃油艙中的低硫燃油的容積以及日期、時間及船舶位置記錄在主管機關規定的航海日誌中。

7 在按本條 3 規定指定排放控制區的修正案生效後的第一個 12 個月內，對進入排放控制區的船舶可免除本條 4 和 6 的要求以及本條 5 中與本條 4 相關的要求。

評審實施

8 對本條 1.3 所述標準的評審應在 2018 年以前完成，以確定燃油提供符合 1.3 所述的燃油標準，並應考慮下列因素：

- .1 符合本條 1.3 的燃油在評審時的全球市場供應和需求；
- .2 對燃油市場發展趨勢的任何分析；和
- .3 任何其他相關事宜。

9 本組織應建立專家組，由對燃油市場有相關專業知識以及相關的海事、環保、科研和法律專業知識的專家代表組成，進行本條 8 所述的評審。專家組應制定相應的資料，以通知各締約國應做出的決定。

10 根據專家組制定的資料，各締約國可判定船舶是否可能符合本條 1.3 所述的日期。如果判定船舶無法符合，則 1.3 所述標準應於 2025 年 1 月 1 日生效。

第 15 條

揮發性有機化合物（VOC）

1 如在締約國管轄的一個或多個港口或一個或多個裝卸站對液貨船產生的揮發性有機化合物（VOC）排放加以控制，應按照本條規定進行。

2 對液貨船 VOC 排放進行控制的締約國應向本組織提交一份通知書。該通知書應包括所需控制的液貨船的尺度、需要蒸氣釋放控制系統的貨物種類以及該控制的生效日期等信息。該通知書應至少在生效日期之前 6 個月提交。

3 所有指定在港口或裝卸站對來自液貨船的 VOC 排放進行控制的締約國，應保證在其指定的港口和裝卸站配備經該締約國根據本組織制定的蒸氣排放控制系統安全標準^①認可的蒸氣排放控制系統，並確保該系統的安全操作和防止對船舶造成不當延誤。

4 本組織應將由締約國指定的港口和裝卸站清單散發給其他的締約國和本組織的成員國以供參考。

5 本條 1 適用的液貨船應配備由主管機關根據本組織制定的蒸氣排放收集系統安全標準¹而認可的蒸氣排放收集系統，並應在這些貨物裝載過程中使用該系統。根據本條要求安裝了蒸氣排放控制系統的港口或裝卸站可以接納在本條 2 確定的生效日期之後的 3 年內沒有安裝蒸氣收集系統的液貨船。

6 載運原油的液貨船應備有並實施經主管機關認可的 VOC 管理計劃^①。該計劃應根據本組織制定的指南編寫。該計劃應具體到各船並至少應：

- .1 為裝載、海上航行和卸貨時的 VOC 排放減至最低限度提供書面程序；
- .2 考慮到原油洗艙產生的額外 VOC；

① 見 MSC/Circ.585 通函：《關於蒸氣排放控制系統標準》。

① 參見 MEPC.185 (59) 決議：《VOC 管理計劃編製指南》。還見 MEPC.1/Circ.680 通函《關於協助編製 VOC 管理計劃的系統和操作的技術資料》；和 MEPC.1/Circ.719 通函《為便於制定和更新 VOC 管理計劃的有關蒸氣壓力控制系統的技術資料》。

- .3 指定負責實施該計劃的人員；和
 - .4 對於國際航行船舶，用船長和高級船員的工作語言編寫，如船長和高級船員的工作語言既非英語、法語，也非西班牙語，則應包括其中一種語言的譯文。
- 7 對氣體船而言，只有其裝載和圍護系統的類型使得非甲烷 VOC 安全保存在船上或安全回輸到岸上時才適合本條^②。

見統一解釋 1

第 16 條

船上焚燒

- 1 除本條 4 規定外，船上焚燒應只允許在船上焚燒爐中進行。
- 2 應禁止下列物質在船上焚燒：
 - .1 附則 I、II 或 III 規定的貨物殘餘物或有關的被污染的包裝材料；
 - .2 多氯聯苯（PCB）；
 - .3 附則 V 定義的含有超過微量重金屬的垃圾；
 - .4 含有鹵素化合物的精煉石油產品；
 - .5 不在船上產生的污泥和油渣；和
 - .6 廢氣清洗系統的殘餘物。

② 參見 MSC.30（61）決議：《國際散裝運輸液化氣體船舶構造和設備規則》。

3 應禁止在船上焚燒聚氯乙烯（PVC），但在已頒發 IMO 型式認可證書^①的船上焚燒爐內焚燒除外。

4 在船舶正常操作過程中產生的污泥和油渣的船上焚燒也可以在主、副發電機或鍋爐內進行，但在這種情況下，不能在碼頭、港口和河口內進行。

5 本條規定：

- .1 不影響經修正的 1972 年防止傾倒廢物及其他物質污染海洋公約及其 1996 年議定書的禁令或其他要求，和
- .2 不排除符合或超過本條要求的船上熱廢物處理裝置替代設計的開發、安裝和使用。

6.1 除本條 6.2 規定外，2000 年 1 月 1 日或以後建造的船舶上的每一焚燒爐或 2000 年 1 月 1 日或以後安裝在船上的每一焚燒爐均應符合本附則附錄 IV 的要求。符合該要求的每一焚燒爐應經主管機關根據本組織制定的船上焚燒爐標準技術條件^①予以認可；或

6.2 主管機關可以允許任何在 2005 年 5 月 19 日以前安裝上船的焚燒爐免除本條 6.1 的適用要求，只要該船僅航行於懸掛其國旗的該國主權或管轄的水域內。

7 本條 6.1 要求安裝的焚燒爐應持有一份製造廠的操作手冊。該手冊應與焚燒爐裝置一起存放並應規定如何在本附則附錄 IV/2 所述的限制內操作焚燒爐。

① 根據經 MEPC.92（45）決議修正的 MEPC.59（33）決議：《經修訂的 73/78 防污公約附則 V 實施指南》或經 MEPC.93（45）決議修正的 MEPC.76（40）決議：《船上焚燒爐標準技術條件》簽發的型式認可證書。

① 參見經 MEPC.93（45）決議修正的 MEPC.76（40）決議：《船上焚燒爐標準技術條件》。

8 應對負責按本條 6.1 要求安裝的焚燒爐操作的人員進行培訓，使其能執行本條 7 所要求的製造廠操作手冊中規定的指導。

9 對於按本條 6.1 要求安裝的焚燒爐，在該爐進行操作的任何時候均應對燃燒室氣體出口溫度進行監測。如焚燒爐為連續進料型，在燃燒室氣體出口溫度低於 850°C 時廢棄物不應送入該焚燒爐裝置。如焚燒爐為分批裝料型，該裝置應設計成其燃燒室氣體出口的溫度在起動後 5 min 內達 600°C 且隨後穩定在不低於 850°C。

第 17 條

接收設備

1 各締約國承擔義務，保證提供足夠的設備以滿足：

- .1 船舶使用其修理港用以接收從船上卸下的消耗臭氧物質和含有這些物質的設備的需要；
- .2 船舶使用其港口、裝卸站或修理港用以接收廢氣清洗系統產生的廢氣清洗殘餘物的需要，而不對船舶造成不當延誤；和
- .3 在拆船廠中用以接收從船上卸下的消耗臭氧物質和含有這些物質的設備的需要。

2 考慮到本組織將制定的指南^①，如締約國的港口或裝卸站遠離或缺乏管理和處理本條 1 所述物質所必需的工業基礎設施，而不能接收這些物質，則該締約國應將所有此類港口或裝卸站通知本組織，以使

① 參見 MEPC.199 (62) 決議：《2011 年防污公約附則 VI 規定的接收設備指南》。

該信息可轉發所有締約國和本組織各成員國，供其參考和採取任何相應的行動。已向本組織提供此類信息的各締約國應同時將其可提供管理和處理這些物質的接收設備的港口和裝卸站通知本組織。

3 各締約國應將無本條規定的設備或設備被宣稱不足的一切情況通知本組織，以便轉發本組織各成員國。

第 18 條

燃油的提供和質量

燃油提供

1 各締約國應採取一切合理措施推進符合本附則規定的燃油提供，並將其能提供合格燃油的港口和裝卸站通知本組織。

2.1 如締約國發現船舶不符合本附則規定的合格燃油的標準，該締約國主管當局有權要求船舶：

- .1 提交為達到符合標準而採取行動的記錄；和
- .2 提供其努力根據航次計劃購買合格燃油的證據，以及如不能按原計劃購得，已努力尋找該燃油的替代資源，並且儘管為獲得合格燃油盡了最大努力，仍不能購得該燃油的證據。

2.2 不應要求船舶為符合標準而偏離其擬定的航程或不當延誤航期。

2.3 如船舶提供本條 2.1 規定的信息，締約國應考慮所有相關情況和所提供的證據，以確定採取相應行動，但不包括採取控制措施。

2.4 未能購得合格燃油的船舶應通知其主管機關和相關目的港的主管當局。

2.5 如船舶已提供未能購得合格燃油的證據，締約國應通知本組織。

燃油質量

3 交付的並作為本附則適用的船上燃燒用的燃油應符合下列要求：

.1 除本條 3.2 規定外：

.1.1 燃油應為從石油精煉產生的烴的混合物，但並不排除少量用於改善某些方面性能的添加劑的混用；

.1.2 燃油應不含無機酸；和

.1.3 燃油應不包含有下列危害的任何添加的物質或化學雜質：

.1.3.1 使船舶安全遭受危險或對機械性能有不利影響，或

.1.3.2 對人員造成傷害，或

.1.3.3 從總體上增加空氣污染。

.2 以石油精煉之外的方法得到的用於燃燒的燃油應不：

.2.1 超過本附則第 14 條中規定的適用硫含量；

.2.2 導致發動機超過本附則第 13 條 3、4、5.1.1 和 7.4 中規定的適用 NO_x 排放極限；

.2.3 含有無機酸；或

.2.4.1 使船舶安全遭受危險或對機械性能有不利影響，或

.2.4.2 對人員造成傷害，或

.2.4.3 從總體上增加空氣污染。

4 本條不適用於固態煤或核燃料。本條 5、6、7.1、7.2、8.1、8.2、9.2、9.3 和 9.4 不適用於氣體燃料，如液化天然氣、壓縮天然氣或液化石油氣。交付船上並特別作為船上燃燒用的氣體燃料的硫含量應由供應商提供文件證明。

5 對受本附則第 5 條和第 6 條約束的每一艘船舶，應以燃油交付單的方式對交付並作為船上燃燒用的燃油的細節加以記錄，該交付單應至少包含本附則附錄 V 中規定的資料。

6 燃油交付單在船上的存放位置應易於在任何合理時間隨時可供檢查，並應在燃油交付船上之後保存三年。

7.1 締約國的主管當局可對停靠本國港口或近海裝卸站的適用本附則的任何船舶檢查燃油交付單，並可將每份交付單製成副本，也可要求船長或船舶負責人員證明該副本是該燃油交付單的真實副本。主管當局還可通過與出具該交付單的港口協商核實每份交付單的內容。

7.2 主管當局根據 7.1 的規定對燃油交付單的檢查和製作正確無誤的副本應儘速進行，而不對船舶造成不當延誤。

8.1 燃油交付單應按本組織制定的指南規定^①附有一份所交付燃油的代表樣品。該樣品應由供應商代表和船長或負責加油作業的高級船員在完成加油作業後密封並簽署，並應由船方控制直到燃油被基本消耗掉，但無論如何其保存期自加油日期算起應不少於 12 個月。

8.2 如主管機關要求對代表樣品進行分析，則應按附錄 VI 所述的驗證程序確定燃油是否滿足本附則的要求。

9 締約國應保證其指定的合適的當局：

- .1 保持一份當地燃油供應商的登記表；
- .2 要求當地供應商提供本條要求的燃油交付單和樣品，並由燃油供應商書面證明該燃油符合本附則第 14 和 18 條的要求；
- .3 要求當地供應商保存一份燃油交付單的副本至少 3 年以供港口國必要時檢查和核實；
- .4 對被發現所供燃油與燃油交付單所述內容不符的燃油供應商採取適當措施；
- .5 將任何船舶收到發現不符合本附則第 14 或 18 條要求燃油的情況通知其主管機關；和
- .6 將燃油供應商沒能按本附則第 14 或 18 條規定要求供油的一切情況通知本組織，以轉發各締約國和本組織各成員國。

① 參見 MEPC.182 (59) 決議：《為確定符合經修訂的防污公約附則 VI 要求的燃油取樣指南》。

10 關於由締約國進行的港口國檢查，各締約國進一步承擔義務：

- .1 通知締約國或非締約國其管轄下出具的燃油交付單中交付不合格燃油的情況，並提供所有有關資料；和
- .2 確保採取適當的補救措施，使被發現的不合格的燃油符合要求。

11 對每艘 400 總噸及以上從事定期營運並頻繁和定期停靠港口的船舶，主管機關在向相關各國申請和協商後可決定，對本條 6 的符合性可以一種替代方法予以證明，該方法類似證明對本附則第 14 和 18 條的符合性。

附則 VI 的附錄

附錄 I

國際防止空氣污染（IAPP）證書格式

（第 8 條）

國際防止空氣污染證書

經.....政府授權，

（國家全稱）

由.....

（按公約規定經授權的適任人員或組織的全稱）

根據經 2008 年 MEPC.176（58）決議修正的《經 1978 年議定書修訂的 1973 年國際防止船舶造成污染公約 1997 年議定書》（以下稱“公約”）的規定簽發。

船舶概況^①：

船名.....

船舶編號或呼號.....

IMO 編號^②.....

① 船舶概況也可在表格中橫向排列。

② 根據本組織 A.600（15）決議通過的《IMO 船舶編號體系》。

船籍港

總噸位

茲證明：

- 1 該船已按公約附則 VI 第 5 條的規定進行了檢驗；和
- 2 檢驗表明設備、系統、附件、佈置和材料完全符合公約附則 VI 的適用要求。

本證書的有效期至（年/月/日）^①.....，在此期間應按公約附則 VI 第 5 條的要求接受檢驗。

本證書基於的檢驗完成日期：（年/月/日）

簽發於

（證書簽發地點）

日期（年/月/日）

（簽發日期） （經正式授權的發證官員簽字）

（主管當局蓋章或鋼印）

① 填入主管機關根據公約附則 VI 第 9.1 條規定的期滿日期。該日期如未按公約附則 VI 第 9.8 條作過修正，其日、月相當於公約附則 VI 第 2.3 條所定義的周年日。

年度檢驗和中間檢驗的簽署

茲證明業已按公約附則 VI 第 5 條的要求進行了檢驗，查明該船符合該附則的有關規定：

年度檢驗 簽字

(經正式授權的官員簽字)

地點

日期(年/月/日)

(主管當局蓋章或鋼印)

年度/中間^①檢驗 簽字

(經正式授權的官員簽字)

地點

日期(年/月/日)

(主管當局蓋章或鋼印)

年度/中間^①檢驗 簽字

(經正式授權的官員簽字)

地點

日期(年/月/日)

① 不適用者劃去。

(主管當局蓋章或鋼印)

年度檢驗

簽字

(經正式授權的官員簽字)

地點

日期(年/月/日)

(主管當局蓋章或鋼印)

按第 9.8.3 條進行的年度/中間檢驗

茲證明業已按公約附則 VI 第 9.8.3 條的要求進行了年度/中間檢驗
①，查明該船符合該附則的有關規定：

簽字

(經正式授權的官員簽字)

地點

日期(年/月/日)

(主管當局蓋章或鋼印)

在適用第 9.3 條情況下，有效期少於 5 年的證書展期簽署

該船符合公約的有關規定，本證書根據公約附則 VI 第 9.3 條應視為有效，有效期限至(年/月/日)止。

① 不適用者劃去。

簽字

(經正式授權的官員簽字)

地點

日期(年/月/日)

(主管當局蓋章或鋼印)

在已完成換證檢驗並適用第 9.4 條情況下的簽署

該船符合附則的有關規定，本證書根據公約附則 VI 第 9.4 條應視為有效，有效期限至(年/月/日)止。

簽字

(經正式授權的官員簽字)

地點

日期(年/月/日)

(主管當局蓋章或鋼印)

在適用第 9.5 或 9.6 條情況下，將證書有效期展期至

駛抵進行檢驗的港口或給予寬限期的簽署

本證書根據公約附則 VI 第 9.5 或 9.6 條^①應視為有效，有效期限至(年/月/日)止。

簽字

① 不適用者劃去。

(經正式授權的官員簽字)

地點.....

日期(年/月/日).....

(主管當局蓋章或鋼印)

在適用第 9.8 條情況下，周年日提前的簽署

根據公約附則 VI 第 9.8 條，新的周年日為(年/月/日).....°

簽字.....

(經正式授權的官員簽字)

地點.....

日期(年/月/日).....

(主管當局蓋章或鋼印)

根據公約附則 VI 第 9.8 條，新的周年日為(年/月/日).....°

簽字.....

(經正式授權的官員簽字)

地點.....

日期(年/月/日).....

(主管當局蓋章或鋼印)

國際防止空氣污染證書（IAPP 證書）的附件

構造和設備記錄

註：

- 1 本記錄應永久附於 IAPP 證書之後。IAPP 證書應隨時保存在船上。
- 2 記錄應至少使用英文、法文或西班牙文的其中一種語言。如同時使用發證國的官方語言，則在有爭議或分歧時，應以該國官方語言為準。
- 3 在方格內應填入（x）表示“是”和“適用”；或填入（-）表示“不”和“不適用”。
- 4 除非另有說明，本記錄中所提及的規定係指本公約附則 VI 的規定，決議或通函係指由國際海事組織通過的決議或通函。

1 船舶概況

- 1.1 船名_____
- 1.2 IMO 編號_____
- 1.3 船舶安放龍骨或處於類似建造階段的日期（年/月/日）_____
- 1.4 船長（L）^①m_____

2 船舶排放的控制

2.1 消耗臭氧物質（第 12 條）

2.1.1 下列在 2005 年 5 月 19 日以前安裝的含有消耗臭氧物質（
氟化氫（HCFC）除外）的滅火系統、其他系統和設備可繼續使用：

系統或設備	船上位置	物質

① 僅用於 2016 年 1 月 1 日或以後建造的經特殊設計並僅用於娛樂目的、根據第 13.5.2.1 條不適用於第 13.5.1.1 條規定的 NO_x 排放極限的船舶填寫。

系統或設備	船上位置	物質

2.2.1 下列船上安裝的船用柴油機按經修訂的《2008 年 NO_x 技術規則》的規定符合第 13 條的適用排放極限：

[illegible]

2.3 硫氧化物（SO_x）和顆粒物（第 14 條）^①

2.3.1 當船舶在第 14.3 條規定的排放控制區域外營運時，該船使用：

.1 硫含量不超過以下限值的燃油（燃油交付單記錄）：

· 4.50% m/m（在 2012 年 1 月 1 日或以後不適用）；

或.....☐

· 3.50% m/m（在 2020 年 1 月 1 日或以後不適用）；

或.....☐

· 0.50% m/m，和/或.....☐

.2 2.6 列出的按第 4.1 條認可的等效佈置，該等效佈置在 SO_x 減排方面至少與使用硫含量為以下限值的燃油一樣有效：

· 4.50% m/m（在 2012 年 1 月 1 日或以後不適用）；

或.....☐

· 3.50% m/m（在 2020 年 1 月 1 日或以後不適用）；

或.....☐

· 0.50% m/m.....☐

2.3.2 當船舶在第 14.3 條規定的排放控制區域內營運時，該船使用：

^① MEPC.194（61）決議通過的經修訂的 IAPP 證書附件格式已插入附則 VI，因為該修正案已於 2011 年 8 月 1 日被接受並將於 2012 年 2 月 1 日生效。

.1 硫含量不超過以下限值的燃油（燃油交付單記錄）：

- 1.00% m/m（在 2015 年 1 月 1 日或以後不適用）；
或.....☐
- 0.10% m/m；和/或.....☐

.2 2.6 列出的按第 4.1 條認可的等效佈置，該等效佈置在 SO_x 減排方面至少與使用硫含量為以下限值的燃油一樣有效：

- 1.00% m/m（在 2015 年 1 月 1 日或以後不適用）；
或.....☐
- 0.10% m/m.....☐

2.4 揮發性有機化合物（VOC）（第 15 條）

2.4.1 該液貨船備有一套按 MSC/Circ.585 通函要求安裝和認可的蒸氣收集系統.....☐

2.4.2.1 載運原油的液貨船備有認可的 VOC 管理計劃.....☐

2.4.2.2 VOC 管理計劃的認可參考.....☐

2.5 船上焚燒（第 16 條）

該船裝有 1 台焚燒爐：

- .1 2000 年 1 月 1 日或以後安裝的符合經修正的 MEPC.76（40）決議^①的規定.....☐

① 經 MEPC.93（45）決議修正。

.2 2000 年 1 月 1 日前安裝的符合：

.2.1 MEPC.59（33）^①決議的規定.....☐

.2.2 MEPC.76（40）^{1②}決議的規定.....

☐

2.6 等效（第 4 條）

已允許該船使用下列在船上安裝的裝置、材料、設備或器具，或
允許使用其他程序、替代燃油、或符合方法，以代替本附則所要求者：

系統或設備	使用的等效	認可參考

茲證明該記錄在各方面均正確無誤。

簽發於.....

（記錄簽發地點）

日期（年/月/日）.....

（簽發日期）（經正式授權簽發記錄的官員簽字）

（主管當局蓋章或鋼印）

① 經 MEPC.92（45）決議修正。
② 經 MEPC.93（45）決議修正。

附錄 II

試驗循環和加權因數

(第 13 條)

在採用經修訂的《2008 年 NO_x 技術規則》中規定的試驗程序和計算方法核實船用柴油機是否符合本附則第 13 條規定的適用 NO_x 極限時，應使用下列試驗循環和加權因數。

- .1 對於船舶主推進的恆速船用發動機，包括柴油電力驅動應採用試驗循環 E2；
- .2 對於可調螺距螺旋槳裝置應採用試驗循環 E2；
- .3 對於按推進器定律運轉的主輔發動機應採用試驗循環 E3；
- .4 對於恆速輔發動機應採用試驗循環 D2；和
- .5 對於除上述發動機外的變速、變載輔發動機應採用試驗循環 C1。

“恆速主推進機”應用的試驗循環

(包括柴油電力驅動和所有可調螺距螺旋槳裝置)

試驗循環 類型 E2	轉速	100%	100%	100%	100%
	功率	100%	75%	50%	25%
	加權因數	0.2	0.5	0.15	0.15

“按推進器定律運轉的主輔發動機”應用的試驗循環

試驗循環 類型 E3	轉速	100%	91%	80%	63%
	功率	100%	75%	50%	25%
	加權因數	0.2	0.5	0.15	0.15

“恆速輔發動機”應用的試驗循環

試驗循環 類型 D2	轉速	100%	100%	100%	100%	100%
	功率	100%	75%	50%	25%	10%
	加權因數	0.05	0.25	0.3	0.3	0.1

“變速和變載輔發動機”應用的試驗循環

試驗循環 類型 C1	轉速	額定				過渡			空轉
	扭轉	100%	75%	50%	10%	100%	75%	50%	0%
	加權因數	0.15	0.15	0.15	0.1	0.1	0.1	0.1	0.15

如果發動機按第 13 條 5.1.1 予以核准，則在各模式點的排放量應不超過適用的 NO_x 排放極限值 50% 以上，但以下情況除外：

- .1 D2 試驗循環的 10% 模式點。
- .2 C1 試驗循環的 10% 模式點。
- .3 C1 試驗循環的空轉模式點。

附錄 III

指定排放控制區域的標準和程序

(第 13.6 和 14.3 條)

1 目的

1.1 本附錄目的是向各締約國提供制定和提交指定排放控制區域建議的標準和程序，並提出本組織評估此類建議時應考慮的因素。

1.2 海船排放的 NO_x、SO_x 和顆粒物質導致世界各城市 and 沿海地區空氣污染環境濃度的增加。空氣污染對公眾健康和環境產生的危害包括：早產兒死亡、心肺病、肺癌、慢性呼吸道疾病、酸化和富營養化。

1.3 如證實有防止、減少和控制船舶排放 NO_x 或 SO_x 和顆粒物質或所有 3 種排放類型（以下稱為排放）的需要，本組織應考慮通過一個排放控制區域。

2 指定排放控制區的程序

2.1 指定 NO_x 或 SO_x 和顆粒物質或所有 3 種排放類型的排放控制區域，只能由各締約國向本組織提交建議。如果兩個或以上締約國對某一特定的區域有共同的利益，他們應起草一個互相協調的建議。

2.2 應根據本組織制定的規則和程序向本組織提交指定一個給定區域作為排放控制區域的建議。

3 指定排放控制區的標準

3.1 建議應包括：

- .1 一份所建議的適用區域的明確描述，連同一份標有該區域位置的參考海圖；

- .2 所建議控制的排放類型（即：NO_x 或 SO_x 和顆粒物質或所有 3 種排放類型）；
- .3 一份受到船舶排放威脅的人口和環境區域的說明；
- .4 一份對在所建議的適用區域內航行的船舶排放造成空氣污染環境濃度的增加或對環境造成不利影響的評估。該評估應包括相關排放對人類健康和環境影響的說明，如對陸地生態和水生生態系統、自然生產力區域、瀕危棲息地、水質、人類健康以及具有重要文化科學價值區域（如有）的不利影響的說明。並應標明有關資料包括所用的方法的來源；
- .5 在所建議的適用區域與受威脅人口和環境區域有關的氣象條件的相關資料，特別是主要風力分佈，或有關地形學、地質學、海洋學、形態學資料或其他可能導致空氣污染環境濃度增加或對環境造成不利影響的條件的相關資料；
- .6 所建議的排放控制區內船舶交通狀況，包括這種交通的格局和密度；
- .7 一份由一個或多個提案國對陸基 SO_x、NO_x 和顆粒物質排放源影響受威脅人口和環境區域所採取的控制措施的說明，該措施的正確性操作應與附則 VI 第 13 和 14 條有關規定應採取的措施相一致；和
- .8 與陸基控制相比，減少船舶排放的相對費用，和對從事國際貿易船舶的經濟影響。

3.2 排放控制區的地理界限將根據上述所列的有關標準，包括來自航行於所建議的區域內的船舶排放和沉積量，交通格局和密度以及風況予以確定。

4 本組織評估並通過排放控制區域的程序

4.1 本組織應審議由一個或多個締約國提交的每份建議。

4.2 在評估建議時，本組織應考慮每份建議中應包括的上述第 3 節中所述的標準。

4.3 排放控制區域應以本附則修正案的形式指定，並根據本公約第 16 條規定予以審議、通過和生效。

5 排放控制區域的管理

5.1 鼓勵擁有航行於這些區域的船舶的締約國向本組織提供任何有關該區域管理的情況。

附錄 IV

船上焚燒爐的型式認可和操作限制

(第 16 條)

1 第 16.6.1 條所述的每台船上焚燒爐都應擁有 IMO 型式認可證書。為獲取該證書，焚燒爐應按第 16.6.1 條所述的認可標準進行設計和建造。每一型號均應在工廠或經認可的試驗設備接受規定的型式認可試驗，並由主管機關負責，在型式認可試驗中使用下列標準燃料/廢物，以確定焚燒爐的運轉是否在本附錄 2 所規定的限制之內：

殘油成分為：

75%重燃油（HFO）的殘油；

5%廢潤滑油；和

20%乳化水。

固態廢物成分為：

50%食物廢棄物；

50%垃圾包括

約 30%紙

約 40%硬紙板

約 10%破布

約 20%塑料

混合物的濕度可達 50%，不燃固

態物質可達 7%

2 第 16.6.1 條所述的焚燒爐應在下列限制內運轉：

燃燒室中的氧氣：	6%~12%
煙氣中一氧化碳的最大平均值：	200 mg/MJ
煙灰數的最大平均值：	Bacharach 3 或 Ringelman 1（20%渾濁度） （只有在非常短的時間內如起動 時，才能接受更高的煙灰數）
灰渣的不燃成分	最大 10%，按重量計
燃燒室煙氣出口的温度範圍：	850°C~1,200°C

附錄 V

燃油交付單中包括的資料

(第 18.5 條)

接受燃油的船舶名稱和 IMO 編號

港口

交付開始日期

船用燃油供應商名稱、地址和電話號碼

產品名稱

數量（公噸）

15°C 時的密度^①，kg/m³

硫含量^②（% m/m）

一份由燃油供應商代表簽署和證明的聲明，證明所供燃油符合本附則第 14.1 條或 14.4 條以及第 18.3 條的適用規定。

① 燃油應按 ISO 3675:1998 或 ISO 12185:1996 進行試驗。

② 燃油應按 ISO 8754:2003 進行試驗。

附錄 VI

防污公約附則 VI 燃油樣品的燃油驗證程序

(第 18.8.2 條)

