

NAVIGATION AND VESSEL INSPECTION CIRCULAR No. 6-94, CHANGE I ADDED

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Subj: GUIDANCE FOR ISSUING INTERNATIONAL OIL POLLUTION PREVENTION (IOPP) CERTIFICATES UNDER 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)

1. PURPOSE. The purpose of this Circular is to provide guidance regarding the issuance of IOPP Certificates to U.S. ships.
2. DIRECTIVES AFFECTED. NVIC 9-86 is canceled.
3. BACKGROUND. MARPOL 73/78 entered into force October 2, 1983. The Coast Guard is authorized by the Act to Prevent Pollution from Ships (P.L. 96-478, 33 U.S.C. 1901 et seq.) to issue International Oil Pollution Prevention (IOPP) Certificates to qualified ships. MARPOL 73/78 requires that each tanker of 150 gross tons or more and any other ship 400 gross tons or more which engages in a voyage between countries party to MARPOL 73/78 be surveyed and obtain an IOPP Certificate. New ships (defined in Regulation 1(6) of MARPOL 73/78) were required to have an IOPP Certificate on board by October 2, 1983; other ships had until October 2, 1984
4. DISCUSSION. The guidance for surveying ships and issuing IOPP Certificates is basically unchanged from that given in NVIC 9-86. This Circular updates and corrects NVIC 9-86 to account for actions taken by the International Maritime Organization (IMO) regarding the acceptance and entering into force of requirements dealing with the design of new tankers to be built on or after July 6, 1993, measures for existing tankers, and new oil discharge criteria for oil filtering equipment and control systems including the instantaneous rate to discharge oily cargo mixtures, and policy determinations that have been made since NVIC 9-86 was promulgated.

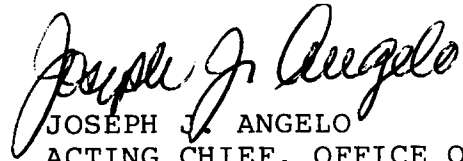
The following items are of special interest:

- a. IOPP Certificate and Form A and B Supplements, revision 6-93, are administratively producible using the Standard Workstation's Forms Plus software application library (CGLaser5000A, Rev. 12/93) with a laser printer.
- b. The decision to not issue Form A and B Supplements to certificated U.S. vessels that are not issued IOPP Certificates.
- c. Guidance for issuing IOPP Certificates and the Form B Supplements to existing and new tank vessels regarding the tank vessel design standards of Regulations 13F and 13G of Annex I, MARPOL 73/78. The new IOPP Certificate and supplemental forms are enclosed.

and new vessels regarding oily bilge water, and oil tankers regarding oily cargo residue, which must meet the new oil discharge criteria for processing and discharge rates.

5. IMPLEMENTATION.

- a. Shipowners may use enclosure (1) as guidance in equipping their U.S. ships to comply with MARPOL 73/78 and preparing their ships for survey under MARPOL 73/78.
- b. Officers-In-Charge, Marine Inspection (OCMIs) and Captains of the Port (COTPs) will use Parts I, II and III of enclosure (1) as guidance in conducting surveys under MARPOL 73/78 and completing the supplements to the IOPP Certificates.
- c. An OCMI or COTP who has surveyed a ship and found it to comply with the convention may issue that ship an IOPP Certificate and supplement. The Certificate will be issued in accordance with the instructions contained in Part IV of enclosure (1).

  
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Guidelines for Conducting MARPOL 73/78 Surveys  
and Issuing IOPP Certificates

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Guidelines for Conducting MARPOL 73/78 Surveys  
and Issuing IOPP Certificates

PART I  
GENERAL

Purpose.

Parts II and III of this enclosure contain guidance to complete the initial survey and complete the applicable supplement for U.S. ships required to have an IOPP Certificate under Regulation 4 of Annex I of MARPOL 73/78 and 33 CFR 151.19 and for those U.S. ships that do not require an IOPP Certificate but are required to be surveyed. Part II contains the guidance for surveying ships other than tankers and completing the Form A supplement and Part III does the same for tankers and the Form B supplement. This guidance is intended to ensure that the IOPP Certificate, for those ships required to have one, is valid and acceptable to other parties to MARPOL 73/78.

Part IV of this enclosure contains administrative guidance regarding the issuance of IOPP Certificates.

Part V contains instructions for completing the periodic surveys which are required to ensure that ships are maintained to MARPOL 73/78 standards. These survey intervals are specified in 33 CFR 151.17.

Ships Required to have an IOPP Certificate.

U.S. oil tankers of 150 gross tons and above and other U.S. ships of 400 gross tons and above that engage in voyages to ports or offshore terminals under the jurisdiction of other parties to MARPOL 73/78 must have an IOPP Certificate.

Ships Required to be Surveyed.

MARPOL 73/78 entered into force on 2 October 1983. The implementing regulations are contained in 33 CFR Parts 151, 155 and 157. These regulations were issued under the mandate of the Port and Tanker Safety Act of 1978 (46 U.S.C. Chapter 37) and the Act to Prevent Pollution From Ships (33 U.S.C. 1903).

MARPOL 73/78 is applicable to all ships. Article 2 of MARPOL 73/78 defines a ship as "a vessel of any type whatsoever operating in the marine environment and includes hydrofoil boats<sup>1</sup> air-cushion vehicles, submersibles, floating craft and fixed or floating platforms. Only warships, naval auxiliaries and other government-owned, non-commercial ships are excluded from direct application of Annex I of MARPOL 73/78. The Act to Prevent

Pollution from Ships limits the applicability of MARPOL 73/78 to all "seagoing" ships.<sup>1</sup> The regulations further define the applicability to "oceangoing" ships (33 CFR 151.03). For U.S. flag ships, "oceangoing" ships, as defined in 33 CFR 151.05, are ships that are operated under the authority of the United States and that are either:

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<sup>1</sup> The Act to Prevent Pollution from Ships (33 U.S.C. 1903), makes MARPOL 73/78 applicable only to "seagoing" ships. The Act's legislative history indicates that "seagoing" means operation of a ship seaward of the baseline from which the territorial sea is measured. Because ships may not discharge within the territorial sea under the Act, the regulations use the term "oceangoing" to further define the applicability of the equipment requirements of MARPOL 73/78 to ships that operate seaward of the territorial sea.

- a. engaged in international voyages;
- b. certificated for ocean service;
- c. certificated for coastwise service beyond three miles from land; or
- d. operate at any time seaward of the outermost boundary of the territorial sea of the United States as defined in 33 CFR 2.05-10.

33 CFR 151.17 specifies the ships that are required to be surveyed. All ships required to have an IOPP Certificate are required to be surveyed. IOPP Certificates are required on any oil tanker of 150 gross tons (GT) or more, or any other ship of 400 GT or more, which engages in voyages to ports or offshore terminals under the jurisdiction of the other parties to MARPOL 73/78.

Inspected tankers above 150 GT and any other inspected ships over 400 GT that are "oceangoing" are also required to be surveyed even if they do not require an IOPP Certificate. "Oceangoing" ships such as drilling rigs or other fixed platforms, uninspected ships, and uninspected barges that are not required to have an IOPP Certificate on board are not required to be surveyed. Uninspected vessels required to be surveyed are not required to have an IOPP Certificate but will be provided a copy of the appropriate supplement (Form A or Form B) as documentary evidence of compliance with the survey requirements. Inspected vessels required to be surveyed but not required to have an IOPP Certificate fall into two categories regarding the issuance of Form A and Form B supplements. Inspected vessels which do not enter ports or offshore terminals under the jurisdiction of other parties to MARPOL 73/78, but are oceangoing ships, need not be provided a copy of the appropriate supplement Form A or Form B, as the vessel's Certificate of Inspection (COI) can document the vessel's compliance with MARPOL 73/78 under the requirements of 33 CFR Parts 151, 155, and 157. Inspected vessels which do enter ports or offshore terminals under the jurisdiction of other parties to MARPOL 73/78 will be provided a copy of the appropriate supplement (Form A or Form B). See Part IV of this enclosure for policy regarding the issuance of IOPP Certificates and other documents.

A U.S. inspected tanker shall also be issued an IOPP Certificate and Form B supplement when the vessel's Certificate of Inspection is endorsed for the carriage of Category C or D Oil-like Noxious Liquid Substance (NLS) or a Category D NLS (cargoes listed in 33 CFR 151.47 and 151.49), which are considered oils under Annex I of MARPOL 73/78. (Example: vegetable oil, a category D NLS.) This does not include chemical tankers which have a valid Certificate of Fitness, which covers these requirements and those of Annex II, MARPOL 73/78 for the carriage of NLS cargoes. If there are questions on whether a cargo is subject to Annex I contact the Commandant (G-MTH-I).

#### Duration of IOPP Certificates for U.S. Ships.

The period of validity for IOPP Certificates and supplement forms are<sup>2</sup>:

- a. 4 years for U.S. inspected vessels; and
- b. 5 years for U.S. uninspected vessels.

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<sup>2</sup> The period of validity for issuance of IOPP Certificates is under review and may change in the future. The 4 year term for inspected vessels, 5 years for uninspected vessels, are required by 33 CFR 151.19(e).

Parties to the Convention.

As of July 6, 1994 the following countries are party to MARPOL 73/78:

Algeria	Germany	Poland
Antigua and Barbuda	Ghana	Portugal
Argentina	Greece	Republic of Korea
Australia	Hungary	Romania
Austria	Iceland	Russian Federation
Bahamas	India	Saint Vincent & Grenadines
Barbados	Indonesia	Seychelles
Belarus	Israel	Singapore
Belgium	Italy	Slovenia
Brazil	Jamaica	South Africa
Brunei Darussalam	Japan	Spain
Bulgaria	Kazakhstan	Suriname
Canada	Kenya	Sweden
China	Latvia	Switzerland
Colombia	Lebanon	Syrian Arab Republic
Cote d'Ivoire	Liberia	Togo
Croatia	Lithuania	Tunisia
Cuba	Luxemburg	Turkey
Cyprus	Malta	Tuvalu
Czech Republic	Marshall Islands	Ukraine
Dem. People's Rep. of Korea	Mexico	United Kingdom
Denmark	Monaco	United States of America
Djibouti	Morocco	Uruguay
Ecuador	Myanmar	Vanuatu
Egypt	Netherlands	Viet Nam
Estonia	Norway	Yugoslavia
Finland	Cman	
France	Panama	Hong Kong*
Gabon	Papua New Guinea	
Gambia	Peru	

\* Hong Kong is an Associate Member of IMO

Surveys.

Coast Guard marine inspectors will conduct the initial survey of a ship to determine if it complies with the standards of MARPOL 73/78. Each Officer in Charge of Marine Inspection (OCMI) will use this guidance to conduct surveys of U.S. ships required to comply with MARPOL 73/78. If a ship complies, it should be issued an IOPP Certificate (CG-5352) and/or completed Form A or Form B supplement, as appropriate.

The inspector will check specific items of a ship's arrangement and equipment against the standards of MARPOL 73/78. Most equipment will be tested.

The inspector will record the results of the survey using the IMO standardized forms. There are two survey forms - Form A (CG5352A) and Form B (CG-5352B). Form B is used for oil tankers and certain other ships that carry oil as cargo while the Form A is used for all other ships. All information

required on Form A is also required on Form B. Due to the complexity of tankers, Form B also requires much additional information. To eliminate duplication, the guidance contained in Part II for completing Form A is referenced in the instruction for completing the Form B survey in Part III. On ships required to have IOPP Certificates, the completed survey form becomes a supplement to the IOPP Certificate. On other ships, the completed survey form provides documentary evidence that the ship complies with MARPOL 73/78.

To maintain the validity of the IOPP Certificate periodic surveys must be conducted in accordance with 33 CFR 151.17 and the instructions contained in Part V. When possible, these surveys are to be conducted concurrently with other required Coast Guard inspections or boardings.

If the ship is of a type which is not routinely inspected or boarded by the Coast Guard, OCMI's and COTPs are encouraged to use the opportunity presented by the MARPOL 73/78 survey to verify compliance with other applicable standards, such as the International Regulations for Preventing Collisions at Sea, 1972 (1972 COLREGS), the Bridge-to-Bridge Radiotelephone Act, and lifesaving and other safety equipment requirements.

The Coast Guard is the only agency that can issue IOPP Certificates to U.S. flag ships. Except in extraordinary circumstances, the Coast Guard will not issue IOPP Certificates to foreign flag ships. IOPP Certificates will only be issued to foreign ships if requested by the ship's flag State government, and when issued will contain a statement that it has been issued at the request of that government. In no case will an IOPP Certificate or any other form of documentation of compliance with MARPOL 73/78 be issued to a ship of a flag State not party to MARPOL 73/78.

To reduce the paperwork management time of processing certificates at Coast Guard marine safety field units and incorporate amendments to the IOPP forms required by IMO Resolutions MEPC.51(32) and 52(32) of March 6, 1992, the IOPP Certificate, and Form A and Form B supplement forms, have been revised (6/93) and placed on the Coast Guard's Standard Workstation System's (SWS) Forms Plus software application library (CGLaser5000A, Rev. 12/93). The IOPP Certificate and supplemental forms have been reduced to fit on standard 8½ X 11 inch paper to be produced in concert with the SWS computer configuration using either a Canon III plus (with Perfect Form font cartridge) or a Canon LBP4 laser printer. All Coast Guard marine safety units are equipped with these systems to support use of the Forms Plus application. Parts II and III of this enclosure provide guidance to complete the IOPP Certificate and applicable supplements with the revised forms. These revised forms cannot be requested through the Coast Guard procurement system and should only be produced using the Coast Guard SWS computer configuration. The 1/83 and 2/83 versions of the forms are obsolete and will not properly document the amended regulations of Annex I, MARPOL 73/78. The 6/93 versions of the IOPP Certificate and its supplemental forms, have been enclosed with this NVIC (enclosures (5), (6) and (7)), for ease of reference.

## PART II

Guidelines for Surveying Ships other than Oil Tankers  
and for  
Completing the Form A Supplement to the IOPP Certificate

General.

This part provides Coast Guard inspectors with guidance to complete the initial survey of ships of 400 GT or more that are not oil tankers or ships constructed and used to carry 200 cubic meters (m<sup>3</sup>) or more of oil<sup>3</sup> as cargo. (Note: Certain standards that are also applicable to oil tankers or ships which are used to carry 200m<sup>3</sup> of oil as cargo are included in this part to reduce duplication in Part III. 200 m is about 7,062 ft<sup>3</sup> 52,880 gallons, or 1,259 barrels.)

Applicability.

The Form A survey is generally applicable to oceangoing ships of 400 GT or more, other than tankships, and includes cargo ships, freight barges, towboats, offshore supply vessels, yachts, fishing vessels and mobile drilling rigs. However, those drilling rigs and other platforms, uninspected freight barges, and uninspected ships that are not required to have an IOPP Certificate are not required to be surveyed. Information on ships of less than 400 GT is included because the owners of some of these ships may wish to install the equipment required on larger ships to gain the capability to discharge oily-wastes at sea while underway.

The Survey. Inspectors should complete a Form A supplement during the survey. The Form A supplement provides documentary evidence of compliance for ships subject to MARPOL 73/78 and becomes part of the IOPP Certificate.

References to the regulations in MARPOL 73/78 may be to MARPOL 73/78 itself or to the amendments which entered into force on January 7, 1986, or July 6, 1993. Coast Guard units have been provided with copies of MARPOL 73/78 that contain the 1986 amendments (COMDTINST M16455.6A) and G-MVI Policy Letter No. 22-93. Commandant (G-MVI) will provide a copy of the new 1991 consolidated edition of IMO'S MARPOL 73/78 with 1993 amendments to each Marine Inspection/Safety Office.

SECTIONS 1 THROUGH 7 BELOW ADDRESS THE REQUIREMENTS OF THE CORRESPONDING PARAGRAPHS OF THE FORM A SUPPLEMENT (CG-5352A). Section 8 contains guidance regarding an additional inspection which must be carried out to ensure compliance with MARPOL 73/78.

1. PARTICULARS OF SHIP. Shipowners are asked to provide the information required by this section before the survey.

- |                                    |                   |
|------------------------------------|-------------------|
| 1.1 Name of ship.                  | Self-explanatory. |
| 1.2 Distinctive number or letters. | Self-explanatory. |
| 1.3 Port of registry.              | Self-explanatory. |

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<sup>3</sup> Oil means any petroleum in any form including crude oil, fuel oil, sludge, oil refuse and refined products (other than petrochemicals which are subject to the provisions of Annex II of MARPOL 73/78). It does not include animal fats or vegetable oils. This differs from the more expansive definitions of oil in the PTSA and the Federal Water Pollution Control Act (FWPCA).

- 1.4 Gross tonnage. The gross tonnage appears in this paragraph and on the face of the IOPP Certificate.

Provisions of U.S. law and international agreements allow a U.S. flag vessel eligible for an IOPP Certificate to be assigned gross tonnages as determined under two different measurement systems: the Convention Measurement System (46 CFR 69 Subpart B) or the Regulatory Measurement System (46 CFR 69 Subparts C & D). The U.S. tonnage certificate indicates all tonnages assigned to the vessel and, if a second gross tonnage is assigned, it indicates which tonnage is to be used to apply IMO interim schemes (of which MARPOL is one).

By July 19, 1994, the only vessels eligible to use Regulatory Measurement System tonnages for the application of MARPOL must be in either of the following two categories:

- a. A vessel with keel laid or substantially altered before July 18, 1982.
- b. A vessel with keel laid or substantially altered on or after July 18, 1982, and before July 19, 1994, and having a Regulatory Measurement System tonnage of less than 400 gross tons.

Before specifying a Regulatory Measurement System gross tonnage on the IOPP, check to ensure that the vessel is eligible to use Regulatory Measurement System tonnage for this purpose, using the requirements of the paragraphs above. Commandant (G-MVI-5) will determine whether an alteration constitutes a substantial alteration. If further questions arise regarding tonnage determinations, reference NVIC 11-93, "Applicability of Tonnage Measurement Systems to U.S. Flag Vessels."

If a U.S. Regulatory Measurement System tonnage is to be specified on the IOPP Certificate, the face of the IOPP Certificate will be footnoted with an asterisk (\*) next to the gross tonnage measurement in the gross tonnage block of the IOPP Certificate. The IOPP Supplement shall have an attachment (see Enclosure (3)) marked with an "X" in the block stating: "The vessel's gross tonnage has been measured by the tonnage authorities of the United States of America in accordance with the national tonnage rules which were in force prior to the coming into force of the International Convention on Tonnage Measurement of Ships, 1969."

In this paragraph of the attachment for the Form A Supplement of the IOPP, but not on the face of the IOPP Certificate, indicate "not applicable--Regulation 21" for any drill rig or platform; the equipment requirements for these ships are determined as if they are between 400 and 10,000 GT.

- 1.5 Date of build. Record the date of the building contract, keel laying and delivery in paragraphs 1.5.1 through 1.5.3. For ships delivered in 1975 or earlier, the year of delivery in paragraph 1.5.3 need only be recorded. For ships delivered during or after 1976, record complete dates in all paragraphs.

- 1.6 Major conversion. If a ship has undergone a major conversion that was completed in 1975 or earlier, indicate only the year it was completed. Questionable cases occurring in 1975 or earlier can be ignored since they will not affect the status of the ship under MARPOL 73/78. For a ship converted in 1976 or later, record complete dates in paragraph 1.6.1 through 1.6.3. If it is not clear whether alterations



to a ship occurring after 1975 constitute a major conversion for the purpose of MARPOL 73/78, the matter should be referred to the Commandant (G-MVI).<sup>4</sup>

1.7 Status of the ship. Use the dates specified in paragraphs 1.5 and 1.6 to determine the status of the ship.

1.7.1 A "new ship" (Regulation 1(6)) is one:

- a. for which the building contract was placed after December 31, 1975; or
- b. in the absence of a building contract, the keel of which was laid or which was at a similar stage of construction after June 30, 1976; or
- c. if the date that the keel was laid is not available, the delivery of which was after December 31, 1979; or
- d. which has undergone a major conversion:
  - (1) for which the contract was placed after December 31, 1975; or
  - (2) in the absence of a contract, the construction work of which was begun after June 30, 1976; or
  - (3) if the date the construction work was begun is not available, which was completed after December 31, 1979.

1.7.2 An "existing ship" (Regulation 1(7)) is any other ship which is not a new ship."

1.7.3 Unforeseen delay. The Commandant (G-MVI) may find that a ship is an "existing ship" under Regulation 1(7) due to an unforeseen delay in delivery. Shipowners who believe their ship may qualify as an existing ship due to an unforeseen delay in delivery should complete a written statement of the circumstances which led to the delay in the delivery of the ship and submit that statement to the Commandant (G-MVI), U.S. Coast Guard Headquarters, 2100 Second Street, SW, Washington, DC 20593-0001. Shipowners should be aware that, if such a finding is made, the Coast Guard is obligated to provide the IMO with the name of the ship and the basis for the finding.

## 2. EQUIPMENT FOR THE CONTROL OF OIL DISCHARGE FROM MACHINERY SPACE BILGES AND OIL FUEL TANKS.

With three exceptions, all ships delivered after July 6, 1993, must have the equipment specified in this section; ships delivered before July 6, 1993, that have oily water separating equipment meeting the 100 parts per million (ppm) oil discharge criteria, have until July 6, 1998, to install 15 ppm equipment.

The first exception concerns ships that qualify for an approved equivalent arrangement. See paragraph 7.a of Part II regarding approved equivalent arrangements.

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<sup>4</sup> Commandant (G-MVI) will determine on a case-by-case basis, whether a ship has undergone a major conversion for the purposes of MARPOL 73/78.

The second exception is the waiver from the requirement to install this equipment that may be granted to ships operating exclusively on specific routes. See paragraph 2.6 of Part II regarding equipment waivers.

The third exception concerns drill rigs that do not have a bilge system to discharge oily waste overboard and instead store it for discharge by of flooding in barrels. These drill rigs are not required to have the oil discharge monitoring and control system required under Regulation 16. This is not an equivalency; it is a determination as allowed under Regulation 21(a) of MARPOL 73/78. For these drill rigs, annotate Item 2 on Supplement A with an asterisk (\*) and ensure that Section 9 on the Attachment to the Supplement (enclosure (3)) is marked with an "X."

During the survey the inspector will:

- a. Check the required equipment to ensure that it bears a valid approval number if it is required to be Coast Guard approved. (see paragraph 2.4 below).
- b. Verify that the Certificates of Type Test for all required pollution prevention equipment are on board the ship. (It is suggested that shipowners keep these Certificates with the ship's copy of the IOPP Certificate.)
- c. If the ship ballasts fuel oil tanks and must fit equipment for the processing of the effluent from those tanks, see that a fixed piping system is installed so that the effluent from those tanks can be processed by the oily-water separator/filtering equipment.
- d. Consult the manufacturer's equipment manual for the equipment, and test it following the instructions contained therein. Special arrangements may be necessary to prevent discharging unlawful quantities of oil while testing the equipment.
- e. If the equipment uses consumable filter elements, recording paper, etc., verify that a reasonable quantity of these consumables is onboard.
- f. Examine the oil record book in detail to see if it has been properly maintained.
- g. Test the starting interlock on the oil discharge monitoring and control system (if installed). Verify that the equipment is either automatically or manually set to discharge at a rate not to exceed 30 liters per nautical mile. If manually set to a rate not to exceed 30 liters per nautical mile, written instructions must be posted at the system's controls stating the unit is only to be operated not to exceed that setting of discharge. These instructions should include how to set the discharge rate, how to record, and how to verify taped recordings.
- h. Ensure that the valves on all automatic stopping equipment operate properly.

2.1 Carriage of ballast water in oil fuel tanks. (Regulations 14 and 16) Mark paragraph 2.2.1 to show if this is the normal operation of the ship. The response in this paragraph will be used to determine the applicability of other standards. "Normal operation" includes all operations other than in severe weather.

Under Regulation 14, a new ship of 4,000 GT or more (or any new ship which is an oil tanker) is generally to be designed so that it is not necessary to carry ballast water in fuel oil tanks. However, MARPOL 73/78 recognizes that certain ship types (such as large fishing vessels, towing vessels, drill ships and industrial barges) must remain at sea for extended periods, and for reasons of safety (stability)

or operations (minimum draft) may be required to ballast oil fuel tanks. Ships such as these (new or existing) are termed ships carrying "large quantities of oil fuel." These ships are permitted to ballast fuel oil tanks if they are equipped in accordance with MARPOL 73/78 (see paragraph 2.2) to properly treat the resulting oily-water or (when permitted) retain it on board for subsequent discharge to reception facilities. They can often be identified by instructions within their stability information calling for the routine ballasting of fuel oil tanks when some specified draft is reached or when a specific fuel oil tank is emptied of fuel. The Coast Guard also considers those fishing vessels which carry oil fuel in their holds during all or part of their voyage to be ships carrying "large quantities of oil fuel."

2.2 Type of oil filtering equipment fitted. This section of the form asks whether 15 parts per million (ppm) or 100 ppm equipment<sup>5</sup> is installed. Either 15 ppm or 100 ppm equipment must be installed on all ships for the processing of machinery space discharges. Under Regulation 16 (amended by Resolution MEPC.51(32) of March 6, 1992), 15 ppm equipment must be installed on ships delivered after July 6, 1993. For ships delivered before July 6, 1993, the requirements for 15 ppm equipment is effective on July 6, 1998, provided that these ships have installed and can operate oil-water separating equipment of 100 ppm capability until that date. To obtain more flexibility in the disposal of oily wastes, shipowners are encouraged to install 15 ppm equipment when 100 ppm equipment is allowed by MARPOL 73/78. The equipment requirements are summarized as follows:

2.2.1. Ships delivered "on or after" July 6, 1993:

- a. Ships of less than 400 GT (Regulation 16(3)(b) and 33 CFR 155.350) must be equipped to retain all oil or oily wastes on board. Alternatively, these ships may fit 15 ppm equipment to permit them to discharge when at sea.
- b. Ships of 400 GT and above but less than 10,000 GT (Regulation 16(4)) must fit 15 ppm equipment.

2.2.2. Ships delivered "on or after" July 6, 1993: Ships of over 10,000 GT (Regulation 16(5)) must fit 15 ppm equipment with an alarm and arrangements which automatically stops any discharge of oily mixture when the oil content in the effluent exceeds 15 ppm.

2.3 Type of oil filtering equipment fitted. Ships delivered "before" July 6, 1993, Regulation 16(6), shall upgrade to 15 ppm equipment by July 6, 1998, provided:

- 2.3.1 The ship is fitted with 100 ppm equipment which operates effectively and is: less than 400 GT which operate at sea and can discharge underway; or is 400 GT and above but less than 10,000 GT; or is 10,000 GT and over and has an alarm with a manual shutdown system.
- 2.3.2 The ship is fitted with 15 ppm equipment without alarm which operates effectively and is: less than 400 GT which operate at sea and can discharge underway; or is 400 GT and above but less than 10,000 GT.

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<sup>5</sup> The term "equipment" is used to describe any oily-water separating equipment that meets the approval standards of paragraph 2.4 of this part. This equipment may be made up of filters, separators, or any combination thereof that produces the rated effluent. It may have single or multiple stages. 100ppm equipment may be installed in series with 15 ppm equipment and provided with a bypass so as to operate as both 100ppm and 15ppm equipment. This is only allowed on vessels delivered before July 6, 1993, and the bypass must be removed as of July 6, 1998.

- 2.3.3 The ship is fitted with 15 ppm equipment with alarm and manual stopping device which operates effectively and is 10.000 GT and over.

NOTE: Under Regulations 14 and 16, additional equipment<sup>6</sup> for the processing of oily water resulting from the ballasting of fuel oil tanks is required on ships carrying "large quantities of oil fuel." The additional requirements applicable to these ships are:

- a. Ships of 400 to 10.000 GT must have either 15 ppm (new vessel) or 100 ppm (existing vessel) equipment. If it is not reasonable to fit this equipment, they must be equipped to retain the dirty ballast water on board for discharge to reception facilities. (Separating units with adequate capacity may be too large to fit on board.) In any case, since they will have installed bilge pumping systems, these ships must still have 15 ppm or 100 ppm equipment adequate for bilge pumping needs.
- b. Ships of 10.000 GT or more must have 15 ppm (new vessel) or 100 ppm (existing vessel) equipment with arrangement for an alarm and stopping device to process the oily discharge.

Shipowners should note that selecting the wrong equipment could render the equipment useless. For example, while it would comply with MARPOL 73/78, it is inappropriate to install 100 ppm equipment on a ship delivered before July 6, 1993, which operates only within 12 nautical miles of land. Because of the discharge limitations applying to 100 ppm equipment, the ship would be prohibited from use of the equipment unless it proceeded beyond 12 miles from land to discharge. Additionally, except for drill rigs and platforms, ships must be "proceeding enroute" in order to discharge through 100 ppm equipment; they must discharge through 15 ppm equipment if stationary. Drill rigs and platforms may be stationary and discharge through 100 ppm equipment when beyond 12 miles from land, except if built on or after July 6, 1993, or a country's national regulations for discharges outside 12 miles are more stringent, in which case the national regulations will apply.

To aid in the selection of appropriate equipment, the following are the basic discharge limitations as they relate to the equipment types:

- a. If no oily-water separating or filtering equipment is used, all at sea discharges of oil or oily mixtures (except to secure the safety of the ship or to save life) are prohibited.
- b. Until July 6, 1998, if 100 ppm equipment is used, discharges of oil or oily-mixtures within 12 nautical miles of land or when not proceeding enroute are prohibited. As noted above, drill rigs and platforms are exceptions to this, they may be stationary and discharge through 100 ppm equipment when beyond 12 miles from land if permitted by national regulations.
- c. If 15 ppm equipment is used, a ship is permitted to discharge at 15 ppm or less at any location. Under Section 311 of the FWPCA, a discharge that creates a visible sheen within 3 miles of the U.S. Coast is prohibited, regardless of the oil content of the discharge.

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<sup>6</sup> A single filter/separators, if of adequate capacity and suitable for both applications, may be used to process both the machinery space bilge discharges and the oily residues resulting from oil fuel tank ballasting.

Shipowners should also note that the definition of "oceangoing" in 33 CFR 151.05, may exclude some ships which engage only in domestic voyages. These ships will not be required to comply with MARPOL 73/78 or have IOPP Certificates. They will still be bound by the discharge limitations of Section 311 of the FWPCA. As a result, it is possible that owners of these ships may wish to install 15 ppm equipment.