應使用下列程序判定船上交付和使用的燃油是否符合附則 VI 第 14 條要求的硫極限值。

1 一般要求

1.1 應使用第 18 條 8.1 要求的代表性燃油樣品（MARPOL 樣品）驗證供應上船的燃油硫含量。

1.2 主管機關應通過其主管當局管理驗證程序。

1.3 負責本附錄所述驗證程序的實驗室應就其進行試驗的方法獲得完全認可^①。

2 驗證程序 步驟 1

2.1 主管當局應將 MARPOL 樣品交付實驗室。

2.2 實驗室應：

- .1 將密封號和樣品標籤的詳細信息記入試驗記錄；
- .2 確認 MARPOL 樣品上的封印未受損；和
- .3 丟棄任何封印受損的 MARPOL 樣品。

① 按 ISO 17025 或等效標準認可。

2.3 如 MARPOL 樣品的封印未受損，實驗室應繼續驗證程序並應：

- .1 確保 MARPOL 樣品完全均勻；
- .2 從 MARPOL 樣品中取出兩份小樣；和
- .3 重新密封 MARPOL 樣品並在試驗記錄中記入重新密封的詳細信息。

2.4 應按附錄 V 規定的試驗方法（第 2 條腳註）對兩份小樣依次進行試驗。就本驗證程序而言，該試驗分析結果應分為“A”和“B”。

- .1 如結果“A”和“B”在試驗方法的可重複性（ r ）範圍內，則結果應視為有效。
- .2 如結果“A”和“B”不在試驗方法的可重複性（ r ）範圍內，則兩個結果均應放棄，並應由實驗室重新提取兩份小樣進行分析。提取了新小樣後，樣品瓶應按上述 2.3.3 重新密封。

2.5 如試驗結果“A”和“B”有效，應計算這兩個結果的平均值“X”。

- .1 如結果“X”等於或低於附則 VI 要求的適用極限，則燃油應視為符合要求。
- .2 如結果“X”高於附則 VI 要求的適用極限，則應進行驗證程序步驟 2；但如結果“X”超出規定限制 $0.59 R$ （ R 為試驗方法的複現性），則燃油應視為不合格，且不必進一步試驗。

3 驗證程序 步驟 2

3.1 如按上述 2.5.2 需進行驗證程序步驟 2，主管當局應將 MARPOL 樣品送至另一個經認可的實驗室。

3.2 實驗室收到 MARPOL 樣品後應：

- .1 將按上述 2.3.3 記錄的重新密封號和樣品標籤的詳細信息記入試驗記錄；
- .2 從 MARPOL 樣品中取出兩份小樣；和
- .3 重新密封 MARPOL 樣品並在試驗記錄中記入重新密封的詳細信息。

3.3 應按附錄 V 規定的試驗方法（第 2 條腳註）對兩份小樣依次進行試驗。就本驗證程序而言，該試驗分析結果應分為“C”和“D”。

- .1 如結果“C”和“D”在試驗方法的可重複性（ r ）範圍內，則結果應視為有效。
- .2 如結果“C”和“D”不在試驗方法的可重複性（ r ）範圍內，則兩個結果均應放棄，並應由實驗室重新提取兩份小樣進行分析。提取了新小樣後，樣品瓶應按上述 3.2.3 重新密封。

3.4 如試驗結果“C”和“D”有效，且結果“A”、“B”、“C”和“D”在試驗方法的複現性（ R ）範圍內，實驗室應計算這些結果的平均值“Y”。

.1 如結果“Y”等於或低於附則 VI 要求的適用極限，則燃油應視為符合要求。

.2 如結果“Y”高於附則 VI 要求的適用極限，則燃油不符合附則 VI 要求的標準。

3.5 如結果“A”、“B”、“C”和“D”不在試驗方法的複現性（*R*）範圍內，主管機關可放棄所有試驗結果，並酌情決定是否重複整個試驗過程。

3.6 驗證程序中獲得的結果為最終結果。

附錄 VII

北美排放控制區域（第 13.6 和第 14.3 條）

北美區域包括：

- .1 位於美國和加拿大太平洋海岸附近由測地線連接的下列坐標範圍內的海域：

點	緯度	經度
1	32°32'.10N	117°06'.11W
2	32°32'.04N	117°07'.29W
3	32°31'.39N	117°14'.20W
4	32°33'.13N	117°15'.50W
5	32°34'.21N	117°22'.01W
6	32°35'.23N	117°27'.53W
7	32°37'.38N	117°49'.34W
8	31°07'.59N	118°36'.21W
9	30°33'.25N	121°47'.29W
10	31°46'.11N	123°17'.22W
11	32°21'.58N	123°50'.44W
12	32°56'.39N	124°11'.47W
13	33°40'.12N	124°27'.15W
14	34°31'.28N	125°16'.52W
15	35°14'.38N	125°43'.23W
16	35°43'.60N	126°18'.53W
17	36°16'.25N	126°45'.30W
18	37°01'.35N	127°07'.18W
19	37°45'.39N	127°38'.02W
20	38°25'.08N	127°52'.60W
21	39°25'.05N	128°31'.23W
22	40°18'.47N	128°45'.46W
23	41°13'.39N	128°40'.22W
24	42°12'.49N	129°00'.38W
25	42°47'.34N	129°05'.42W
26	43°26'.22N	129°01'.26W
27	44°24'.43N	128°41'.23W

點	緯度	經度
28	45°30'.43N	128°40'.02W
29	46°11'.01N	128°49'.01W
30	46°33'.55N	129°04'.29W
31	47°39'.55N	131°15'.41W
32	48°32'.32N	132°41'.00W
33	48°57'.47N	133°14'.47W
34	49°22'.39N	134°15'.51W
35	50°01'.52N	135°19'.01W
36	51°03'.18N	136°45'.45W
37	51°54'.04N	137°41'.54W
38	52°45'.12N	138°20'.14W
39	53°29'.20N	138°40'.36W
40	53°40'.39N	138°48'.53W
41	54°13'.45N	139°32'.38W
42	54°39'.25N	139°56'.19W
43	55°20'.18N	140°55'.45W
44	56°07'.12N	141°36'.18W
45	56°28'.32N	142°17'.19W
46	56°37'.19N	142°48'.57W
47	58°51'.04N	153°15'.03W

2. 位於美國、加拿大和法國（Saint-Pierre-et-Miquelon）大西洋海岸，以及美國墨西哥灣海岸附近由測地線連接的下列坐標範圍內的海域：

點	緯度	經度
1	60°00'.00 N	64°09'.36 W
2	60°00'.00 N	56°43'.00 W
3	58°54'.01 N	55°38'.05 W
4	57°50'.52 N	55°03'.47 W
5	57°35'.13 N	54°00'.59 W
6	57°14'.20 N	53°07'.58 W
7	56°48'.09 N	52°23'.29 W
8	56°18'.13 N	51°49'.42 W
9	54°23'.21 N	50°17'.44 W

點	緯度	經度
10	53°44' .54 N	50°07' .17 W
11	53°04' .59 N	50°10' .05 W
12	52°20' .06 N	49°57' .09 W
13	51°34' .20 N	48°52' .45 W
14	50°40' .15 N	48°16' .04 W
15	50°02' .28 N	48°07' .03 W
16	49°24' .03 N	48°09' .35 W
17	48°39' .22 N	47°55' .17 W
18	47°24' .25 N	47°46' .56 W
19	46°35' .12 N	48°00' .54 W
20	45°19' .45 N	48°43' .28 W
21	44°43' .38 N	49°16' .50 W
22	44°16' .38 N	49°51' .23 W
23	43°53' .15 N	50°34' .01 W
24	43°36' .06 N	51°20' .41 W
25	43°23' .59 N	52°17' .22 W
26	43°19' .50 N	53°20' .13 W
27	43°21' .14 N	54°09' .20 W
28	43°29' .41 N	55°07' .41 W
29	42°40' .12 N	55°31' .44 W
30	41°58' .19 N	56°09' .34 W
31	41°20' .21 N	57°05' .13 W
32	40°55' .34 N	58°02' .55 W
33	40°41' .38 N	59°05' .18 W
34	40°38' .33 N	60°12' .20 W
35	40°45' .46 N	61°14' .03 W
36	41°04' .52 N	62°17' .49 W
37	40°36' .55 N	63°10' .49 W
38	40°17' .32 N	64°08' .37 W
39	40°07' .46 N	64°59' .31 W
40	40°05' .44 N	65°53' .07 W
41	39°58' .05 N	65°59' .51 W
42	39°28' .24 N	66°21' .14 W
43	39°01' .54 N	66°48' .33 W
44	38°39' .16 N	67°20' .59 W

點	緯度	經度
45	38°19'.20 N	68°02'.01 W
46	38°05'.29 N	68°46'.55 W
47	37°58'.14 N	69°34'.07 W
48	37°57'.47 N	70°24'.09 W
49	37°52'.46 N	70°37'.50 W
50	37°18'.37 N	71°08'.33 W
51	36°32'.25 N	71°33'.59 W
52	35°34'.58 N	71°26'.02 W
53	34°33'.10 N	71°37'.04 W
54	33°54'.49 N	71°52'.35 W
55	33°19'.23 N	72°17'.12 W
56	32°45'.31 N	72°54'.05 W
57	31°55'.13 N	74°12'.02 W
58	31°27'.14 N	75°15'.20 W
59	31°03'.16 N	75°51'.18 W
60	30°45'.42 N	76°31'.38 W
61	30°12'.48 N	77°18'.29 W
62	29°25'.17 N	76°56'.42 W
63	28°36'.59 N	76°47'.60 W
64	28°17'.13 N	76°40'.10 W
65	28°17'.12 N	79°11'.23 W
66	27°52'.56 N	79°28'.35 W
67	27°26'.01 N	79°31'.38 W
68	27°16'.13 N	79°34'.18 W
69	27°11'.54 N	79°34'.56 W
70	27°05'.59 N	79°35'.19 W
71	27°00'.28 N	79°35'.17 W
72	26°55'.16 N	79°34'.39 W
73	26°53'.58 N	79°34'.27 W
74	26°45'.46 N	79°32'.41 W
75	26°44'.30 N	79°32'.23 W
76	26°43'.40 N	79°32'.20 W
77	26°41'.12 N	79°32'.01 W
78	26°38'.13 N	79°31'.32 W
79	26°36'.30 N	79°31'.06 W

點	緯度	經度
80	26°35'.21 N	79°30'.50 W
81	26°34'.51 N	79°30'.46 W
82	26°34'.11 N	79°30'.38 W
83	26°31'.12 N	79°30'.15 W
84	26°29'.05 N	79°29'.53 W
85	26°25'.31 N	79°29'.58 W
86	26°23'.29 N	79°29'.55 W
87	26°23'.21 N	79°29'.54 W
88	26°18'.57 N	79°31'.55 W
89	26°15'.26 N	79°33'.17 W
90	26°15'.13 N	79°33'.23 W
91	26°08'.09 N	79°35'.53 W
92	26°07'.47 N	79°36'.09 W
93	26°06'.59 N	79°36'.35 W
94	26°02'.52 N	79°38'.22 W
95	25°59'.30 N	79°40'.03 W
96	25°59'.16 N	79°40'.08 W
97	25°57'.48 N	79°40'.38 W
98	25°56'.18 N	79°41'.06 W
99	25°54'.04 N	79°41'.38 W
100	25°53'.24 N	79°41'.46 W
101	25°51'.54 N	79°41'.59 W
102	25°49'.33 N	79°42'.16 W
103	25°48'.24 N	79°42'.23 W
104	25°48'.20 N	79°42'.24 W
105	25°46'.26 N	79°42'.44 W
106	25°46'.16 N	79°42'.45 W
107	25°43'.40 N	79°42'.59 W
108	25°42'.31 N	79°42'.48 W
109	25°40'.37 N	79°42'.27 W
110	25°37'.24 N	79°42'.27 W
111	25°37'.08 N	79°42'.27 W
112	25°31'.03 N	79°42'.12 W
113	25°27'.59 N	79°42'.11 W
114	25°24'.04 N	79°42'.12 W

點	緯度	經度
115	25°22' .21 N	79°42' .20 W
116	25°21' .29 N	79°42' .08 W
117	25°16' .52 N	79°41' .24 W
118	25°15' .57 N	79°41' .31 W
119	25°10' .39 N	79°41' .31 W
120	25°09' .51 N	79°41' .36 W
121	25°09' .03 N	79°41' .45 W
122	25°03' .55 N	79°42' .29 W
123	25°02' .60 N	79°42' .56 W
124	25°00' .30 N	79°44' .05 W
125	24°59' .03 N	79°44' .48 W
126	24°55' .28 N	79°45' .57 W
127	24°44' .18 N	79°49' .24 W
128	24°43' .04 N	79°49' .38 W
129	24°42' .36 N	79°50' .50 W
130	24°41' .47 N	79°52' .57 W
131	24°38' .32 N	79°59' .58 W
132	24°36' .27 N	80°03' .51 W
133	24°33' .18 N	80°12' .43 W
134	24°33' .05 N	80°13' .21 W
135	24°32' .13 N	80°15' .16 W
136	24°31' .27 N	80°16' .55 W
137	24°30' .57 N	80°17' .47 W
138	24°30' .14 N	80°19' .21 W
139	24°30' .06 N	80°19' .44 W
140	24°29' .38 N	80°21' .05 W
141	24°28' .18 N	80°24' .35 W
142	24°28' .06 N	80°25' .10 W
143	24°27' .23 N	80°27' .20 W
144	24°26' .30 N	80°29' .30 W
145	24°25' .07 N	80°32' .22 W
146	24°23' .30 N	80°36' .09 W
147	24°22' .33 N	80°38' .56 W
148	24°22' .07 N	80°39' .51 W
149	24°19' .31 N	80°45' .21 W

點	緯度	經度
150	24°19'.16 N	80°45'.47 W
151	24°18'.38 N	80°46'.49 W
152	24°18'.35 N	80°46'.54 W
153	24°09'.51 N	80°59'.47 W
154	24°09'.48 N	80°59'.51 W
155	24°08'.58 N	81°01'.07 W
156	24°08'.30 N	81°01'.51 W
157	24°08'.26 N	81°01'.57 W
158	24°07'.28 N	81°03'.06 W
159	24°02'.20 N	81°09'.05 W
160	23°59'.60 N	81°11'.16 W
161	23°55'.32 N	81°12'.55 W
162	23°53'.52 N	81°19'.43 W
163	23°50'.52 N	81°29'.59 W
164	23°50'.02 N	81°39'.59 W
165	23°49'.05 N	81°49'.59 W
166	23°49'.05 N	82°00'.11 W
167	23°49'.42 N	82°09'.59 W
168	23°51'.14 N	82°24'.59 W
169	23°51'.14 N	82°39'.59 W
170	23°49'.42 N	82°48'.53 W
171	23°49'.32 N	82°51'.11 W
172	23°49'.24 N	82°59'.59 W
173	23°49'.52 N	83°14'.59 W
174	23°51'.22 N	83°25'.49 W
175	23°52'.27 N	83°33'.01 W
176	23°54'.04 N	83°41'.35 W
177	23°55'.47 N	83°48'.11 W
178	23°58'.38 N	83°59'.59 W
179	24°09'.37 N	84°29'.27 W
180	24°13'.20 N	84°38'.39 W
181	24°16'.41 N	84°46'.07 W
182	24°23'.30 N	84°59'.59 W
183	24°26'.37 N	85°06'.19 W
184	24°38'.57 N	85°31'.54 W

點	緯度	經度
185	24°44'.17 N	85°43'.11 W
186	24°53'.57 N	85°59'.59 W
187	25°10'.44 N	86°30'.07 W
188	25°43'.15 N	86°21'.14 W
189	26°13'.13 N	86°06'.45 W
190	26°27'.22 N	86°13'.15 W
191	26°33'.46 N	86°37'.07 W
192	26°01'.24 N	87°29'.35 W
193	25°42'.25 N	88°33'.00 W
194	25°46'.54 N	90°29'.41 W
195	25°44'.39 N	90°47'.05 W
196	25°51'.43 N	91°52'.50 W
197	26°17'.44 N	93°03'.59 W
198	25°59'.55 N	93°33'.52 W
199	26°00'.32 N	95°39'.27 W
200	26°00'.33 N	96°48'.30 W
201	25°58'.32 N	96°55'.28 W
202	25°58'.15 N	96°58'.41 W
203	25°57'.58 N	97°01'.54 W
204	25°57'.41 N	97°05'.08 W
205	25°57'.24 N	97°08'.21 W
206	25°57'.24 N	97°08'.47 W

- 3 位於 Hawai'i、Maui、Oahu、Moloka'i、Ni'ihau、Kaua'i、Lāna'i 和 Kaho'olawe 等夏威夷群島海岸附近由測地線連接的下列坐標範圍內的海域：

點	緯度	經度
1	22°32'.54 N	153°00'.33 W
2	23°06'.05 N	153°28'.36 W
3	23°32'.11 N	154°02'.12 W
4	23°51'.47 N	154°36'.48 W
5	24°21'.49 N	155°51'.13 W
6	24°41'.47 N	156°27'.27 W
7	24°57'.33 N	157°22'.17 W

點	緯度	經度
8	25°13'.41 N	157°54'.13 W
9	25°25'.31 N	158°30'.36 W
10	25°31'.19 N	159°09'.47 W
11	25°30'.31 N	159°54'.21 W
12	25°21'.53 N	160°39'.53 W
13	25°00'.06 N	161°38'.33 W
14	24°40'.49 N	162°13'.13 W
15	24°15'.53 N	162°43'.08 W
16	23°40'.50 N	163°13'.00 W
17	23°03'.20 N	163°32'.58 W
18	22°20'.09 N	163°44'.41 W
19	21°36'.45 N	163°46'.03 W
20	20°55'.26 N	163°37'.44 W
21	20°13'.34 N	163°19'.13 W
22	19°39'.03 N	162°53'.48 W
23	19°09'.43 N	162°20'.35 W
24	18°39'.16 N	161°19'.14 W
25	18°30'.31 N	160°38'.30 W
26	18°29'.31 N	159°56'.17 W
27	18°10'.41 N	159°14'.08 W
28	17°31'.17 N	158°56'.55 W
29	16°54'.06 N	158°30'.29 W
30	16°25'.49 N	157°59'.25 W
31	15°59'.57 N	157°17'.35 W
32	15°40'.37 N	156°21'.06 W
33	15°37'.36 N	155°22'.16 W
34	15°43'.46 N	154°46'.37 W
35	15°55'.32 N	154°13'.05 W
36	16°46'.27 N	152°49'.11 W
37	17°33'.42 N	152°00'.32 W
38	18°30'.16 N	151°30'.24 W
39	19°02'.47 N	151°22'.17 W
40	19°34'.46 N	151°19'.47 W
41	20°07'.42 N	151°22'.58 W
42	20°38'.43 N	151°31'.36 W

點	緯度	經度
43	21°29'.09 N	151°59'.50 W
44	22°06'.58 N	152°31'.25 W
45	22°32'.54 N	153°00'.33 W

附則 VI 的統一解釋

1 VOC 管理計劃

第 15.6 和 15.7 條 VOC 管理計劃要求僅適用於載運原油的液貨船。

第 MEPC.193 (61) 號決議

2010 年 10 月 1 日通過

《〈1973 年國際防止船舶造成污染公約〉1978 年議定書》附則修正案 (經修訂的《防污公約》附則 III)

海上環境保護委員會，

憶及《國際海事組織公約》關於防止和控制海洋污染的國際公約賦予海上環境保護委員會（本委員會）職責的第 38（a）條，

注意到《1973 年國際防止船舶造成污染公約》（以下簡稱“1973 年公約”）第 16 條和《〈1973 年國際防止船舶造成污染公約〉1978 年議定書》（以下簡稱“1978 年議定書”）第 VI 條共同規定了 1978 年議定書的修正程序，並賦予本組織適當機構審議和通過經 1978 年議定書修正的 1973 年公約（《73/78 防污公約》）修正案的職責，

審議了《73/78 防污公約》附則 III 修正案草案，

1. 根據《1973 年公約》第 16（2）（d）條，通過了《73/78 防污公約》附則 III 修正案，案文列於本決議的附件中；

2. 根據《1973 年公約》第 16（2）（f）（iii）條，決定該修正案將於 2013 年 7 月 1 日視為已獲接受，除非在該日期之前，有不少於三分之一的當事國或合計商船總噸位不少於世界商船總噸位 50% 的當事國通知本組織反對該修正案；

3. 提請當事國注意，根據《1973年公約》第16(2)(g)(ii)條，所述修正案若依照上文第2段獲接受，將於2014年1月1日生效；

4. 要求秘書長按照《1973年公約》第16(2)(e)條，將本決議和附件中所載修正案的核證無誤副本散發給《73/78防污公約》的所有當事國；

5. 進一步要求秘書長將本決議及其附件的副本散發給非《73/78防污公約》當事國的本組織成員國。

附件

《防污公約》附則 III 修正案

以第 MEPC.156 (55) 號決議通過的《防污公約》附則 III 的現有案文由以下所列取代：

防止海運包裝形式有害物質污染規則

第 1 條

適用

1 除另有明文規定外，本附則的規定適用於海上運輸包裝形式有害物質的所有船舶。

.1 就本附則而言，“有害物質”係指在《國際海運危險貨物規則》(IMDG 規則)*中確定為海洋污染物的物質，或符合本附則附錄中的衡準的物質。

.2 就本附則而言，“包裝形式”係指 IMDG 規則中規定的對有害物質的盛裝形式。

2 除符合本附則的各項規定外，禁止裝運有害物質。

3 作為本附則的補充，公約各當事國政府須頒佈或促使頒佈關於包裝、標誌、標籤、單證、積載、限量和例外的詳細要求，以防止或最大限度減少有害物質對海洋環境的污染。

4 就本附則而言，凡以前曾經裝運過有害物質的空包裝，除非已採取足夠的預防措施，確保其中已沒有危害海洋環境的殘餘物，否則

* 參見本組織以第 MEPC122 (75) 號決議通過並經海上安全委員會修正的《IMDG 規則》。

其本身須被視為有害物質。

5 本規則各項要求不適用於船用物料和設備。

第 2 條

包裝

根據其所盛裝的具體物質，包裝件須足以將其對海洋環境的危害降至最低。

第 3 條

標誌和標籤

1 盛裝有害物質的包裝件，須根據 IMDG 規則有關規定加上耐久性標誌或標籤，指明該物質為有害物質。

2 在盛裝有害物質的包裝件上黏貼標誌或標籤的方法須符合 IMDG 規則的有關規定。

第 4 條*

單證

1 有關運載有害物質的運輸信息須符合 IMDG 規則的有關規定並須供港口國當局指定的人員或組織使用。

2 每艘運載有害物質的船舶須攜帶一份專門的清單、艙單或積載圖，根據 IMDG 規則的有關規定列明船上所裝的有害物質及其位置。離港前須備有一份上述單證的副本，供港口國當局指定的個人或組織

* 本條中所述“文件”並不排除使用電子數據處理（EDP）和電子數據交換（EDI）傳輸技術作為紙文件的輔助。

使用。

第 5 條

積載

須正確地積載和繫固有害物質，以將對海洋環境的危害減至最低限度，且不致損害船舶和船上人員的安全。

第 6 條

限量

出於可靠的科學和技術理由，會有必要禁止運輸某些有害物質或對任何一艘船舶裝載有害物質的數量加以限制。在限制數量時須充分考慮及船舶的大小、結構和設備，以及這些物質的包裝和其自身特性。

第 7 條

例外

1 禁止將以包裝形式裝運的有害物質拋棄入海，但為保證船舶安全或救護海上人命所必須者除外。

2 在遵守本公約規定的前提下，須根據有害物質的物理、化學和生物學特性，對將所泄漏的有害物質沖洗至船外採取適當控制措施，但這種措施的執行須不致損害船舶及船上人員的安全。

第 8 條

*對操作性要求的港口國監督**

1 當船舶在另一當事國的港口或離岸碼頭停靠時，經該當事國正

* 參見本組織以第 A.787 (19) 號決議通過並經第 A.882 (21) 號決議修正的港口國監督程序。

式授權的官員可對該船進行關於本附則操作要求的檢查。

2 如有明顯理由認為該船船長或船員不熟悉船上防止有害物質污染的關鍵程序，該當事國須採取措施，包括進行詳細檢查，及，如有必要，確保該船在按照本附則的要求調整至正常狀態之前，不得啟航。

3 本公約第 5 條規定的港口國監督程序須適用於本條。

4 本條的任何內容均不得被解釋為限制一當事國對本公約明確規定的操作要求進行監督的權利和義務。

附則 III 的附錄

包裝形式有害物質的確定衡準

就本附則而言，符合下列任一衡準的物質均為有害物質*：

(a) 急性（短期）水生物危害

類別：急性 1		
96 hr LC ₅₀ （對魚類）		≤1mg/l 和/或
48 hr EC ₅₀ （對甲殼綱動物）		≤1mg/l 和/或
72 或 96 hr ErC ₅₀ （對海藻或其他水生植物）		≤1mg/l

(b) 長期水生物危害

(i) 有充足慢性中毒數據的非快速降解物質

類別：慢性 1：		
慢性 NOEC 或 EC _x （對魚類）		≤0.1mg/l 和/或
慢性 NOEC 或 EC _x （對甲殼綱動物）		≤0.1mg/l 和/或
慢性 NOEC 或 EC _x （對海藻或其他水生植物）		≤0.1mg/l
類別：慢性 2：		
慢性 NOEC 或 EC _x （對魚類）		≤1mg/l 和/或
慢性 NOEC 或 EC _x （對甲殼綱動物）		≤1mg/l 和/或
慢性 NOEC 或 EC _x （對海藻或其他水生植物）		≤1mg/l

(ii) 有充足慢性中毒數據的快速降解物質

類別：慢性 1：		
----------	--	--

* 該衡準基於經修正的聯合國化學品分類和標籤全球協調系統（GHS）。
本附錄中的縮寫和用語的定義，參見《IMDG 規則》有關段落。

慢性 NOEC 或 EC _x (對魚類)	≤0.01mg/l 和/或
慢性 NOEC 或 EC _x (對甲殼綱動物)	≤0.01mg/l 和/或
慢性 NOEC 或 EC _x (對海藻或其他水生植物)	≤0.01mg/l

類別：慢性 2：

慢性 NOEC 或 EC _x (對魚類)	≤0.1mg/l 和/或
慢性 NOEC 或 EC _x (對甲殼綱動物)	≤0.1mg/l 和/或
慢性 NOEC 或 EC _x (對海藻或其他水生植物)	≤0.1mg/l

(iii) 缺少充足慢性中毒數據的物質

類別：慢性 1：

96 hr LC ₅₀ (對魚類)	≤1mg/l 和/或
48 hr EC ₅₀ (對甲殼綱動物)	≤1mg/l 和/或
72 或 96 hr ErC ₅₀ (對海藻或其他水生植物)	≤1mg/l

且該物質不能快速降解和/或試驗確定的 BCF≥500 (或，如果沒有，則 logK_{ow}≥4)。

類別：慢性 2：

96 hr LC ₅₀ (對魚類)	>1mg/l 但≤10mg/l 和/或
48 hr EC ₅₀ (對甲殼綱動物)	>1mg/l 但≤10mg/l 和/或
72 或 96 hr ErC ₅₀ (對海藻或其他水生植物)	>1mg/l 但≤10mg/l

且該物質不能快速降解和/或試驗確定的 BCF≥500 (或，如果沒有，則 logK_{ow}≥4)。

對物質和混合物分類程序的附加指南包括在 IMDG 規則內。

第 MEPC.200 (62) 號決議

(2011 年 7 月 15 日通過)

《〈1973 年國際防止船舶造成污染公約〉1978 年議定書》

附則的修正案

(《防污公約》附則 IV 關於特殊區域的規定和指定波羅的海為特殊區域)

海上環境保護委員會，

憶及《國際海事組織公約》第 38 (a) 條關於國際防止和控制海上污染公約賦予海上環境保護委員會（本委員會）的職能，

注意到《1973 年國際防止船舶造成污染公約》（以下稱《1973 年公約》）第 16 條和《〈1973 年國際防止船舶造成污染公約〉1978 年議定書》（以下稱《1978 年議定書》）第 VI 條共同規定《1978 年議定書》的修正程序和賦予本組織的相關機構審議並通過《經 1978 年議定書修訂的〈1973 年公約〉》（《73/78 年防污公約》）修正案的職能，

審議了《73/78 年防污公約》附則 IV 的修正案草案，

1. 按照《1973 年公約》第 16 (2) (d) 條，通過《73/78 年防污公約》附則 IV 的修正案，其文本載於本決議附件；

2. 按照《1973年公約》第16(2)(f)(iii)條，決定該修正案於2012年7月1日須視為被接受，除非在此日期之前，有不少於三分之一的締約國或擁有商船合計噸位不少於世界商船總噸位50%的締約國通知本組織其反對該修正案；

3. 請各締約國注意，按照《1973年公約》第16(2)(g)(ii)條，該修正案須在按上述第2段被接受後，於2013年1月1日生效；

4. 要求秘書長遵照《1973年公約》第16(2)(e)條，將本決議及其附件中的修正案文本的核證無誤副本發送給所有《73/78年防污公約》締約國；

5. 進一步要求秘書長將本決議及其附件的副本發送給非《73/78年防污公約》締約國的本組織會員國。

附件

《防污公約》附則IV修正案

1. 在第1條中新增第5之2款、第7之2款和第7之3款：

“第5之2款 特殊區域係指某一海域，在該海域中，由於其海洋地理和生態狀況以及其運輸的特殊性等公認的技術原因，需要採取特殊的強制辦法以防止生活污水污染海洋。

特殊區域係指：

.1 附則I第1.11.2條界定的波羅的海區域；和

.2 根據指定有關防止船舶生活污水造成污染的特殊區域的標準和程序，由本組織所指定的任何其他海域。

第7之2款 乘客係指除下列人員之外的人員：

.1 船長和船員，或受僱或以任何職務從事該船業務的其他人員；
和

.2 一周歲以下的兒童。

第7之3款 客船係指載客超過12人的船舶。

按照第11.3條的適用範圍，新客船係指：

.1 於2016年1月1日或以後訂立建造合同的，或無建造合同時，於2016年1月1日或以後安放龍骨或處於類似建造階段的客船；或

.2 2016年1月1日後兩年或以上時間交付的客船。

現有客船係指非新客船的客船。”