The type of equipment control systems depend on a ship's size and whether 15 ppm or 100 ppm equipment is installed. Various control Systems are required:

- a. Discharge monitoring and control systems refer to the oil content meter and recording device (collectively termed a "bilge monitor" in 46 CFR 162.050), the starting interlock and the stopping device. This equipment is required on all ships of 10,000 GT or more that do not use 15 ppm equipment. However, if a ship of 10,000 GT or more with 15 ppm equipment chooses to by-pass the 15 ppm filter/separator to discharge at 100 ppm, the ship must be equipped with a discharge monitoring and control system.
  1. The starting interlock must ensure that the control system comes into operation whenever there is any discharge of effluent into the sea. An automatic stopping device is required on an oil discharge monitoring and control system installed in a new ship. A manual device can be used on existing ships. (All Coast Guard approved bilge monitors generate the signal to trigger an automatic stopping device, so the presence of an indicator light can not be interpreted as indicating that an automatic stopping device is installed. The valve and its operation must be checked.)
  2. Coast Guard approved 0-100 ppm bilge monitors are generally assigned approval numbers between 162.050/9000 through 162.050/9999. These include the required oil content meter, recording device, a device (or devices) for generating the signal to actuate stop valves at 15 ppm and 100 ppm and a device that produces a warning signal at both 15 ppm and 100 ppm. The oil content meters contained in the Coast Guard approved bilge monitors meet IMO Resolution A.393(X) (paragraph 2.4.3 of the survey form).
- b. The 15 ppm alarm is referred to as the bilge alarm in 46 CFR 162.050. This alarm is required on oceangoing ships of 10,000 GT or more that install 15 ppm equipment and on oceangoing ships of 400 GT or more which ballast fuel oil tanks that install 15 ppm equipment.
  1. Coast Guard approved 15 ppm bilge alarms are generally assigned approval numbers between 162.050/3000 and 162.050/3999. Each approved bilge alarm has a device to produce a warning signal and a signal that can be used to actuate stop valves at 15 ppm or if a malfunction of the equipment occurs.
- c. Automated stopping devices are required for ships fitted with 15 ppm equipment which discharge in special areas. Under Regulation 10(3)(b), ships with 15 ppm equipment are allowed to discharge effluent from machinery space bilges in "special areas" (defined in Regulation 10(1) of MARPOL 73/78) if they are equipped with an automatic stopping device to stop the discharge if it exceeds a

concentration of 15 ppm. (The Coast Guard approved "bilge alarm" produces a signal that can be used to trigger the stopping device- the valve and its operation should be checked.)

- d. All Coast Guard approved bilge monitors contain an oil content meter and recording device. All ships of 10,000 GT or more that are not equipped with 15 ppm equipment and 15 ppm alarm are required to have an oil content meter and recording device. Resolution A.444(XI) provides that some ships between 400 GT and 10,000 GT may only need the oil content meter and not be required to have the recording device. These are ships that had installed or separating equipment prior to January 21, 1979. See paragraph 2.4 regarding equipment approved under Resolution A.444(XI).

2.4 Approval standards. Coast Guard approved oily-water separating/filtering equipment is approved for either 15 ppm or 100 ppm. Consult the name plate data or the Certificate of Type Test to determine whether the unit is approved for 15 ppm or 100 ppm. Most of the approved units are 15 ppm equipment. Coast Guard approved separators/filters are assigned approval numbers between 162.050/1000 and 162.050/1999.

2.4.1 The separating/filtering equipment. On ships that are required to be Coast Guard inspected and certificated, only equipment approved under 46 CFR 162.050 may be used. This ensures compliance with the applicable electrical and marine engineering regulations. The survey form asks if the equipment has been approved under IMO Resolution A.393(X); all Coast Guard approved equipment is approved in accordance with IMO Resolution A.393(X).

2.4.2 On ships that are not required to be Coast Guard inspected and certificated, existing equipment may be accepted ("grandfathered") after it has been upgraded, if necessary, following the recommendations in IMO Resolution A.444(XI).<sup>7</sup> If there is no existing equipment, the new equipment may either be Coast Guard approved or approved under IMO Resolution A.393(X).

2.5 Maximum Throughput. Determine the rated throughput of the oily-water separating equipment from the name plate data or from the Certificate of Type Test.

2.6 Application. All ships must have the equipment listed under Section 2 installed and operable. The survey form should indicate only the equipment on board at the time of the survey. The shipowner should be advised of the equipment required to be fitted in order to comply with MARPOL 73/78 and informed, on ships with 100 ppm equipment, that the equipment should be upgraded to 15 ppm equipment prior to July 6, 1998, if the IOPP Certificate is to be retained.<sup>8</sup>

### 3. TANKS FOR OIL RESIDUES (sludge tanks).

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<sup>7</sup> Because the number of uninspected U.S. ships of 400 GT or more that have existing non-Coast Guard approved equipment installed is believed to be extremely small, the Coast Guard has not developed a program for approving process units under IMO Resolution A.444(XI). Process units that satisfy the requirements of IMO Resolution A.444(XI) will be accepted.

<sup>8</sup> Under MARPOL 73/78, annual surveys will be conducted on most ships (see Part V). The IOPP Certificate ceases to be valid if after July 6, 1998, the required 15 ppm equipment is not installed. An invalid IOPP Certificate may be cause for detention or denial of entry to a foreign port.

3.1 Capacity. All ships that are required to have oil separating or filtering equipment are also required to have tanks for oil residues (sludge).<sup>9</sup> See paragraph 7.a of Part II for accepted equivalents

IMO-MEPC has developed the following, which shipowners may use as guidance only, for the size of tanks to be provided:

- a. For ships which do not carry ballast water in oil fuel tanks, the minimum recommended sludge tank capacity ( $V_1$ ) in cubic meters may be calculated by the formula:

$$V_1 = K_1 CD$$

where:  $K_1 = 0.01$  for ships where heavy fuel oil is purified for engine use, or 0.005 for ships using fuel oil which does not require purification before use,

$C$  = daily fuel oil consumption (metric tons) of all engines normally in operation,

$D$  = maximum period of voyage between ports where sludge can be discharged ashore (days). Use 30 days in the absence of precise data.

- b. When such ships are fitted with homogenizers, sludge incinerators or other means for the disposal of sludge, the minimum recommended sludge tank capacity ( $V_1$ ) in cubic meters may, in lieu of the above, be:

$V_1 = 1$  cubic meter for ships of 400 GT and above but less than 4,000 GT, or 2 cubic meters for ships of 4,000 GT and above.

- c. For ships which carry ballast water in fuel oil tanks, the minimum recommended sludge tank capacity ( $V_2$ ) in cubic meters may be calculated by the following formula:

$$V_2 = V_1 + K_2 B$$

where:  $V_1$  = sludge tank capacity specified in a or b above,

$K_2 = 0.01$  for heavy fuel oil bunker tanks, or 0.005 for diesel oil bunker tanks,

$B$  = capacity of water ballast tanks which can also be used to carry oil fuel (metric tons).

- d. For any ship, IMO has produced a study, "Petroleum in the Marine Environment," which lists expected accumulations of waste oil by ship type. This may be useful in estimating the necessary sludge tank capacity.

During the survey the inspector will inspect and test the means of discharging processed oil from the filtering/separating equipment to the sludge tank, as well as the means of pumping the contents of the sludge tank ashore through the standard discharge connection (see paragraph 4 below).

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<sup>9</sup> Under 33 CFR 155 and 157.17 some oil tankers have substituted the slop tank for this sludge tank. This arrangement is permitted by uniform interpretation of MARPOL 73/78; it is not considered an "equivalent."

3.2 Additional means for the disposal of sludge. Some ships have homogenizers, incinerators or boiler injection systems to enable them to dispose of sludge on board. Is the ship equipped with such a system?

4. STANDARD DISCHARGE CONNECTION. All self-propelled ships and all barges with installed bilge piping systems (see paragraph 7.a of this Part for barges without installed bilge piping systems) must have a standard discharge connection of the dimensions specified in Regulation 19. This specification is also given in 33 CFR 155.430.

5. SHIPBOARD OIL POLLUTION EMERGENCY PLAN. Every oil tanker of 150 GT and above and every other ship other than an oil tanker of 400 GT and above shall carry on board a shipboard oil pollution emergency plan. For vessels delivered before April 4, 1993, these plans are required by Regulation 26 of Annex I of MARPOL 73/78 to be on board no later than April 4, 1995. For vessels delivered after April 4, 1993, the plans are required immediately. Regulation 26 applies to "oceangoing" ships, as defined in 33 CFR 151.05. At the time of this NVIC's development, U.S. regulations were being developed to cover the Regulation 26 requirements. In the interim, NVIC 2-93 was published to provide guidance on the applicability, guidelines, and approval requirements of Regulation 26. All U.S. flag vessels required to meet Regulation 26 shall have a shipboard oil pollution emergency plan, approved by the Commandant (G-MEP), on board during survey.

6. EXEMPTIONS. Only the Commandant (G-MVI) will grant exemptions under Regulation 2(4)(a) of MARPOL 73/78 for hydrofoils, air cushion vehicles or other novel craft. Owners of ships of these types that are subject to MARPOL 73/78 should contact the Commandant (G-MVI). Exemption requests will be processed on a case-by-case basis.

7. EQUIVALENTS. The following equivalents will be accepted by the Coast Guard:

- a. The Coast Guard has determined that ships, without main propulsion machinery, that do not have a fixed bilge piping system for the discharge of oil or oily wastes from the auxiliary machinery spaces or for the discharge of ballast water from fuel oil tanks to the sea meet a design equivalent to the requirements for oily-water separators, control systems and sludge tanks. The following entry can be made in paragraph 7.1 of the Form A supplement (or paragraph 12.1 of the Form B supplement if applicable) of these ships provided they have the capacity to retain on board all machinery space oily mixtures and machinery space drainage: "2.2, 2.3, and 3--the design of this ship is considered equivalent to requirements of Regulations 10, 16, and 17: all oil and oily wastes must be retained on board for discharge to reception facilities." This equivalent could apply to many barges and drilling rigs.
- b. A drilling rig or other platform that has on board the oily-water separating equipment and that complies with the requirements of a valid National Pollutant Discharge Elimination System (NPDES) permit in accordance with Section 402 of the Clean Water Act and 40 CFR Chapter I is considered to meet a standard that is equivalent to the oily-water separating equipment requirements. The entry "Meets EPA requirements" should be made in paragraph 7.1 of the Form A. Since the conditions of the NPDES permit are only valid while operating in waters under U.S. jurisdiction, this equivalent does not apply to vessels receiving IOPP certificates.
- c. The Coast Guard has determined that a non-self-propelled vessel of 400 GT and over, other than a tankship, with only auxiliary machinery having a total output of less than



1500 KW (2000 HP) may be allowed an equivalence to Regulation 16(3)(b). A ship that is not self-propelled and is fitted with only auxiliary machinery, such as an unmanned barge equipped with diesel engine driven pumps and generators, is not fitted with a stern tube. Hence, there is normally a minimal amount of water in the bilges. Under Regulation 16(3)(b) ships below 400 gross tons are required to be fitted, as far as practicable, with equipment to retain all oily mixtures on board and discharge them to a reception facility or to install an oily water separator. A non-self-propelled vessel of over 400 GT may be found equivalent to the requirements of Regulation 16(3)(b), if all machinery oily waste can be retained on board and be discharged to a shoreside reception facility. The following entry can be made in paragraph 7.1 of the Form A supplement of these ships provided they have the capacity to retain on board all machinery space oily mixtures and machinery space drainage: "2.2. and 2.3. --the design of this ship is considered equivalent to requirements of Regulations 16(3)(b): all oil and oily wastes must be retained on board for discharge to reception facilities."

As of the date of this circular, these are the only equivalents that may be cited in completing the Form A survey.

Shipowners proposing other equivalent arrangements should submit their proposals to the Commandant (G-MVI). Note that Regulation 3 of MARPOL 73/78 does not permit the substitution of an operational restriction for a design or equipment requirement. The particulars of equivalents that are developed in the future will be published in relevant Coast Guard notices and publications. If these statements do not fit in "Equivalents" section of the Supplement Forms, the statements can be typed onto the attachment (enclosure (3)), with a statement, "See attachment to Supplement." in paragraph 7.1 for Supplement Form A, and in paragraph 12.1 for Supplement Form B.

8. **ADDITIONAL STANDARDS.** To ensure compliance with Regulation 14(4), the inspector will check any new ship of 400 GT or above, for which the building contract was placed after January 1, 1982, or, in the absence of a contract, the keel of which was laid after July 1, 1982, to ensure that oil is not carried in a tank forward of the collision bulkhead. Oil may be carried in an independent tank forward of the collision bulkhead if it is used for equipment necessary for the safe operation of the ship. The tank should be located as far aft as possible and the size limited to the requirements of the equipment served.

## PART III

### Guidelines for Surveying Oil Tankers or other Ships Carrying Oil in Bulk and for Completing the Form B Supplement to the IOPP Certificate

#### General.

This guidance is intended to assist Coast Guard inspectors in completing the initial survey of tankers of 150 GT or more, and of other ships of 400 GT or more which are constructed and used to carry 200 m<sup>3</sup> or more of oil in bulk as cargo. See Regulation 2(2) of MARPOL 73/78 for a listing of the requirements that ships, other than tankers, carrying 200 m of oil as cargo must meet. (200 m<sup>3</sup> is about 7,062 ft<sup>3</sup>, 52,880 gallons, or 1,259 barrels.) This survey is required prior to the issuance of an IOPP Certificate.

#### Applicability.

This survey is applicable to oceangoing tankships, O/B/Os and other combination carriers, tank barges, chemical tankers, other ships that carry oil cargoes, and cargo ships which are used to carry 200 m or more of cargo oil.

#### The Survey.

During the survey the Form B supplement will be completed. This will become a part of the IOPP Certificate issued to these ships if they intend to engage in international voyages. Form B is also used to provide documentary evidence of compliance by other ships subject to MARPOL 73/78.

References to the regulations in MARPOL 73/78 may be to MARPOL 73/78 itself or to the amendments which entered into force on January 7, 1986, or July 6, 1993.

SECTIONS 1 THROUGH 12 BELOW REFER TO THE CORRESPONDING PARAGRAPHS OF THE FORM B SUPPLEMENT (CG-5352B). Section 13 contains guidance regarding an additional inspection which must be carried out to ensure compliance with MARPOL 73/78.

1. PARTICULARS OF SHIP. To reduce the time required for the survey, shipowners are asked to provide the information in this paragraph to the Coast Guard before the scheduled date of the survey.

- |     |  |                   |
|-----|--|-------------------|
| 1.1 | Name of ship.  | Self-explanatory. |
| 1.2 | Distinctive number or letters.   | Self-explanatory. |
| 1.3 | Port of registry.  | Self-explanatory. |
| 1.4 | Gross tonnage. See the instructions for completing paragraph 1.4 of Form A in Part II of this enclosure.   |                   |
| 1.5 | Carrying capacity of ship. Indicate the aggregate cargo oil carrying capacity (volume) of the ship as determined from the ship's capacity plan. This will be used later to determine the applicability of certain equipment requirements for ships other than oil tankers which carry 200 m <sup>3</sup> or more of oil as cargo. The "break points" are at 200 m <sup>3</sup> and 1000 m <sup>3</sup> . |                   |

- 1.6 Deadweight of ship. Indicate the ship's deadweight (DWT), as defined by Regulation 1(22) of MARPOL 73/78 in metric tons. The shipowner should provide this information from the best available source. (A classification society register is generally not sufficient to provide this information.) A Coast Guard or Maritime Administration witnessed deadweight survey is not required; but if the results of such a survey are available, they may serve as a basis for this figure. "Break points" are at 20,000 DWT, 30,000 DWT, 40,000 DWT, and 70,000 DWT. The deadweight recorded must conform to the deadweight recorded on documents issued under the International Convention for the Safety of Life at Sea (SOLAS).
- 1.7 Length of ship. Obtain the length from the ship's Load Line Certificate or compute it in accordance with Regulation 1(18).
- 1.8 Date of build. Record the date of the building contract, keel laying and delivery in paragraphs 1.8.1 through 1.8.3 For ships delivered in 1973 or earlier, only the year of delivery in paragraph 1.8.3 need be recorded. This is especially important for the applicability of double hull design standards in paragraph 5.8.
- 1.9 Major conversion. If a ship has undergone a major conversion that was completed in 1973 or earlier, indicate only the year the conversion was completed. Questionable cases occurring in 1973 or earlier can be ignored since they will not affect the status of the ship with regard to MARPOL 73/78. For a ship converted in 1974 or later, record complete dates in paragraphs 1.9.1 through 1.9.3. If it is not clear whether alterations to a ship occurring in 1974 or later constitute a major conversion under MARPOL 73/78 the matter should be referred to the Commandant (G-MVI).
- 1.10 Status. Use the dates recorded in paragraphs 1.8 and 1.9 of Form B to determine the status of the ship.
  - 1.10.1 A "new ship" (Regulation 1(6)). See paragraph 1.7.1 in Part II of this enclosure.
  - 1.10.2 An "existing ship" (Regulation 1(7)). See paragraph 1.7.2 in Part II of this enclosure.
  - 1.10.3 A "new oil tanker" (Regulation 1(26)) is a tanker:
    - a. for which the building contract was placed after June 1, 1979; or
    - b. in the absence of a building contract, the keel of which was laid, or which is at a similar stage of construction after January 1, 1980; or
    - c. if the date that the keel was laid is not available, the delivery of which was after June 1, 1982; or
    - d. which has undergone a major conversion:
      - (1) for which the contract was placed after June 1, 1979; or
      - (2) in the absence of a contract, the construction work of which was begun after January 1, 1980; or

- (3) if the date that the conversion was begun is not available, which was completed after June 1, 1982.