2. 在第 9 款中新增第 2 款：

“2 對於不能滿足本條第 1 款的客船，若根據第 2 條要求，其應符合本附則的規定，且在特殊區域中時，第 11.3 條對其適用，則須配備以下排污系統之一：

- .1 生活污水處理裝置，該裝置須為主管機關根據本組織制定的標準和測試方法所認可的類型，或
- .2 集污艙，其容積的確定須考慮到船舶操作、船上人員數量和其他相關因素，能集存全部生活污水並使主管機關滿意。集污艙的建造須使主管機關滿意，並設有其集存量的目視顯示裝置。”

3. 第 11 條被替換如下：

第 11 條

生活污水的排放

“A 除客船外的船舶在所有區域的生活污水排放和客船在特殊區域外的生活污水排放

1 在本附則第 3 條規定的前提下，禁止將生活污水排放入海，除非：

- .1 船舶在距最近陸地 3 海里外，使用主管機關按本附則第 9.1.2 條所認可的系統，排放並經粉碎和消毒的生活污水，或在距最近陸地 12 海里外排放未經粉碎和消毒的生活污水。但任何情況下，都不得將集污艙中儲存的或來自裝有

活體動物處所的生活污水即刻排光，而須在船舶以不低於 4 節的航速航行時，以適當的速率排放；排放速率須由主管機關根據本組織制定的標準予以批准；或

- .2 船舶所配備的經認可的生活污水處理裝置正在運轉，該裝置已由主管機關驗證符合本附則第 9.1.1 條中所述的操作要求，其排出物須不在水中產生可見的漂浮固體或使周圍海水變色。

2 第 1 款的規定須不適用於在一國管轄水域內航行的船舶，以及在這些水域內依據該國可能實行的較寬鬆排放要求正排放生活污水的其他國家的來訪船舶。

B 客船在特殊區域內的生活污水排放

3 在本附則第 3 條規定的前提下，禁止客船在特殊區域排放生活污水：

- a) 新客船自 2016 年 1 月 1 日或之後，以第 12 之 2 條第 2 款為前提；和
- b) 現有客船自 2018 年 1 月 1 日或之後，以第 12 之 2 條第 2 款為前提，

除非滿足以下條件：

船舶所配備的經認可的生活污水處理裝置正在運轉，該裝置已由主管機關驗證符合本附則第 9.2.1 條中所述的操作要求，其排出物須不會在水中產生可見的漂浮固體或使周圍海水變色。

C 一般要求

4 當生活污水混合了現行《防污公約》其他附則涵蓋的廢棄物或廢水時，除滿足本附則的要求外，還須滿足其他附則的要求。”

4. 新增第 12 之 2 條如下：

“第 12 之 2 條 特殊區域內客船的接收設施

1 各締約國，當其海岸線與特殊區域毗鄰時，須確保：

- .1 在特殊區域內供客船使用的港口和裝卸站提供生活污水接收設施；
- .2 設施足夠滿足客船的需要；和
- .3 設施運行不會導致客船的不當延誤。

2 各有關締約國政府須通知本組織其根據本條第 1 款所採取的措施。收到根據本條第 1 款提供的足夠數量的通知後，本組織須設定一個第 11.3 條要求在該區域的實施日期。本組織須至少在該日前 12 個月將所設定的日期通知所有締約國。在所設定的日期之前，航行於特殊區域的船舶須滿足本附則第 11.1 條的要求。”

國際防止生活污水污染證書格式的修正案

1. 將以下文字加入到“船舶資料”標題下：

適用第 11.3 條的船舶類型：^{*}

新/現有客船

非客船的船舶

2. 修正第 1.1. 款 文字如下：

1.1. 生活污水處理裝置說明：

生活污水處理裝置類型

製造商名稱

經主管機關驗證，該生活污水處理裝置滿足第 MEPC.2(VI)
號決議規定的流出物標準。

經主管機關驗證，該生活污水處理裝置滿足第 MEPC.159
(55) 號決議規定的流出物標準。

經主管機關驗證，該生活污水處理裝置滿足本組織制定的
導則規定的流出物標準。

^{*} 酌情刪去。

第 MEPC.201 (62) 號決議

2011 年 7 月 15 日通過

《〈1973 年國際防止船舶造成污染公約〉

1978 年議定書》附則的修正案

(經修訂的《防污公約》附則 V)

海上環境保護委員會，

憶及《國際海事組織公約》第 38 (a) 條關於國際防止和控制海洋污染公約賦予海上環境保護委員會 (本委員會) 的職能，

注意到《1973 年國際防止船舶造成污染公約》(以下稱《1973 年公約》) 第 16 條和《〈1973 年國際防止船舶造成污染公約〉1978 年議定書》(以下稱《1978 年議定書》) 第 VI 條共同規定《1978 年議定書》的修正程序和賦予本組織的相關機構審議並通過《經 1978 年議定書修正的〈1973 年公約〉》(《73/78 年防污公約》) 修正案的職能，

審議了《73/78 年防污公約》附則 V 的修正案草案，

1. 按照《1973 年公約》第 16 (2) (d) 條，通過《73/78 年防污公約》附則 V 的修正案，其文本載於本決議附件；
2. 按照《1973 年公約》第 16 (2) (f) (iii) 條，決定該修正案於 2012 年 7 月 1 日須視為被接受，除非在此日期之前，有不少於三分之一的

締約國或擁有商船合計噸位不少於世界商船總噸位 50%的締約國政府通知本組織其反對該修正案；

3. 請各締約國注意，按照《1973 年公約》第 16 (2) (g) (ii) 條，該修正案須在按上述第 2 段被接受後，於 2013 年 1 月 1 日生效；

4. 要求秘書長遵照《1973 年公約》第 16 (2) (e) 條，將本決議及其附件中的修正案文本的核證無誤副本發送給所有《73/78 年防污公約》締約國；

5. 進一步要求秘書長將本決議及其附件的副本發送給非《73/78 年防污公約》締約國的本組織會員國。

附件

經修訂的《防污公約》附則 V

防止船舶垃圾污染規則

第 1 條

定義

就本附則而言：

1. **動物屍體**係指任何作為貨物被船舶載運並在航行中死亡或被實施安樂死的動物屍體。
2. **貨物殘留物**係指本公約其他附則未規定的、貨物裝卸後在甲板上或艙內留下的任何貨物殘餘，包括裝卸過量或溢出物，不管其是在潮濕還是乾燥的狀態下，或是夾雜在洗滌水中，但不包括清洗後甲板上殘留的貨物粉塵或船舶外表面的灰塵。
3. **食用油**係指任何用於或準備用於食物烹製或烹調的可食用油品或動物油脂，但不包括使用這些油進行烹製的食物本身。
4. **生活廢棄物**係指其他附則未規定的、在船上起居處所產生的所有類型的廢棄物。生活廢棄物不包括灰水。
5. **在航**係指船舶正在海上進行一段或多段航行，包括偏離最短的直線航程，這種偏航將儘實際可能出於航行目的，以使排放儘量合理有效地擴散至大片海域。
6. **漁具**係指任何以捕捉、控制以便隨後捕捉或收獲海洋或淡水生物為目的而佈設於水面、水中或海底的實物設備或其任何部分或部

件組合。

7. *固定或浮動平台*係指在海上從事海底礦物的勘探、開採或相關近海加工的固定或浮動的結構。
8. *食品廢棄物*係指船上產生的任何變質或未變質的食料，包括水果、蔬菜、奶製品、家禽、肉類產品和食物殘渣。
9. *垃圾*係指產生於船舶正常營運期間並需要連續或定期處理的各種食品廢棄物、生活廢棄物、操作廢棄物、所有塑料、貨物殘留物、焚燒爐灰、食用油、漁具和動物屍體，但本公約其他附則中所界定的或列出的物質除外。垃圾不包括因航行過程中的捕魚活動或為把包括貝類在內的魚產品安置在水產養殖設施內以及把捕獲的包括貝類在內的魚產品從此類設施轉到岸上加工的運輸過程中產生的鮮魚及其各部分。
10. *焚燒爐灰*係指用於垃圾焚燒的船用焚燒爐所產生的灰和渣。
11. *最近陸地*。“距最近陸地”一詞係指距該領土按國際法劃定的其領海的基線，但是，對於本附則而言，在澳大利亞東北海岸的“距最近陸地”係指距澳大利亞海岸線下述各點的連線：

自南緯 11°00'，東經 142°08' 的一點起至南緯 10°35'，東經 141°55' 的一點，

再至南緯 10°00'，東經 142°00' 的一點，

再至南緯 09°10'，東經 143°52' 的一點，

再至南緯 09°00'，東經 144°30' 的一點，

再至南緯 10°41'，東經 145°00' 的一點，

再至南緯 13°00'，東經 145°00' 的一點，

再至南緯 15°00'，東經 146°00' 的一點，

再至南緯 17°30'，東經 147°00' 的一點，

再至南緯 21°00'，東經 152°55' 的一點，

再至南緯 24°30'，東經 154°00' 的一點，

最後至澳大利亞海岸南緯 24°42'，東經 153°15' 的一點。

12. **操作廢棄物**係指其他附則未規定的、船舶正常保養或操作期間在船上收集的或是用以儲存和裝卸貨物的所有固體廢棄物（包括泥漿）。操作廢棄物也包括貨艙洗艙水和外部清洗水中所含的清洗劑和添加劑。考慮到本組織制定的導則，操作廢棄物不包括灰水、艙底水或船舶操作所必需的其他類似排放物。
13. **塑料**係指以一個或多個高分子質量聚合物為基本成分的固體物質，這種物質通過聚合物製造成型或加熱和（或）加壓製作成成品。塑料的材質特性從脆硬易碎到柔軟有彈性。就本附則而言，“所有塑料”係指所有含有或包括任何形式塑料的垃圾，其中包括合成纜繩、合成纖維漁網、塑料垃圾袋和塑料製品的焚燒爐灰。
14. **特殊區域**係指某一海域，在該海域中，由於其海洋地理和生態條件以及其運輸的特殊性等公認的技術原因，需要採取特殊的強制辦法以防止垃圾污染海洋。

就本附則而言，特殊區域係指地中海區域、波羅的海區域、黑海區域、紅海區域、海灣區域、北海區域、南極區域和大加勒比海區域，其界限如下：

- .1 地中海區域係指地中海本身，包括其中的各個海灣和海區在內，與黑海以北緯 41°為界，西至直布羅陀海峽，以西經 5°36' 為界。
- .2 波羅的海區域係指波羅的海本身以及波的尼亞灣、芬蘭灣和波羅的海入口，以斯卡格拉克海峽中斯卡晏角處的北緯 57°44.8' 為界。
- .3 黑海區域係指黑海本身，與地中海以北緯 41°為界。
- .4 紅海區域係指紅海本身，包括蘇伊士灣和亞喀巴海灣，南以拉斯西尼（北緯 12°28.5'，東經 43°19.6'）和胡森穆拉得（北緯 12°40.4'，東經 43°30.2'）之間的恒向線為界。
- .5 海灣區域係指位於拉斯爾哈得（北緯 22°30'，東經 59°48'）和拉斯阿爾法斯特（北緯 25°04'，東經 61°25'）之間的恒向線西北的海域。
- .6 北海區域係指北海本身，包括下列界線之內的海域：
 - .1 北緯 62°以南和西經 4°以東的北海海域；
 - .2 斯卡格拉克海峽，南至斯卡晏角以東北緯 57°44.8' 處；
以及
 - .3 英吉利海峽以及其西經 5°以東和北緯 48°30' 以北的入口處。
- .7 南極區域係指南緯 60°以南的海域。
- .8 大加勒比海區域係指墨西哥灣和加勒比海本身，包括其中的海灣和海區以及由以下邊界組成的大西洋的一部分：在北緯

30°自佛羅里達向東至西經 77°30'，然後連一條恒向線至北緯 20°與西經 59°的交叉點，然後再連一條恒向線至北緯 7°20'與西經 50°的交叉點，然後再連一條恒向線沿西南方向至法屬圭亞那的東部邊界。

第 2 條

適用範圍

除另有明文規定外，本附則須適用於所有船舶。

第 3 條

禁止排放垃圾入海的一般規定

1. 除本附則第 4、5、6 和 7 條另有規定外，禁止排放任何垃圾入海。
2. 除本附則第 7 條另有規定外，禁止排放任何塑料入海，包括但不限於合成繩、合成漁網、塑料垃圾袋和塑料製品的焚燒爐灰。
3. 除本附則第 7 條另有規定外，禁止排放食用油入海。

第 4 條

在特殊區域之外排放垃圾

1. 僅當船舶處於在航狀態且儘可能遠離最近陸地時，方允許在特殊區域之外向海洋排放以下垃圾，但無論如何須：
 - .1 在距最近陸地不少於 3 海里處排放業經粉碎機或研磨機處理後的食物廢棄物。這種經粉碎或研磨後的食物廢棄物須能通過篩眼不大於 25 毫米的粗篩。
 - .2 未經上述第.1 項處理過的食物廢棄物，在距最近陸地不少

於 12 海里處排放。

- .3 對於無法以常用卸載方法回收的貨物殘留物，在距最近陸地不少於 12 海里的地方排放。考慮到本組織制定的導則，這些貨物殘留物不得含有任何被列為有害海洋環境的物質。
- .4 對於動物屍體，考慮到本組織制定的導則，其排放須儘可能遠離最近陸地。

2. 貨艙、甲板和外表面清洗水中含有的清潔劑或添加劑可以排放入海，但是，考慮到本組織制定的導則，這些物質不得危害海洋環境。
3. 當垃圾中摻入其他禁止排放或有不同排放要求的物質，或是被此種物質污染時，須適用更為嚴格的要求。

第 5 條

固定或浮動平台垃圾排放的特別要求

1. 在本條第 2 款規定的前提下，嚴禁從固定或浮動平台和其旁邊或 500 米範圍之內的所有其他船舶上向海洋排放任何垃圾。
2. 當固定或浮動平台和其旁邊或 500 米範圍之內的所有其他船舶距最近陸地超過 12 海里時，可排放食品廢棄物入海，但該食品廢棄物須業經粉碎機或研磨機處理。這種經粉碎或研磨後的食品廢棄物須能通過篩眼不大於 25 毫米的粗篩。

第 6 條

特殊區域內的垃圾排放

1. 僅當船舶處於在航狀態並遵守以下規定時，方允許在特殊區域內

向海洋排放以下垃圾：

- .1 排放食品廢棄物入海須儘可能遠離最近陸地，但距最近陸地或最近冰架須不少於 12 海里。該食品廢棄物須業經粉碎或研磨處理且須能通過篩眼不大於 25 毫米的粗篩。食品廢棄物須未受任何其他類型的垃圾污染。除非已經過無菌處理，否則禁止在南極區域排放包括禽類和禽類部位在內的外來鳥類產品。
- .2 對於無法以常用卸載方法回收的貨物殘留物，須在滿足下列所有條件後方可排放：
 - .1 考慮到本組織制定的導則，貨艙洗艙水中包含的貨物殘留物、清洗劑或添加劑不包含任何被列為對海洋環境有害的物質；
 - .2 出發港和下一目的港都在特殊區域內，且船舶在這些港口間航行時不會駛出特殊區域；
 - .3 考慮到本組織制定的導則，這些港口沒有足夠的接收設施；和
 - .4 當滿足本款第 2.1、2.2 和 2.3 項的條件時，排放包含殘留物的貨艙洗艙水須儘可能遠離最近陸地或最近冰架，且距最近陸地或最近冰架不少於 12 海里。
2. 考慮到本組織制定的導則，只有在對海洋環境無害的情況下，甲板和船舶外部表面清洗水中含有的清潔劑或添加劑才可以排放入海。
3. 以下規則（除本條第 1 款的規定外）適用於南極區域：
 - .1 各締約國，如其港口內有來往於南極區域的船舶掛靠，有義務根據船舶使用需求，確保儘快為所有船舶提供可接收所有垃

圾的充足的實用設施，不使船舶發生不當延誤。

- .2 各締約國須確保懸掛其船旗的船舶在進入南極區域前，船上有足夠容積儲存船舶在該區域營運期間產生的所有垃圾，且已完成離開該區域後把這些垃圾排至某一接收設施的安排。

4. 當垃圾中摻入其他禁止排放或有不同排放要求的物質，或是被此種物質污染時，須適用更為嚴格的要求。

第 7 條

例外

1. 本附則第 3、4、5 和 6 條不適用於：

- .1 保障船舶和船上財產安全或挽救海上人命所必需的船舶垃圾排放；或
- .2 由於船舶或其設備損壞而導致的垃圾意外滅失，且在損壞發生前後已採取了一切合理的預防措施來防止意外滅失或使其降至最低限度；或
- .3 漁具意外滅失，且已採取了一切合理的預防措施來防止這種滅失；或
- .4 為保護海洋環境或保護船舶或其船員安全而從船上拋棄漁具。

2. 在航的例外：

- .1 如果船上留存的食物廢棄物顯然會立刻危害船上人員的健康，則第 4 和 6 條關於在航的規定須不適用於這些食物廢棄物的排放。

第 8 條

接收設施

1. 各締約國有義務根據船舶使用需求，確保在港口和碼頭設置足夠的垃圾接收設施，不使船舶發生不當延誤。
2. 特殊區域內的接收設施：
 - .1 凡其海岸線與某一特殊區域相鄰接的締約國，考慮到在這些區域中運營的船舶的需要，有義務儘早確保在該特殊區域內的所有港口和碼頭提供足夠的接收設施。
 - .2 各有關締約國須通知本組織其根據本條第 2.1 項所採取的措施。在收到足夠數量的通知後，本組織須設定一個本附則第 6 條要求在該區域實施的日期。本組織須至少提前 12 個月將所設定的日期通知所有締約國。在所設定的日期之前，航行於特殊區域的船舶須滿足本附則第 4 條有關在特殊區域之外排放垃圾的要求。
3. 各締約國須通知本組織按本條規定所提供的設施被指稱不足的所有情況，以便轉告相關締約國。

第 9 條

關於操作要求的港口國監督

1. 當船舶停靠在另一締約國的港口或離岸式碼頭時，如有明確理由根據該船船長或船員不熟悉船上必要的防止垃圾污染程序，該船應接受該締約國適當授權的官員按本附則的有關操作要求進行檢查。
2. 在本條第 1 款所述的情況下，該締約國須採取措施，確保該船在

該狀況已被依據本附則要求調整為正常時才能開航。

3. 本公約第五條規定的有關港口國監督程序適用於本條。
4. 本條中的任何要求不得被解釋為限制締約國對本公約明確規定的操作要求執行監督的權利和義務。

第 10 條

告示牌、垃圾管理計劃和垃圾記錄

- 1.1 總長在 12 米及以上的船舶，以及固定或浮動平台，均須張貼告示牌，根據具體情況告知船員和乘客本附則第 3、4、5 和 6 條的排放要求。
- 1.2 告示牌須使用船員的工作語言，對於航行於本公約其他締約國管轄權限範圍內的港口或離岸式碼頭的船舶，還須使用英語、法語或西班牙語寫成。
- 2 100 總噸及以上的船舶，經核准載運 15 人及以上的船舶，以及固定或浮動平台，須配備垃圾管理計劃，且船員均須執行。該管理計劃須提供書面的有關垃圾減少、收集、存儲、加工和處理，包括船上設施使用的程序。該計劃還須指定一名或多名人員負責執行垃圾管理計劃。該計劃須基於本組織制定的導則並使用船員的工作語言寫成。
- 3 駛向本公約其他締約國管轄權範圍內的港口或離岸式碼頭的 400 總噸及以上的船舶和經核准載運 15 人及以上的船舶，以及固定或浮動平台，均須配備《垃圾記錄簿》。《垃圾記錄簿》無論是否為正式航海日誌的一部分或其他形式，均須使用本附則附錄中規定的格式。
 - 1 每次排放入海或排至某一接收設施，或者完成的焚燒作業，

須及時記錄在《垃圾記錄簿》中並且由主管高級船員在排放或焚燒作業的當日簽署。《垃圾記錄簿》每頁記錄完成時須由船長簽字。《垃圾記錄簿》須至少使用英語、法語或西班牙語填寫。如《垃圾記錄簿》同時還以船舶的船旗國官方語言填寫的，在出現爭執或不一致情況時，須以船旗國官方語言填寫的為準。

- .2 每次排放或焚燒作業記錄須包括日期和時間、船位、垃圾的種類以及排放或焚燒垃圾的估計量。
- .3 《垃圾記錄簿》須留存在船舶、固定或浮動平台上的適當處所，以備在所有合理時間內隨時可查。該記錄簿在完成最後一次記錄後須至少保留 2 年。
- .4 若發生本附則第 7 條所指的任何排放或意外滅失，須在《垃圾記錄簿》中予以記錄，或者對於 400 總噸以下的船舶，須在船舶官方日誌中予以記錄。記錄包括排放或滅失的位置、環境和原因，排放或滅失物的詳情，以及避免或儘可能減少該類排放或滅失的合理預防措施。

4 主管機關可對以下情況免除《垃圾記錄簿》的要求：

- .1 經核准載運 15 人或以上的、持續航行時間為一小時或以下的任何船舶；或
- .2 固定或浮動平台。

5 本公約締約國的主管當局可對停靠本國港口或離岸式碼頭的、本條對其適用的任何船舶上的《垃圾記錄簿》或航海日誌進行檢查，並可將記錄簿中任何記錄製作副本，也可要求船長證明該副本是有關記

錄的真實副本。所有經船長證明是船舶《垃圾記錄簿》或船舶航日誌某項記錄的真實副本，須可在任何的訴訟程序中作為該項記錄中所記錄事實的證據。主管當局根據本款針對《垃圾記錄簿》或船舶正式航海日誌的檢查以及製作被證明的副本須儘可能迅速進行，不使船舶發生不當延誤。

6 當發生第 7.1.3 項和 7.1.4 項所規定的可能會對海洋環境或航行帶來嚴重威脅的漁具意外滅失或拋棄時，須向該船的船旗國報告，如滅失或拋棄行為發生在某個沿海國管轄水域內，還須向該沿海國報告。

附錄

《垃圾記錄簿》格式

船名： _____

船舶編號或呼號： _____

國際海事組織編號： _____

時期： _____ 從： _____ 到： _____

1. 引言

根據《經 1978 年議定書修訂的〈1973 年國際防止船舶造成污染公約〉》附則 V 第 10 條，對船舶每一次排放操作或焚燒過程應有記錄，包括向海中、向接受設施或向其他船舶的排放，以及垃圾的意外滅失。

2. 垃圾和垃圾管理

垃圾係指產生於船舶正常營運期間並需要連續或定期處理的各種食品廢棄物、生活廢棄物、操作廢棄物、所有塑料、貨物殘留物、焚燒爐灰、食用油、漁具和動物屍體，但本公約其他附則中所界定或列出的物質除外。垃圾不包括因航行過程中的捕魚活動和為把包括貝類在內的魚產品安置在水產養殖設施內以及把捕獲的包括貝類在內的魚產品從此類設施轉到岸上加工的運輸過程中產生的鮮魚及其部分。

《防污公約》附則 V 的實施導則也應作為相關信息參考。

3. 垃圾種類

就《垃圾記錄簿》(或船舶航海日誌)而言，垃圾將被進行如下分類：

- A. 塑料
- B. 食品廢棄物
- C. 生活廢棄物
- D. 食用油
- E. 焚燒爐灰
- F. 操作廢棄物
- G. 貨物殘留物
- H. 動物屍體
- I. 漁具

4. 《垃圾記錄簿》條目

4.1 發生下列情況時，須在《垃圾記錄簿》上記錄：

4.1.1 當垃圾被排放至岸上接收設施或其他船舶時：

- .1 排放的日期和時間
- .2 港口或設施，或船名
- .3 排放的垃圾的種類
- .4 各類垃圾的排放估算量（以立方米計）

.5 負責操作的主管高級船員簽名。

4.1.2 當垃圾被焚燒時：

- .1 焚燒開始和結束的日期和時間
- .2 焚燒開始和結束時的船舶位置（經緯度）
- .3 焚燒的垃圾的種類
- .4 焚燒估算量（以立方米計）
- .5 負責操作的主管高級船員簽名。

4.1.3 當根據《防污公約》附則 V 第 4、5 或 6 條將垃圾排放入海時：

- .1 排放的日期和時間
- .2 船舶位置（經緯度）。注：對貨物殘留物的排放，包括排放開始和結束時的位置。
- .3 排放的垃圾的種類
- .4 各類垃圾的排放估算量（以立方米計）
- .5 負責操作的主管高級船員簽名。

4.1.4 垃圾因意外或其他異常情況排放或滅失入海時，包括按照《防污公約》附則 V 第 7 條的情形：

- .1 發生的日期和時間
- .2 發生時船舶所在港口或位置（經緯度、水深，如知道）
- .3 排放或滅失的垃圾的種類

.4 各類垃圾的估算量（以立方米計）

.5 排放或減失原因以及一般說明。

4.2 垃圾量

船上的垃圾量應以立方米估算，如可能，按照種類分別估算。《垃圾記錄簿》中多次提及垃圾的估算量。垃圾估算量的精準度取決於解釋，這是公認的。估算量在垃圾處理前後會有所不同。一些處理程序可能無法進行數量估算，比如，食品廢棄物的連續處理。在記錄和解釋既有記錄時應對這些因素予以考慮。

垃圾排放記錄

船名： _____

船舶編號或呼號： _____

國際海事組織編號： _____

垃圾種類：

- A. 塑料
- B. 食品廢棄物
- C. 生活廢棄物（如：紙製品、破布、玻璃、金屬、瓶子、陶器等）
- D. 食用油
- E. 焚燒爐灰
- F. 操作廢棄物
- G. 貨物殘留物
- H. 動物屍體
- I. 漁具

新表格如下：

日期/ 時間	船舶位置 /說明 (如：意 外滅失)	種類	排放或焚 燒估算量	排入 海中	排向接收 設施	焚燒	證書/ 簽名

船長簽名： _____ 日期： _____

第 MEPC.202 (62) 號決議

(2011 年 7 月 15 日通過)

《修正經 1978 年議定書修訂的〈1973 年國際防止船舶造成污染公約〉的 1997 年議定書》附則的修正案

(根據《防污公約》附則 VI 第 13 條和第 14 條及附錄 VII
指定美國加勒比海排放控制區和對在北美排放控制區和
美國加勒比海排放控制區營運的特定船舶的免除)

海上環境保護委員會，

憶及《國際海事組織公約》第 38 (a) 條關於國際防止和控制海上污染公約賦予海上環境保護委員會 (本委員會) 的職能，

注意到《1973 年國際防止船舶造成污染公約》(以下稱《1973 年公約》) 第 16 條，《〈1973 年國際防止船舶造成污染公約〉1978 年議定書》(以下稱《1978 年議定書》) 第 VI 條，以及《修正經 1978 年議定書修訂的〈1973 年國際防止船舶造成污染公約〉的 1997 年議定書》(以下稱《1997 年議定書》) 第 4 條共同規定《1997 年議定書》的修正程序和賦予本組織的相關機構審議並通過經 1978 年和 1997 年議定書修訂的《1973 年公約》修正案的職能，

還注意到《1973 年公約》以《1997 年議定書》納入了附則 VI《防止船舶造成空氣污染規則》(以下稱“附則 VI”)，

進一步注意到第 MEPC.176 (58) 號決議通過的經修訂的附則 VI 已於 2010 年 7 月 1 日生效，

審議了經修訂的附則 VI 的修正案草案，

1. 按照《1973 年公約》第 16 (2) (d) 條，通過附則 VI 修正案，其文本載於本決議附件；
2. 按照《1973 年公約》第 16 (2) (f) (iii) 條，決定該修正案於 2012 年 7 月 1 日須視為被接受，除非在此日期之前，有三分之一以上的締約國或擁有商船合計噸位不少於世界商船總噸位 50% 的締約國通知本組織其反對該修正案；
3. 請各締約國注意，按照《1973 年公約》第 16 (2) (g) (ii) 條，該修正案須在按上述第 2 段被接受後，於 2013 年 1 月 1 日生效；
4. 要求秘書長遵照《1973 年公約》第 16 (2) (e) 條，將本決議及其附件中的修正案文本的核證無誤副本發送給經 1978 年和 1997 年議定書修訂的《1973 年公約》的所有締約國；
5. 進一步要求秘書長將本決議及其附件的副本發送給經 1978 年和 1997 年議定書修訂的《1973 年公約》非締約國的本組織會員國。

附件

經修訂的《防污公約》附則 VI 第 13 條和

第 14 條及附錄 VII 的修正案

1. 第 13 條第 6 款由下文替代：

“6 就本條而言，排放控制區須是：

- .1 北美區域，它係指本附則附錄 VII 的座標所示的區域；
- .2 美國加勒比海區域，它係指本附則附錄 VII 的座標所示的區域；和
- .3 由本組織根據本附則附錄 III 中設定的衡準和程序而指定的任何其他海域，包括任何港口區域。”

2. 第 13 條第 7.3 款修正如下：

“7.3 對於 1990 年 1 月 1 日或以後但在 2000 年 1 月 1 日以前建造的船舶上安裝的輸出功率超過 5,000kW、每缸排量在 90 升或以上的船用柴油機，其《國際防止空氣污染證書》須表明，本條第 7.1 款適用的船用柴油機已按照本條第 7.1.1 款應用經認可方法或已按照本條第 7.1.2 款經發證，或認可方法尚不存在或尚未如本條第 7.2 款所述商業化。”

3. 第 14 條第 3 款由下文替代：

“3 就本條而言，排放控制區須包括：

- .1 附側 I 第 1.11.2 條中界定的波羅的海區域和附則 V 第

1.14.6 條中界定的北海區域；

.2 本附則附錄 VII 的座標所述的北美區域；

.3 本附則附錄 VII 的座標所述的美國加勒比海區域；和

.4 由本組織根據本附則附錄 III 中設定的衡準和程序而指定的任何其他海域，包括任何港口區域。”

4. 第 14 條第 4 款中新增第 4 項如下：

“4 在 2020 年 1 月 1 日以前，本條第 4 款中所述燃油的硫含量不得適用於 2011 年 8 月 1 日或以前建造的、在上述第 3 款中界定的北美區域或美國加勒比海區域營運的以推進鍋爐為動力的船舶，該推進鍋爐起初並非設計為依靠船用鰲分油或天然氣持續運轉。”

5. 第 14 條第 7 款由下文替代：

“7 在按照本條第 3 款指定某一排放控制區的修正案生效後的頭 12 個月內，對在該排放控制區營運的船舶可免除本條第 4 款和第 6 款的要求以及本條第 5 款中與本條第 4 款相關的要求。”

6. 附錄 VII 由下文替代：

“附錄 VII

排放控制區

（第 13.6 條和第 14.3 條）

.1 按照第 13.6 條和第 14.3 條指定的除波羅的海和北海區域以外的排放控制區的界限見本附錄。

.2 北美區域包括：

- .1 位於美國和加拿大的太平洋海岸附近由測地線連接的下
列座標範圍的海域：

點	緯度	經度
1	32°32'10"N.	117°06'11"W.
2	32°32'04"N.	117°07'29"W.
3	32°31'39"N.	117°14'20"W.
4	32°33'13"N.	117°15'50"W.
5	32°34'21"N.	117°22'01"W.
6	32°35'23"N.	117°27'53"W.
7	32°37'38"N.	117°49'34"W.
8	31°07'59"N.	118°36'21"W.
9	30°33'25"N.	121°47'29"W.
10	31°46'11"N.	123°17'22"W.
11	32°21'58"N.	123°50'44"W.
12	32°56'39"N.	124°11'47"W.
13	33°40'12"N.	124°27'15"W.
14	34°31'28"N.	125°16'52"W.
15	35°14'38"N.	125°43'23"W.
16	35°43'60"N.	126°18'53"W.
17	36°16'25"N.	126°45'30"W.
18	37°01'35"N.	127°07'18"W.
19	37°45'39"N.	127°38'02"W.
20	38°25'08"N.	127°52'60"W.
21	39°25'05"N.	128°31'23"W.
22	40°18'47"N.	128°45'46"W.
23	41°13'39"N.	128°40'22"W.
24	42°12'49"N.	129°00'38"W.
25	42°47'34"N.	129°05'42"W.
26	43°26'22"N.	129°01'26"W.

27	44°24'43"N.	128°41'23"W.
28	45°30'43"N.	128°40'02"W.
29	46°11'01"N.	128°49'01"W.
30	46°33'55"N.	129°04'29"W.
31	47°39'55"N.	131°15'41"W.
32	48°32'32"N.	132°41'00"W.
33	48°57'47"N.	133°14'47"W.
34	49°22'39"N.	134°15'51"W.
35	50°01'52"N.	135°19'01"W.
36	51°03'18"N.	136°45'45"W.
37	51°54'04"N.	137°41'54"W.
38	52°45'12"N.	138°20'14"W.
39	53°29'20"N.	138°40'36"W.
40	53°40'39"N.	138°48'53"W.
41	54°13'45"N.	139°32'38"W.
42	54°39'25"N.	139°56'19"W.
43	55°20'18"N.	140°55'45"W.
44	56°07'12"N.	141°36'18"W.
45	56°28'32"N.	142°17'19"W.
46	56°37'19"N.	142°48'57"W.
47	58°51'04"N.	153°15'03"W.

.2 位於美國、加拿大和法國（聖皮埃爾島和密克隆島）的大西洋海岸和美國的墨西哥灣海岸附近由測地線連接的下列座標範圍的海域：

點	緯度	經度
1	60°00'00"N.	64°09'36"W.
2	60°00'00"N.	56°43'00"W.
3	58°54'01"N.	55°38'05"W.
4	57°50'52"N.	55°03'47"W.
5	57°35'13"N.	54°00'59"W.

點	緯度	經度
6	57°14'20"N.	53°07'58"W.
7	56°48'09"N.	52°23'29"W.
8	56°18'13"N.	51°49'42"W.
9	54°23'21"N.	50°17'44"W.
10	53°44'54"N.	50°07'17"W.
11	53°04'59"N.	50°10'05"W.
12	52°20'06"N.	49°52'09"W.
13	51°34'20"N.	48°52'45"W.
14	50°40'15"N.	48°16'04"W.
15	50°02'28"N.	48°07'03"W.
16	49°24'03"N.	48°09'35"W.
17	48°39'22"N.	47°55'17"W.
18	47°24'25"N.	47°46'56"W.
19	46°35'12"N.	48°00'54"W.
20	45°19'45"N.	48°43'28"W.
21	44°43'38"N.	49°16'50"W.
22	44°16'38"N.	49°51'23"W.
23	43°53'15"N.	50°34'01"W.
24	43°36'06"N.	51°20'41"W.
25	43°23'59"N.	52°17'22"W.
26	43°19'50"N.	53°20'13"W.
27	43°21'14"N.	54°09'20"W.
28	43°29'41"N.	55°07'41"W.
29	42°40'12"N.	55°31'44"W.
30	41°58'19"N.	56°09'34"W.
31	41°20'21"N.	57°05'13"W.
32	40°55'34"N.	58°02'55"W.
33	40°41'38"N.	59°05'18"W.
34	40°38'33"N.	60°12'20"W.
35	40°45'46"N.	61°14'03"W.

點	緯度	經度
36	41°04'52"N.	62°17'49"W.
37	40°36'55"N.	63°10'49"W.
38	40°17'32"N.	64°08'37"W.
39	40°07'46"N.	64°59'31"W.
40	40°05'44"N.	65°53'07"W.
41	39°58'05"N.	65°59'51"W.
42	39°28'24"N.	66°21'14"W.
43	39°01'54"N.	66°48'33"W.
44	38°39'16"N.	67°20'59"W.
45	38°19'20"N.	68°02'01"W.
46	38°05'29"N.	68°46'55"W.
47	37°58'14"N.	69°34'07"W.
48	37°57'47"N.	70°24'09"W.
49	37°52'46"N.	70°37'50"W.
50	37°18'37"N.	71°08'33"W.
51	36°32'25"N.	71°33'59"W.
52	35°34'58"N.	71°26'02"W.
53	34°33'10"N.	71°37'04"W.
54	33°54'49"N.	71°52'35"W.
55	33°19'23"N.	72°17'12"W.
56	32°45'31"N.	72°54'05"W.
57	31°55'13"N.	74°12'02"W.
58	31°27'14"N.	75°15'20"W.
59	31°03'16"N.	75°51'18"W.
60	30°45'42"N.	76°31'38"W.
61	30°12'48"N.	77°18'29"W.
62	29°25'17"N.	76°56'42"W.
63	28°36'59"N.	76°47'60"W.
64	28°17'13"N.	76°40'10"W.
65	28°17'12"N.	79°11'23"W.

點	緯度	經度
66	27°52'56"N.	79°28'35"W.
67	27°26'01"N.	79°31'38"W.
68	27°16'13"N.	79°34'18"W.
69	27°11'54"N.	79°34'56"W.
70	27°05'59"N.	79°35'19"W.
71	27°00'28"N.	79°35'17"W.
72	26°55'16"N.	79°34'39"W.
73	26°53'58"N.	79°34'27"W.
74	26°45'46"N.	79°32'41"W.
75	26°44'30"N.	79°32'23"W.
76	26°43'40"N.	79°32'20"W.
77	26°41'12"N.	79°32'01"W.
78	26°38'13"N.	79°31'32"W.
79	26°36'30"N.	79°31'06"W.
80	26°35'21"N.	79°30'50"W.
81	26°34'51"N.	79°30'46"W.
82	26°34'11"N.	79°30'38"W.
83	26°31'12"N.	79°30'15"W.
84	26°29'05"N.	79°29'53"W.
85	26°25'31"N.	79°29'58"W.
86	26°23'29"N.	79°29'55"W.
87	26°23'21"N.	79°29'54"W.
88	26°18'57"N.	79°31'55"W.
89	26°15'26"N.	79°33'17"W.
90	26°15'13"N.	79°33'23"W.
91	26°08'09"N.	79°35'53"W.
92	26°07'47"N.	79°36'09"W.
93	26°06'59"N.	79°36'35"W.
94	26°02'52"N.	79°38'22"W.
95	25°59'30"N.	79°40'03"W.

點	緯度	經度
96	25°59'16"N.	79°40'08"W.
97	25°57'48"N.	79°40'38"W.
98	25°56'18"N.	79°41'06"W.
99	25°54'04"N.	79°41'38"W.
100	25°53'24"N.	79°41'46"W.
101	25°51'54"N.	79°41'59"W.
102	25°49'33"N.	79°42'16"W.
103	25°48'24"N.	79°42'23"W.
104	25°48'20"N.	79°42'24"W.
105	25°46'26"N.	79°42'44"W.
106	25°46'16"N.	79°42'45"W.
107	25°43'40"N.	79°42'59"W.
108	25°42'31"N.	79°42'48"W.
109	25°40'37"N.	79°42'27"W.
110	25°37'24"N.	79°42'27"W.
111	25°37'08"N.	79°42'27"W.
112	25°31'03"N.	79°42'12"W.
113	25°27'59"N.	79°42'11"W.
114	25°24'04"N.	79°42'12"W.
115	25°22'21"N.	79°42'20"W.
116	25°21'29"N.	79°42'08"W.
117	25°16'52"N.	79°41'24"W.
118	25°15'57"N.	79°41'31"W.
119	25°10'39"N.	79°41'31"W.
120	25°09'51"N.	79°41'36"W.
121	25°09'03"N.	79°41'45"W.
122	25°03'55"N.	79°42'29"W.
123	25°02'60"N.	79°42'56"W.
124	25°00'30"N.	79°44'05"W.
125	24°59'03"N.	79°44'48"W.

點	緯度	經度
126	24°55'28"N.	79°45'57"W.
127	24°44'18"N.	79°49'24"W.
128	24°43'04"N.	79°49'38"W.
129	24°42'36"N.	79°50'50"W.
130	24°41'47"N.	79°52'57"W.
131	24°38'32"N.	79°59'58"W.
132	24°36'27"N.	80°03'51"W.
133	24°33'18"N.	80°12'43"W.
134	24°33'05"N.	80°13'21"W.
135	24°32'13"N.	80°15'16"W.
136	24°31'27"N.	80°16'55"W.
137	24°30'57"N.	80°17'47"W.
138	24°30'14"N.	80°19'21"W.
139	24°30'06"N.	80°19'44"W.
140	24°29'38"N.	80°21'05"W.
141	24°28'18"N.	80°24'35"W.
142	24°28'06"N.	80°25'10"W.
143	24°27'23"N.	80°27'20"W.
144	24°26'30"N.	80°29'30"W.
145	24°25'07"N.	80°32'22"W.
146	24°23'30"N.	80°36'09"W.
147	24°22'33"N.	80°38'56"W.
148	24°22'07"N.	80°39'51"W.
149	24°19'31"N.	80°45'21"W.
150	24°19'16"N.	80°45'47"W.
151	24°18'38"N.	80°46'49"W.
152	24°18'35"N.	80°46'54"W.
153	24°09'51"N.	80°59'47"W.
154	24°09'48"N.	80°59'51"W.
155	24°08'58"N.	81°01'07"W.

點	緯度	經度
156	24°08'30"N.	81°01'51"W.
157	24°08'26"N.	81°01'57"W.
158	24°07'28"N.	81°03'06"W.
159	24°02'20"N.	81°09'05"W.
160	23°59'60"N.	81°11'16"W.
161	23°55'32"N.	81°12'55"W.
162	23°53'52"N.	81°19'43"W.
163	23°50'52"N.	81°29'59"W.
164	23°50'02"N.	81°39'59"W.
165	23°49'05"N.	81°49'59"W.
166	23°49'05"N.	82°00'11"W.
167	23°49'42"N.	82°09'59"W.
168	23°51'14"N.	82°24'59"W.
169	23°51'14"N.	82°39'59"W.
170	23°49'42"N.	82°48'53"W.
171	23°49'32"N.	82°51'11"W.
172	23°49'24"N.	82°59'59"W.
173	23°49'52"N.	83°14'59"W.
174	23°51'22"N.	83°25'49"W.
175	23°52'27"N.	83°33'01"W.
176	23°54'04"N.	83°41'35"W.
177	23°55'47"N.	83°48'11"W.
178	23°58'38"N.	83°59'59"W.
179	24°09'37"N.	84°29'27"W.
180	24°13'20"N.	84°38'39"W.
181	24°16'41"N.	84°46'07"W.
182	24°23'30"N.	84°59'59"W.
183	24°26'37"N.	85°06'19"W.
184	24°38'57"N.	85°31'54"W.
185	24°44'17"N.	85°43'11"W.

點	緯度	經度
186	24°53'57"N.	85°59'59"W.
187	25°10'44"N.	86°30'07"W.
188	25°43'15"N.	86°21'14"W.
189	26°13'13"N.	86°06'45"W.
190	26°27'22"N.	86°13'15"W.
191	26°33'46"N.	86°37'07"W.
192	26°01'24"N.	87°29'35"W.
193	25°42'25"N.	88°33'00"W.
194	25°46'54"N.	90°29'41"W.
195	25°44'39"N.	90°47'05"W.
196	25°51'43"N.	91°52'50"W.
197	26°17'44"N.	93°03'59"W.
198	25°59'55"N.	93°33'52"W.
199	26°00'32"N.	95°39'27"W.
200	26°00'33"N.	96°48'30"W.
201	25°58'32"N.	96°55'28"W.
202	25°58'15"N.	96°58'41"W.
203	25°57'58"N.	97°01'54"W.
204	25°57'41"N.	97°05'08"W.
205	25°57'24"N.	97°08'21"W.
206	25°57'24"N.	97°08'47"W.

- .3 位於夏威夷島、毛伊島、瓦胡島、莫洛凱島、尼豪島、考愛島、拉奈島和卡霍奧拉韋島的夏威夷群島海岸附近由測地線連接的下列坐標範圍的海域：

點	緯度	經度
1	22°32'54"N.	153°00'33"W.
2	23°06'05"N.	153°28'36"W.
3	23°32'11"N.	154°02'12"W.
4	23°51'47"N.	154°36'48"W.

點	緯度	經度
5	24°21'49"N.	155°51'13"W.
6	24°41'47"N.	156°27'27"W.
7	24°57'33"N.	157°22'17"W.
8	25°13'41"N.	157°54'13"W.
9	25°25'31"N.	158°30'36"W.
10	25°31'19"N.	159°09'47"W.
11	25°30'31"N.	159°54'21"W.
12	25°21'53"N.	160°39'53"W.
13	25°00'06"N.	161°38'33"W.
14	24°40'49"N.	162°13'13"W.
15	24°15'53"N.	162°43'08"W.
16	23°40'50"N.	163°13'00"W.
17	23°03'20"N.	163°32'58"W.
18	22°20'09"N.	163°44'41"W.
19	21°36'45"N.	163°46'03"W.
20	20°55'26"N.	163°37'44"W.
21	20°13'34"N.	163°19'13"W.
22	19°39'03"N.	162°53'48"W.
23	19°09'43"N.	162°20'35"W.
24	18°39'16"N.	161°19'14"W.
25	18°30'31"N.	160°38'30"W.
26	18°29'31"N.	159°56'17"W.
27	18°10'41"N.	159°14'08"W.
28	17°31'17"N.	158°56'55"W.
29	16°54'06"N.	158°30'29"W.
30	16°25'49"N.	157°59'25"W.
31	15°59'57"N.	157°17'35"W.
32	15°40'37"N.	156°21'06"W.
33	15°37'36"N.	155°22'16"W.
34	15°43'46"N.	154°46'37"W.

點	緯度	經度
35	15°55'32"N.	154°13'05"W.
36	16°46'27"N.	152°49'11"W.
37	17°33'42"N.	152°00'32"W.
38	18°30'16"N.	151°30'24"W.
39	19°02'47"N.	151°22'17"W.
40	19°34'46"N.	151°19'47"W.
41	20°07'42"N.	151°22'58"W.
42	20°38'43"N.	151°31'36"W.
43	21°29'09"N.	151°59'50"W.
44	22°06'58"N.	152°31'25"W.
45	22°32'54"N.	153°00'33"W.

.3 美國加勒比海區域包括：

.1 位於波多黎各自由邦和美屬維京群島大西洋和加勒比海

岸附近由測地線連接的下列座標範圍內的海域：

點	緯度	經度	點	緯度	經度
1	17°18'37"N.	67°32'14"W.	29	18°21'57"N.	64°40'15"W.
2	19°11'14"N.	67°26'45"W.	30	18°21'51"N.	64°38'23"W.
3	19°30'28"N.	65°16'48"W.	31	18°21'22"N.	64°38'16"W.
4	19°12'25"N.	65°06'8"W.	32	18°20'39"N.	64°38'33"W.
5	18°45'13"N.	65°0'22"W.	33	18°19'15"N.	64°38'14"W.
6	18°41'14"N.	64°59'33"W.	34	18°19'7"N.	64°38'16"W.
7	18°29'22"N.	64°53'51"W.	35	18°17'23"N.	64°39'38"W.
8	18°27'35"N.	64°53'22"W.	36	18°16'43"N.	64°39'41"W.
9	18°25'21"N.	64°52'39"W.	37	18°11'33"N.	64°38'58"W.
10	18°24'30"N.	64°52'19"W.	38	18°3'2"N.	64°38'3"W.
11	18°23'51"N.	64°51'50"W.	39	18°2'56"N.	64°29'35"W.
12	18°23'42"N.	64°51'23"W.	40	18°2'51"N.	64°27'2"W.
13	18°23'36"N.	64°50'17"W.	41	18°2'30"N.	64°21'8"W.
14	18°23'48"N.	64°49'41"W.	42	18°2'31"N.	64°20'8"W.

點	緯度	經度
15	18°24'11"N.	64°49'0"W.
16	18°24'28"N.	64°47'57"W.
17	18°24'18"N.	64°47'1"W.
18	18°23'13"N.	64°46'37"W.
19	18°22'37"N.	64°45'20"W.
20	18°22'39"N.	64°44'42"W.
21	18°22'42"N.	64°44'36"W.
22	18°22'37"N.	64°44'24"W.
23	18°22'39"N.	64°43'42"W.
24	18°22'30"N.	64°43'36"W.
25	18°22'25"N.	64°42'58"W.
26	18°22'26"N.	64°42'28"W.
27	18°22'15"N.	64°42'3"W.
28	18°22'22"N.	64°40'60"W.

點	緯度	經度
43	18°2'3"N.	64°15'57"W.
44	18°0'12"N.	64°2'29"W.
45	17°59'58"N.	64°1'4"W.
46	17°58'47"N.	63°57'1"W.
47	17°57'51"N.	63°53'54"W.
48	17°56'38"N.	63°53'21"W.
49	17°39'40"N.	63°54'53"W.
50	17°37'8"N.	63°55'10"W.
51	17°30'21"N.	63°55'56"W.
52	17°11'36"N.	63°57'57"W.
53	17°4'60"N.	63°58'41"W.
54	16°59'49"N.	63°59'18"W.
55	17°18'37"N.	67°32'14"W.

第 MEPC.203 (62) 號決議

(2011 年 7 月 15 日通過)

《修正經 1978 年議定書修訂的〈1973 國際防止船舶造成污染公約〉的 1997 年議定書》附則的修正案 〈將船舶能效規則納入《防污公約》附則 VI〉

海上環境保護委員會，

憶及《國際海事組織公約》第 38 (a) 條關於國際防止和控制海上污染公約賦予海上環境保護委員會（本委員會）的職能，

注意到《1973 年國際防止船舶造成污染公約》（以下稱《1973 年公約》）第 16 條，《〈1973 年國際防止船舶造成污染公約〉1978 年議定書》（以下稱《1978 年議定書》）第 VI 條，以及《經 1978 年議定書修訂的〈1973 年國際防止船舶造成污染公約〉的 1997 年議定書》（以下稱《1997 年議定書》）第 4 條共同規定《1997 年議定書》的修正程序和賦予本組織的相關機構審議並通過經 1978 年和 1997 年議定書修訂的《1973 年公約》修正案的職能，

還注意到《1973 年公約》以《1997 年議定書》納入了附則 VI《防止船舶造成空氣污染規則》（以下稱“附則 VI”），

進一步注意到第 MEPC.176 (58) 號決議通過的經修訂的附則 VI 已於 2010 年 7 月 1 日生效，

認識到附則 VI 的修正案和新納入的第 4 章意在通過一套技術性能標準改進船舶能效，其結果將減少來自於燃油及其燃燒過程的任何物質（包括那些已受附則 VI 控制的物質）的排放，

還認識到附則 VI 修正案的通過決不對在其他國際場合（例如《聯合國氣候變化框架公約》（UNFCCC））進行的談判作出預判，也不影響參與該談判的各國的立場，

審議了為納入船舶能效規則的經修訂的附則 VI 的修正案草案，

1. 按照《1973 年公約》第 16（2）（d）條，通過附則 VI 的修正案，其文本載於本決議附件；
2. 按照《1973 年公約》第 16（2）（f）（iii）條，決定該修正案於 2012 年 7 月 1 日須視為被接受，除非在此日期前，有不少於三分之一的締約國或擁有商船合計噸位不少於世界商船總噸位 50% 的締約國通知本組織其反對該修正案；
3. 請各締約國注意，按照《1973 年公約》第 16（2）（g）（ii）條，上述修正案須在按上述第 2 段被接受後，於 2013 年 1 月 1 日生效；
4. 要求秘書長遵照《1973 年公約》第 16（2）（e）條，將本決議及其附件中的修正案文本的核證無誤副本發送給經 1978 年和 1997 年議定書修訂的《1973 年公約》的所有締約國；
5. 進一步要求秘書長將本決議及其附件的副本發送給非經 1978 年和 1997 年議定書修訂的《1973 年公約》締約國的本組織會員國；和
6. 請《防污公約》附則 VI 的各締約國和其他會員國政府提請船東、船舶經營人、船廠、船舶設計方、船用柴油機和設備製造商以及其他任何利益集團注意《防污公約》附則 VI 的修正案。

附件

在《防污公約》附則 VI “防止船舶造成空氣污染規則” 中
納入船舶能效新規則的修正案

第 1 章

總則

第 1 條

適用範圍

1 本條修正如下：

“本附則的規定須適用於所有船舶，但本附則第 3、5、6、13、15、16、18、19、20、21 和 22 條中另有明文規定者除外。”

第 2 條

定義

2 第 21 款修正如下：

“21 與本附則第 15 條有關的液貨船系指在本公約附則 I 第 1 條中界定的油船或附則 II 第 1 條中定義的化學品船。”

3 在第 2 條後新增如下文本：

“就本附則第 4 章而言：

- 22 現有船舶系非新船的船舶。
- 23 新船系指
- .1 2013 年 1 月 1 日或以後簽訂建造合同；或
 - .2 如無建造合同，2013 年 7 月 1 日或以後安放龍骨或處於類似建造階段；或
 - .3 2015 年 7 月 1 日或以後交付的船舶。
- 24 重大改建系指與本附則第 4 章有關的對船舶所做的改建：
- .1 實質上改變了船舶的尺寸、裝載能力或發動機功率；或
 - .2 改變了船舶的類型；或
 - .3 根據主管機關的意見，這種改建的目的實際上是為了要延長船舶的使用年限；或
 - .4 這種改建使得船舶如同是一艘新船，該船應遵守本公約中不適用於現有船舶的有關規定；或
 - .5 實質上改變了船舶的能效並且包括能使該船超出本附則第 21 條所列的適用的要求的能效設計指數的任何改裝。
- 25 散貨船系指《安全公約》第 XII 章第 1 條中界定的主要用於運輸散裝乾貨的船舶，包括礦砂船等船型，但不包括兼裝船。
- 26 氣體運輸船系指建造或改建用於散裝運輸任何液化氣體的貨船。
- 27 與本附則第 4 章有關的液貨船系指在《防污公約》附則 I 第 1 條中界定的油船或《防污公約》附則 II 第 1 條中界定的化學品船或有毒液貨船。

- 28 集裝箱船系指專門設計用於在貨艙內和甲板上載運集裝箱的船舶。
- 29 雜貨船系指設有多層甲板或單層甲板主要用於載運雜貨的船舶。該定義不包括未被納入普通貨船參考線計算範圍的專用乾貨船，即牲畜運輸船、載駁母船、重貨運輸船、遊艇運輸船和核燃料運輸船。
- 30 冷藏貨船系指專門設計用於在貨艙內載運冷藏貨物的船舶。
- 31 兼裝船系指設計用於載運 100% 載重量的散裝液體和乾貨的船舶。
- 32 客船系指載客超過 12 人的船舶。
- 33 滾裝貨船（車輛運輸船）系指具有多層甲板的設計用於載運空載小汽車和卡車的滾裝貨船。
- 34 滾裝貨船系指設計用於載運滾裝運貨單元的船舶。
- 35 滾裝客船系指具有滾裝貨物處所的客船。
- 36 達到的能效設計指數系指單艘船舶按本附則第 20 條得到的能效設計指數值。
- 37 要求的能效設計指數系指本附則第 21 條對特定船型和尺寸所允許的達到的能效設計指數的最大值。”

第 2 章

檢驗、發證和監督措施

第 5 條

檢驗

- 4 第 1 款修正如下：

“1 為確保符合本附則第 3 章的要求，等於或大於 400 總噸的每一船舶以及每一固定和浮動鑽井裝置和其他平台，應接受下列檢驗：

- .1 初次檢驗，在船舶投入營運前或首次簽發本附則第 6 條所要求的證書之前進行。該檢驗須確保其設備、系統、配件、裝置和材料完全符合本附則第 3 章的適用要求；
- .2 換證檢驗，按主管機關規定的間隔期限進行，但不得超過 5 年，但本附則第 9.2、9.5、9.6 或 9.7 條適用者除外。換證檢驗須確保其設備、系統、配件、裝置和材料完全符合本附則第 3 章的適用要求；
- .3 中間檢驗，在證書的第二個周年日之前或之後 3 個月內或第三個周年日之前或之後 3 個月內進行，並取代本條第 1.4 項規定的其中一次年度檢驗。中間檢驗須確保設備及其裝置完全符合本附則第 3 章的適用要求，並處於良好的工作狀態。該中間檢驗應在按本附則第 6 或 7 條所簽發的《國際防止空氣污染證書》上作出簽注；
- .4 年度檢驗，在證書的每個周年日之前或之後 3 個月內進行，包括對本條第 1.1 項所述的設備、系統、配件、裝置及材料的總體檢查，以確保其已按本條第 5 款的規定進行保養，並確保其繼續滿足船舶預定的營運要求。該年度檢驗須在按本附則第 6 或 7 條所簽發的《國際防止空氣污染證書》上作出簽注；和
- .5 附加檢驗，在按本條第 5 款規定的任何重大修理或換新後，或在按本條第 6 款規定的檢查結果進行修理後須根據情況進行全面或部分檢驗。該檢驗須確保已有效進行了必要的修理或換

新，確保這種修理或換新所用的材料和工藝在各方面均屬合格，並確保該船在各方面均符合本附則第 3 章的要求。”

5 第 2 款修正如下：

“2 對小於 400 總噸的船舶，主管機關可制定適當措施確保符合本附則第 3 章的適用規定。”

6 在現有第 3 款後新增第 4 款如下：

“4 適用本附則第 4 章的船舶還須進行下列規定的檢驗，並考慮本組織通過的導則：

- .1 初次檢驗，在新船投入營運之前和簽發國際船舶能效證書之前進行。檢驗須驗證船舶達到的能效設計指數符合本附則第 4 章的要求，並且船上保存第 22 條要求的船舶能效管理計劃；
- .2 在適用本條的船舶發生重大改建後，根據情況進行的全面或部分檢驗。檢驗須確保必要時重新計算達到的能效設計指數並滿足本附則第 21 條的要求，其減小系數為按本附則第 2.23 條確定原始船舶的簽訂合同日期或安放龍骨日期或交船日期所對應的那個階段中的適用於改建船舶的船型和尺寸的減小系數；
- .3 如新船或現有船舶重大改建的範圍如此之大而被主管機關視為新建船舶，主管機關須確定對達到的能效設計指數進行初次檢驗的必要性。如確定必要，該檢驗須確保計算達到的能效設計指數並滿足本附則第 21 條的要求，其減小系數應按簽訂改建合同之日，或無合同情況下改建開始之日該改建船舶