1.10.4 An "existing oil tanker" (Regulation 1(27)) is an oil tanker that is not a "new oil tanker."

NOTE THE DISTINCTION BETWEEN "NEW SHIP" AND "NEW OIL TANKER," BOTH TERMS ARE USED TO DETERMINE EQUIPMENT REQUIREMENTS.

1.10.5 through 1.10.7 Unforeseen delay. The Commandant (G-MVI) may find that a tanker is an "existing ship" or an "existing oil tanker" or that the tanker does not have to meet Regulation 24 due to an unforeseen delay in its delivery. Shipowners who believe their ship may qualify as one of these because of an unforeseen delay in delivery should complete a written statement of the circumstances which led to the delay in the delivery of the ship and submit that statement to the Commandant (G-MVI), U.S. Coast Guard Headquarters, 2100 Second Street, S.W., Washington, DC 20593-0001. Shipowners should be aware that if such a finding is made the Coast Guard is obligated to provide IMO with the name of the ship and the basis for the finding.

1.11 Type of ship. This paragraph is used to designate the service of the tanker and define the types of oil the tanker is permitted to carry. On oil tankers of 20,000 DWT or more, this designation should already be on the ship's Certificate of Inspection (COI) per MSM volume II, chapter 3.H.3.b. If, on any ship, an endorsement to this effect is not on the COI, it must be entered at this time. Because this designation determines the applicability of major design and equipment standards, the shipowner should verify that the designation is correct. (Particular attention should be given to the applicability of the inert gas system (IGS) requirements of 46 CFR 32.52.) The designation should also conform to similar designations that appear on supplements to SOLAS documents. The designations and their basic limitations are:

- 1.11.1 Crude oil tanker. A crude oil tanker is allowed to carry crude oil but is prohibited from carrying product oil.
- 1.11.2 Product carrier. A product carrier is allowed to carry product oil but is prohibited from carrying crude oil.
- 1.11.3 Crude oil/product carrier. A crude oil/product carrier is allowed to carry either crude oil or product oil, or both simultaneously.
- 1.11.4 Combination carrier. Mark paragraph 1.11.4 with an "x" if the ship is an O/B/O or combination carrier designed to carry oil or solid cargoes in bulk. This is in addition to the designation in paragraphs 1.11.1 to 1.11.3.
- 1.11.5 Ship other than oil tanker, with cargo tanks coming under Regulation 2(2) of Annex I of MARPOL 73/78. Mark paragraph 1.11.5 with an "x" if applicable. Paragraphs 1.11.1 through 1.11.4 must be marked negatively if this paragraph is marked affirmatively.

- 1.11.6 Oil tanker dedicated to the carriage of products referred to in Regulation 15(7). Mark this paragraph with an "x" only if the tanker is dedicated solely to the carriage of asphalt, carbon black feedstock or other products which have a specific gravity greater than 1.0 or which cannot be effectively separated from water. The COI of this ship must be similarly endorsed to limit the tanker to the carriage of these cargoes per MSM volume II, chapter 3.H.3.b.
- 1.11.7 and 1.11.8. These paragraphs are applicable to tankers which are equipped with CBT and have separate and independent piping systems for the carriage of products and with COW for the carriage of crude oil. These ships may be issued and maintain --- valid IOPP Certificates (with appropriate supplements), one for each trade, if appropriate instructions are provided in the ship's CBT manual for the cleaning of the CBT tanks in the transition from a crude carrier with COW to a product carrier with CBT. One of the Certificates will be based on the ship's operation as a CBT equipped product carrier, the other as a COW equipped crude oil carrier; the particulars of the ship as presented in paragraph 1 of the two supplements to the Certificates will probably not be identical. (See paragraph 5.3.5 of this part.)
- 1.11.9 Chemical tanker carrying oil. This paragraph is provided for chemical tankers carrying oil and that will apply for special equivalent arrangements for chemical tankers as provided for in paragraph 9 of the Form B supplement (see Section 9 of this part). With this one exception, a chemical tanker carrying oil is treated the same as any other tanker of the same deadweight.

Compliance with the provisions of segregated ballast tanks (SBT), protective location (PL) of SBT, dedicated clean ballast tanks (CBT) and crude oil washing (COW) relate directly to the designation of the type of oil tanker. The following is the relationship between the ship's design and equipment and the designation:

- a. A new oil tanker of 20.000 DWT or more may be designated as a "crude oil/product carrier," a "crude oil tanker," or a "product carrier."
  - b. A new oil tanker of 20.000 DWT or more satisfying the requirements of SBT, PL and COW may be designated as "crude oil/product carrier," a "crude oil tanker," or a "product carrier."
- One satisfying the requirements of SBT and PL but not COW may only be designated a "product carrier."
- One between 20,000 and 30,000 DWT, not fitted with both SBT and PL may only be designated a "product carrier."
- c. An oil tanker of .70.0000 DWT or more that is not a "new oil tanker" but is a "new ship" and satisfies the requirements for SBT may be designated as a "crude oil/product carrier," a "crude oil tanker" or a "product carrier."
  - d. Under MARPOL 73/78 an existing oil tanker of less than 40.000 DWT may be designated as a "crude oil/product carrier," a "crude oil tanker"

or a "product carrier." However, under 33 CFR 157.10c, when these tankers reach 15 years of age, SBT or CBT is required for product carriers and SBT or COW is required for crude carriers. While it is not the purpose of the IOPP Certificate to show compliance with 33 CFR 157.10c, the designation of these tankers must be consistent with these regulations.

- e. An existing oil tanker of 40,000 DWT or more satisfying the requirements for SBT may be designated as "crude oil/product carrier," a "crude oil tanker" or a "product carrier."

One satisfying the requirements for COW only must be designated a "crude oil tanker."

One satisfying only the requirements for CBT may be designated a "product carrier."

One satisfying both the requirements for CBT and COW may be designated a "crude oil/product carrier." Such a tanker must always operate with CBT. COW will be used for sludge control whenever crude oil is carried.

2. EQUIPMENT FOR THE CONTROL OF OIL DISCHARGE FROM MACHINERY SPACE BILGES AND OIL FUEL TANKS. See the instructions for completing section 2 of Form A in Part II of this enclosure.

3. TANKS FOR OIL RESIDUES. See the instructions for completing section 3 of Form A in Part II of this enclosure.

4. STANDARD DISCHARGE CONNECTION. See the instructions for completing section 4 of Form A in Part II of this enclosure.

5. CONSTRUCTION.

- 5.1 Because Coast Guard regulations, particularly those mandated by the Port and Tanker Safety Act (now 46 U.S.C. Chapter 37), were implemented before the MARPOL 73/78 entered into force, U.S. tankers should already comply with the construction standards of MARPOL 73/78 outlined in these paragraphs. This portion of the survey is, with one exception, a verification that the ship complies with the existing regulations and that no unauthorized alterations have taken place. These are not new requirements being imposed by MARPOL 73/78. Areas where problems in application of the present standards have occurred are identified for special attention during the survey; deficiencies are to be corrected prior to the issuance of an IOPP Certificate.

There are special requirements in 33 CFR 157.10b for tankers which may be transporting crude oil from an exploitation or production facility on the U.S. outer continental shelf.

- 5.1.1 Required to be provided with SBT, PL and COW. This paragraph applies to crude oil carriers above 20,000 DWT that are "new oil tankers."

- 5.1.2 Required to be provided with SBT and PL. This paragraph applies to product oil carriers above 30,000 DWT that are "new oil tankers."
- 5.1.3 Required to be provided with SBT. This paragraph applies to crude oil and product oil carriers above 70,000 DWT that are "new ships" but are "existing oil tankers."
- 5.1.4 Required to be provided with SBT or COW. This paragraph applies to crude oil tankers between 40,000 and 70,000 DWT that are "new ships" but are "existing oil tankers" and crude carriers above 70,000 DWT that are "existing ships." U.S. regulations require these tankers to have either SBT or COW; the CBT option is no longer available to them. (Under MARPOL 73/78 the CBT option was available until October 2, 1987, for the tankers between 40,000 and 70,000 DWT. Now these tankers may only have SBT or COW.)
- 5.1.5 Required to be provided with SBT or CBT. This paragraph applies to product oil tankers between 40,000 and 70,000 DWT that are "existing oil tankers" and product oil tankers above 70,000 DWT that are "existing ships."
- 5.1.6 Not required to comply with the requirements of Regulation 13. This paragraph applies to: (1) all tankers (crude and product) below 40,000 DWT that are "existing oil tankers"; (2) product oil tankers below 30,000 DWT that are "new oil tankers"; and (3) crude oil tankers below 20,000 DWT that are "new oil tankers." Note that this includes those tankers required under 33 CFR 157.10c to have either SBT, CBT or COW. The requirements in 33 CFR 157.10c are U.S. requirements only and the IOPP Certificate is not to be used to show a tanker has complied with these regulations. See Change 1 to NVIC 1-81 regarding the endorsement of the Certificate of Inspection of tankers subject to 33 CFR 157.10c.

This paragraph also applies to ships other than oil tankers that carry more than 200 m<sup>3</sup> of oil.

## 5.2 Segregated ballast tanks (SBT).

- 5.2.1 This paragraph is used to show the tanker is fitted with SBT to comply with Regulation 13.
- 5.2.2 This paragraph is used to show the SBT meets the requirements for protective location (required on new oil tankers falling under paragraph 5.1.1 and 5.1.2).
- 5.2.3 SBT are distributed as follows. On all ships, complete the paragraph to indicate the identity and capacity of segregated ballast tanks (tanks used as segregated ballast tanks should be indicated whether or not the ship uses SBT to meet Regulation 13). Indicate forepeak and after peak tanks only if they are connected with permanent piping to ballast water pumps and are not used for potable or boiler feed water.

During the survey the inspector will examine the SBT tanks for traces of oil and inspect the SBT piping, especially in the pumproom, to ensure that there are no cross-connections with the cargo or fuel oil systems. The confined space entry procedures of

appendix A, chapter 10, volume I of the Marine Safety Manual, shall be followed if tank entry is required to complete the SBT tank survey.

### 5.3 Dedicated Clean Ballast Tanks (CBT).

- 5.3.1 This paragraph is used to show that a tanker is fitted with CBT to comply with Regulation 13A. Under U.S. regulations, the option of using CBT for crude oil tankers, ended on June 1, 1983, for tankers of 70,000 DWT or more and one June 1, 1985, for tankers of 40,000 DWT to 70,000 DWT. See paragraph 5.1.4 above.
- 5.3.2 CBT are distributed as follows. Complete this paragraph to show the identity and capacity of all CBT tanks.
- 5.3.3 CBT Manual. Record the date of the Coast Guard or ABS approval of the CBT Manual.
- 5.3.4 and 5.3.5 CBT and cargo oil piping. Indicate whether the ship has common or separate/independent piping pumping arrangements for its CBT. Paragraph 5.3.5 is especially important for those ships which will operate with two IOPP Certificates (this would be indicated in paragraphs 1.11.7 or 1.11.8 or Form B). A CBT tanker which has common pumping and piping systems and operates as a COW tanker when carrying crude oil may carry only one IOPP Certificate and must undergo survey and have its CBT inspected before obtaining an IOPP Certificate to allow operation as a product carrier with CBT. This survey and inspection is not required on a tanker with separate/independent pumping and piping systems; the COW and CBT manuals contain the procedures for changing from one trade to the other.

During the survey the inspector will examine the CBT tanks for traces of oil and inspect the piping system for evidence of leakage of oil past isolating valves. The confined space entry procedures of appendix A, chapter 10, volume I of the Marine Safety Manual, shall be followed if CBT tank entry is required to complete the CBT system survey.

### 5.4 Crude oil washing (COW).

- 5.4.1 This paragraph indicates compliance of the COW system with the design and equipment standards of MARPOL 73/78. Documentation indicating prior Coast Guard or American Bureau of Shipping (ABS) approval of the system should be available.
- 5.4.2 This paragraph indicates whether a final inspection has been satisfactorily completed. If all tests have been satisfactorily completed mark with a "-."
- 5.4.3 COW Manual. Record the date of the Coast Guard or ABS approval of the COW Manual.
- 5.4.4 Mark this paragraph with an "x" if a COW system is fitted at the convenience of the owner and not required by MARPOL 73/78 (i.e., On existing tanker with SBT which is also provided with COW). Such a COW system need not meet the



standards for area coverage and performance, but must meet standards relating to safety. A supplementary system which has been approved by the Coast Guard or ABS meets the safety aspects of IMO Resolution A.446(XI). Note that whenever a COW system is installed an inert gas system (IGS) is required.

During the survey the inspector will examine the COW system piping for leakage and the supports for the machines for signs of cracking or fatigue. If portable drive units are used, the inspector will check the number of required units (recorded in the COW Manual) against the number of units on board. If practicable, examine two or more cargo tanks for excess traces of oil to determine if the COW system is performing satisfactorily. The confined space entry procedures of appendix A, chapter 10, volume I of the Marine Safety Manual, shall be followed if tank or enclosed space entry is required as part of the COW system survey.

## 5.5 Exemption from Regulation 13.

5.5.1 Specific trade exemptions. Use this paragraph to indicate if a tanker, that is subject to the requirements of Regulation 13, has been granted a specific trade exemption under 33 CFR Part 157, Subpart F. List the ports the tanker is allowed, under the terms of the exemption, to trade between. Currently, all exemptions that have been granted only allow trade between U.S. ports. However these exemptions do not restrict the tankers from making international voyages for other reasons, such as the carriage of commodities not regulated under 33 CFR Part 157. Therefore tankers with an exemption would generally require an IOPP Certificate.

5.5.2 Specific ballast arrangement. Regulation 13D of MARPOL 73/78 provides for special ballast arrangements. These arrangements have not been authorized by the Coast Guard in lieu of SBT, CBT or COW requirements. Certain smaller tankers, engaged in the carriage of outer continental shelf oil may have special ballast arrangements to comply with the provisions of 33 CFR 157.10b(d). It is unlikely that such tankers will require IOPP Certificates; however, this section can be used to identify these tankers.

## 5.6 Cargo tank size and arrangements.

5.6.1 Required to meet Regulation 24. All new oil tankers and, all existing tankers which were: (1) delivered after January 1, 1977; or (2) delivered before January 1, 1977, but contracted for after January 1, 1974, (or in the absence of a contract, the keel was laid after June 30, 1974) must meet the standards for cargo tanks size and arrangement in Regulation 24.

All seagoing self-propelled U.S. flag oil tankers built after the above dates were required to meet this standard when built and may be presumed to be in compliance without examination; accordingly, for these ships, this paragraph should be marked with an "x." If a tanker built before the dates specified does not comply this paragraph should be marked with a "-."

Tank barges built after the dates specified above cannot be presumed to meet Regulation 24 because: (1) an "equivalent" (see paragraph 12.a. of this Part) may have been applied, or (2) they were reviewed on the basis that they would not be oceangoing (or "seagoing," as presently used in 33 CFR 157) and have subsequently entered an oceangoing trade. Therefore, tank barges built after the above dates must be checked for compliance by either examining the barge's file or

performing the calculations. If the barge complies with the standards, mark this paragraph with an "K." If it meets the "equivalent," or was built before the specified dates and does not meet the standards it should be marked with a "-."

- 5.6.2 Required to meet Regulation 24(4). This paragraph should be marked consistent with paragraph 5.6.1. Note that regulation 24(4) also applies to ships other than tankers which carry 200 m or more of oil in bulk and built after the dates specified in 5.6.1. Check the cargo tank lengths on these ships for compliance with Regulation 24(4).

5.7 Subdivision and stability.

- 5.7.1 Required to meet Regulation 25. All new oil tankers are required to meet Regulation 25. All self-propelled U.S. tankers which are new oil tankers were reviewed for compliance prior to certification. The design of these ships should otherwise be presumed to comply, and this paragraph should be marked with an x.

Tank barges that are new oil tankers may not have been built to meet Regulation 25. They may have been built on the basis that they would not be "oceangoing" and have subsequently entered into an "oceangoing" trade. They should be checked individually. Check the Coast Guard files or ask the owner to produce records which indicate compliance. If they are found to comply this paragraph should be marked with an "x".

This paragraph should be marked with a "I-" for any other ship unless the shipowner can produce records to show that the Coast Guard has found it to comply with the standard.

On all ships, check the condition of any sluice gates or other valves required to be closed while the ship is at sea.

- 5.7.2 Information required by Regulation 25(5). This information may be in the form of a trim and stability booklet, loading restrictions (possibly on the Load Line Certificate) or a stability letter. U.S. tankers should already have this information. Ensure this information is on board, approved<sup>1</sup> and accurately recorded on the COI.

5.8 Double Hull construction. Regulations 13F and 13G were accepted under Resolution MEPC.52(32), which became effective on July 6, 1993. In December 1992, the U.S declared to IMO that the U.S would not enforce Regulations 13F (newly constructed oil tanker) and 13G (existing oil tanker) due to the technical differences between Annex I regulations and the U.S. Oil Pollution Act of 1990 (46 U.S.C. 3703a as amended) requirements.

The U.S. is party to MARPOL 73/78 and its vessel's IOPP Certificates must reflect the vessel's compliance with the MARPOL 73/78 requirements.

For this reason, this section must be completed on the Form B supplement. Regulation 1(4) defines oil tanker as, "a ship constructed or adapted primarily to carry oil in bulk in its cargo spaces and includes combination carriers and any 'chemical tanker' as defined in Annex II of the present Convention when it is carrying a cargo or part cargo of oil in bulk."

- 5.8.1 Regulation 13F requirements for double hull design standards are identical to the double hull standards required by 33 CFR 157.10d, with the exception of:
- a. the tonnage threshold (above 600 DWT); and
  - b. new vessels are those contracted after July 6, 1993, and delivery of which is on or after July 6, 1996.
- 5.8.1.1 If a U.S. oil tanker meets the requirements of 33 CFR 157.10d (U.S. double hull standards), it will also be in compliance with Regulation 13F(3). The verification of the vessel's design to the double hull standards is completed in the vessel's plan approval and construction inspection. A valid COI reflects that a U.S. vessel which carries oil in bulk, contracted after June 30, 1990, or delivered after December 31, 1993, meets the double hull standards of 33 CFR 157.10d. If so, mark an "x" in 5.8.1.1. If the oil tanker is an existing vessel mark a "-" as not applicable.
- 5.8.1.2 No U.S. vessel can be accepted under Regulation 13F(4), as the "mid-deck" design is not acceptable under U.S. regulations. This paragraph should always be marked with a "-", not applicable.
- 5.8.1.3 At this time, there are no tanker designs that have been accepted by the IMO's Marine Environment Protection Committee (MEPC) as an approved alternative design, so always mark a "-" for 5.8.1.3, as it will be not applicable for any tanker. A change to this Circular will be published when an alternative design is accepted by the MEPC, and approved by the U.S.
- 5.8.2 Regulation 13F(7) is the double hull standards requirements for tankers less than 5,000 tons deadweight. These international standards are the same as the U.S. double hull standards for vessels less than 5000 DWT. The verification of the vessel's design to the double hull standards is verified in the vessel's plan approval and construction inspection. A valid COI reflects that a U.S. vessel which carries oil in bulk, contracted after June 30, 1990, or delivered after December 31, 1993, meets the double hull standards of 33 CFR 157.10d. If so, mark an "x." If the vessel is an existing vessel mark a "-" as not applicable.
- 5.8.3 Oil tankers less than 600 DWT, or tankers that were contracted before July 6, 1993, and delivered before July 6, 1996, are not required to comply with Regulation 13F. If paragraphs 5.8.1 or 5.8.2 are marked not applicable, mark this paragraph with an "x." If either of the listed paragraphs is applicable mark a "-", indicating this paragraph is not applicable.
- 5.8.4 Regulation 13G applies to single hull crude oil tankers of 20,000 DWT and above and single hull product oil tankers of 30,000 DWT and above, that were contracted before July 6, 1993, and delivered before July 6, 1996. A single hull under regulation 13G, may be a vessel that has a single hull with double sides or double bottoms, or a double hull vessel which does not meet the dimensional requirements of Regulation 13F. If this paragraph is applicable, paragraphs 5.8.1

and 5.8.2 should be marked not applicable. To determine the date required in paragraph 5.8.4.1, the following parameters should be considered:

- a. Regulation 13G becomes effective July 6, 1995;
- b. An existing single hull oil tanker which does not meet the new oil tanker (Regulation 1(26)) requirements, shall comply not later than 25 years after its date of delivery;
- c. An existing single hull oil tanker which does not meet the new oil tanker (Regulation 1(26)) requirements, but does meet the PL SBT requirements of Regulation 13E(4), shall comply not later than 30 years after its date of delivery; or
- d. A single hull oil tanker meeting the requirements of a new oil tanker (Regulation 1(26)), shall comply not later than 30 years after its date of delivery.

The tankage not used to carry oil shall be listed in paragraph 5.8.4.2 by tank number and "P" for port, "S" for starboard, and "C" for center, and marked with an "x" if applicable.

5.8.5 Crude oil tankers less than 20,000 DWT and product oil tankers of less than 30,000 DWT, that were contracted before July 6, 1993, and delivered before July 6, 1996, are not required to comply with Regulation 13G. If paragraph 5.8.4.1 is marked applicable, this paragraph should be marked with a "-", not applicable.

Prior to the survey the inspector should evaluate the vessel's files and determine the design standards. The vessel history, showing its date of contract and delivery, and operational capabilities should be documented and verified during the survey. These specifics are partially reviewed under the survey requirements of paragraphs 2, and 3, as well as 5.1 of this Part.

6. RETENTION OF OIL ON BOARD. This section refers to the equipment requirements under Regulation 15(2) (slop tanks) and Regulation 15(3) (oil discharge monitoring and control system and oil/water interface detector).

With three exceptions, all tankers must have this equipment. The first exception is the equivalency that has been developed for unmanned tank barges that cannot ballast or wash cargo tanks while proceeding enroute. See paragraph 12.b of this Part for further details.

The second exception is that parts of this regulation (Regulation 15(1), (2) and (3)), do not apply to oil tankers carrying asphalt and other products which due to their physical properties inhibit effective product/water separation and monitoring (Regulation 15(7)). See paragraph 6.4.1 of this Part for documentation of this as an exemption.

The third exception includes the following waivers from these equipment requirements as allowed under Regulation 15(5):

- a. The slop tank, oil discharge monitoring and control system, and oil/water interface detector are not required on tankers engaged exclusively in voyages between U.S. ports that are both 72 hours or less in duration and within 50 miles from the nearest land.

- b. An oil discharge monitoring and control system and oil/water interface detector are not required on tankers that have been granted a specific trade exemption under 33 CFR Part 157, Subpart F (see special guidance in paragraph 12.c concerning the equivalent for tankers between 20,000 and 40,000 DWT that have a specific trade exemption).
- c. An oil discharge monitoring and control system and oil/water interface detector are not required on tankers engaged exclusively in one or more of the following voyages:
  - (1) within special areas; or
  - (2) between U.S. ports and within 50 miles of the nearest land outside special areas; or
  - (3) restricted international voyages of 72 hours or less in duration that are within 50 miles of the nearest land outside special areas. The Commandant (G-MVI) will determine on a case-by-case basis if a voyage is a restricted international voyage.

Vessels that have been granted a waiver under paragraphs (b), (c)(1) and (c)(3) above will be given a copy of enclosure (4) with section 13 completed. The completed copy of enclosure (4) is to be attached to the Form B Supplement of the IOPP Certificate.

- 6.1 Oil discharge monitoring and control system. This paragraph cannot be completed without reference to Resolution A.496(xII) (Appendix F of 33 CFR Part 157). This Resolution specifies tanker categories as well as the required equipment.

Basically, all tankers above 150 GT are required to have an oil discharge monitoring and control system. Ships other than oil tankers which carry 200 m<sup>3</sup> or more of oil cargo are considered as oil tankers over 150 GT except if they carry less than 1000 m<sup>3</sup> of oil; they then do not require this equipment provided they retain all oily water on board for discharge ashore (see Regulation 15(4)).

New ships built before October 2, 1986, (keel laying date) are required to have equipment approved as meeting Resolution A.393(X) or Resolution A.586(14). New ships having a keel laying date of October 2, 1986, or later must be fitted with equipment that is approved as meeting Resolution A.586(14). All equipment required under this section must be Coast Guard approved under 46 CFR 162.050 as meeting IMO Resolution A.393(X) or Resolution A.586(14). The Certificate of Type Test will list the resolution the equipment has been approved as meeting.

During the survey the inspector will test all equipment, including the starting interlock. Test the oil discharge monitoring and control system in accordance with the instructions contained in the manufacturer's equipment instruction manual. (It may be necessary to discharge into the slop tank or to a reception facility to conduct these tests while in port.) Verify that the equipment is either automatically or manually set to discharge at a rate not to exceed 30 liters per nautical mile. If manually set to a rate not to exceed 30 liters per nautical mile, written instructions must be posted at the system's controls stating the unit is only to be operated not to exceed that setting of discharge. These instructions should include how to set the discharge rate, how to record, and how to verify taped recordings.

- 6.1.1 Ship category. Refer to paragraph 5.4 of Resolution A.496(XII) for a description of ship categories. (Also reprinted in 33 CFR 157, Appendix F.) Delete the IMO resolution cite (A.496 (XII) or A.586(14)) that does not apply by overtyping "Xs" on form.

- 6.1.2 The system comprises. Refers to paragraphs 4.2 through 4.4 of Resolution A.496(XII) for the definitions of "control unit," "computing unit," and "calculating unit." Using these definitions, the inspector can determine which type of unit is installed on the ship. Paragraph 5.4 of Resolution A.496(XII) lists the type of unit required for the category of the ship.
- 6.1.3 Starting interlock and automatic stopping device. Indicate in paragraph 6.1~3.1 if a starting interlock is fitted.

All Coast Guard approved monitors generate the signal for automatic stopping (paragraph 6.1.3.2). The presence of an indicator light on a control panel of the monitor can not be accepted as indicating that an automatic stopping device is installed. For those ships required to have discharge valve control, the valve and its operation must be checked.

Some vessels are not required to have automatic recording systems which display the position of discharge valves through which oily mixtures and clean ballast are discharged in accordance with Sections 4.3.2.4 and 6.6.2.2.5 of 33 CFR 157, Appendix F. On vessels which are not required to have automatically controlled discharge valves, discharge valve positions may be manually recorded, in lieu of automatic recording.

- 6.1.4 Oil content meter. Record the type of oil for which the oil content meter is approved. Oil content meters are approved for crude oil, white products, black products. While most are approved for crude oil and black products, not all are approved for white products. A product carrier which is to carry refined oils, such as gasoline, kerosene or light fuel oils, must have an oil content meter installed that is approved for white products. Obtain this information from the Certificate of Type Test. Also note if the oil content meter is approved as meeting Resolution A.393(X) or A.586(14) (see above for details concerning the appropriate resolution the oil content meter must be approved as meeting). If it is approved as meeting Resolution A.586(14), "X" out "A.393(X)" and leave in "A.586(14)."

Under Regulation 14 of Annex II of MARPOL 73/78, which entered into force in April 1987, oil tankers are allowed to carry certain oil-like Annex II cargoes provided the oil content meter is Coast Guard approved for use to monitor the oil-like Annex II cargoes to be carried. A list of oil-like Annex II cargoes that can be considered for carriage by oil tankers can be obtained from the Commandant (G-MTH). Oil tankers that qualify to carry oil-like Annex II cargoes will have section 10.1 of the Form B supplement marked with an "x" and a list, that has been certified with the OCMI's seal, of the Annex II cargoes the tanker may carry. This cargo list is to be attached to the Form B supplement of the IOPP Certificate.

- 6.1.5 Oil discharge operations manual. All ships required to have an oil discharge monitoring and control system must have an operating manual for that equipment. This manual does not have to be Coast Guard or ABS approved. This manual shall include equipment, operational and/or maintenance manuals for the various items comprising the oil discharge monitoring and control systems on board the ship. As noted in 33 CFR 157, Appendix F, Section 7.1, these manuals shall cover the oil content meter, control, computing or calculating unit, flow meter, and ship's speed indicator, where required.

6.2 Slop tanks. Slop tanks are required on most seagoing U.S. tankers by 33 CFR 157.15. Therefore, most U.S. tankers already comply with the MARPOL 73/78 standards. The exceptions are tank barges (see paragraph 12.a of this part) and asphalt carriers (see paragraph 6.4 of this part). Ships other than oil tankers which carry 200 m<sup>3</sup> or more of oil and cargo are required to have slop tanks. Ships other than oil tankers which carry 200 to 1,000 m<sup>3</sup> of oil as cargo may be exempted from this requirement if they retain oil on board (see paragraph 6.4.2). 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.

6.2.1 Number and capacity. In this paragraph enter the number of dedicated slop tanks, the cubic meter capacity and the percentage oil carrying capacity it comprises. All new oil tankers of 20,000 DWT or more are required to have at least two slop tanks. In addition, complete paragraphs 6.2.1.1 through 6.2.1.4 based on the following:

6.2.1.1 Regulation 15(2)(c). Under this regulation the capacity of the slop tanks must be 3% of the oil carrying capacity.

6.2.1.2 Regulation 15(2)(c)(i). The required slop tank capacity is 2% provided 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 the pumps including educators, without the introduction of additional water into the system.

6.2.1.3 Regulation 15(2)(c)(ii). The required slop tank capacity is 2% provided SBT or CBT are provided under Regulation 13, or where COW is fitted under Regulation 13B. This capacity may be further reduced to 1.5% 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 the pumps including educators, without introducing additional water into the system.

6.2.1.4 Regulation 15(2)(c)(iii). The required slop tank capacity is 1% provided carriers where oil cargo is only carried in tanks with smooth walls. This capacity may be further reduced to 0.8% if 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 the pumps including educators, without introducing additional water into the system.

6.2.2 Cargo tanks as slop tanks. If cargo tanks with sufficient capacity, as noted in 6.2.1 above, are used as slop tanks, then this paragraph is marked with an "x" and 6.2.1 is marked with a "-".

6.3 Oil/water interface detectors. Regulation 15(3)(b) requires effective oil/water interface detectors in order to determine the oil/water interface in the slop tank. The oil/water interface detector must be Coast Guard approved. The approval numbers are in the 162.055 series. Manufacturers should contact the Commandant (G-MVI-3) to obtain information regarding procedures for obtaining Coast Guard approval of this type of

equipment. Enter an "x" in the space provided if approved equipment is on board. The interface detector is intended for use in the slop tank but must be available for use in other tanks as well.

#### 6.4 Exemptions from Regulation 15.

6.4.1 Exempted under Regulation 15(7). This paragraph is used to indicate a ship exempted from the requirements of Regulation 15(1), (2) and (3) because it is dedicated to the carriage of asphalt, carbon black feedstock, etc. These ships must discharge all slops to reception facilities.