的船型和尺寸相稱。該檢驗還須驗證船上保存本附則第 22 條要求的船舶能效管理計劃；和

- .4 對現有船舶，對根據本附則第 22 條在船上保存船舶能效管理計劃要求的驗證須在 2013 年 1 月 1 日或以後的由本條第 1 款所述的首次中間或換證檢驗時進行，取先者。”

7 第 4 款重新編號為第 5 款。

8 第 5 款重新編號為第 6 款。

第 6 條

證書的簽發或簽注

9 標題修正如下：

“證書的簽發和簽注”

10 在本條開頭新增副標題如下：

“國際防止空氣污染證書”

11 第 2 款修正如下：

“2 對在本附則生效日之前建造的船舶，該船的主管機關須按照本條第 1 款，在不遲於生效日之後預定的第一次幹塢檢修簽發《國際防止空氣污染證書》，但在任何情況下不得遲於該生效日後三年。”

12 在本條後新增如下文本：

“國際能效證書

4 對任何可能駛往其他締約國管轄範圍的港口或離岸式碼頭的 400 總噸及以上的船舶，在按本附則第 5.4 條規定進行了檢驗後，須在其開航前為其簽發《國際能效證書》。

5 該證書須由主管機關或經其正式授權的任何組織簽發或簽署。在任何情況下，主管機關對證書承擔完全責任。”

第 7 條

由另一締約國簽發證書

13 第 1 款修正如下：

“1 應主管機關的請求，締約國可對船舶進行檢驗，如果確信符合本附則的規定，須對該船簽發或授權簽發《國際防止空氣污染證書》或《國際能效證書》，並在適用時，按照本附則為該船簽注或授權簽注證書。”

14 第 4 款修改如下：

“4 不得向有權懸掛非締約國國旗的船舶簽發《國際防止空氣污染證書》或《國際能效證書》。”

第 8 條

證書格式

15 標題修改如下：

“證書格式”

16 增加下述副標題，並將現有條文重新編號為第 1 款：

“國際防止空氣污染證書”

17 在本條後新增第 2 款如下：

“國際能效證書

2 《國際能效證書》須以符合本附則附錄 VIII 範本的格式，並須至少使用英文、法文或西班牙文的其中一種語言寫成。如同時使用了發證國的官方語言，則在有爭議或分歧時，須以該國官方語言為準。”

第 9 條

證書的期限和效力

18 標題修改如下：

“證書的期限和效力”

19 在本條開頭增加下述副標題：

“國際防止空氣污染證書”

20 本條末尾增加下述內容：

“國際能效證書

10 除下述第 11 款的規定外，《國際能效證書》須在船舶整個壽命期間內有效。

11 按本附則簽發的《國際能效證書》須在下列任一情況下停止有效：

- .1 如果船舶退出營運或船舶經重大改建後對其簽發新證書；或
- .2 船舶換掛另一國家的國旗。僅在簽發新證書的政府確信該船完全符合本附則第 4 章的要求時，才簽發新的證書。在締約國

間轉換掛國旗時，如果換掛國旗後三個月內提出要求，則該船原先有權懸掛其國旗的締約國政府須儘快向另一締約國的主管機關送交該船在換掛國旗前所攜的證書的副本和，如果有的話，相關檢驗報告的副本。”

第 10 條

港口國對營運要求的檢查

21 本條後新增第 5 款如下：

“5 與本附則第 4 章有關的任何港口國檢查須按照本公約第 5 條限於核實（適用時）船上是否備有有效的《國際能效證書》。”

22 在附則末尾新增第 4 章如下：

“第 4 章

船舶能效規則

第 19 條

適用範圍

1 本章適用於 400 總噸及以上的所有船舶。

2 本章規定不適用於：

.1 僅航行於船舶有權懸掛其國旗的國家主權或管轄範圍水域內的船舶。

但是，各締約國應通過採取相應的措施確保該船在合理和可行的範圍內按本附則第 4 章的規定進行建造和行事。

- 3 本附則第 20 和 21 條不適用於具有柴油電力推進、透平推進或混合推進系統的船舶。
- 4 儘管有本條第 1 款的規定，主管機關可對 400 總噸及以上的船舶免除適用本附則第 20 條和 21 條的要求。
- 5 本條第 4 款的規定不適用於下述情況的 400 總噸及以上的船舶：
- .1 在 2017 年 1 月 1 日或以後簽訂建造合同；或
 - .2 無建造合同，在 2017 年 7 月 1 日或以後安放龍骨或處於類似建造階段；或
 - .3 在 2019 年 7 月 1 日或以後交船；或
 - .4 新船或現有船舶在 2017 年 1 月 1 日或以後進行本附則第 2.24 條界定的重大改建，且本附則第 5.4.2 和 5.4.3 條適用的。
- 6 允許有權懸掛其國旗的船舶適用本條第 4 款，或推遲、撤銷或拒絕適用該款的本公約締約國的主管機關，須將其詳情立即送交本組織，由本組織將該詳情散發給本議定書各締約國，供其參考。

第 20 條

達到的能效設計指數

- 1 應對屬於本附則第 2.25 至 2.35 條中一類或多類船型的下列船舶計算達到的能效設計指數：
- .1 每艘新船；
 - .2 每艘經過重大改建的新船；和

- .3 每艘經過重大改建的、且因改建範圍過大而被主管機關視為新造船舶的新船或現有船舶。

達到的能效設計指數須具體到每一船舶，並須表明船舶在能效方面的估計性能，並附有包含用於計算達到的能效設計指數所需必要信息的能效設計指數技術案卷，並說明計算過程。達到的能效設計指數須經主管機關或經其正式授權的任一組織根據能效設計指數技術案卷進行驗證。

- 2 計算達到的能效設計指數須考慮到本組織制定的導則。

第 21 條

要求的能效設計指數

- 1 對屬於本附則第 2.25 至 2.31 條中界定的類型之一且適用於本章的下列每艘：

- .1 新船；
- .2 經過重大改建的新船；和
- .3 經過重大改建的、且因改建範圍過大而被主管機關視為新造船舶的新船或現有船舶，

其達到的能效設計指數須為：

達到的能效設計指數 ≤ 要求的能效設計指數 = $(1 - X/100) \times$ 參考線值

式中，X 為表 1 所規定的相對於能效設計指數參考線的要求的能效設計指數的減小系數。

- 2 對於每艘經過重大改建的、且因改建範圍過大而被主管機關視為新造船舶的新船或現有船舶，須計算達到的能效設計指數並應符合第 21.1 款的要求，

其減小系數應與簽訂改建合同之日，或無合同情況下改建開始之日該改建船舶的船型和尺寸相稱。

表 1. 相對於能效設計指數參考線的能效設計指數值的減小系數（按百分比）

船舶類型	尺寸	第 0 階段 2013.1.1— 2014.12.31	第 1 階段 2015.1.1— 2019.12.31	第 2 階段 2020.1.1— 2024.12.31	第 3 階段 2025.1.1 及以後
散貨船	20,000 載重噸 及以上	0	10	20	30
	10,000-20,000 載重噸	n/a	0-10*	0-20*	0-30*
氣體運輸 船	10,000 載重噸 及以上	0	10	20	30
	2,000-10,000 載重噸	n/a	0-10*	0-20*	0-30*
液貨船	20,000 載重噸 及以上	0	10	20	30
	4,000-20,000 載重噸	n/a	0-10*	0-20*	0-30*
集裝箱船	15,000 載重噸 及以上	0	10	20	30
	10,000-15,000 載重噸	n/a	0-10*	0-20*	0-30*
雜貨船	15,000 載重噸 及以上	0	10	15	30
	3,000-15,000 載重噸	n/a	0-10*	0-15*	0-30*
冷藏貨船	5,000 載重噸 及以上	0	10	15	30
	3,000-5,000 載重噸	n/a	0-10*	0-15*	0-30*
兼裝船	20,000 載重噸 及以上	0	10	20	30

	4,000-20,000 載重噸	n/a	0-10*	0-20*	0-30*
--	---------------------	-----	-------	-------	-------

表中： * 根據船舶尺寸減小系數在兩個值之間取線性插值。較低的減小系數適用於較小的船舶尺寸。

n/a 表示不適用要求的能效設計指數。

3 須按照以下計算參考線值：

$$\text{參考線值} = a \times b^{-c}$$

式中 a、b 和 c 為表 2 所列參數。

表 2. 用於確定不同船型參考線值的參數

第 2 條所界定的船型	a	b	c
2.25 散貨船	961.79	船舶載重噸	0.477
2.26 氣體運輸船	1120.00	船舶載重噸	0.456
2.27 液貨船	1218.80	船舶載重噸	0.488
2.28 集裝箱船	174.22	船舶載重噸	0.201
2.29 雜貨船	107.48	船舶載重噸	0.216
2.30 冷藏貨船	227.01	船舶載重噸	0.244
2.31 兼裝船	1219.00	船舶載重噸	0.488

4 如船舶的設計允許其屬於表 2 中規定的一類以上船型的定義，則該船的要求的能效設計指數須為最嚴格的要求值（最低值）。

5 對本條所適用的每艘船舶，所安裝的推進動力須不小於在本組織將要制定的導則中界定的惡劣工況下保持船舶操縱性所需要的推進動力。

- 6 在第 1 階段開始和第 2 階段中間，本組織須對技術發展狀況進行審議，並且，如證明有必要，修正本條所列的時間段、相關船型的能效設計指數參考線參數和減小系數。

第 22 條

船舶能效管理計劃

- 1 每艘船舶須在船上保存一份具體的船舶能效管理計劃。該計劃可作為船舶安全管理體系的一部分。
- 2 制定船舶能效管理計劃須考慮到本組織制定的導則。

第 23 條

促進技術合作和關於改進船舶能效的技術轉讓

- 1 主管機關須與本組織和其他國際機構合作，直接或通過本組織，向請求技術援助的國家，特別是發展中國家，促進和提供合適的支持。
- 2 締約國主管機關須與其他締約國積極合作，根據其國內法律、法規和政策，促進請求技術援助的國家，特別是發展中國家就有關滿足本附則第 4 章，特別是第 19.4 至 19.6 條要求的實施措施方面的技術研發、轉讓和信息交流。”

23 在本附則之後新增附錄 VIII 如下：

“附錄 VIII

國際能效證書格式

國際能效證書

經.....政府授權，

（締約國全名）

由

（根據本公約規定被授權的主管人員或組織的全稱）

根據經第 MEPC.203（62）號決議修正的、修正《經 1978 年議定書修訂的〈1973 年國際防止船舶造成污染公約〉》（以下稱“本公約”）的 1997 年議定書的規定簽發。

船舶資料

船名

船舶編號或呼號

船籍港

總噸位

海事組織編號

茲證明：

1. 已按本公約附則 VI 第 5.4 條對該船進行了檢驗；和
2. 檢驗表明，該船符合第 20、21 和 22 條的適用要求。

本證書所依據的檢驗的完成日期：.....（年/月/日）

簽發於.....

（證書簽發地點）

（年/月/日）.....

（簽發日期）

（經正式授權的發證官員簽字）

（主管當局鋼印或蓋章）

國際能效證書的附件

能效相關的結構記錄

注：

1

本記錄須永久附於國際能效證書之後。國際能效證書須在船上隨時提供。

2

記錄須至少使用英文、法文或西班牙文的其中一種語言。如同時使用了發證國的官方語言，則在有爭議或分歧時，須以該國官方語言為準。

3

方框內的記入項目，在回答為“是”和“適用”時須填入（x）；或在回答為“否”和“不適用”時須填入（-）。

4

除非另有說明，本記錄中所提及的條款系指本公約附則 VI 的條款，所提及決議或通函系指由國際海事組織通過的決議或通函。

- 1 船舶資料
- 1.1

船名.....
- 1.2

海事組織編號.....
- 1.3

建造合同日期.....
- 1.4

總噸位
- 1.5

載重噸.....

- 1.6 船型*
- 2 推進系統
 - 2.1 柴油推進
 - 2.2 柴油電力推進
 - 2.3 透平推進
 - 2.4 混合推進
 - 2.5 上述推進以外的推進系統
- 3 達到的能效設計指數
 - 3.1 按照能效設計指數技術案卷中給出的信息（包括達到的能效設計指數的計算過程）計算第 20.1 條要求的達到的能效設計指數
 - 達到的能效設計指數為：克-CO₂/噸-海里
 - 3.2 下列情況不計算達到的能效設計指數：
 - 3.2.1 因其並非第 2.23 條中所界定的新船從而按照第 20.1 條免除的船舶
 - 3.2.2 按照第 19.3 條免除的推進系統類型
 - 3.2.3 按照第 19.4 條船舶主管機關對其免除第 20 條要求
 - 3.2.4 按照第 20.1 條免除的船型

* 按照第 2 條中規定的定義填寫船型。如船舶屬於第 2 條中界定的一類以上船型，則應視為要求的能效設計指數為最嚴格(最低值)的那種船型。如果船舶不屬於第 2 條中界定的船型，則填寫“第 2 條中界定以外的船型”。

4 要求的能效設計指數

4.1 要求的能效設計指數為：.....克-CO₂/噸-海里

4.2 下列情況要求的能效設計指數不適用：

4.2.1 因其並非第 2.23 條中所界定的新船從而按第 21.1 條免除的船舶..

4.2.2 按照第 19.3 條免除的推進系統類型

4.2.3 按照第 19.4 條船舶主管機關對其免除第 21 條的要求

4.2.4 按照第 21.1 條免除的船型

4.2.5 船舶容量低於第 21.2 條中表 1 中最小容量閾值

5 船舶能效管理計劃

5.1 船舶按照第 22 條攜帶船舶能效管理計劃

6 能效設計指數技術案卷

6.1 按照第 20.1 條國際能效證書附有能效設計指數技術案卷

6.2 能效設計指數技術案卷識別/驗證號

6.3 能效設計指數技術案卷驗證日期

茲證明本記錄在各方面均正確無誤。

簽發於.....

（記錄簽發地點）

（年/月/日）.....

（簽發日期）

（經正式授權簽發本記錄的官員簽字）

（主管當局鋼印或蓋章）

第 MEPC.216 (63) 號決議

(2012 年 3 月 2 日通過)

《〈1973 年國際防止船舶造成污染公約〉1978 年議定書》附則修正案

(《防污公約》附則 I、II、IV 和 V 中港口
接收設施的區域性安排)

海上環境保護委員會，

憶及《國際海事組織公約》第 38 (a) 條關於國際防止和控制海洋污染公約賦予海上環境保護委員會的職能，

注意到《1973 年國際防止船舶造成污染公約》(以下簡稱《1973 年公約》) 第 16 條和《〈1973 年國際防止船舶造成污染公約〉1978 年議定書》(以下簡稱《1978 年議定書》) 第 VI 條共同規定《1978 年議定書》的修正程序和賦予本組織的相關機構審議並通過《經 1978 年議定書修訂的〈1973 年公約〉》(《73/78 年防污公約》) 修正案的職能，

審議了《73/78 年防污公約》附則 I、II、IV 和 V 的修正案草案，

1. 按照《1973 年公約》第 16 (2) (d) 條，通過《73/78 年防污公約》附則 I、II、IV 和 V 的修正案，其文本載於本決議附件；
2. 按照《1973 年公約》第 16 (2) (f) (iii) 條，決定該修正案於 2013 年 2 月 1 日須視為被接受，除非在此日期前，有不少於三分之一的締約國或擁有商船合計噸位不少於世界商船總噸位 50% 的締約國通知本組織其反對該修正案；

3. 請各締約國注意，按照《1973年公約》第16(2)(g)(ii)條，該修正案須在按上述第2段被接受後，於2013年8月1日生效；
4. 要求秘書長遵照《1973年公約》第16(2)(e)條，將本決議及其附件中的修正案文本的核證無誤副本發送給《73/78年防污公約》的所有締約國；
5. 進一步要求秘書長將本決議及其附件的副本發送給非《73/78年防污公約》締約國的本組織會員國。

附件

《73/78 年防污公約》附則 I、II、IV 和 V 的修正案

1 在附則 I 第38條中新增第3之2款和第4之2款：

第 3 之 2 款 當由於環境獨特而區域性安排是滿足本條第 1 至 3 款要求的唯一可行途徑時，發展中小島國可以通過該安排來滿足這些要求。參加區域性安排的締約國須考慮到本組織制定的導則，制定一個《區域接收設施計劃》。

參加區域性安排的各締約國政府須與本組織協商，將下列內容周知本公約的締約國：

1. 《區域接收設施計劃》如何將本組織的導則考慮在內；
2. 確認的“區域船舶廢物接收中心”的詳情；和
3. 設施有限港口的詳情。

第 4 之 2 款 當由於環境獨特而區域性安排是滿足本條第 4 款要求的唯一可行途徑時，發展中小島國可以通過該安排來滿足這些要求。參加區域性安排的締約國須考慮到本組織制定的導則，制定一個《區域接收設施計劃》。

參加區域性安排的各締約國政府須與本組織協商，將下列內容周知本公約的締約國：

1. 《區域接收設施計劃》如何將本組織的導則考慮在內；
2. 確認的“區域船舶廢物接收中心”的詳情；和

3. 設施有限港口的詳情。

2 **在附則 II 第18條中新增第2之2款和第2之3款：**

第 2 之 2 款 當由於環境獨特而區域性安排是滿足本條第 1、2 和 4 款要求的唯一可行途徑時，發展中小島國可以通過該安排來滿足這些要求。參加區域性安排的締約國須考慮到本組織制定的導則，制定一個《區域接收設施計劃》。

參加區域性安排的各締約國政府須與本組織協商，將下列內容周知本公約的締約國：

1. 《區域接收設施計劃》如何將本組織的導則考慮在內；
2. 確認的“區域船舶廢物接收中心”的詳情；和
3. 設施有限港口的詳情。

第2之3款 當本附則第13條要求預洗並且《區域接收設施計劃》適用於卸貨港口時，預先和向接收設施的排放須按照本附則第13條的規定進行或者在適用的《區域接收設施計劃》中規定的“區域船舶廢物接收中心”進行。

3 **在附則 IV 第12條中新增第1之2款：**

第1之2款 當由於環境獨特而區域性安排是滿足本條第1款要求的唯一可行途徑時，發展中小島國可以通過該安排來滿足這些要求。參加區域性安排的締約國須考慮到本組織制定的導則，制定一個《區域接收設施計劃》。

參加區域性安排的各締約國政府須與本組織協商，將下列內容周知本公約的締約國：

1. 《區域接收設施計劃》如何將本組織的導則考慮在內；
2. 確認的“區域船舶廢物接收中心”的詳情；和
3. 設施有限港口的詳情。

4 **在附則V¹第8條中新增第2之2款：**

第2之2款 當由於環境獨特而區域性安排是滿足本條第1和2.1款要求的唯一可行途徑時，發展中小島國可以通過該安排來滿足這些要求。參加區域性安排的締約國須考慮到本組織制定的導則，制定一個《區域接收設施計劃》。

參加區域性安排的各締約國政府須與本組織協商，將下列內容周知本公約的締約國：

1. 《區域接收設施計劃》如何將本組織的導則考慮在內；
2. 確認的“區域船舶廢物接收中心”的詳情；和
3. 設施有限港口的詳情。

¹ 第 MEPC.201(62)號決議通過的經修正的附則 V 的文本。

第 MEPC.235 (65) 號決議

2013 年 5 月 17 日通過

《1973 年國際防止船舶造成污染公約 1978 年議定書》附則的修正案 (《防污公約》附則 I 規定的國際防油污證書 附件格式 A 和格式 B 的修正案)

海上環境保護委員會，

憶及《國際海事組織公約》有關各防止和控制海洋污染公約賦予海上環境保護委員會的職能的第三十八條第（一）款，

注意到《1973 年國際防止船舶造成污染公約》（以下稱“1973 年公約”）第 16 條和《1973 年國際防止船舶造成污染公約 1978 年議定書》（以下稱“1978 年議定書”）第 VI 條共同規定《1978 年議定書》的修正程序並授予本組織的適當機構審議和通過《經 1978 年議定書修訂的 1973 年公約》（《防污公約》）修正案的職能，

審議了《73/78 年防污公約》附則 I 規定的國際防油污證書附件格式 A 和格式 B 的修正案草案，

1. 按照《1973 年公約》第 16(2)(d) 條，通過《73/78 年防污公約》附則 I 國際防油污證書附件格式 A 和格式 B 的修正案，其文本載於

本決議附件中，

2. 按照《1973年公約》第16(2)(f)(iii)條，決定該修正案須被視為於2014年4月1日獲接受，除非在該日期前，有不少於三分之一的締約國或其合計商船隊總噸位不少於世界商船隊總噸位50%的締約國向本組織表示反對該修正案；
3. 請各締約國注意，按照《1973年公約》第16(2)(g)(ii)條，所述修正案將在按照以上第2段獲接受後，於2014年10月1日生效；
4. 要求秘書長遵照《1973年公約》第16(2)(e)條，將本決議附件所載修正案文本的核證無誤副本送交所有《防污公約》締約國；
5. 進一步要求秘書長將本決議及其附件的副本送交非《防污公約》締約國的本組織會員國。

附件

《防污公約》附則 I 規定的國際防油污證書

附件格式 A 和格式 B 的修正案

1 國際防油污證書附件（格式 A）修正案

現有第 3.2.1 段由以下文字替代：

“3.2.1 殘油（油泥）焚燒爐.....□”

2 國際防油污證書附件（格式 B）修正案

現有第 3.2.1 段由以下文字替代：

“3.2.1 殘油（油泥）焚燒爐.....□”

RESOLUTION MEPC.193(61)**Adopted on 1 October 2010****AMENDMENTS TO THE ANNEX OF THE PROTOCOL OF 1978 RELATING TO
THE INTERNATIONAL CONVENTION FOR THE PREVENTION OF
POLLUTION FROM SHIPS, 1973****(Revised MARPOL Annex III)**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee (the Committee) conferred upon it by international conventions for the prevention and control of marine pollution,

NOTING article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1973 Convention") and article VI of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1978 Protocol") which together specify the amendment procedure of the 1978 Protocol and confer upon the appropriate body of the Organization the function of considering and adopting amendments to the 1973 Convention, as modified by the 1978 Protocol (MARPOL 73/78),

HAVING CONSIDERED draft amendments to Annex III of MARPOL 73/78,

1. ADOPTS, in accordance with article 16(2)(d) of the 1973 Convention, the amendments to Annex III of MARPOL 73/78, the text of which is set out at annex to the present resolution;
2. DETERMINES, in accordance with article 16(2)(f)(iii) of the 1973 Convention, that the amendments shall be deemed to have been accepted on 1 July 2013 unless, prior to that date, not less than one third of the Parties or Parties the combined merchant fleets of which constitute not less than 50 per cent of the gross tonnage of the world's merchant fleet, have communicated to the Organization their objection to the amendments;
3. INVITES the Parties to note that, in accordance with article 16(2)(g)(ii) of the 1973 Convention, the said amendments shall enter into force on 1 January 2014 upon their acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with article 16(2)(e) of the 1973 Convention, to transmit to all Parties to MARPOL 73/78 certified copies of the present resolution and the text of the amendments contained in the Annex;
5. REQUESTS FURTHER the Secretary-General to transmit to the Members of the Organization which are not Parties to MARPOL 73/78 copies of the present resolution and its Annex.

ANNEX

AMENDMENTS TO MARPOL ANNEX III

The existing text of MARPOL Annex III, as adopted by resolution MEPC.156(55), is replaced by the following:

**REGULATIONS FOR THE PREVENTION OF POLLUTION BY HARMFUL
SUBSTANCES CARRIED BY SEA IN PACKAGED FORM**

Regulation 1*Application*

1 Unless expressly provided otherwise, the regulations of this Annex apply to all ships carrying harmful substances in packaged form.

.1 For the purpose of this Annex, "harmful substances" are those substances which are identified as marine pollutants in the International Maritime Dangerous Goods Code (IMDG Code) or which meet the criteria in the Appendix of this Annex.

.2 For the purposes of this Annex, "packaged form" is defined as the forms of containment specified for harmful substances in the IMDG Code.

2 The 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 packing, marking, labelling, documentation, stowage, quantity limitations and exceptions for preventing or minimizing pollution of the marine environment by harmful substances.

4 For the purposes of this Annex, empty packagings 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 harmful to the marine environment.

5 The requirements of this Annex do not apply to ship's stores and equipment.

Regulation 2*Packing*

Packages shall be adequate to minimize the hazard to the marine environment, having regard to their specific contents.

Regulation 3*Marking and labelling*

1 Packages containing a harmful substance shall be durably marked or labelled to indicate that the substance is a harmful substance in accordance with the relevant provisions of the IMDG Code.

2 The method of affixing marks or labels on packages containing a harmful substance shall be in accordance with the relevant provisions of the IMDG Code.

Regulation 4*Documentation*

1 Transport information relating to the carriage of harmful substances shall be in accordance with the relevant provisions of the IMDG Code and shall be made available to the person or organization designated by the port State authority.

2 Each ship carrying harmful substances shall have a special list, manifest or stowage plan setting forth, in accordance with the relevant provisions of the IMDG Code, the harmful substances on board and the location thereof. A copy of one of these documents shall be made available before departure to the person or organization designated by the port State authority.

Regulation 5*Stowage*

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

Regulation 6*Quantity limitations*

Certain harmful substances 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 substances.

Regulation 7*Exceptions*

1 Jettisoning of harmful substances carried in packaged form 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*Port State control on operational requirements*

1 A ship when in a port or an offshore terminal of another Party is subject to inspection by officers duly authorized by such Party concerning operational requirements under this Annex.

2 Where there are clear grounds for believing that the master or crew are not familiar with essential shipboard procedures relating to the prevention of pollution by harmful substances, the Party shall take such steps, including carrying out detailed inspection and, if required, 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.

APPENDIX TO ANNEX III

Criteria for the identification of harmful substances in packaged form

For the purposes of this Annex, substances identified by any one of the following criteria are harmful substances:

(a) Acute (short-term) aquatic hazard**Category: Acute 1**

96 hr LC ₅₀ (for fish)	≤ 1 mg/l and/or
48 hr EC ₅₀ (for crustacea)	≤ 1 mg/l and/or
72 or 96 hr ErC ₅₀ (for algae or other aquatic plants)	≤ 1 mg/l

(b) Long-term aquatic hazard**(i) Non-rapidly degradable substances for which there are adequate chronic toxicity data available****Category Chronic 1:**

Chronic NOEC or EC _x (for fish)	≤ 0.1 mg/l and/or
Chronic NOEC or EC _x (for crustacea)	≤ 0.1 mg/l and/or
Chronic NOEC or EC _x (for algae or other aquatic plants)	≤ 0.1 mg/l

Category Chronic 2:

Chronic NOEC or EC _x (for fish)	≤ 1 mg/l and/or
Chronic NOEC or EC _x (for crustacea)	≤ 1 mg/l and/or
Chronic NOEC or EC _x (for algae or other aquatic plants)	≤ 1 mg/l

(ii) Rapidly degradable substances for which there are adequate chronic toxicity data available**Category Chronic 1:**

Chronic NOEC or EC _x (for fish)	≤ 0.01 mg/l and/or
Chronic NOEC or EC _x (for crustacea)	≤ 0.01 mg/l and/or
Chronic NOEC or EC _x (for algae or other aquatic plants)	≤ 0.01 mg/l

Category Chronic 2:

Chronic NOEC or EC _x (for fish)	≤ 0.1 mg/l and/or
Chronic NOEC or EC _x (for crustacea)	≤ 0.1 mg/l and/or
Chronic NOEC or EC _x (for algae or other aquatic plants)	≤ 0.1 mg/l

(iii) Substances for which adequate chronic toxicity data are not available**Category Chronic 1:**96 hr LC₅₀ (for fish)

≤ 1 mg/l and/or

48 hr EC₅₀ (for crustacea)

≤ 1 mg/l and/or

72 or 96 hr ErC₅₀ (for algae or other aquatic plants)

≤ 1 mg/l

and the substance is not rapidly degradable and/or the experimentally determined BCF is ≥ 500 (or, if absent the log K_{ow} ≥ 4).

Category Chronic 2:96 hr LC₅₀ (for fish)

>1 mg/l but ≤ 10 mg/l and/or

48 hr EC₅₀ (for crustacea)

>1 mg/l but ≤ 10 mg/l and/or

72 or 96 hr ErC₅₀ (for algae or other aquatic plants)

>1 mg/l but ≤ 10 mg/l

and the substance is not rapidly degradable and/or the experimentally determined BCF is ≥ 500 (or, if absent, the log K_{ow} ≥ 4).

Additional guidance on the classification process for substances and mixtures is included in the IMDG Code.