6.4.2 Exempted under Regulation 2(2). This paragraph is used to indicate a ship other than a tanker which is exempted from the requirements of Regulation 15(1), (2) and (3) because its aggregate oil carrying capacity is less than 1,000 m<sup>3</sup> and it retains cargo residues on board for discharge to reception facilities.

#### 6.5 Waiver of Regulation 15.

6.5.1 Waivered under Regulation 15(3). This paragraph is used to indicate a ship waived from the requirements of Regulation 15(3)~: The Commandant (G-MVI) will process these requests for waivers on a case-by-case basis and provide guidance on how the IOPP Supplement shall document this waiver.

7. PUMPING, PIPING AND DISCHARGE ARRANGEMENTS. Regulation 18 of MARPOL 73/78 requires that the discharge of ballast water or oil contaminated water from tankers and other ships which carry 200 m<sup>3</sup> or more of oil as cargo take place above the waterline with certain exceptions. U.S. regulations differ from MARPOL 73/78 in that they do not address ships other than tankers which carry cargo oil. The applicable regulations for tankers concerning the discharge arrangements for segregated ballast, dedicated clean ballast, cargo residue and oil-contaminated water are in 33 CFR 157.37 and 157.43.

Regulation 18(2) and 33 CFR 157.11(b)(2) require tankers to have an above waterline discharge point for the discharge of ballast water and oil-contaminated water, except that existing oil tankers may use a part flow system meeting paragraphs 3 and 4 of Appendix E to 33 CFR Part 157. The Coast Guard has interpreted and will continue to interpret, the on-deck discharge manifold as meeting the above waterline requirement, however, a through-hull discharge point was envisioned by IMO and is strongly encouraged.

The regulations and MARPOL 73/78 allow the discharge of ballast water and oil-contaminated water below the waterline in certain instances. The discharge points provided will be noted in the following paragraphs.

7.1 Segregated ballast. All tankers may discharge segregated ballast (by pumping) below the waterline in port or at an offshore terminal or by gravity at sea. Tankers that are existing ships and that have no above waterline discharge point may discharge (by pumping) segregated ballast below the waterline. These tankers must examine the surface of the water with an oil-water interface detector to insure the segregated ballast has not been contaminated with oil.



- 7.2 Clean ballast. Tankers that are existing oil tankers may discharge ballast from the CBT below the waterline if the ship has no above waterline discharge point provided the ship is capable of monitoring the discharge.
- 7.3 Dirty ballast (cargo residues). All discharges of dirty ballast must be monitored after the date on which a monitor is required.

Oil tankers may discharge dirty ballast or oil contaminated water from the cargo tank area (except slop tanks) by gravity provided sufficient time has elapsed for the oil and water to separate and the depth of the oil-water interface is determined with an oil-water interface detector.

Tankers that are existing ships may discharge (by pumping) dirty ballast and oil contaminated water below the waterline provided the discharge is monitored using a part flow system which meets Appendix E of 33 CFR Part 157.

- 7.4 Discharge of cargo pumps and oil lines. The purpose of this paragraph is to indicate a tanker has the means for draining the cargo pumps and cargo piping to a cargo or slop tank and if a small diameter line is provided to discharge the drained oil ashore. This is required for all "new oil tankers" fitted with SBT or COW (crude carriers above 20,000 DWT and product carriers above 30,000 DWT) and all "existing oil tankers" that are crude carriers fitted with SBT, CBT or COW (above 40,000 DWT ).

8. SHIPBOARD OIL POLLUTION EMERGENCY PLAN. See instructions for completing section 5 of Form A in Part II of this enclosure.

9. EQUIVALENT ARRANGEMENTS FOR CHEMICAL TANKERS CARRYING OIL. When approved by the Commandant (G-MVI), a chemical tanker may be certified as having equivalent arrangements for the carriage of oil. Shipowners who request issuance of an IOPP Certificate citing this arrangement should contact the Commandant (G-MVI). The Commandant (G-MVI) will process these requests on a case-by-case basis and provide guidance on how the IOPP supplement shall document this equivalent.

10. OIL-LIKE NOXIOUS LIQUID SUBSTANCES. U.S. inspected tankers which carry oil-like Category C or D Noxious Liquid Substances (NLS), shall have a list of the cargoes the vessel is allowed to carry attached to the Form B supplement and paragraph 10.1 shall be marked with a "x".

11. EXEMPTIONS. Forward all requests for exemptions under the provisions of Regulation 2(4)(a) to the Commandant (G-MVI).

12. EQUIVALENTS. The Coast Guard has approved and notified IMO of several equivalents which may be indicated on the Form B Supplement. Other equivalents may be considered within the framework of Regulation 3 of MARPOL 73/78. The equivalents accepted by the Coast Guard are:

- a. Equivalent tank length for certain tank barges. The United States developed equivalent standards to those in Regulation 24(4) of MARPOL 73/78 for tank barge, tank arrangement and tank size limitations for tank barges of 150 meters or less in length. The purpose of this equivalent is to allow a U.S. tank barge to be constructed with essentially the same bulkhead spacing as a tankship of comparable cargo capacity. Under this equivalent the length of a tank may not exceed one of the following values:
  - (1) If no longitudinal bulkhead is to be installed, .13L

- (2) If a longitudinal bulkhead is to be installed at the centerline only,  $.2L$ .
- (3) If two or more longitudinal bulkheads are to be installed:
  - (a) For wing tanks,  $.26L$ ;
  - (b) For center tanks if  $b/B$  is equal to or greater than  $1/5$ ,  $.26L$ ;
  - (c) For center tanks if  $b/B$  is less than  $1/5$  with no center line longitudinal bulkhead,  $(0.5 b/B + .13)L$ ; or
  - (d) For center tanks if  $b/B$  is less than  $1/5$  with center line longitudinal bulkhead,  $(0.25 b/B + .2)L$ .

The values for "L," "B," and "b~" are defined in 33 CFR 157.03 and 33 CFR 157, Appendix A.

On a tank barge which complies with this equivalent, but not with the tank length requirements of MARPOL 73/78, enter the following statement in the space provided in section 12.1: "5.6.1--An equivalent tank length criterion to that required by Regulation 24(1) (MEPC XVII/INF.8)."

- b. Equivalent arrangements for tank barges which cannot ballast or wash cargo tanks while proceeding enroute. Recognizing that the design and equipment requirements for slop tanks, cargo oil monitors, and pumping, piping and discharge arrangements are aimed primarily at ensuring that a tanker is adequately equipped to practice load-on-top and to treat the discharge of cargo tanks which must be cleaned or ballasted during the normal operation of the tanker, and further recognizing that in operation many tank barges never need ballast, the Coast Guard has approved an equivalent which may be applied to certain tank barges. Under the terms of this equivalent the tank barge must:
  - (1) be unmanned (a barge that is permissively manned is considered unmanned for the purposes of this equivalent),
  - (2) have no installed system for cleaning cargo tanks, and
  - (3) if it is to be issued an IOPP Certificate if must be incapable of ballasting cargo tanks through a fixed piping system (a system in which a spool piece may be inserted to obtain sea suction is permissible); if an IOPP Certificate ~ not issued existing fixed piping systems may remain in place provided that any values which allow for the ballasting of the cargo tanks are suitably sealed.

A barge is not eligible for this exemption if it is part of a rigidly connected integrated tug-barge system (that is a system where the barge must at any time be ballasted for operation of the combined unit).

Under this equivalent, all cargo residues, clean ballast or dirty ballast must be discharged to reception facilities and the COI must be so endorsed.

Enter the following in paragraph 12.1 for barge under this equivalent: "6.1. 6.2 and 6.3--The design and arrangement of this tank barge is considered equivalent to the requirements of Regulations 15(1). (2) and (3) (MEPC XVIII/INF.4)."

- c. Equivalent arrangements for tankers of 20,000 - 40,000 DWT which are 15 years old or older and which have been granted a specific trade exemption under 33 CFR 157 Subpart F from the requirements in 33 CFR 157.10c. Under 33 CFR 157.08(i)(1) these tankers are not required to install a cargo monitor and control system. Under MARPOL 73/78 tankers with specific trade exemptions are also relieved from installing the cargo monitor and control system, however, specific trade exemptions under MARPOL 73/78 are only available to tankers over 40,000 DWT. The U.S. considers tankers of 20,000 - 40,000 DWT that operates under a specific trade exemption as equivalent to a tanker over 40,000 DWT that operates under a specific trade exemption. Enter the following statement in space provided in paragraph 12.1: "6.1. and 6.3--The design and arrangement of this tank ship is considered equivalent to the requirements of Regulation 15(5)(b)(i)(MEPC/Circ. 165)."
- d. U.S. 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 m<sup>3</sup> or more, must meet certain requirements that are applicable to oil tankers per Regulation 2(2) of Annex I of MARPOL 73/78. One of those requirements is that these vessels must have on board an oil discharge monitoring and control system under Regulation 15(3). It has been determined that for these ships, a 15 ppm oily water filtering unit with alarm, approved under Resolution A.393(X), is equivalent to an oil discharge monitoring and control system under Regulation 15(3). The following entry can be made in paragraph 12.1 of the Form B supplement of these ships: "6.1--The design and arrangement of this ship is considered equivalent to the requirements of Regulation 15(3) (MEPC/Circ.121/Rev.1)."
- e. See section 7 of the instructions in Part II for completing the Form A supplement for other equivalents a vessel may meet.

13. ADDITIONAL STANDARDS. See the instructions in section 8 of the instructions in Part II for completing the Form A supplement.

## PART IV

### Issuance of IOPP Certificates and other Documents Indicating Compliance with Annex I of MARPOL 73/78

#### General.

This part is intended to provide administrative and policy guidance to Coast Guard personnel issuing IOPP Certificates and other documentary evidence of compliance with MARPOL 73/78.

#### Preparation of the Certificate.

Information required to identify the ship is to be obtained from the Form A or Form B supplement to the Certificate. The IOPP Certificate and supplemental forms can be produced using the December 1993 revision of the Forms Plus library, CGLaser5000A. The forms are designed to allow the user of a Coast Guard Standard Workstation System (SWS) computer terminal to tab through the forms and for the paragraph blocks to mark an "x" for applicable, or a "-" for not applicable. All paragraph areas that require fill-in information can be typed into. It is not necessary to place a seal on the IOPP Certificate after signature. The previous edition IOPP Certificate (1/83) and supplemental forms (2/83) are obsolete and should not be issued.

Three copies of the IOPP Certificate and/or the appropriate supplement are to be completed:

- a. The original shall be delivered to the master of the ship.
- b. A copy shall be retained in the originating OCMI's files.
- c. One copy shall be forwarded to the Commandant (G-MVI-2).

#### Requirements for Issuance of Supplemental Forms to IOPP Certificates.

U.S. inspected ships required to be surveyed but not required to have an IOPP Certificate fall into two categories regarding the issuance of Form A and Form B supplements. Inspected ships which ~ enter ports or offshore terminals under the jurisdiction of the other parties to MARPOL 73/78 will be provided a copy of the appropriate supplement (Form A or Form B). These forms will be issued or reissued at each survey, and each issuance shall be signed by the cognizant OCMI and dated. It is not necessary to place a seal on the IOPP Certificate supplemental forms after signature.

U.S. inspected ships which do not enter ports or offshore terminals under the jurisdiction of the other parties to MARPOL 73/78, but are oceangoing ships, may be provided a copy of the appropriate supplement (Form A or Form B), at the OCMI's option. A vessel's Certificate of Inspection (COI) will document the vessel's compliance with MARPOL 73/78 under the requirements of 33 CFR, Parts 151, 155, and 157. The cognizant OCMI shall ensure that in a situation where an inspected ship is not issued a supplemental form due to its route, any exemptions or equivalence the vessel may be allowed to Annex I MARPOL 73/78, shall be documented on the vessel's COI. The OCMI may issue the IOPP Certificate supplemental form to any inspected ship, if he wishes to document a special situation or if requested by the vessel's owner/operator.

The issuance of IOPP Certificate supplement forms to inspected ships that are strictly oceangoing ships and do not enter other country's ports, is seen as duplicative and unneeded. The vessel's COI cannot

be issued to the vessel unless it meets all the required regulations of the U.S. which parallel MARPOL 73/78 requirements. This change in policy is effective immediately and the reissuance of existing IOPP Certificate supplement forms to this class of inspected vessels will not be required in the future.

Uninspected ships required to be surveyed but not required to have an IOPP Certificate shall always be issued the appropriate supplemental Form A or Form B. This will document the vessel's compliance as a U.S. flag ship to Annex I of MARPOL 73/78.

U.S. inspected tankers which carry oil-like Category C or D Noxious Liquid Substances (NLS), shall be issued IOPP Certificates and Form B supplements. These oil-like Category C or D NLS cargoes are listed in 33 CFR 151.49, and the Commandant (G-MTH) can be contacted if questions arise regarding these products.

Expiration dates.

IOPP Certificates and documentation of compliance are valid for the periods specified below:

- a. Uninspected vessels -- 5 years from the date of the survey.
- b. Inspected vessels -- 4 years from the date of survey, except that the IOPP Certificate of an "existing oil tanker of 20,000 to 40,000 DWT" shall expire not later than the fifteenth anniversary of the tanker's delivery (as specified in paragraph 1.8.3 of Form B).

Marine Safety Information System (MSIS) data entry.

The issuance of the IOPP Certificate, whether it has a Form A or Form B supplement, and the certificate's issue and expiration date are to be entered on MSIS. To do so enter the Vessel File List of Documents (VFLD) product set. Enter the document code "IOP" for IOPP Certificate. Under the certificate number box, type in Form A or Form B, in agreement to what certificate supplement form was issued to the vessel. Then tab through the blank boxes filling out the information requested for the date the certificate was issued, the date it expires, and the port of issue. This entry is also made for a vessel that, because of the voyages it makes, does not require an IOPP Certificate and is issued a Form A or Form B supplement as evidence of compliance with the regulations (This includes oceangoing inspected ships that are surveyed and are allowed to have the COI document the ship's compliance with Annex I of MARPOL 73/78).

## PART V

## Other Surveys Required under Annex I of MARPOL 73/78

General.

This Part is intended to provide guidance regarding other surveys which are required by the Coast Guard under MARPOL 73/78. Guidance is provided regarding the intervals at which surveys are to be conducted and the scope of the surveys. The following definitions apply:

- a. A mandatory annual survey (as described in Regulation 4(3)(b) of MARPOL 73/78) means an examination of a ship and its equipment. It may include operational tests of the ship's systems and equipment to the extent necessary to confirm that the ship and its equipment remain satisfactory for the service for which the ship is intended and no unauthorized changes have occurred.
- b. An intermediate survey (as described in Regulation 4(1)(c)) means an examination of a ship and its equipment to ensure compliance with the applicable requirements of MARPOL 73/78. It is normally conducted at the mid-point of the validity of the IOPP Certificate on ships with IOPP Certificates.
- c. A periodic renewal survey (as described in Regulation 4(l)(b)) means a thorough examination and tests of a ship and its equipment in accordance with the requirements of MARPOL 73/78 at specified regular periods to ensure that the IOPP Certificate may be renewed on ships with IOPP Certificates.

Survey requirements.

Surveys are required prior to the issuance of an IOPP Certificate, and at periodic intervals thereafter to maintain the validity of the IOPP Certificate. The initial surveys will be performed at the request of a vessel owner. If subsequent surveys are not performed according to the schedule indicated the IOPP Certificate will cease to be valid. To maintain the validity of their IOPP Certificates, U.S. ships subject to MARPOL 73/78 will be surveyed in accordance with the following:

- a. All ships subject to the Form B survey (whether or not they have an IOPP Certificate) will undergo periodic renewal, intermediate and mandatory annual surveys. These surveys will normally be conducted concurrently with required inspections for certification and the mandatory annual survey under SOLAS (if applicable).
- b. All inspected ships, whether or not they require an IOPP Certificate, that are subject to the Form A survey will undergo periodic renewal, intermediate and mandatory annual surveys. These surveys will normally be conducted concurrently with the mandatory annual survey under SOLAS.
- c. All other (Uninspected) ships requiring IOPP Certificates will be subject to the Form A survey and will undergo periodic renewal and intermediate surveys.