RESOLUTION MEPC.200(62)**Adopted on 15 July 2011****AMENDMENTS TO THE ANNEX OF THE PROTOCOL OF 1978 RELATING TO
THE INTERNATIONAL CONVENTION FOR THE PREVENTION OF
POLLUTION FROM SHIPS, 1973****(Special Area Provisions and the Designation of the Baltic Sea as a Special Area under
MARPOL Annex IV)**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee (the Committee) conferred upon it by international conventions for the prevention and control of marine pollution,

NOTING article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1973 Convention") and article VI of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1978 Protocol") which together specify the amendment procedure of the 1978 Protocol and confer upon the appropriate body of the Organization the function of considering and adopting amendments to the 1973 Convention, as modified by the 1978 Protocol (MARPOL 73/78),

HAVING CONSIDERED draft amendments to Annex IV of MARPOL 73/78,

1. ADOPTS, in accordance with article 16(2)(d) of the 1973 Convention, the amendments to Annex IV of MARPOL 73/78, the text of which is set out at annex to the present resolution;
2. DETERMINES, in accordance with article 16(2)(f)(iii) of the 1973 Convention, that the amendments shall be deemed to have been accepted on 1 July 2012 unless, prior to that date, not less than one third of the Parties or Parties the combined merchant fleets of which constitute not less than 50 per cent of the gross tonnage of the world's merchant fleet, have communicated to the Organization their objection to the amendments;
3. INVITES the Parties to note that, in accordance with article 16(2)(g)(ii) of the 1973 Convention, the said amendments shall enter into force on 1 January 2013 upon their acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with article 16(2)(e) of the 1973 Convention, to transmit to all Parties to MARPOL 73/78 certified copies of the present resolution and the text of the amendments contained in the Annex;
5. REQUESTS FURTHER the Secretary-General to transmit to the Members of the Organization which are not Parties to MARPOL 73/78 copies of the present resolution and its Annex.

ANNEX

AMENDMENTS TO MARPOL ANNEX IV

1 *New paragraphs 5bis, 7bis, and 7ter are added to regulation 1:*

"5bis *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 sewage is required.

The special areas are:

- .1 the Baltic Sea area as defined in regulation 1.11.2 of Annex I; and
- .2 any other sea area designated by the Organization in accordance with criteria and procedures for designation of special areas with respect to prevention of pollution by sewage from ships.

7bis *A passenger* means every person other than:

- .1 the master and the members of the crew or other persons employed or engaged in any capacity on board a ship on the business of that ship; and
- .2 a child under one year of age.

7ter *A passenger ship* means a ship which carries more than 12 passengers.

For the application of regulation 11.3, a *new passenger ship* is a passenger ship:

- .1 for which the building contract is placed or, in the absence of a building contract, the keel of which is laid, or which is in a similar stage of construction, on or after 1 January 2016; or
- .2 the delivery of which is two years or more after 1 January 2016.

An existing passenger ship is a passenger ship which is not a new passenger ship."

2 *New paragraph 2 is added to regulation 9:*

"2 By derogation from paragraph 1, every passenger ship which, in accordance with regulation 2, is required to comply with the provisions of this Annex, and for which regulation 11.3 applies while in a special area, shall be equipped with one of the following sewage systems:

- .1 a sewage treatment plant which shall be of a type approved by the Administration, taking into account the standards and test methods developed by the Organization, or
- .2 a holding tank of the capacity 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 be constructed to the satisfaction of the Administration and shall have a means to indicate visually the amount of its contents."

3 *Regulation 11 is replaced by the following:*

Regulation 11

Discharge of sewage

"A *Discharge of sewage from ships other than passenger ships in all areas and discharge of sewage from passenger ships outside special areas*

1 Subject to the provisions of regulation 3 of this Annex, the discharge of sewage into the sea is prohibited, except when:

- .1 the ship is discharging comminuted and disinfected sewage using a system approved by the Administration in accordance with regulation 9.1.2 of this Annex at a distance of more than 3 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, or sewage originating from spaces containing living animals, 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
- .2 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 9.1.1 of this Annex, and the effluent shall not produce visible floating solids nor cause discoloration of the surrounding water.

2 The provisions of paragraph 1 shall not apply to ships operating in the waters under the jurisdiction of a State and visiting ships from other States while they are in these waters and are discharging sewage in accordance with such less stringent requirements as may be imposed by such State.

B *Discharge of sewage from passenger ships within a special area*

3 Subject to the provisions of regulation 3 of this Annex, the discharge of sewage from a passenger ship within a special area shall be prohibited:

- a) for new passenger ships on, or after 1 January 2016, subject to paragraph 2 of regulation 12*bis*; and

- b) for existing passenger ships on, or after 1 January 2018, subject to paragraph 2 of regulation 12*bis*,

except when the following conditions are satisfied:

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 9.2.1 of this Annex, and the effluent shall not produce visible floating solids nor cause discoloration of the surrounding water.

C General requirements

4 When the sewage is mixed with wastes or waste water covered by other Annexes of the present Convention, the requirements of those Annexes shall be complied with in addition to the requirements of this Annex."

4 *New regulation 12bis is added as follows:*

"12bis Reception facilities for passenger ships in Special Areas

1 Each Party, the coastline of which borders a special area, undertakes to ensure that:

- .1 facilities for the reception of sewage are provided in ports and terminals which are in a special area and which are used by passenger ships;
- .2 the facilities are adequate to meet the needs of those passenger ships; and
- .3 the facilities are operated so as not to cause undue delay to those passenger ships.

2 The Government of each Party concerned shall notify the Organization of the measures taken pursuant to paragraph 1 of this regulation. Upon receipt of sufficient notifications in accordance with paragraph 1 of this regulation, the Organization shall establish a date from which the requirements of regulation 11.3 in respect of the area in question shall take effect. The Organization shall notify all Parties of the date so established no less than 12 months in advance of that date. Until the date so established, ships while navigating in the special area shall comply with the requirements of regulation 11.1 of this Annex."

**AMENDMENTS TO THE
FORM OF INTERNATIONAL SEWAGE POLLUTION PREVENTION CERTIFICATE**

- 1 *The following text is added under the heading "Particulars of ship":*

Type of ship for the application of regulation 11.3:

New/Existing passenger ship

Ship other than a passenger ship

- 2 *Paragraph 1.1. is amended to read as follows:*

1.1. 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 effluent standards as provided for in resolution MEPC.2(VI).

The sewage treatment plant is certified by the Administration to meet the effluent standards as provided for in resolution MEPC.159(55).

The sewage treatment plant is certified by the Administration to meet the effluent standards as provided for in the guidelines developed by the Organization.

Delete as appropriate.

RESOLUTION MEPC.201(62)**Adopted on 15 July 2011****AMENDMENTS TO THE ANNEX OF THE PROTOCOL OF 1978 RELATING TO
THE INTERNATIONAL CONVENTION FOR THE PREVENTION OF
POLLUTION FROM SHIPS, 1973****(Revised MARPOL Annex V)**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee (the Committee) conferred upon it by international conventions for the prevention and control of marine pollution,

NOTING article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1973 Convention") and article VI of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1978 Protocol") which together specify the amendment procedure of the 1978 Protocol and confer upon the appropriate body of the Organization the function of considering and adopting amendments to the 1973 Convention, as modified by the 1978 Protocol (MARPOL 73/78),

HAVING CONSIDERED draft amendments to Annex V of MARPOL 73/78,

1. ADOPTS, in accordance with article 16(2)(d) of the 1973 Convention, the amendments to Annex V of MARPOL 73/78, the text of which is set out at annex to the present resolution;
2. DETERMINES, in accordance with article 16(2)(f)(iii) of the 1973 Convention, that the amendments shall be deemed to have been accepted on 1 July 2012 unless, prior to that date, not less than one third of the Parties or Parties the combined merchant fleets of which constitute not less than 50 per cent of the gross tonnage of the world's merchant fleet, have communicated to the Organization their objection to the amendments;
3. INVITES the Parties to note that, in accordance with article 16(2)(g)(ii) of the 1973 Convention, the said amendments shall enter into force on 1 January 2013 upon their acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with article 16(2)(e) of the 1973 Convention, to transmit to all Parties to MARPOL 73/78 certified copies of the present resolution and the text of the amendments contained in the Annex;
5. REQUESTS FURTHER the Secretary-General to transmit to the Members of the Organization which are not Parties to MARPOL 73/78 copies of the present resolution and its Annex.

ANNEX

REVISED MARPOL ANNEX V

REGULATIONS FOR THE PREVENTION OF POLLUTION BY GARBAGE FROM SHIPS

Regulation 1*Definitions*

For the purposes of this Annex:

- 1 *Animal carcasses* means the bodies of any animals that are carried on board as cargo and that die or are euthanized during the voyage.
- 2 *Cargo residues* means the remnants of any cargo which are not covered by other Annexes to the present Convention and which remain on the deck or in holds following loading or unloading, including loading and unloading excess or spillage, whether in wet or dry condition or entrained in wash water but does not include cargo dust remaining on the deck after sweeping or dust on the external surfaces of the ship.
- 3 *Cooking oil* means any type of edible oil or animal fat used or intended to be used for the preparation or cooking of food, but does not include the food itself that is prepared using these oils.
- 4 *Domestic wastes* means all types of wastes not covered by other Annexes that are generated in the accommodation spaces on board the ship. Domestic wastes does not include grey water.
- 5 *En route* means that the ship is underway at sea on a course or courses, including deviation from the shortest direct route, which as far as practicable for navigational purposes, will cause any discharge to be spread over as great an area of the sea as is reasonable and practicable.
- 6 *Fishing gear* means any physical device or part thereof or combination of items that may be placed on or in the water or on the sea-bed with the intended purpose of capturing, or controlling for subsequent capture or harvesting, marine or fresh water organisms.
- 7 *Fixed or floating platforms* means fixed or floating structures located at sea which are engaged in the exploration, exploitation or associated offshore processing of sea-bed mineral resources.
- 8 *Food wastes* means any spoiled or unspoiled food substances and includes fruits, vegetables, dairy products, poultry, meat products and food scraps generated aboard ship.
- 9 *Garbage* means all kinds of food wastes, domestic wastes and operational wastes, all plastics, cargo residues, incinerator ashes, cooking oil, fishing gear, and animal carcasses 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. Garbage does not include fresh fish and parts thereof generated as a result of fishing activities undertaken during the voyage, or as a result of aquaculture activities which involve the transport

of fish including shellfish for placement in the aquaculture facility and the transport of harvested fish including shellfish from such facilities to shore for processing.

- 10 *Incinerator ashes* means ash and clinkers resulting from shipboard incinerators used for the incineration of garbage.
- 11 *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 Annex, "from the nearest land" off the north-eastern coast of Australia shall mean from a line drawn from a point on the coast of Australia in:
- latitude 11°00' S, longitude 142°08' E
 to a point in latitude 10°35' S, longitude 141°55' E,
 thence to a point latitude 10°00' S, longitude 142°00' E,
 thence to a point latitude 09°10' S, longitude 143°52' E,
 thence to a point latitude 09°00' S, longitude 144°30' E,
 thence to a point latitude 10°41' S, longitude 145°00' E,
 thence to a point latitude 13°00' S, longitude 145°00' E,
 thence to a point latitude 15°00' S, longitude 146°00' E,
 thence to a point latitude 17°30' S, longitude 147°00' E,
 thence to a point latitude 21°00' S, longitude 152°55' E,
 thence to a point latitude 24°30' S, longitude 154°00' E,
 thence to a point on the coast of Australia in
 latitude 24°42' S, longitude 153°15' E.
- 12 *Operational wastes* means all solid wastes (including slurries) not covered by other Annexes that are collected on board during normal maintenance or operations of a ship, or used for cargo stowage and handling. Operational wastes also includes cleaning agents and additives contained in cargo hold and external wash water. Operational wastes does not include grey water, bilge water, or other similar discharges essential to the operation of a ship, taking into account the guidelines developed by the Organization.
- 13 *Plastic* means a solid material which contains as an essential ingredient one or more high molecular mass polymers and which is formed (shaped) during either manufacture of the polymer or the fabrication into a finished product by heat and/or pressure. Plastics have material properties ranging from hard and brittle to soft and elastic. For the purposes of this annex, "all plastics" means all garbage that consists of or includes plastic in any form, including synthetic ropes, synthetic fishing nets, plastic garbage bags and incinerator ashes from plastic products.
- 14 *Special area* means a sea area where for recognized technical reasons in relation to its oceanographic 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.

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, the Gulfs area, the North Sea area, the Antarctic area and the Wider Caribbean Region, which are defined as follows:

- .1 The Mediterranean Sea area means the Mediterranean Sea proper including the gulfs and seas therein with the boundary between the Mediterranean and the Black Sea constituted by the 41° N parallel and bounded to the west by the Straits of Gibraltar at the meridian 5°36' W.

- .2 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.
- .3 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.
- .4 The Red Sea area means the Red Sea proper including the Gulfs of Suez and Aqaba bounded at the south by the rhumb line between Ras si Ane (12° 28.5' N, 43° 19.6' E) and Husn Murad (12° 40.4' N, 43° 30.2' E).
- .5 The Gulfs area means the sea area located north-west of the rhumb line between Ras al Hadd (22° 30' N, 59° 48' E) and Ras al Fasteh (25° 04' N, 61° 25' E).
- .6 The North Sea area means the North Sea proper including seas therein with the boundary between:
 - .1 the North Sea southwards of latitude 62° N and eastwards of longitude 4° W;
 - .2 the Skagerrak, the southern limit of which is determined east of the Skaw by latitude 57° 44.8' N; and
 - .3 the English Channel and its approaches eastwards of longitude 5° W and northwards of latitude 48° 30' N.
- .7 The Antarctic area means the sea area south of latitude 60° S.
- .8 The Wider Caribbean Region means the Gulf of Mexico and Caribbean Sea proper including the bays and seas therein and that portion of the Atlantic Ocean within the boundary constituted by the 30° N parallel from Florida eastward to 77°30' W meridian, thence a rhumb line to the intersection of 20° N parallel and 59° W meridian, thence a rhumb line to the intersection of 7°20' N parallel and 50° W meridian, thence a rhumb line drawn southwesterly to the eastern boundary of French Guiana.

Regulation 2

Application

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

Regulation 3

General prohibition on discharge of garbage into the sea

- 1 Discharge of all garbage into the sea is prohibited, except as provided otherwise in regulations 4, 5, 6 and 7 of this Annex.
- 2 Except as provided in regulation 7 of this Annex, discharge into the sea of all plastics, including but not limited to synthetic ropes, synthetic fishing nets, plastic garbage bags and incinerator ashes from plastic products is prohibited.
- 3 Except as provided in regulation 7 of this Annex, the discharge into the sea of cooking oil is prohibited.

Regulation 4*Discharge of garbage outside special areas*

1 Discharge of the following garbage into the sea outside special areas shall only be permitted while the ship is en route and as far as practicable from the nearest land, but in any case not less than:

- .1 3 nautical miles from the nearest land for food wastes which have been passed through a comminuter or grinder. Such comminuted or ground food wastes shall be capable of passing through a screen with openings no greater than 25 mm.
- .2 12 nautical miles from the nearest land for food wastes that have not been treated in accordance with subparagraph .1 above.
- .3 12 nautical miles from the nearest land for cargo residues that cannot be recovered using commonly available methods for unloading. These cargo residues shall not contain any substances classified as harmful to the marine environment, taking into account guidelines developed by the Organization.
- .4 For animal carcasses, discharge shall occur as far from the nearest land as possible, taking into account the guidelines developed by the Organization.

2 Cleaning agents or additives contained in cargo hold, deck and external surfaces wash water may be discharged into the sea, but these substances must not be harmful to the marine environment, taking into account guidelines developed by the Organization.

3 When garbage is mixed with or contaminated by other substances prohibited from discharge or having different discharge requirements, the more stringent requirements shall apply.

Regulation 5*Special requirements for discharge of garbage from fixed or floating platforms*

1 Subject to the provisions of paragraph 2 of this regulation, the discharge into the sea of any garbage is prohibited from fixed or floating platforms and from all other ships when alongside or within 500 m of such platforms.

2 Food wastes may be discharged into the sea from fixed or floating platforms located more than 12 nautical miles from the nearest land and from all other ships when alongside or within 500 m of such platforms, but only when the wastes have been passed through a comminuter or grinder. Such comminuted or ground food wastes shall be capable of passing through a screen with openings no greater than 25 mm.

Regulation 6*Discharge of garbage within special areas*

1 Discharge of the following garbage into the sea within special areas shall only be permitted while the ship is en route and as follows:

- .1 Discharge into the sea of food wastes as far as practicable from the nearest land, but not less than 12 nautical miles from the nearest land or the nearest ice shelf. Food wastes shall be comminuted or ground and shall be capable

of passing through a screen with openings no greater than 25 mm. Food wastes shall not be contaminated by any other garbage type. Discharge of introduced avian products, including poultry and poultry parts, is not permitted in the Antarctic area unless it has been treated to be made sterile.

.2 Discharge of cargo residues that cannot be recovered using commonly available methods for unloading, where all the following conditions are satisfied:

.1 Cargo residues, cleaning agents or additives, contained in hold washing water do not include any substances classified as harmful to the marine environment, taking into account guidelines developed by the Organization;

.2 Both the port of departure and the next port of destination are within the special area and the ship will not transit outside the special area between those ports;

.3 No adequate reception facilities are available at those ports taking into account guidelines developed by the Organization; and

.4 Where the conditions of subparagraphs 2.1, 2.2 and 2.3 of this paragraph have been fulfilled, discharge of cargo hold washing water containing residues shall be made as far as practicable from the nearest land or the nearest ice shelf and not less than 12 nautical miles from the nearest land or the nearest ice shelf.

2 Cleaning agents or additives contained in deck and external surfaces wash water may be discharged into the sea, but only if these substances are not harmful to the marine environment, taking into account guidelines developed by the Organization.

3 The following rules (in addition to the rules in paragraph 1 of this regulation) apply with respect to the Antarctic area:

.1 Each Party at whose ports ships depart en route to or arrive from the Antarctic area undertakes to ensure that as soon as practicable adequate facilities are provided for the reception of all garbage from all ships, without causing undue delay, and according to the needs of the ships using them.

.2 Each Party shall ensure that all ships entitled to fly its flag, before entering the Antarctic area, have sufficient capacity on board for the retention of all garbage, while operating in the area and have concluded arrangements to discharge such garbage at a reception facility after leaving the area.

4 When garbage is mixed with or contaminated by other substances prohibited from discharge or having different discharge requirements, the more stringent requirements shall apply.

Regulation 7*Exceptions*

- 1 Regulations 3, 4, 5 and 6 of this Annex shall not apply to:
 - .1 The discharge 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
 - .2 The accidental loss of garbage resulting from damage to a ship or its equipment, provided that all reasonable precautions have been taken before and after the occurrence of the damage, to prevent or minimize the accidental loss; or
 - .3 The accidental loss of fishing gear from a ship provided that all reasonable precautions have been taken to prevent such loss; or
 - .4 The discharge of fishing gear from a ship for the protection of the marine environment or for the safety of that ship or its crew.
- 2 Exception of *en route*:
 - .1 The *en route* requirements of regulations 4 and 6 shall not apply to the discharge of food wastes where it is clear the retention on board of these food wastes presents an imminent health risk to the people on board.

Regulation 8*Reception facilities*

- 1 Each Party undertakes to ensure the provision of adequate 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 Reception facilities within special areas
 - .1 Each Party, the coastline of which borders a special area, undertakes to ensure that as soon as possible, in all ports and terminals within the special area, adequate reception facilities are provided, taking into account the needs of ships operating in these areas.
 - .2 Each Party concerned shall notify the Organization of the measures taken pursuant to subparagraph 3.1 of this regulation. Upon receipt of sufficient notifications the Organization shall establish a date from which the requirements of regulation 6 of this Annex in respect of the area in question are to take effect. The Organization shall notify all Parties of the date so established no less than twelve months in advance of that date. Until the date so established, ships that are navigating in a special area shall comply with the requirements of regulation 4 of this Annex as regards discharges outside special areas.
- 3 Each Party shall notify the Organization for transmission to the Contracting Parties concerned of all cases where the facilities provided under this regulation are alleged to be inadequate.

Regulation 9*Port State control on operational requirements*

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

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 10*Placards, garbage management plans and garbage record-keeping*

1 .1 Every ship of 12 m or more in length overall and fixed or floating platforms shall display placards which notify the crew and passengers of the discharge requirements of regulations 3, 4, 5 and 6 of this Annex, as applicable.

.2 The placards shall be written in the working language of the ship's crew and, for ships engaged in voyages to ports or offshore terminals under the jurisdiction of other Parties to the Convention, shall also be in English, French or Spanish.

2 Every ship of 100 gross tonnage and above, and every ship which is certified to carry 15 or more persons, and fixed or floating platforms shall carry a garbage management plan which the crew shall follow. This plan shall provide written procedures for minimizing, collecting, storing, processing and disposing of garbage, including the use of the equipment on board. It shall also designate the person or persons in charge of carrying out the plan. Such a plan shall be based on the guidelines developed by the Organization and written in the working language of the crew.

3 Every ship of 400 gross tonnage and above and every ship which is certified to carry 15 or more persons engaged in voyages to ports or offshore terminals under the jurisdiction of another Party to the Convention and every fixed or floating platform shall be provided with a Garbage Record Book. The Garbage Record Book, whether as a part of the ship's official log-book or otherwise, shall be in the form specified in the appendix to this Annex:

.1 Each discharge into the sea or to a reception facility, or a completed incineration, shall be promptly recorded in the Garbage Record Book and signed for on the date of the discharge or incineration by the officer in charge. Each completed page of the Garbage Record Book shall be signed by the master of the ship. The entries in the Garbage Record Book shall be at least in English, French or Spanish. Where the entries are also made in an official language of the State whose flag the ship is entitled to

fly, the entries in that language shall prevail in case of a dispute or discrepancy;

- .2 The entry for each discharge or incineration shall include date and time, position of the ship, category of the garbage and the estimated amount discharged or incinerated;
- .3 The Garbage Record Book shall be kept on board the ship or the fixed or floating platform, and in such a place as to be readily available for inspection at all reasonable times. This document shall be preserved for a period of at least two years from the date of the last entry made in it;
- .4 In the event of any discharge or accidental loss referred to in regulation 7 of this Annex an entry shall be made in the Garbage Record Book, or in the case of any ship of less than 400 gross tonnage, an entry shall be made in the ship's official log-book, of the location, circumstances of, and the reasons for the discharge or loss, details of the items discharged or lost, and the reasonable precautions taken to prevent or minimize such discharge or accidental loss.

4 The Administration may waive the requirements for Garbage Record Books for:

- .1 Any ship engaged on voyages of one (1) hour or less in duration which is certified to carry 15 or more persons; or
- .2 Fixed or floating platforms.

5 The competent authority of the Government of a Party to the Convention may inspect the Garbage Record Books or ship's official log-book on board any ship to which this regulation applies while the ship is in its ports or offshore terminals and may make a copy of any entry in those books, and may require the master of the ship to certify that the copy is a true copy of such an 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 Garbage Record Book or ship's official log-book, shall be admissible in any judicial proceedings as evidence of the facts stated in the entry. The inspection of a Garbage Record Book or ship's official log-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.

6 The accidental loss or discharge of fishing gear as provided for in regulations 7.1.3 and 7.1.4 which poses a significant threat to the marine environment or navigation shall be reported to the State whose flag the ship is entitled to fly, and, where the loss or discharge occurs within waters subject to the jurisdiction of a coastal State, also to that coastal State.

APPENDIX**FORM OF GARBAGE RECORD BOOK**

Name of ship: _____

Distinctive number or letters: _____

IMO No.: _____

Period: _____ From: _____ To: _____

1 Introduction

In accordance with regulation 10 of Annex V of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 (MARPOL), a record is to be kept of each discharge operation or completed incineration. This includes discharges into the sea, to reception facilities, or to other ships, as well as the accidental loss of garbage.

2 Garbage and garbage management

Garbage means all kinds of food wastes, domestic wastes and operational wastes, all plastics, cargo residues, incinerator ashes, cooking oil, fishing gear, and animal carcasses 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. Garbage does not include fresh fish and parts thereof generated as a result of fishing activities undertaken during the voyage, or as a result of aquaculture activities which involve the transport of fish including shellfish for placement in the aquaculture facility and the transport of harvested fish including shellfish from such facilities to shore for processing.

The Guidelines for the Implementation of MARPOL Annex V should also be referred to for relevant information.

3 Description of the garbage

Garbage is to be grouped into categories for the purposes of the Garbage Record Book (or ship's official log-book) as follows:

- A Plastics
- B Food wastes
- C Domestic Wastes
- D Cooking Oil
- E Incinerator ashes

- F Operational wastes
- G Cargo residues
- H Animal Carcass(es)
- I Fishing Gear

4 Entries in the Garbage Record Book

4.1 Entries in the Garbage Record Book shall be made on each of the following occasions:

4.1.1 When garbage is discharged to a reception facility ashore or to other ships:

- .1 Date and time of discharge
- .2 Port or facility, or name of ship
- .3 Categories of garbage discharged
- .4 Estimated amount discharged for each category in cubic metres
- .5 Signature of officer in charge of the operation.

4.1.2 When garbage is incinerated:

- .1 Date and time of start and stop of incineration
- .2 Position of the ship (latitude and longitude) at the start and stop of incineration
- .3 Categories of garbage incinerated
- .4 Estimated amount incinerated in cubic metres
- .5 Signature of the officer in charge of the operation.

4.1.3 When garbage is discharged into the sea in accordance with regulations 4, 5 or 6 of MARPOL Annex V:

- .1 Date and time of discharge
- .2 Position of the ship (latitude and longitude). Note: for cargo residue discharges, include discharge start and stop positions
- .3 Category of garbage discharged
- .4 Estimated amount discharged for each category in cubic metres
- .5 Signature of the officer in charge of the operation.

4.1.4 Accidental or other exceptional discharges or loss of garbage into the sea, including in accordance with regulation 7 of MARPOL Annex V:

- .1 Date and time of occurrence
- .2 Port or position of the ship at time of occurrence (latitude, longitude and water depth if known)
- .3 Categories of garbage discharged or lost
- .4 Estimated amount for each category in cubic metres
- .5 The reason for the discharge or loss and general remarks.

4.2 Amount of garbage

The amount of garbage on board should be estimated in cubic metres, if possible separately according to category. The Garbage Record Book contains many references to estimated amount of garbage. It is recognized that the accuracy of estimating amounts of garbage is left to interpretation. Volume estimates will differ before and after processing. Some processing procedures may not allow for a usable estimate of volume, e.g. the continuous processing of food waste. Such factors should be taken into consideration when making and interpreting entries made in a record.

RECORD OF GARBAGE DISCHARGES

Ship's name: _____

Distinctive No., or letters: _____

IMO No.: _____

Garbage categories:

- A. Plastics
- B. Food wastes
- C. Domestic wastes (e.g. paper products, rags, glass, metal, bottles, crockery, etc.)
- D. Cooking oil
- E. Incinerator Ashes
- F. Operational wastes
- G. Cargo residues
- H. Animal Carcass(es)
- I. Fishing gear

NEW TABLE LAYOUT AS BELOW:

Date/ Time	Position of the Ship/Remarks (e.g. accidental loss)	Category	Estimated Amount Discharged or Incinerated	To Sea	To Reception Facility	Incineration	Certification/ Signature

Master's signature: _____ Date: _____

RESOLUTION MEPC.202(62)**Adopted on 15 July 2011****AMENDMENTS TO THE ANNEX OF THE PROTOCOL OF 1997 TO AMEND THE
INTERNATIONAL CONVENTION FOR THE PREVENTION OF POLLUTION FROM
SHIPS, 1973, AS MODIFIED BY THE PROTOCOL OF 1978 RELATING THERETO****(Designation of the United States Caribbean Sea Emission Control Area and
exemption of certain ships operating in the North American Emission Control Area
and the United States Caribbean Sea Emission Control Area
under regulations 13 and 14 and Appendix VII of MARPOL Annex VI)**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee (the Committee) conferred upon it by international conventions for the prevention and control of marine pollution,

NOTING article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1973 Convention"), article VI of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1978 Protocol") and article 4 of the Protocol of 1997 to amend 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 "1997 Protocol"), which together specify the amendment procedure of the 1997 Protocol and confer upon the appropriate body of the Organization the function of considering and adopting amendments to the 1973 Convention, as modified by the 1978 and 1997 Protocols,

NOTING ALSO that, by the 1997 Protocol, Annex VI entitled Regulations for the Prevention of Air Pollution from Ships was added to the 1973 Convention (hereinafter referred to as "Annex VI"),

NOTING FURTHER that the revised Annex VI was adopted by resolution MEPC.176(58) and entered into force on 1 July 2010,

HAVING CONSIDERED draft amendments to the revised Annex VI,

1. ADOPTS, in accordance with article 16(2)(d) of the 1973 Convention, the amendments to Annex VI, the text of which is set out at annex to the present resolution;
2. DETERMINES, in accordance with article 16(2)(f)(iii) of the 1973 Convention, that the amendments shall be deemed to have been accepted on 1 July 2012, unless prior to that date, not less than one third of the Parties or Parties the combined merchant fleets of which constitute not less than 50 per cent of the gross tonnage of the world's merchant fleet, have communicated to the Organization their objection to the amendments;
3. INVITES the Parties to note that, in accordance with article 16(2)(g)(ii) of the 1973 Convention, the said amendments shall enter into force on 1 January 2013 upon their acceptance in accordance with paragraph 2 above;

4. REQUESTS the Secretary-General, in conformity with article 16(2)(e) of the 1973 Convention, to transmit to all Parties to the 1973 Convention, as modified by the 1978 and 1997 Protocols, certified copies of the present resolution and the text of the amendments contained in the Annex;

5. REQUESTS FURTHER the Secretary-General to transmit to the Members of the Organization which are not Parties to the 1973 Convention, as modified by the 1978 and 1997 Protocols, copies of the present resolution and its Annex.

ANNEX

AMENDMENTS TO REGULATIONS 13 AND 14 AND APPENDIX VII
OF THE REVISED MARPOL ANNEX VI

- 1 *Paragraph 6 of regulation 13 is replaced by the following:*

- "6 For the purpose of this regulation, emission control areas shall be:
- .1 the North American area, which means the area described by the coordinates provided in Appendix VII to this Annex;
 - .2 the United States Caribbean Sea area, which means the area described by the coordinates provided in Appendix VII to this Annex; and
 - .3 any other sea area, including any port area, designated by the Organization in accordance with the criteria and procedures set forth in Appendix III to this Annex."

- 2 *Paragraph 7.3 of regulation 13 is amended to read as follows:*

"7.3 With regard to a marine diesel engine with a power output of more than 5,000 kW and a per cylinder displacement at or above 90 litres installed on a ship constructed on or after 1 January 1990 but prior to 1 January 2000, the International Air Pollution Prevention Certificate shall, for a marine diesel engine to which paragraph 7.1 of this regulation applies, indicate that either an approved method has been applied pursuant to paragraph 7.1.1 of this regulation or the engine has been certified pursuant to paragraph 7.1.2 of this regulation or that an approved method does not yet exist or is not yet commercially available as described in paragraph 7.2 of this regulation."

- 3 *Paragraph 3 of regulation 14 is replaced by the following:*

- "3 For the purpose of this regulation, emission control areas shall include:
- .1 the Baltic Sea area as defined in regulation 1.11.2 of Annex I and the North Sea area as defined in regulation 1.14.6 of Annex V;
 - .2 the North American area as described by the coordinates provided in Appendix VII to this Annex;
 - .3 the United States Caribbean Sea area as described by the coordinates provided in Appendix VII to this Annex; and
 - .4 any other sea area, including any port area, designated by the Organization in accordance with the criteria and procedures set forth in Appendix III to this Annex."

- 4 A new subparagraph 4 is added to paragraph 4 of regulation 14 to read as follows:

"4 Prior to 1 January 2020, the sulphur content of fuel oil referred to in paragraph 4 of this regulation shall not apply to ships, operating in the North American area or the United States Caribbean Sea area defined in paragraph 3, built on or before 1 August 2011 that are powered by propulsion boilers that were not originally designed for continued operation on marine distillate fuel or natural gas."

- 5 Paragraph 7 of regulation 14 is replaced by the following:

"7 During the first twelve months immediately following entry into force of an amendment designating a specific emission control area under paragraph 3 of this regulation, ships operating in that emission control area are exempt 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 of this regulation."

- 6 Appendix VII is replaced by the following:

"Appendix VII
Emission Control Areas
(regulation 13.6 and regulation 14.3)

- .1 The boundaries of emission control areas designated under regulations 13.6 and 14.3, other than the Baltic Sea and the North Sea areas, are set forth in this appendix.
- .2 The North American area comprises:
- .1 the sea area located off the Pacific coasts of the United States and Canada, enclosed by geodesic lines connecting the following coordinates:

POINT	LATITUDE	LONGITUDE
1	32° 32' 10" N.	117° 06' 11" W.
2	32° 32' 04" N.	117° 07' 29" W.
3	32° 31' 39" N.	117° 14' 20" W.
4	32° 33' 13" N.	117° 15' 50" W.
5	32° 34' 21" N.	117° 22' 01" W.
6	32° 35' 23" N.	117° 27' 53" W.
7	32° 37' 38" N.	117° 49' 34" W.
8	31° 07' 59" N.	118° 36' 21" W.
9	30° 33' 25" N.	121° 47' 29" W.
10	31° 46' 11" N.	123° 17' 22" W.
11	32° 21' 58" N.	123° 50' 44" W.
12	32° 56' 39" N.	124° 11' 47" W.
13	33° 40' 12" N.	124° 27' 15" W.
14	34° 31' 28" N.	125° 16' 52" W.
15	35° 14' 38" N.	125° 43' 23" W.
16	35° 43' 60" N.	126° 18' 53" W.
17	36° 16' 25" N.	126° 45' 30" W.
18	37° 01' 35" N.	127° 07' 18" W.
19	37° 45' 39" N.	127° 38' 02" W.

POINT	LATITUDE	LONGITUDE
20	38° 25' 08" N.	127° 52' 60" W.
21	39° 25' 05" N.	128° 31' 23" W.
22	40° 18' 47" N.	128° 45' 46" W.
23	41° 13' 39" N.	128° 40' 22" W.
24	42° 12' 49" N.	129° 00' 38" W.
25	42° 47' 34" N.	129° 05' 42" W.
26	43° 26' 22" N.	129° 01' 26" W.
27	44° 24' 43" N.	128° 41' 23" W.
28	45° 30' 43" N.	128° 40' 02" W.
29	46° 11' 01" N.	128° 49' 01" W.
30	46° 33' 55" N.	129° 04' 29" W.
31	47° 39' 55" N.	131° 15' 41" W.
32	48° 32' 32" N.	132° 41' 00" W.
33	48° 57' 47" N.	133° 14' 47" W.
34	49° 22' 39" N.	134° 15' 51" W.
35	50° 01' 52" N.	135° 19' 01" W.
36	51° 03' 18" N.	136° 45' 45" W.
37	51° 54' 04" N.	137° 41' 54" W.
38	52° 45' 12" N.	138° 20' 14" W.
39	53° 29' 20" N.	138° 40' 36" W.
40	53° 40' 39" N.	138° 48' 53" W.
41	54° 13' 45" N.	139° 32' 38" W.
42	54° 39' 25" N.	139° 56' 19" W.
43	55° 20' 18" N.	140° 55' 45" W.
44	56° 07' 12" N.	141° 36' 18" W.
45	56° 28' 32" N.	142° 17' 19" W.
46	56° 37' 19" N.	142° 48' 57" W.
47	58° 51' 04" N.	153° 15' 03" W.

- .2 the sea areas located off the Atlantic coasts of the United States, Canada, and France (Saint-Pierre-et-Miquelon) and the Gulf of Mexico coast of the United States enclosed by geodesic lines connecting the following coordinates:

POINT	LATITUDE	LONGITUDE
1	60° 00' 00" N.	64° 09' 36" W.
2	60° 00' 00" N.	56° 43' 00" W.
3	58° 54' 01" N.	55° 38' 05" W.
4	57° 50' 52" N.	55° 03' 47" W.
5	57° 35' 13" N.	54° 00' 59" W.
6	57° 14' 20" N.	53° 07' 58" W.
7	56° 48' 09" N.	52° 23' 29" W.
8	56° 18' 13" N.	51° 49' 42" W.
9	54° 23' 21" N.	50° 17' 44" W.
10	53° 44' 54" N.	50° 07' 17" W.
11	53° 04' 59" N.	50° 10' 05" W.
12	52° 20' 06" N.	49° 57' 09" W.
13	51° 34' 20" N.	48° 52' 45" W.
14	50° 40' 15" N.	48° 16' 04" W.
15	50° 02' 28" N.	48° 07' 03" W.
16	49° 24' 03" N.	48° 09' 35" W.
17	48° 39' 22" N.	47° 55' 17" W.

POINT	LATITUDE	LONGITUDE
18	47° 24' 25" N.	47° 46' 56" W.
19	46° 35' 12" N.	48° 00' 54" W.
20	45° 19' 45" N.	48° 43' 28" W.
21	44° 43' 38" N.	49° 16' 50" W.
22	44° 16' 38" N.	49° 51' 23" W.
23	43° 53' 15" N.	50° 34' 01" W.
24	43° 36' 06" N.	51° 20' 41" W.
25	43° 23' 59" N.	52° 17' 22" W.
26	43° 19' 50" N.	53° 20' 13" W.
27	43° 21' 14" N.	54° 09' 20" W.
28	43° 29' 41" N.	55° 07' 41" W.
29	42° 40' 12" N.	55° 31' 44" W.
30	41° 58' 19" N.	56° 09' 34" W.
31	41° 20' 21" N.	57° 05' 13" W.
32	40° 55' 34" N.	58° 02' 55" W.
33	40° 41' 38" N.	59° 05' 18" W.
34	40° 38' 33" N.	60° 12' 20" W.
35	40° 45' 46" N.	61° 14' 03" W.
36	41° 04' 52" N.	62° 17' 49" W.
37	40° 36' 55" N.	63° 10' 49" W.
38	40° 17' 32" N.	64° 08' 37" W.
39	40° 07' 46" N.	64° 59' 31" W.
40	40° 05' 44" N.	65° 53' 07" W.
41	39° 58' 05" N.	65° 59' 51" W.
42	39° 28' 24" N.	66° 21' 14" W.
43	39° 01' 54" N.	66° 48' 33" W.
44	38° 39' 16" N.	67° 20' 59" W.
45	38° 19' 20" N.	68° 02' 01" W.
46	38° 05' 29" N.	68° 46' 55" W.
47	37° 58' 14" N.	69° 34' 07" W.
48	37° 57' 47" N.	70° 24' 09" W.
49	37° 52' 46" N.	70° 37' 50" W.
50	37° 18' 37" N.	71° 08' 33" W.
51	36° 32' 25" N.	71° 33' 59" W.
52	35° 34' 58" N.	71° 26' 02" W.
53	34° 33' 10" N.	71° 37' 04" W.
54	33° 54' 49" N.	71° 52' 35" W.
55	33° 19' 23" N.	72° 17' 12" W.
56	32° 45' 31" N.	72° 54' 05" W.
57	31° 55' 13" N.	74° 12' 02" W.
58	31° 27' 14" N.	75° 15' 20" W.
59	31° 03' 16" N.	75° 51' 18" W.
60	30° 45' 42" N.	76° 31' 38" W.
61	30° 12' 48" N.	77° 18' 29" W.
62	29° 25' 17" N.	76° 56' 42" W.
63	28° 36' 59" N.	76° 47' 60" W.
64	28° 17' 13" N.	76° 40' 10" W.
65	28° 17' 12" N.	79° 11' 23" W.
66	27° 52' 56" N.	79° 28' 35" W.
67	27° 26' 01" N.	79° 31' 38" W.
68	27° 16' 13" N.	79° 34' 18" W.
69	27° 11' 54" N.	79° 34' 56" W.
70	27° 05' 59" N.	79° 35' 19" W.

POINT	LATITUDE	LONGITUDE
71	27° 00' 28" N.	79° 35' 17" W.
72	26° 55' 16" N.	79° 34' 39" W.
73	26° 53' 58" N.	79° 34' 27" W.
74	26° 45' 46" N.	79° 32' 41" W.
75	26° 44' 30" N.	79° 32' 23" W.
76	26° 43' 40" N.	79° 32' 20" W.
77	26° 41' 12" N.	79° 32' 01" W.
78	26° 38' 13" N.	79° 31' 32" W.
79	26° 36' 30" N.	79° 31' 06" W.
80	26° 35' 21" N.	79° 30' 50" W.
81	26° 34' 51" N.	79° 30' 46" W.
82	26° 34' 11" N.	79° 30' 38" W.
83	26° 31' 12" N.	79° 30' 15" W.
84	26° 29' 05" N.	79° 29' 53" W.
85	26° 25' 31" N.	79° 29' 58" W.
86	26° 23' 29" N.	79° 29' 55" W.
87	26° 23' 21" N.	79° 29' 54" W.
88	26° 18' 57" N.	79° 31' 55" W.
89	26° 15' 26" N.	79° 33' 17" W.
90	26° 15' 13" N.	79° 33' 23" W.
91	26° 08' 09" N.	79° 35' 53" W.
92	26° 07' 47" N.	79° 36' 09" W.
93	26° 06' 59" N.	79° 36' 35" W.
94	26° 02' 52" N.	79° 38' 22" W.
95	25° 59' 30" N.	79° 40' 03" W.
96	25° 59' 16" N.	79° 40' 08" W.
97	25° 57' 48" N.	79° 40' 38" W.
98	25° 56' 18" N.	79° 41' 06" W.
99	25° 54' 04" N.	79° 41' 38" W.
100	25° 53' 24" N.	79° 41' 46" W.
101	25° 51' 54" N.	79° 41' 59" W.
102	25° 49' 33" N.	79° 42' 16" W.
103	25° 48' 24" N.	79° 42' 23" W.
104	25° 48' 20" N.	79° 42' 24" W.
105	25° 46' 26" N.	79° 42' 44" W.
106	25° 46' 16" N.	79° 42' 45" W.
107	25° 43' 40" N.	79° 42' 59" W.
108	25° 42' 31" N.	79° 42' 48" W.
109	25° 40' 37" N.	79° 42' 27" W.
110	25° 37' 24" N.	79° 42' 27" W.
111	25° 37' 08" N.	79° 42' 27" W.
112	25° 31' 03" N.	79° 42' 12" W.
113	25° 27' 59" N.	79° 42' 11" W.
114	25° 24' 04" N.	79° 42' 12" W.
115	25° 22' 21" N.	79° 42' 20" W.
116	25° 21' 29" N.	79° 42' 08" W.
117	25° 16' 52" N.	79° 41' 24" W.
118	25° 15' 57" N.	79° 41' 31" W.
119	25° 10' 39" N.	79° 41' 31" W.
120	25° 09' 51" N.	79° 41' 36" W.
121	25° 09' 03" N.	79° 41' 45" W.
122	25° 03' 55" N.	79° 42' 29" W.
123	25° 02' 60" N.	79° 42' 56" W.

POINT	LATITUDE	LONGITUDE
124	25° 00' 30" N.	79° 44' 05" W.
125	24° 59' 03" N.	79° 44' 48" W.
126	24° 55' 28" N.	79° 45' 57" W.
127	24° 44' 18" N.	79° 49' 24" W.
128	24° 43' 04" N.	79° 49' 38" W.
129	24° 42' 36" N.	79° 50' 50" W.
130	24° 41' 47" N.	79° 52' 57" W.
131	24° 38' 32" N.	79° 59' 58" W.
132	24° 36' 27" N.	80° 03' 51" W.
133	24° 33' 18" N.	80° 12' 43" W.
134	24° 33' 05" N.	80° 13' 21" W.
135	24° 32' 13" N.	80° 15' 16" W.
136	24° 31' 27" N.	80° 16' 55" W.
137	24° 30' 57" N.	80° 17' 47" W.
138	24° 30' 14" N.	80° 19' 21" W.
139	24° 30' 06" N.	80° 19' 44" W.
140	24° 29' 38" N.	80° 21' 05" W.
141	24° 28' 18" N.	80° 24' 35" W.
142	24° 28' 06" N.	80° 25' 10" W.
143	24° 27' 23" N.	80° 27' 20" W.
144	24° 26' 30" N.	80° 29' 30" W.
145	24° 25' 07" N.	80° 32' 22" W.
146	24° 23' 30" N.	80° 36' 09" W.
147	24° 22' 33" N.	80° 38' 56" W.
148	24° 22' 07" N.	80° 39' 51" W.
149	24° 19' 31" N.	80° 45' 21" W.
150	24° 19' 16" N.	80° 45' 47" W.
151	24° 18' 38" N.	80° 46' 49" W.
152	24° 18' 35" N.	80° 46' 54" W.
153	24° 09' 51" N.	80° 59' 47" W.
154	24° 09' 48" N.	80° 59' 51" W.
155	24° 08' 58" N.	81° 01' 07" W.
156	24° 08' 30" N.	81° 01' 51" W.
157	24° 08' 26" N.	81° 01' 57" W.
158	24° 07' 28" N.	81° 03' 06" W.
159	24° 02' 20" N.	81° 09' 05" W.
160	23° 59' 60" N.	81° 11' 16" W.
161	23° 55' 32" N.	81° 12' 55" W.
162	23° 53' 52" N.	81° 19' 43" W.
163	23° 50' 52" N.	81° 29' 59" W.
164	23° 50' 02" N.	81° 39' 59" W.
165	23° 49' 05" N.	81° 49' 59" W.
166	23° 49' 05" N.	82° 00' 11" W.
167	23° 49' 42" N.	82° 09' 59" W.
168	23° 51' 14" N.	82° 24' 59" W.
169	23° 51' 14" N.	82° 39' 59" W.
170	23° 49' 42" N.	82° 48' 53" W.
171	23° 49' 32" N.	82° 51' 11" W.
172	23° 49' 24" N.	82° 59' 59" W.
173	23° 49' 52" N.	83° 14' 59" W.
174	23° 51' 22" N.	83° 25' 49" W.
175	23° 52' 27" N.	83° 33' 01" W.
176	23° 54' 04" N.	83° 41' 35" W.

POINT	LATITUDE	LONGITUDE
177	23° 55' 47" N.	83° 48' 11" W.
178	23° 58' 38" N.	83° 59' 59" W.
179	24° 09' 37" N.	84° 29' 27" W.
180	24° 13' 20" N.	84° 38' 39" W.
181	24° 16' 41" N.	84° 46' 07" W.
182	24° 23' 30" N.	84° 59' 59" W.
183	24° 26' 37" N.	85° 06' 19" W.
184	24° 38' 57" N.	85° 31' 54" W.
185	24° 44' 17" N.	85° 43' 11" W.
186	24° 53' 57" N.	85° 59' 59" W.
187	25° 10' 44" N.	86° 30' 07" W.
188	25° 43' 15" N.	86° 21' 14" W.
189	26° 13' 13" N.	86° 06' 45" W.
190	26° 27' 22" N.	86° 13' 15" W.
191	26° 33' 46" N.	86° 37' 07" W.
192	26° 01' 24" N.	87° 29' 35" W.
193	25° 42' 25" N.	88° 33' 00" W.
194	25° 46' 54" N.	90° 29' 41" W.
195	25° 44' 39" N.	90° 47' 05" W.
196	25° 51' 43" N.	91° 52' 50" W.
197	26° 17' 44" N.	93° 03' 59" W.
198	25° 59' 55" N.	93° 33' 52" W.
199	26° 00' 32" N.	95° 39' 27" W.
200	26° 00' 33" N.	96° 48' 30" W.
201	25° 58' 32" N.	96° 55' 28" W.
202	25° 58' 15" N.	96° 58' 41" W.
203	25° 57' 58" N.	97° 01' 54" W.
204	25° 57' 41" N.	97° 05' 08" W.
205	25° 57' 24" N.	97° 08' 21" W.
206	25° 57' 24" N.	97° 08' 47" W.

- 3 the sea area located off the coasts of the Hawaiian Islands of Hawai'i, Maui, Oahu, Moloka'i, Ni'ihau, Kaua'i, Lāna'i, and Kaho'olawe, enclosed by geodesic lines connecting the following coordinates:

POINT	LATITUDE	LONGITUDE
1	22° 32' 54" N.	153° 00' 33" W.
2	23° 06' 05" N.	153° 28' 36" W.
3	23° 32' 11" N.	154° 02' 12" W.
4	23° 51' 47" N.	154° 36' 48" W.
5	24° 21' 49" N.	155° 51' 13" W.
6	24° 41' 47" N.	156° 27' 27" W.
7	24° 57' 33" N.	157° 22' 17" W.
8	25° 13' 41" N.	157° 54' 13" W.
9	25° 25' 31" N.	158° 30' 36" W.
10	25° 31' 19" N.	159° 09' 47" W.
11	25° 30' 31" N.	159° 54' 21" W.
12	25° 21' 53" N.	160° 39' 53" W.
13	25° 00' 06" N.	161° 38' 33" W.
14	24° 40' 49" N.	162° 13' 13" W.
15	24° 15' 53" N.	162° 43' 08" W.
16	23° 40' 50" N.	163° 13' 00" W.

POINT	LATITUDE	LONGITUDE
17	23° 03' 20" N.	163° 32' 58" W
18	22° 20' 09" N.	163° 44' 41" W
19	21° 36' 45" N	163° 46' 03" W.
20	20° 55' 26" N	163° 37' 44" W
21	20° 13' 34" N.	163° 19' 13" W
22	19° 39' 03" N	162° 53' 48" W
23	19° 09' 43" N	162° 20' 35" W
24	18° 39' 16" N.	161° 19' 14" W
25	18° 30' 31" N.	160° 38' 30" W
26	18° 29' 31" N	159° 56' 17" W.
27	18° 10' 41" N.	159° 14' 08" W.
28	17° 31' 17" N	158° 56' 55" W
29	16° 54' 06" N	158° 30' 29" W.
30	16° 25' 49" N	157° 59' 25" W
31	15° 59' 57" N	157° 17' 35" W
32	15° 40' 37" N	156° 21' 06" W
33	15° 37' 36" N	155° 22' 16" W
34	15° 43' 46" N	154° 46' 37" W
35	15° 55' 32" N	154° 13' 05" W
36	16° 46' 27" N	152° 49' 11" W
37	17° 33' 42" N.	152° 00' 32" W
38	18° 30' 16" N	151° 30' 24" W
39	19° 02' 47" N	151° 22' 17" W
40	19° 34' 46" N	151° 19' 47" W
41	20° 07' 42" N	151° 22' 58" W
42	20° 38' 43" N	151° 31' 36" W
43	21° 29' 09" N	151° 59' 50" W
44	22° 06' 58" N	152° 31' 25" W
45	22° 32' 54" N	153° 00' 33" W.

3 The United States Caribbean Sea area includes:

- 1 the sea area located off the Atlantic and Caribbean coasts of the Commonwealth of Puerto Rico and the United States Virgin Islands, enclosed by geodesic lines connecting the following coordinates:

POINT	LATITUDE	LONGITUDE
1	17° 18' 37" N	67° 32' 14" W
2	19° 11' 14" N.	67° 26' 45" W.
3	19° 30' 28" N.	65° 16' 48" W.
4	19° 12' 25" N.	65° 6' 8" W.
5	18° 45' 13" N	65° 0' 22" W.
6	18° 41' 14" N	64° 59' 33" W
7	18° 29' 22" N	64° 53' 51" W.
8	18° 27' 35" N	64° 53' 22" W
9	18° 25' 21" N	64° 52' 39" W
10	18° 24' 30" N	64° 52' 19" W.
11	18° 23' 51" N.	64° 51' 50" W
12	18° 23' 42" N	64° 51' 23" W.
13	18° 23' 36" N	64° 50' 17" W
14	18° 23' 48" N.	64° 49' 41" W

POINT	LATITUDE	LONGITUDE
15	18° 24' 11" N	64° 49' 0" W
16	18° 24' 28" N.	64° 47' 57" W.
17	18° 24' 18" N	64° 47' 1" W
18	18° 23' 13" N	64° 46' 37" W
19	18° 22' 37" N	64° 45' 20" W
20	18° 22' 39" N	64° 44' 42" W
21	18° 22' 42" N	64° 44' 36" W
22	18° 22' 37" N	64° 44' 24" W
23	18° 22' 39" N.	64° 43' 42" W
24	18° 22' 30" N	64° 43' 36" W.
25	18° 22' 25" N	64° 42' 58" W
26	18° 22' 26" N	64° 42' 28" W
27	18° 22' 15" N	64° 42' 3" W
28	18° 22' 22" N	64° 40' 60" W

POINT	LATITUDE	LONGITUDE
29	18° 21' 57" N.	64° 40' 15" W.
30	18° 21' 51" N.	64° 38' 23" W.
31	18° 21' 22" N.	64° 38' 16" W.
32	18° 20' 39" N.	64° 38' 33" W.
33	18° 19' 15" N.	64° 38' 14" W.
34	18° 19' 7" N.	64° 38' 16" W.
35	18° 17' 23" N.	64° 39' 38" W.
36	18° 16' 43" N.	64° 39' 41" W.
37	18° 11' 33" N.	64° 38' 58" W.
38	18° 3' 2" N.	64° 38' 3" W.
39	18° 2' 56" N.	64° 29' 35" W.
40	18° 2' 51" N.	64° 27' 2" W.
41	18° 2' 30" N.	64° 21' 8" W.
42	18° 2' 31" N.	64° 20' 8" W.

POINT	LATITUDE	LONGITUDE
43	18° 2' 3" N.	64° 15' 57" W.
44	18° 0' 12" N.	64° 2' 29" W.
45	17° 59' 58" N.	64° 1' 4" W.
46	17° 58' 47" N.	63° 57' 1" W.
47	17° 57' 51" N.	63° 53' 54" W.
48	17° 56' 38" N.	63° 53' 21" W.
49	17° 39' 40" N.	63° 54' 53" W.
50	17° 37' 8" N.	63° 55' 10" W.
51	17° 30' 21" N.	63° 55' 56" W.
52	17° 11' 36" N.	63° 57' 57" W.
53	17° 4' 60" N.	63° 58' 41" W.
54	16° 59' 49" N.	63° 59' 18" W.
55	17° 18' 37" N.	67° 32' 14" W.

11

RESOLUTION MEPC.203(62)**Adopted on 15 July 2011****AMENDMENTS TO THE ANNEX OF THE PROTOCOL OF 1997 TO AMEND THE INTERNATIONAL CONVENTION FOR THE PREVENTION OF POLLUTION FROM SHIPS, 1973, AS MODIFIED BY THE PROTOCOL OF 1978 RELATING THERETO****(Inclusion of regulations on energy efficiency for ships in MARPOL Annex VI)**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee (the Committee) conferred upon it by international conventions for the prevention and control of marine pollution,

NOTING article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1973 Convention"), article VI of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1978 Protocol") and article 4 of the Protocol of 1997 to amend 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 "1997 Protocol"), which together specify the amendment procedure of the 1997 Protocol and confer upon the appropriate body of the Organization the function of considering and adopting amendments to the 1973 Convention, as modified by the 1978 and 1997 Protocols,

NOTING ALSO that, by the 1997 Protocol, Annex VI entitled Regulations for the Prevention of Air Pollution from Ships was added to the 1973 Convention (hereinafter referred to as "Annex VI"),

NOTING FURTHER that the revised Annex VI was adopted by resolution MEPC.176(58) and entered into force on 1 July 2010,

RECOGNIZING that the amendments to Annex VI and inclusion of a new chapter 4 intend to improve energy efficiency for ships through a set of technical performance standards, which would result in reduction of emissions of any substances that originate from fuel oil and its combustion process, including those already controlled by Annex VI,

RECOGNIZING ALSO that adoption of the amendments to Annex VI in no way prejudices the negotiations held in other international fora, such as the United Nations Framework Convention on Climate Change (UNFCCC), nor affect the positions of the countries that participate in such negotiations,

HAVING CONSIDERED draft amendments to the revised Annex VI for inclusion of regulations on energy efficiency for ships,

1. ADOPTS, in accordance with article 16(2)(d) of the 1973 Convention, the amendments to Annex VI, the text of which is set out in the annex to the present resolution;

2. DETERMINES, in accordance with article 16(2)(f)(iii) of the 1973 Convention, that the amendments shall be deemed to have been accepted on 1 July 2012, unless prior to that date, not less than one third of the Parties or Parties the combined merchant fleets of which constitute not less than 50 per cent of the gross tonnage of the world's merchant fleet, have communicated to the Organization their objection to the amendments;
3. INVITES the Parties to note that, in accordance with article 16(2)(g)(ii) of the 1973 Convention, the said amendments shall enter into force on 1 January 2013 upon their acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with article 16(2)(e) of the 1973 Convention, to transmit to all Parties to the 1973 Convention, as modified by the 1978 and 1997 Protocols, certified copies of the present resolution and the text of the amendments contained in the Annex;
5. REQUESTS FURTHER the Secretary-General to transmit to the Members of the Organization which are not Parties to the 1973 Convention, as modified by the 1978 and 1997 Protocols, copies of the present resolution and its Annex; and
6. INVITES the Parties to MARPOL Annex VI and other Member Governments to bring the amendments to MARPOL Annex VI to the attention of shipowners, ship operators, shipbuilders, ship designers, marine diesel engine and equipment manufacturers as well as any other interested groups.

ANNEX**AMENDMENTS TO MARPOL ANNEX VI ON REGULATIONS FOR THE PREVENTION OF
AIR POLLUTION FROM SHIPS BY INCLUSION OF NEW REGULATIONS ON
ENERGY EFFICIENCY FOR SHIPS****CHAPTER 1****GENERAL****Regulation 1***Application*

- 1 *The regulation is amended as follows:*

"The provisions of this Annex shall apply to all ships, except where expressly provided otherwise in regulations 3, 5, 6, 13, 15, 16, 18, 19, 20, 21 and 22 of this Annex."

Regulation 2*Definitions*

- 2 *Paragraph 21 is amended as follows:*

"21 *Tanker* in relation to regulation 15 of this Annex means an oil tanker as defined in regulation 1 of Annex I of the present Convention or a chemical tanker as defined in regulation 1 of Annex II of the present Convention."

- 3 *The following is added at the end of regulation 2:*

"For the purpose of chapter 4 of this Annex:

22 "Existing ship" means a ship which is not a new ship.

23 "New ship" means a ship:

- .1 for which the building contract is placed on or after 1 January 2013;
or
- .2 in the absence of a building contract, the keel of which is laid or
which is at a similar stage of construction on or after 1 July 2013;
or
- .3 the delivery of which is on or after 1 July 2015.