Scope of surveys.

The thoroughness or severity of the surveys will ultimately depend upon the general condition of the ship and its equipment. Conditions on an individual ship may dictate that a more thorough inspection and testing of the ship and its equipment is warranted

These surveys, when conducted on Coast Guard inspected and certificated ships, will normally be carried out by personnel assigned to the OCMI. Local conditions will determine whether other surveys will be conducted by the OCMI or the Captain of the Port (COTP).

Mandatory annual surveys -

Mandatory annual surveys will be conducted within two months of the anniversary date of the IOPP Certificate to ensure that the ship and its equipment have been maintained in accordance with Annex I of MARPOL 73/78, that the ship and its equipment remain satisfactory for the service intended, and that no unauthorized alterations to the ship have been made. When the mandatory annual survey coincides with an intermediate survey only the intermediate survey is conducted.

Review of documentation. An examination of current certificates, record books and manuals should be conducted. At a minimum it will consist of:

- a. Checking the validity of the International Oil Pollution Prevention Certificate and supplemental forms.
- b. Checking of the Certificates for Type Test to ensure they correspond to the equipment on board.
- c. Checking whether the Oil Record Book has been properly maintained. If the ship is an oil tanker, check to ensure that only authorized cargoes have been carried.
- d. Confirming that the approved Dedicated Clean Ballast Tank Operations Manual or the approved Operations and Equipment Manual for the Crude Oil Washing System, if applicable, is on board.
- e. Confirming that the instruction manuals for the Oil Discharge Monitoring and Control System, where required, or for the oily-water separating equipment or oil filtering equipment are on board.
- f. Confirming that the loading and stability information, where applicable, is on board.
- g. Examining the records of the various oil discharge monitoring equipment and cross-checking the record of discharges with the entries in the Oil Record Book, if applicable.
- h. Confirming that the shipboard oil pollution emergency plan is on board and approved by the Commandant (G-MEP), where applicable.

General annual survey requirements. For all ships a mandatory annual survey shall, at a minimum, consist of:

- a. External examination of the oily-water separating equipment or oil filtering equipment.

- b. External examination of the oil discharge monitoring and control system or the oil filtering equipment.
- c. Verifying, as far as practicable, the satisfactory operation of the oily-water separating equipment or oil filtering equipment.
- d. Confirming the automatic and manual operation of the means provided to stop the discharge of effluent.
- e. Verifying, as far as practicable, the operation of the oil discharge monitor, and ability to meet a discharge rate not to exceed 30 liters per nautical mile.
- f. Observing that indicators and recorders installed in the monitor are operable and verifying that a sufficient supply of consumables are on board.
- g. Testing the alarm for the oil filtering equipment.
- h. Testing, where fitted, the operation of the automatic stopping device required for discharge in special areas.
- i. Checking the segregation of oil fuel and ballast water systems.
- j. Checking the arrangement of the oily residue (sludge) tank and its discharge connection.
- k. Determining, by general survey of the ship, if any unauthorized modifications which affect the ship with respect to pollution prevention have been made.

Additional annual survey requirements for oil tankers. In addition, for oil tankers the survey should consist of:

- a. Confirming, on ships with SBT, no cross-connections have been fitted between the cargo and segregated ballast systems. Selected segregated ballast tanks should be sighted to confirm that there has been no contamination with oil.
- b. Confirming, as far as practicable, on those ships provided with CBT, that the arrangement of pumps, pipes and valves conforms to the Dedicated Clean Ballast Tanks Operations Manual. Selected clean ballast tanks should be sighted to confirm that there has been no contamination with oil.
- c. Confirming that the COW system conforms to the Crude Oil Washing Operations and Equipment Manual including:
  - (1) Checking tanks containing ballast water, as far as practicable, to confirm the effectiveness of the cleaning and stripping.
  - (2) Checking that steam heaters for water washing are capable of being properly isolated during COW operations, either by double shut-off valves or clearly identifiable blanks.
  - (3) Checking that the means of communications between the deck watchkeeper and the cargo control position, if required, is functional.



- (4) Confirming that an overpressure relief device (or other approved arrangement) is fitted to the pumps supplying the COW system.
  - (5) External examination of COW piping, pumps, valves and deck mounted washing machines for signs of leakage and checking that all piping anchoring devices are intact and secure.
  - (6) Confirming, when portable drive units are used, that the required number of operational drive units are on board.
  - (7) Checking, as far as practicable, that the COW machines are operable and, if the survey is carried out during COW operations, observing the operation of the machines by means of the movement indicators, sound patterns or other methods.
  - (8) Checking, as far as practicable, the effectiveness of the stripping system by observing the monitoring equipment, by hand-dipping or other means.
  - (9) Verifying that flexible hoses for supply of oil to the washing machines on combination carriers are of an approved type, are properly stored and are in good condition.
- d. External examination of the arrangement of slop tanks, or cargo tanks designated as slop tanks, including associated piping systems.
- e. Examination of the oil discharge monitoring and control system and its associated equipment including:
- (1) External examination of the system and equipment.
  - (2) Confirming the satisfactory operation of the oil discharge monitoring and control system including the starting interlock, the oil content meter and the automatic or manual means provided to stop the discharge of effluent.
  - (3) Observing that indicators and recorders installed in the oil discharge monitor are operable and verifying that a sufficient supply of consumables for the recorders are on board.
  - (4) Testing, as far as practicable, any audible or visual alarms fitted to the oil discharge monitoring and control system.
  - (5) Verify discharge rate at or below 30 liters per nautical mile.
- f. Examination of the oily-water interface detector.
- g. Examination of the piping systems for the discharge of dirty ballast or oil-contaminated water.

- h. Examination (when required) of the observation and discharge control positions for visually observing the discharge of oil-contaminated water including the testing of the communication system between the two positions.
- i. Examination of the means of draining cargo pumps and cargo lines, including the provision of a stripping device and the connections for pumping to the slop or cargo tanks or ashore.

After satisfactory survey the IOPP Certificate (or survey form on ships without IOPP Certificates) will be endorsed. If a survey shows that the condition of the ship or its equipment is unsatisfactory, appropriate action shall be taken to ensure that the deficiencies are corrected or the Certificate removed from the ship.

Intermediate surveys. One intermediate survey will be conducted between periodic renewal surveys to ensure that the equipment and associated pump and piping systems, including oil discharge monitoring and control systems, COW systems, oily-water separating equipment and oil filtering systems comply with the requirements of Annex I and are in good working order. On inspected ships, this survey will take the place of the second mandatory annual survey and occur at the mid-point of the period of the IOPP Certificate's validity (if the ship has an IOPP Certificate). On uninspected ships, the intermediate survey shall be conducted between the 24th and 36th month after the initial or periodic renewal survey is conducted.

The intermediate survey must be a thorough examination and must be sufficiently extensive to enable the Coast Guard to attest that the ship's condition warrants its continued possession of the IOPP Certificate and that the ship can continue to operate without presenting an unreasonable threat of harm to the marine environment.

General intermediate survey requirements. The intermediate survey should consist of all items required for the mandatory annual survey and at a minimum shall consist of the following additional items:

- a. Examination of the oily-water separating equipment or oil filtering equipment, associated pumps, piping and fittings for wear and corrosion.
- b. Observing the operation of those separating or filtering units fitted with coalescers as specified in the manufacturer's instruction manual.
- c. Examining the oil content meter (15 ppm alarm or bilge monitor) for obvious defects, deterioration or damage and checking the calibration of the meter according to the manufacturer's instruction manual.

Additional intermediate survey requirements for oil tankers. For oil tankers the survey should include the following additional items:

- a. An examination of all ballast tanks on those ships employing SBT or CBT to confirm that there has been no contamination with oil.
- b. For oil tankers with required COW systems:

- (1) If upon examination there is any doubt as to the condition of piping for the COW system, it should be required to be pressure tested, gauged or both. Particular attention is to be paid to any repairs.
- (2) Disassemble and examine isolation valves to steam heaters for washing water when fitted in the pump room, except when blanked.
- (3) Examine at least two cargo tanks internally for the express purpose of verifying the continued effectiveness of the installed COW and stripping systems. This examination should normally be conducted concurrently with the internal examination of cargo tanks required by SOLAS. The examination is intended to identify excessive accumulation of oil, which is an indication that COW Manual procedures or equipment may need to be revised. The scope of this examination is not required to be in accordance with 33 CFR 157.140.
- (4) Examination of the oil content meter (oil discharge monitoring and control system) for obvious defects, deterioration or damage and checking the calibration of the meter (at or below 30 liters per nautical mile), according to the manufacturer's instruction manual.

If the internal examination requirements cannot be completed during an Intermediate Survey, as the ship is not undergoing a drydock period simultaneously, the cognizant OCMI should enter a Marine Inspection Special Note (MISN) in the vessel file at completion of the survey. This note should highlight that the internal examination requirements were not completed and should be done during the ship's next scheduled drydock. A CG-835 requirement to complete the exam should not be issued to the vessel.

After satisfactory survey, the IOPP Certificate (or survey form on ships without an IOPP Certificate) shall be endorsed. If the survey shows that the condition of the ship or its equipment is unsatisfactory, appropriate measures should be taken to require repairs.

For uninspected ships requiring an IOPP Certificate only, one Intermediate Survey endorsement will be made during the life of the certificate. The three other endorsement locations on the form should be deleted for these ships.

#### Periodic renewal survey.

The period between periodic renewal surveys corresponds to the duration of the IOPP Certificates specified in Part IV.

The periodic renewal survey shall ensure that the structure, equipment, systems, fittings, arrangements and materials comply with the relevant requirements of Annex I of MARPOL 73/78 and serve as a basis for renewal of the IOPP Certificate. The survey should include, at a minimum, all of the elements of an intermediate survey. Such additional inspections and tests shall be conducted as are warranted by the condition of the ship.

#### Unscheduled inspections.

Because uninspected ships requiring IOPP Certificates will not be required to undergo MARPOL 73/78 mandatory annual surveys in accordance with MARPOL 73/78, they will be subject to unscheduled inspections. These inspections are to be conducted on occasions of opportunity, such as

boardings for other purposes. The scope of these inspections will be at the discretion of the boarding officer, but normally will be similar in scope to the mandatory annual survey.

TABLE I  
QUICK REFERENCE GUIDE TO MARPOL 73/78 REQUIREMENTS FOR EXISTING (1) U.S. SHIPS<sup>3</sup>  
(See Table III for additional requirements for ships, other than tankers, which carry 200m<sup>3</sup> of oil.)  
(See Table IV for additional requirements for oil tankers.)

	<u>&lt; 400 GT</u>	<u>400 - 10,000 GT</u>	<u>&gt; 10,000 GT</u>
1. IOPP Certificate required for an international voyage.	Not Required (2)	10/2/84	10/2/84
2. Oil Record Book Part I (Machinery Space Operations).	Not Required (2)	10/2/83	10/2/83
3. Compliance survey for international voyages.	Not Required	10/2/84	10/2/84
4. Compliance survey for domestic voyages (inspected ships).	Not Required (2)	(3)	(3)
5. Filtering/separating equipment for machinery space bilges. (If ship delivered before 07/06/93, 100ppm equipment allowed, 15 ppm equipment required after 07/06/98)	(4)	10/2/86	10/2/86
a. Bilge monitor.	Not Required	Not Required	10/2/86 (5)
b. 15 ppm alarm.	Not Required	Not Required	10/2/86 (6)
6. Filtering/separating equipment if water ballast is carried in fuel oil tanks or fuel oil is carried in cargo holds.(7)	(8)	10/2/86	10/2/86
a. Bilge monitor.	Not Required	(5)	10/2/86 (5)
b. 15 ppm alarm.	Not Required	(6)	10/2/86 (6)
7. Oil residue tank (sludge tank).	(9)	10/2/83	10/2/83
8. Standard discharge connection (and associated piping) for pumping machinery space bilges and sludge tank to reception facilities.	10/2/83	10/2/83	10/2/83
9. Carriage of oil prohibited in a forepeak tank or in a tank forward of the collision bulkhead.	(10)	(10)	(10)
10. Shipboard oil pollution emergency plan.	Not Required (2)	4/4/95 (11)	4/4/95 (11)

- (1) A "new" ship is one contracted after 12/31/75; or in absence of contract--keel laid after 06/30/76; or delivered after 12/31/79; or which has undergone a major conversion after those dates.
- (2) Required for tankers of 150 GT or more, see Table IV.
- (3) Required at first scheduled USCG inspection on or after 10/2/84.
- (4) May be installed at owner's option--if not installed all discharges must be to reception facilities.
- (5) Required if 100 ppm filter/separating equipment is installed.
- (6) Required if 15 ppm filter/separating equipment is installed.
- (7) Filter/separator for machinery space bilges may be used if of adequate capacity.
- (8) May be installed at owner's option--if not installed all discharges must be to reception facilities.
- (9) If filter/separator is installed as owner's option.
- (10) See 33 CFR 155.470.
- (11) Ships built before 04/04/93 shall meet this requirement within 24 months after that date (4/4/95).

TABLE II  
QUICK REFERENCE GUIDE TO MARPOL 73/78 REQUIREMENTS FOR NEW U.S. SHIPS  
(See Table III for additional requirements for ships, other than tankers, which carry 200m<sup>3</sup> of oil.)  
(See Table IV for additional requirements for oil tankers.)

	< 400 GT	400 - 10,000 GT	> 10,000 GT
1. IOPP Certificate required for an international voyage.	Not Required (1)	10/2/83	10/2/83
2. Oil Record Book Part I (Machinery Space Operations).	Not Required (1)	10/2/83	10/2/83
3. Compliance survey for international voyages.	Not Required	10/2/83	10/2/83
4. Compliance survey for domestic voyages (inspected ships).	Not Required (1)	(2)	(2)
5. Filtering/separating equipment for machinery space bilges. (If ship delivered before 07/06/93, 100ppm equipment allowed, 15 ppm equipment required after 07/06/98)	(3)	10/2/83	10/2/83
a. Bilge monitor.	Not Required	Not Required	10/2/83 (4)
b. 15 ppm alarm.	Not Required	Not Required	10/2/83 (5)
6. Filtering/separating equipment if water ballast is carried in fuel oil tanks or fuel oil is carried in cargo holds. (6)	(7)	(7)	10/2/83
a. Bilge monitor.	Not Required	(4)	10/2/83 (4)
b. 15 ppm alarm.	Not Required	(5)	10/2/83 (5)
7. Oil residue tank (sludge tank).	(8)	10/2/83	10/2/83
8. Standard discharge connection (and associated piping) for pumping machinery space bilges and sludge tank to reception facilities.	10/2/83	10/2/83	10/2/83
9. Carriage of oil prohibited in a forepeak tank or in a tank forward of the collision bulkhead.	(9)	10/2/83 (10)	10/2/83 (10)
10. Shipboard oil pollution emergency plan.	Not Required (1)	4/4/93 (11)	4/4/93 (11)

- (1) Required on tankers of 150 GT or more, see Table IV.  
(2) Required at first scheduled USCG inspection on or after 10/2/83.  
(3) May be installed at owner's option--if not installed all discharges must be to reception facilities.  
(4) Required if 100 ppm filter/separating equipment is installed.  
(5) Required if 15 ppm filter/separating equipment is installed.  
(6) Filter/separator for machinery space bilges may be used if of adequate capacity.  
(7) May be installed at owner's option--if not installed all discharges must be to reception facilities.  
(8) If filter/separator is installed at owner's option.  
(9) See 33 CFR 155.470.  
(10) On ships contracted after 10/01/82 or in absence of contract, keel laid after 07/01/82.  
(11) Ships built on or after 4/4/93, required immediately. Ships built before 4/4/93 shall meet this requirement within 24 months after that date (4/4/95).