24 "Major Conversion" means in relation to chapter 4 of this Annex a conversion of a ship:

- .1 which substantially alters the dimensions, carrying capacity or engine power of the ship; or
- .2 which changes the type of the ship; or
- .3 the intent of which in the opinion of the Administration is substantially to prolong the life of the ship; or
- .4 which otherwise so alters the ship that, if it were a new ship, it would become subject to relevant provisions of the present Convention not applicable to it as an existing ship; or
- .5 which substantially alters the energy efficiency of the ship and includes any modifications that could cause the ship to exceed the applicable required EEDI as set out in regulation 21 of this Annex.

25 "Bulk carrier" means a ship which is intended primarily to carry dry cargo in bulk, including such types as ore carriers as defined in regulation 1 of chapter XII of SOLAS 74 (as amended), but excluding combination carriers.

26 "Gas carrier" means a cargo ship constructed or adapted and used for the carriage in bulk of any liquefied gas.

27 "Tanker" in relation to chapter 4 of this Annex means an oil tanker as defined in regulation 1 of Annex I of the present Convention or a chemical tanker or an NLS tanker as defined in regulation 1 of Annex II of the present Convention.

28 "Containership" means a ship designed exclusively for the carriage of containers in holds and on deck.

29 "General cargo ship" means a ship with a multi-deck or single deck hull designed primarily for the carriage of general cargo. This definition excludes specialized dry cargo ships, which are not included in the calculation of reference lines for general cargo ships, namely livestock carrier, barge carrier, heavy load carrier, yacht carrier, nuclear fuel carrier.

30 "Refrigerated cargo carrier" means a ship designed exclusively for the carriage of refrigerated cargoes in holds.

31 "Combination carrier" means a ship designed to load 100% deadweight with both liquid and dry cargo in bulk.

32 "Passenger ship" means a ship which carries more than 12 passengers.

33 "Ro-ro cargo ship (vehicle carrier)" means a multi deck roll-on/roll-off cargo ship designed for the carriage of empty cars and trucks.

34 "Ro-ro cargo ship" means a ship designed for the carriage of roll-on/roll-off cargo transportation units.

35 "Ro-ro passenger ship" means a passenger ship with roll-on/roll-off cargo spaces.

36 "Attained EEDI" is the EEDI value achieved by an individual ship in accordance with regulation 20 of this Annex.

37 "Required EEDI" is the maximum value of attained EEDI that is allowed by regulation 21 of this Annex for the specific ship type and size."

CHAPTER 2

SURVEY, CERTIFICATION AND MEANS OF CONTROL

Regulation 5

Surveys

4 *Paragraph 1 is amended as follows:*

"1 Every ship of 400 gross tonnage and above and every fixed and floating drilling rig and other platforms shall, to ensure compliance with the requirements of chapter 3 of this Annex, be subject to the surveys specified below:

- .1 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 chapter 3 of this Annex;
- .2 A renewal survey at intervals specified by the Administration, but not exceeding five years, except where regulation 9.2, 9.5, 9.6 or 9.7 of this Annex is applicable. The renewal survey shall be such as to ensure that the equipment, systems, fittings, arrangements and material fully comply with applicable requirements of chapter 3 of this Annex;
- .3 An intermediate survey within three months before or after the second anniversary date or within three months before or after the third anniversary date of the certificate which shall take the place of one of the annual surveys specified in paragraph 1.4 of this regulation. The intermediate survey shall be such as to ensure that the equipment and arrangements fully comply with the applicable requirements of chapter 3 of this Annex and are in good working order. Such intermediate surveys shall be endorsed on the IAPP Certificate issued under regulation 6 or 7 of this Annex;
- .4 An annual survey within three months before or after each anniversary date of the certificate, including a general inspection of the equipment, systems, fittings, arrangements and material referred to in paragraph 1.1 of this regulation to ensure that they have been maintained in accordance with paragraph 5 of this regulation and that they remain satisfactory for the service for which the ship is intended. Such annual surveys shall be endorsed on the IAPP Certificate issued under regulation 6 or 7 of this Annex; and

- .5 An additional survey either general or partial, according to the circumstances, shall be made whenever any important repairs or renewals are made as prescribed in paragraph 5 of this regulation or after a repair resulting from investigations prescribed in paragraph 6 of this regulation. The survey shall be such as to ensure that the necessary repairs or renewals have been effectively made, that the material and workmanship of such repairs or renewals are in all respects satisfactory and that the ship complies in all respects with the requirements of chapter 3 of this Annex."

5 *Paragraph 2 is amended as follows:*

"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 chapter 3 of this Annex are complied with."

6 *A new paragraph 4 is added after existing paragraph 3 as follows:*

"4 Ships to which chapter 4 of this Annex applies shall also be subject to the surveys specified below, taking into account guidelines adopted by the Organization:

- .1 An initial survey before a new ship is put in service and before the International Energy Efficiency Certificate is issued. The survey shall verify that the ship's attained EEDI is in accordance with the requirements in chapter 4 of this Annex, and that the SEEMP required by regulation 22 of this Annex is on board;
- .2 A general or partial survey, according to the circumstances, after a major conversion of a ship to which this regulation applies. The survey shall ensure that the attained EEDI is recalculated as necessary and meets the requirement of regulation 21 of this Annex, with the reduction factor applicable to the ship type and size of the converted ship in the phase corresponding to the date of contract or keel laying or delivery determined for the original ship in accordance with regulation 2.23 of this Annex;
- .3 In cases where the major conversion of a new or existing ship is so extensive that the ship is regarded by the Administration as a newly constructed ship, the Administration shall determine the necessity of an initial survey on attained EEDI. Such a survey, if determined necessary, shall ensure that the attained EEDI is calculated and meets the requirement of regulation 21 of this Annex, with the reduction factor applicable corresponding to the ship type and size of the converted ship at the date of the contract of the conversion, or in the absence of a contract, the commencement date of the conversion. The survey shall also verify that the SEEMP required by regulation 22 of this Annex is on board; and
- .4 For existing ships, the verification of the requirement to have a SEEMP on board according to regulation 22 of this Annex shall take place at the first intermediate or renewal survey identified in paragraph 1 of this regulation, whichever is the first, on or after 1 January 2013."

7 *Paragraph 4 is renumbered paragraph 5.*

8 *Paragraph 5 is renumbered paragraph 6.*

Regulation 6

Issue or endorsement of a Certificate

9 *The heading is amended as follows:*

"Issue or endorsement of Certificates"

10 *The following sub-heading is added at the beginning of the regulation:*

"International Air Pollution Prevention Certificate"

11 *Paragraph 2 is amended as follows:*

"2 A ship constructed before the date this Annex enters into force for that particular ship's Administration, shall be issued with an International Air Pollution Prevention Certificate in accordance with paragraph 1 of this regulation no later than the first scheduled dry-docking after the date of such entry into force, but in no case later than three years after this date."

12 *The following is added at the end of the regulation:*

"International Energy Efficiency Certificate"

4 An International Energy Efficiency Certificate for the ship shall be issued after a survey in accordance with the provisions of regulation 5.4 of this Annex to any ship of 400 gross tonnage and above before that ship may engage in voyages to ports or offshore terminals under the jurisdiction of other Parties.

5 The certificate shall be issued or endorsed either by the Administration or any organization duly authorized by it. In every case, the Administration assumes full responsibility for the certificate."

Regulation 7

Issue of a Certificate by another Party

13 *Paragraph 1 is amended as follows:*

"1 A Party may, at the request of the Administration, cause a ship to be surveyed and, if satisfied that the applicable provisions of this Annex are complied with, shall issue or authorize the issuance of an International Air Pollution Prevention Certificate or an International Energy Efficiency Certificate to the ship, and where appropriate, endorse or authorize the endorsement of such certificates on the ship, in accordance with this Annex."

14 *Paragraph 4 is amended as follows:*

"4 No International Air Pollution Prevention Certificate or International Energy Efficiency Certificate shall be issued to a ship which is entitled to fly the flag of a State which is not a Party."

Regulation 8*Form of Certificate*

- 15 *The heading is amended as follows:*

"Form of Certificates"

- 16 *The following subheading is added, and the existing regulation is renumbered as paragraph 1:*

"International Air Pollution Prevention Certificate"

- 17 *The following new paragraph 2 is added at the end of the regulation:*

"International Energy Efficiency Certificate

2 The International Energy Efficiency Certificate shall be drawn up in a form corresponding to the model given in appendix VIII to this Annex and shall be at least in English, French or Spanish. If an official language of the issuing Party is also used, this shall prevail in case of a dispute or discrepancy."

Regulation 9*Duration and Validity of Certificate*

- 18 *The heading is amended as follows:*

"Duration and Validity of Certificates"

- 19 *The following subheading is added at the beginning of the regulation:*

"International Air Pollution Prevention Certificate"

- 20 *The following is added at the end of the regulation:*

"International Energy Efficiency Certificate

10 The International Energy Efficiency Certificate shall be valid throughout the life of the ship subject to the provisions of paragraph 11 below.

11 An International Energy Efficiency Certificate issued under this Annex shall cease to be valid in any of the following cases:

- .1 if the ship is withdrawn from service or if a new certificate is issued following major conversion of the ship; or
- .2 upon transfer of the ship to the flag of another State. A new certificate shall only be issued when the Government issuing the new certificate is fully satisfied that the ship is in compliance with the requirements of chapter 4 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 copies of the 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*

21 A new paragraph 5 is added at the end of the regulation as follows:

"5 In relation to chapter 4 of this Annex, any port State inspection shall be limited to verifying, when appropriate, that there is a valid International Energy Efficiency Certificate on board, in accordance with article 5 of the Convention."

22 A new chapter 4 is added at the end of the Annex as follows:

"CHAPTER 4**REGULATIONS ON ENERGY EFFICIENCY FOR SHIPS****Regulation 19***Application*

1 This chapter shall apply to all ships of 400 gross tonnage and above.

2 The provisions of this chapter shall not apply to:

.1 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. However, each Party should ensure, by the adoption of appropriate measures, that such ships are constructed and act in a manner consistent with the requirements of chapter 4 of this Annex, so far as is reasonable and practicable.

3 Regulations 20 and 21 of this Annex shall not apply to ships which have diesel-electric propulsion, turbine propulsion or hybrid propulsion systems.

4 Notwithstanding the provisions of paragraph 1 of this regulation, the Administration may waive the requirement for a ship of 400 gross tonnage and above from complying with regulations 20 and 21 of this Annex.

5 The provision of paragraph 4 of this regulation shall not apply to ships of 400 gross tonnage and above:

.1 for which the building contract is placed on or after 1 January 2017; or

.2 in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction on or after 1 July 2017; or

.3 the delivery of which is on or after 1 July 2019; or

.4 in cases of a major conversion of a new or existing ship, as defined in regulation 2.24 of this Annex, on or after 1 January 2017, and in which regulations 5.4.2 and 5.4.3 of this Annex apply.

6 The Administration of a Party to the present Convention which allows application of paragraph 4, or suspends, withdraws or declines the application of that paragraph, to a ship entitled to fly its flag shall forthwith communicate to the

Organization for circulation to the Parties to the present Protocol particulars thereof, for their information.

Regulation 20

Attained Energy Efficiency Design Index (Attained EEDI)

- 1 The attained EEDI shall be calculated for:
 - .1 each new ship;
 - .2 each new ship which has undergone a major conversion; and
 - .3 each new or existing ship which has undergone a major conversion, that is so extensive that the ship is regarded by the Administration as a newly constructed ship,

which falls into one or more of the categories in regulations 2.25 to 2.35 of this Annex. The attained EEDI shall be specific to each ship and shall indicate the estimated performance of the ship in terms of energy efficiency, and be accompanied by the EEDI technical file that contains the information necessary for the calculation of the attained EEDI and that shows the process of calculation. The attained EEDI shall be verified, based on the EEDI technical file, either by the Administration or by any organization duly authorized by it.

- 2 The attained EEDI shall be calculated taking into account guidelines developed by the Organization.

Regulation 21

Required EEDI

- 1 For each:
 - .1 new ship;
 - .2 new ship which has undergone a major conversion; and
 - .3 new or existing ship which has undergone a major conversion that is so extensive that the ship is regarded by the Administration as a newly constructed ship,

which falls into one of the categories defined in regulations 2.25 to 2.31 of this Annex and to which this chapter is applicable, the attained EEDI shall be as follows:

$$\text{Attained EEDI} \leq \text{Required EEDI} = (1-X/100) \times \text{Reference line value}$$

where X is the reduction factor specified in Table 1 for the required EEDI compared to the EEDI Reference line.

- 2 For each new and existing ship that has undergone a major conversion which is so extensive that the ship is regarded by the Administration as a newly constructed ship, the attained EEDI shall be calculated and meet the requirement of paragraph 21.1 with the reduction factor applicable corresponding to the ship type and size of the converted ship at the date of the contract of the conversion, or in the absence of a contract, the commencement date of the conversion.

Table 1. Reduction factors (in percentage) for the EEDI relative to the EEDI Reference line

Ship Type	Size	Phase 0 1 Jan 2013 – 31 Dec 2014	Phase 1 1 Jan 2015 – 31 Dec 2019	Phase 2 1 Jan 2020 – 31 Dec 2024	Phase 3 1 Jan 2025 and onwards
Bulk carrier	20,000 DWT and above	0	10	20	30
	10,000 – 20,000 DWT	n/a	0-10*	0-20*	0-30*
Gas carrier	10,000 DWT and above	0	10	20	30
	2,000 – 10,000 DWT	n/a	0-10*	0-20*	0-30*
Tanker	20,000 DWT and above	0	10	20	30
	4,000 – 20,000 DWT	n/a	0-10*	0-20*	0-30*
Containership	15,000 DWT and above	0	10	20	30
	10,000 – 15,000 DWT	n/a	0-10*	0-20*	0-30*
General Cargo ships	15,000 DWT and above	0	10	15	30
	3,000 – 15,000 DWT	n/a	0-10*	0-15*	0-30*
Refrigerated cargo carrier	5,000 DWT and above	0	10	15	30
	3,000 – 5,000 DWT	n/a	0-10*	0-15*	0-30*
Combination carrier	20,000 DWT and above	0	10	20	30
	4,000 – 20,000 DWT	n/a	0-10*	0-20*	0-30*

* Reduction factor to be linearly interpolated between the two values dependent upon vessel size. The lower value of the reduction factor is to be applied to the smaller ship size.

n/a means that no required EEDI applies.

3 The Reference line values shall be calculated as follows:

$$\text{Reference line value} = a \times b^{-c}$$

where a, b and c are the parameters given in Table 2.

Table 2. Parameters for determination of reference values for the different ship types

Ship type defined in regulation 2	a	b	c
2.25 Bulk carrier	961.79	DWT of the ship	0.477
2.26 Gas carrier	1120.00	DWT of the ship	0.456
2.27 Tanker	1218.80	DWT of the ship	0.488
2.28 Containership	174.22	DWT of the ship	0.201
2.29 General cargo ship	107.48	DWT of the ship	0.216
2.30 Refrigerated cargo carrier	227.01	DWT of the ship	0.244
2.31 Combination carrier	1219.00	DWT of the ship	0.488

4 If the design of a ship allows it to fall into more than one of the ship type definitions specified in table 2, the required EEDI for the ship shall be the most stringent (the lowest) required EEDI.

5 For each ship to which this regulation applies, the installed propulsion power shall not be less than the propulsion power needed to maintain the manoeuvrability of the ship under adverse conditions as defined in the guidelines to be developed by the Organization.

6 At the beginning of Phase 1 and at the midpoint of Phase 2, the Organization shall review the status of technological developments and, if proven necessary, amend the time periods, the EEDI reference line parameters for relevant ship types and reduction rates set out in this regulation.

Regulation 22

Ship Energy Efficiency Management Plan (SEEMP)

1 Each ship shall keep on board a ship specific Ship Energy Efficiency Management Plan (SEEMP). This may form part of the ship's Safety Management System (SMS).

2 The SEEMP shall be developed taking into account guidelines adopted by the Organization.

Regulation 23

Promotion of technical co-operation and transfer of technology relating to the improvement of energy efficiency of ships

1 Administrations shall, in co-operation with the Organization and other international bodies, promote and provide, as appropriate, support directly or through the Organization to States, especially developing States, that request technical assistance.

2 The Administration of a Party shall co-operate actively with other Parties, subject to its national laws, regulations and policies, to promote the development and transfer of technology and exchange of information to States which request technical assistance, particularly developing States, in respect of the implementation of measures to fulfil the requirements of chapter 4 of this Annex, in particular regulations 19.4 to 19.6."

23 *A new appendix VIII is added at the end of the Annex as follows:*

"APPENDIX VIII

Form of International Energy Efficiency (IEE) Certificate

INTERNATIONAL ENERGY EFFICIENCY CERTIFICATE

Issued under the provisions of the Protocol of 1997, as amended by resolution MEPC.203(62), to amend the International Convention for the Prevention of Pollution by Ships, 1973, as modified by the Protocol of 1978 related thereto (hereinafter referred to as "the Convention") under the authority of the Government of:

.....
(Full designation of the Party)

by
(Full designation of the competent person or organization
authorized under the provisions of the Convention)

Particulars of ship

Name of ship

Distinctive number or letters

Port of registry

Gross tonnage

IMO Number

THIS IS TO CERTIFY:

- 1 That the ship has been surveyed in accordance with regulation 5.4 of Annex VI of the Convention; and
- 2 That the survey shows that the ship complies with the applicable requirements in regulation 20, regulation 21 and regulation 22.

Completion date of survey on which this Certificate is based: (dd/mm/yyyy)

Issued at
(Place of issue of certificate)(dd/mm/yyyy):
(Date of issue).....
(Signature of duly authorized official
issuing the certificate)

(Seal or stamp of the authority, as appropriate)

**Supplement to the International Energy Efficiency Certificate
(IEE Certificate)**

RECORD OF CONSTRUCTION RELATING TO ENERGY EFFICIENCY

Notes:

- | | |
|---|---|
| 1 | This Record shall be permanently attached to the IEE Certificate. The IEE Certificate shall be available on board the ship at all times. |
| 2 | The Record shall be at least in English, French or Spanish. If an official language of the issuing Party is also used, this shall prevail in case of a dispute or discrepancy. |
| 3 | Entries in boxes shall be made by inserting either: a cross (x) for the answers "yes" and "applicable"; or a dash (-) for the answers "no" and "not applicable", as appropriate. |
| 4 | Unless otherwise stated, regulations mentioned in this Record refer to regulations in 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 | IMO number |
| 1.3 | Date of building contract |
| 1.4 | Gross tonnage |
| 1.5 | Deadweight |
| 1.6 | Type of ship* |

2 Propulsion system

- | | | |
|-----|---|--------------------------|
| 2.1 | Diesel propulsion | <input type="checkbox"/> |
| 2.2 | Diesel-electric propulsion | <input type="checkbox"/> |
| 2.3 | Turbine propulsion | <input type="checkbox"/> |
| 2.4 | Hybrid propulsion | <input type="checkbox"/> |
| 2.5 | Propulsion system other than any of the above | <input type="checkbox"/> |

* Insert ship type in accordance with definitions specified in regulation 2. Ships falling into more than one of the ship types defined in regulation 2 should be considered as being the ship type with the most stringent (the lowest) required EEDI. If ship does not fall into the ship types defined in regulation 2, insert "Ship other than any of the ship type defined in regulation 2".

3 Attained Energy Efficiency Design Index (EEDI)

- 3.1 The Attained EEDI in accordance with regulation 20.1 is calculated based on the information contained in the EEDI technical file which also shows the process of calculating the Attained EEDI. ☐

The Attained EEDI is: grams-CO₂/tonne-mile

- 3.2 The Attained EEDI is not calculated as:

- 3.2.1 the ship is exempt under regulation 20.1 as it is not a new ship as defined in regulation 2.23 ☐

- 3.2.2 the type of propulsion system is exempt in accordance with regulation 19.3 ☐

- 3.2.3 the requirement of regulation 20 is waived by the ship's Administration in accordance with regulation 19.4 ☐

- 3.2.4 the type of ship is exempt in accordance with regulation 20.1 ☐

4 Required EEDI

- 4.1 Required EEDI is: grams-CO₂/tonne-mile

- 4.2 The required EEDI is not applicable as:

- 4.2.1 the ship is exempt under regulation 21.1 as it is not a new ship as defined in regulation 2.23 ☐

- 4.2.2 the type of propulsion system is exempt in accordance with regulation 19.3 ☐

- 4.2.3 the requirement of regulation 21 is waived by the ship's Administration in accordance with regulation 19.4 ☐

- 4.2.4 the type of ship is exempt in accordance with regulation 21.1 ☐

- 4.2.5 the ship's capacity is below the minimum capacity threshold in Table 1 of regulation 21.2 ☐

5 Ship Energy Efficiency Management Plan

- 5.1 The ship is provided with a Ship Energy Efficiency Management Plan (SEEMP) in compliance with regulation 22 ☐

6 EEDI technical file

- 6.1 The IEE Certificate is accompanied by the EEDI technical file in compliance with regulation 20.1 ☐

- 6.2 The EEDI technical file identification/verification number

- 6.3 The EEDI technical file verification date

THIS IS TO CERTIFY that this Record is correct in all respects.

Issued at
(Place of issue of the Record)

(dd/mm/yyyy):
(Date of issue) (Signature of duly authorized official
issuing the Record)
(Seal or stamp of the authority, as appropriate)"

RESOLUTION MEPC.216(63)**Adopted on 2 March 2012****AMENDMENTS TO THE ANNEX OF THE PROTOCOL OF 1978 RELATING TO
THE INTERNATIONAL CONVENTION FOR THE PREVENTION OF
POLLUTION FROM SHIPS, 1973****(Regional arrangements for port reception facilities under
MARPOL Annexes I, II, IV and V)**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee conferred upon it by international conventions for the prevention and control of marine pollution,

NOTING article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1973 Convention") and article VI of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1978 Protocol") which together specify the amendment procedure of the 1978 Protocol and confer upon the appropriate body of the Organization the function of considering and adopting amendments to the 1973 Convention, as modified by the 1978 Protocol (MARPOL 73/78),

HAVING CONSIDERED draft amendments to Annexes I, II, IV and V of MARPOL 73/78,

1. ADOPTS, in accordance with article 16(2)(d) of the 1973 Convention, the amendments to Annexes I, II, IV and V of MARPOL 73/78, the text of which is set out in the annex to the present resolution;
2. DETERMINES, in accordance with article 16(2)(f)(iii) of the 1973 Convention, that the amendments shall be deemed to have been accepted on 1 February 2013 unless, prior to that date, not less than one third of the Parties or Parties the combined merchant fleets of which constitute not less than 50 per cent of the gross tonnage of the world's merchant fleet, have communicated to the Organization their objection to the amendments;
3. INVITES the Parties to note that, in accordance with article 16(2)(g)(ii) of the 1973 Convention, the said amendments shall enter into force on 1 August 2013 upon their acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with article 16(2)(e) of the 1973 Convention, to transmit to all Parties to MARPOL 73/78 certified copies of the present resolution and the text of the amendments contained in the annex;
5. REQUESTS FURTHER the Secretary-General to transmit to the Members of the Organization which are not Parties to MARPOL 73/78 copies of the present resolution and its annex.

ANNEX

AMENDMENTS TO MARPOL ANNEXES I, II, IV AND V

1 *New paragraphs 3bis and 4bis are added to regulation 38 of Annex I:*

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

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

- .1 how the Regional Reception Facilities Plan takes into account the Guidelines;
- .2 particulars of the identified Regional Ships Waste Reception Centres; and
- .3 particulars of those ports with only limited facilities.

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

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

- .1 how the Regional Reception Facilities Plan takes into account the Guidelines;
- .2 particulars of the identified Regional Ships Waste Reception Centres; and
- .3 particulars of those ports with only limited facilities.

2 *New paragraphs 2bis and 2ter are added to regulation 18 of Annex II:*

2bis Small Island Developing States may satisfy the requirements in paragraphs 1, 2 and 4 of this regulation through regional arrangements when, because of those States' unique circumstances, such arrangements are the only practical means to satisfy these requirements. Parties participating in a regional arrangement shall develop a Regional Reception Facilities Plan, taking into account the guidelines developed by the Organization.

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

- .1 how the Regional Reception Facilities Plan takes into account the Guidelines;
- .2 particulars of the identified Regional Ships Waste Reception Centres; and
- .3 particulars of those ports with only limited facilities.

2ter Where regulation 13 of this annex requires a prewash and the Regional Reception Facility Plan is applicable to the port of unloading, the prewash and subsequent discharge to a reception facility shall be carried out as prescribed in regulation 13 of this annex or at a Regional Ship Waste Reception Centre specified in the applicable Regional Reception Facility Plan.

3 *New paragraph 1bis is added to regulation 12 of Annex IV:*

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

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

- .1 how the Regional Reception Facilities Plan takes into account the Guidelines;
- .2 particulars of the identified Regional Ships Waste Reception Centres; and
- .3 particulars of those ports with only limited facilities.

4 *New paragraph 2bis is added to regulation 8 of Annex V:*

2bis Small Island Developing States may satisfy the requirements in paragraphs 1 and 2.1 of this regulation through regional arrangements when, because of those States' unique circumstances, such arrangements are the only practical means to satisfy these requirements. Parties participating in a regional arrangement shall develop a Regional Reception Facilities Plan, taking into account the guidelines developed by the Organization.

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

- .1 how the Regional Reception Facilities Plan takes into account the Guidelines;
- .2 particulars of the identified Regional Ships Waste Reception Centres; and
- .3 particulars of those ports with only limited facilities.

RESOLUTION MEPC.235(65)
(adopted on 17 May 2013)

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

**(Amendments to Form A and Form B of Supplements to the
IOPP Certificate under MARPOL Annex I)**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee conferred upon it by international conventions for the prevention and control of marine pollution,

NOTING article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1973 Convention") and article VI of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1978 Protocol") which together specify the amendment procedure of the 1978 Protocol and confer upon the appropriate body of the Organization the function of considering and adopting amendments to the 1973 Convention, as modified by the 1978 Protocol (MARPOL),

HAVING CONSIDERED draft amendments to Form A and Form B of Supplements to the IOPP Certificate under Annex I of MARPOL,

1. ADOPTS, in accordance with article 16(2)(d) of the 1973 Convention, the amendments to Form A and Form B of Supplements to the IOPP Certificate under Annex I of MARPOL, the text of which is set out in the annex to the present resolution;
2. DETERMINES, in accordance with article 16(2)(f)(iii) of the 1973 Convention, that the amendments shall be deemed to have been accepted on 1 April 2014 unless, prior to that date, not less than one third of the Parties or Parties the combined merchant fleets of which constitute not less than 50 per cent of the gross tonnage of the world's merchant fleet, have communicated to the Organization their objection to the amendments;
3. INVITES the Parties to note that, in accordance with article 16(2)(g)(ii) of the 1973 Convention, the said amendments shall enter into force on 1 October 2014 upon their acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with article 16(2)(e) of the 1973 Convention, to transmit to all Parties to MARPOL certified copies of the present resolution and the text of the amendments contained in the annex;
5. REQUESTS FURTHER the Secretary-General to transmit to the Members of the Organization which are not Parties to MARPOL copies of the present resolution and its annex.

ANNEX

**AMENDMENTS TO FORM A AND FORM B OF SUPPLEMENTS
TO THE IOPP CERTIFICATE UNDER MARPOL ANNEX I****1 Amendments to the Supplement to the IOPP Certificate (Form A)**

The existing paragraph 3.2.1 is replaced by the following:

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

2 Amendments to the Supplement to the IOPP Certificate (Form B)

The existing paragraph 3.2.1 is replaced by the following:

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

第 77/2016 號行政長官公告

中華人民共和國於一九九九年十二月十三日以照會通知聯合國秘書長，經修訂的《1974年國際海上人命安全公約》（SOLAS公約）自一九九九年十二月二十日起適用於澳門特別行政區；

國際海事組織海上安全委員會於二零一零年十二月三日透過第MSC.307(88)號決議通過了《2010年國際消防試驗程序應用規則》（2010年消防試驗規則），該規則自二零一二年七月一日起適用於澳門特別行政區；

基於此，行政長官根據第3/1999號法律《法規的公布與格式》第六條第一款的規定，命令公佈包含上指規則的第MSC.307(88)號決議的中文及英文正式文本。

二零一六年十一月十四日發佈。

行政長官 崔世安

Aviso do Chefe do Executivo n.º 77/2016

Considerando que a República Popular da China, por nota datada de 13 de Dezembro de 1999, notificou o Secretário-Geral das Nações Unidas sobre a aplicação da Convenção Internacional para a Salvaguarda da Vida Humana no Mar (SOLAS), 1974, tal como emendada, na Região Administrativa Especial de Macau, a partir de 20 de Dezembro de 1999;

Considerando igualmente que, em 3 de Dezembro de 2010, o Comité de Segurança Marítima da Organização Marítima Internacional, através da sua resolução MSC.307(88), adoptou o Código Internacional dos Procedimentos para as Provas de Fogo (Código FTP 2010), e que tal Código é aplicável na Região Administrativa Especial de Macau desde 1 de Julho de 2012;

O Chefe do Executivo manda publicar, nos termos do n.º 1 do artigo 6.º da Lei n.º 3/1999 (Publicação e formulário dos diplomas), a resolução MSC.307(88), que contém o referido Código, nos seus textos autênticos em línguas chinesa e inglesa.

Promulgado em 14 de Novembro de 2016.

O Chefe do Executivo, *Chui Sai On*.