TABLE III  
QUICK REFERENCE GUIDE TO ADDITIONAL MARPOL 73/78 REQUIREMENTS  
FOR CARGO SYSTEMS ON NEW AND EXISTING(1) U.S. SHIPS, OTHER THAN OIL TANKERS, CARRYING 200 M<sup>3</sup> OR MORE OF OIL IN BULK  
(These are in addition to the requirements shown in Table I or II.)

	New or Existing < 150 GT	New ≥ 150 GT	Existing ≥ 150 GT
1. IOPP Certificate required for an international voyage.	Not Required	10/2/83	10/2/84
2. Oil Record Book Part II (Cargo/Ballast Operations).	Not Required	10/2/83	10/2/83
3. Compliance survey for international voyages.	Not Required	10/2/83	10/2/84
4. Compliance survey for domestic voyages (inspected ships).	Not Required	(2)	(3)
5. Cargo slop tanks (Regulation 15(2)).	Not Required (4)	10/2/83 (5)	10/2/86 (5)
6. Cargo oil water interface detector (Regulation 15(3)(b)).	Not Required	10/2/83 (5)	10/2/83 (5)
7. Cargo oil discharge monitoring and control system (6).	Not Required	10/2/83 (5)	10/2/86 (5) (9)
8. Cargo tank size limits (Regulation 24(4)).	Not Applicable	10/2/83	10/2/86 (7)
9. Cargo pumping, piping and discharge arrangements.			
a. For discharge to reception facilities (Regulation 18(1)).	10/2/83	10/2/83	10/2/83
b. Tank cleaning and slop transfer (Regulation 15(2)(a),(b)).	Not Required	10/2/83 (5)	10/2/83 (5)
c. Above waterline discharge from cargo tanks (Regulation 18(2)).	Not Required	10/2/83	10/2/86 (8)
d. Observation position with remote shutdown (Regulation 18(3)).	Not Required	10/2/83	Not Required

- (1) A "new" ship is one contracted after 12/31/75; or in absence of contract--keel laid after 06/30/76; or delivered after 12/31/79; or which has undergone a major conversion after those dates.
- (2) Required at first scheduled USCG inspection after 10/2/83.
- (3) Required at first scheduled USCG inspection after 10/2/84.
- (4) Must retain all oil and contaminated washings on board for discharge to reception facilities.
- (5) Not required if the aggregate oil carrying capacity is less than 1,000 m<sup>3</sup> and all oil and contaminated washings are retained on board for discharge to reception facilities.
- (6) Refer to IMO Resolution A.496 for specific requirements for this system. Depending on date of system installation and age of vessel, the starting interlock, data input and data recording requirements differ. On Coast Guard inspected vessels all equipment must be Coast Guard approved.
- (7) If delivered after 01/01/77, or contracted after 01/01/74, or in absence of contract--keel laid after 06/30/74.
- (8) "Partflow" arrangements, in lieu of above the waterline discharge, may be accepted on certain existing ships.
- (9) Not required until 10/2/87 provided owner has a purchase contract for the system which incorporates an oil content meter that is approved as meeting IMO Resolution A.586(14).

TABLE IV  
QUICK REFERENCE GUIDE TO ADDITIONAL MARPOL 73/78 REQUIREMENTS(1)  
FOR CARGO SYSTEMS ON NEW AND EXISTING(2) U.S. SHIPS THAT ARE OIL TANKERS CARRYING OIL IN BULK  
(These are in addition to the requirements shown in Table I or II.)

	New or Existing <150 GT	New ≥ 150 GT	Existing ≥ 150 GT
1. IOPP Certificate required for an international voyage.	Not Required	10/2/83	10/2/84
2. Oil Record Book Part II (Cargo/Ballast Operations).	Not Required	10/2/83	10/2/83
3. Compliance survey for international voyages.	Not Required	10/2/83	10/2/84
4. Compliance survey for domestic voyages (inspected ships).	Not Required	(3)	(4)
5. Cargo slop tanks (Regulation 15(2)).	Not Required (5)	(6)	(6)
6. Cargo oil water interface detector (Regulation 15(3)(b)).	Not Required	10/2/83	10/2/83
7. Cargo oil discharge monitoring and control system (7).	Not Required	10/2/83	10/2/86 (8)(11)
8. Cargo tank arrangement and size (Regulation 24).	Not Applicable	(6)	(9)
9. Cargo pumping, piping and discharge arrangements.			
a. For discharge to reception facilities (Regulation 18(1)).	10/2/83	(6)	(6)
b. Tank cleaning and slop transfer (Regulation 15(2)(a),(b)).	Not Required	(6)	(6)
c. Above waterline discharge from cargo tanks (Regulation 18(2)).	Not Required	(6)	10/2/86 (9)
d. Observation position with remote shutdown (Regulation 18(3)).	Not Required	(6)	Not Required
10. Shipboard oil pollution emergency plan.	Not Required	(12)	(12)

- (1) This table does not include the applicable standards in 33 CFR 157 and 46 CFR 32 for damage stability, hypothetical oil outflow, SBT, CBT, COW and IGS. These standards are summarized in Tables 1 and 2 of Enclosure 2 to NVIC No. 1-81.
- (2) A "new" ship is one contracted after 12/31/75; in absence of contract--keel laid after 06/30/76; or delivered after 12/31/79; or which has undergone a major conversion after those dates.
- (3) Required at first scheduled USCG inspection after 10/2/83.
- (4) Required at first scheduled USCG inspection after 10/2/84.
- (5) Must retain all oil and contaminated washings on board for discharge to reception facilities.
- (6) This equipment or system is already required by Coast Guard regulations and should be fitted.
- (7) Refer to IMO Resolution A.496 for specific requirements for this system. Depending on date of system installation and age of vessel, the starting interlock, data input and data recording requirements differ. All equipment must be Coast Guard approved.
- (8) Oil tankers with CBT are required to fit this equipment at first scheduled drydock after 10/2/83 and no later than 10/2/86.
- (9) Applicable to certain existing ships. Coast Guard regulations already contain these standards, the affected ships should already comply.
- (10) "Partflow" arrangements, in lieu of above the waterline discharge, may be accepted on certain existing ships.
- (11) Not required until 10/2/87 provided owner has a purchase contract for the system which incorporates an oil content meter that is approved as meeting IMO Resolution A.586(14).
- (12) Ships built on or after 4/4/93, required immediately. Ships built before 4/4/93 shall meet this requirement



ATTACHMENT TO THE IOPP CERTIFICATE AND FORM A SUPPLEMENT

RECORD OF CONSTRUCTION AND EQUIPMENT FOR SHIPS  
OTHER THAN OIL TANKERS

IOPP CERTIFICATE - GROSS TONNAGE:

- \* The vessel's gross tonnage has been measured by the tonnage authorities of the United States of America in accordance with national tonnage rules which were in force prior to the coming into force of the International Convention on Tonnage Measurement of Ships, 1969:..... •

8 WAIVER OF REGULATION 16

- 8.1 A The ship is waived from the requirements of Regulation 16(1) and (2) in accordance with Regulation 16(3)(a). The ship is engaged exclusively on:

.1 Voyages within Special Area(s):..... •

.2 The ship is fitted with holding tank having a volume of \_\_\_\_\_ m<sup>3</sup> for the total retention on board of all oily bilge water:..... •

9 WAIVER OF REGULATION 21

- 9.1 Drilling rigs shall be equipped as far as practicable with oil-water separating/filtering equipment. The Coast Guard has determined that it is not practicable to install oil-water separating/filtering equipment on this ship. All platform machinery space oily wastes shall be retained on boarding the waste oil tank for discharge in barrels to reception facilities:..... •

ATTACHMENT TO THE IOPP CERTIFICATE AND FORM B SUPPLEMENT

RECORD OF CONSTRUCTION AND EQUIPMENT OF OIL TANKERS

IOPP CERTIFICATE - GROSS TONNAGE:

- \* The vessel's gross tonnage has been measured by the tonnage authorities of the United States of America in accordance with national tonnage rules which were in force prior to the coming into force of the International Convention on Tonnage Measurement of Ships, 1969:..... •

13 WAIVER OF REGULATION 15

13.1 The ship is waived from the requirements of Regulation 15(3) in accordance with Regulation 15(5)(b). The ship is engaged exclusively on:

- .1 Specific trade under Regulation 13(c):..... •
- .2 Voyages within Special Area(s):..... •
- .3 Voyages between U.S. ports within 50 miles from the nearest land outside special area(s):..... •
- .4 Restricted international voyages of 72 hours or less in duration that are within 50 miles of the nearest land outside special area(s):..... •

14 WAIVER OF REGULATION 16

14.1 The ship is waived from the requirements of Regulation 16(1) and (2) in accordance with Regulation 16(3)(a). The ship is engaged exclusively on:

- .1 Voyages within Special Area(s):..... •
- .2 The ship is fitted with holding tank(s) having a volume of \_\_\_\_\_ m<sup>3</sup> for the total retention on board of all oily bilge water:..... •

OMB APPROVAL 2115-0526

**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*

**THE UNITED STATES OF AMERICA**

by the UNITED STATES COAST GUARD

Name of Ship	Distinctive Numbers or Letters	Port of Registry	Gross Tonnage

**Type of ship:**

- ☐ Oil Tanker (*Form B Supplement attached*)\*
- ☐ Ship other than an oil tanker with cargo tanks coming under regulation 2(2) of Annex I of the Convention (*Form B Supplement attached*)\*
- ☐ Ship other than any of the above (*Form A Supplement attached*)\*

**THIS IS TO CERTIFY:**

1. That the ship has been surveyed in accordance with the requirements of 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**Date of issue**Officer in Charge, Marine Inspection, U.S. Coast Guard*

\* Delete as appropriate

The Coast Guard estimates that the average burden for this report is 20 minutes. You may submit any comments concerning the accuracy of this burden estimate or any suggestions for reducing the burden to: Commandant (G-MVI), U.S. Coast Guard, Washington, DC 20593-0001 or Office of Management and Budget, Paperwork Reduction Project (2115-0526), Washington DC 20503.

INTERNATIONAL OIL POLLUTION PREVENTION CERTIFICATE

**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: \_\_\_\_\_

Place: \_\_\_\_\_

Date: \_\_\_\_\_

**Annual \*/Intermediate\* survey:**

Signed: \_\_\_\_\_

Place: \_\_\_\_\_

Date: \_\_\_\_\_

**Annual \*/Intermediate\* survey:**

Signed: \_\_\_\_\_

Place: \_\_\_\_\_

Date: \_\_\_\_\_

**Annual survey:**

Signed: \_\_\_\_\_

Place: \_\_\_\_\_

Date: \_\_\_\_\_

\* Delete as appropriate

OMB APPROVAL 2115-0526

**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 ship 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 or 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 This ship has been accepted by the Administration as an "existing ship" under regulation 1 (7) due to an unforeseen delay in delivery: ..... ☐

The Coast Guard estimates that the average burden for this report is 20 minutes. You may submit any comments concerning the accuracy of this burden estimate or any suggestions for reducing the burden to: Commandant (G-MVT), U.S. Coast Guard, Washington, DC 20593-0001 or Office of Management and Budget, Paperwork Reduction Project (2115-0526), Washington DC 20503.

VESSEL NAME: \_\_\_\_\_

DATE ISSUED: \_\_\_\_\_

**FORM A, SUPPLEMENT TO THE  
INTERNATIONAL OIL POLLUTION PREVENTION CERTIFICATE**

**2. Equipment for the control of oil discharge from machinery space bilge 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 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 ..... ☐

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 is \_\_\_\_\_ m<sup>3</sup>/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 of \_\_\_\_\_ m<sup>3</sup> for the total retention on board of all oily bilge water ..... ☐

VESSEL NAME: \_\_\_\_\_ DATE ISSUED: \_\_\_\_\_

**FORM A, SUPPLEMENT TO THE  
INTERNATIONAL OIL POLLUTION PREVENTION CERTIFICATE**

**3. Means of retention and disposal of oily residues (sludge) (regulation 17):**

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

Tank Identification	Tank	Location		Volume (m <sup>3</sup> )
	Frames (from) - (to)	Lateral	Position	
Total Volume _____ m <sup>3</sup> .				

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

- 3.2.1 Incinerator for oil residues, capacity \_\_\_\_\_ l/h ..... ☐
- 3.2.2 Auxiliary boiler suitable for burning oil residues ..... ☐
- 3.2.3 Tank for mixing oil residues with fuel oil, capacity \_\_\_\_\_ m<sup>3</sup> ..... ☐
- 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 ..... ☐

VESSEL NAME: \_\_\_\_\_ DATE ISSUED: \_\_\_\_\_

**FORM A, SUPPLEMENT TO THE  
INTERNATIONAL OIL POLLUTION PREVENTION CERTIFICATE**

**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*

\_\_\_\_\_  
*Date of issue*

\_\_\_\_\_  
*Officer in Charge, Marine Inspection, U.S. Coast Guard*





OMB APPROVAL 2115-0526

**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 ship 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 ship 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 or 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 numbers or letters: \_\_\_\_\_
- 1.3 Port of registry: \_\_\_\_\_
- 1.4 Gross tonnage: \_\_\_\_\_
- 1.5 Carrying capacity of ship: \_\_\_\_\_ (m<sup>3</sup>)
- 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: \_\_\_\_\_

The Coast Guard estimates that the average burden for this report is 20 minutes. You may submit any comments concerning the accuracy of this burden estimate or any suggestions for reducing the burden to: Commandant (G-MVI), U.S. Coast Guard, Washington, DC 20593-0001 or Office of Management and Budget, Paperwork Reduction Project (2115-0526), Washington DC 20503.

DEPT. OF TRANSP., USCG, CG-5352B (Rev. 6-93)  
 PREVIOUS EDITIONS ARE OBSOLETE

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**FORM B, SUPPLEMENT TO THE  
INTERNATIONAL OIL POLLUTION PREVENTION CERTIFICATE**

**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 an 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 an unforeseen delay in delivery ..... ☐
- 1.10.7 The ship is not required to comply with the provisions of regulation 24 due to  
an 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 a 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 bilge 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 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 ..... ☐

**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) ..... ☐

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**FORM B, SUPPLEMENT TO THE  
INTERNATIONAL OIL POLLUTION PREVENTION CERTIFICATE**

- 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 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 \_\_\_\_\_ ☐

**FORM B, SUPPLEMENT TO THE  
INTERNATIONAL OIL POLLUTION PREVENTION CERTIFICATE**

**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 no 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 ..... ☐

**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) ..... ☐

**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 substances as listed in the attachment to the certificate ..... ☐

\*Oil tankers the keel 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).

**FORM B, SUPPLEMENT TO THE  
INTERNATIONAL OIL POLLUTION PREVENTION 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 of \_\_\_\_\_ m<sup>3</sup> 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 tanks are located:

- 7.1.1 Above the waterline ..... ☐
- 7.1.2 Below the waterline ..... ☐

**FORM B, SUPPLEMENT TO THE  
INTERNATIONAL OIL POLLUTION PREVENTION CERTIFICATE**

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

7.2.1 Above the waterline-----

7.2.2 Below the waterline-----

☐  
☐

7.3 The overboard discharge outlets, other than the discharge manifold, for dirty ballast water or oil-contaminated water from cargo tanks 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 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 100ppm, with the capacity of \_\_\_\_\_ m3/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-----

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

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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-----

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

☐

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



**FORM B, SUPPLEMENT TO THE  
INTERNATIONAL OIL POLLUTION PREVENTION CERTIFICATE**

**10. Oil-like noxious liquid substances:**

10.1 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 .....

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**11. Exemption:**

11.1 Exemptions have been granted by the Administration from the requirements of chapter 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. (If additional space is needed, continue on a separate sheet.) .....

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**12. Equivalent (regulation 3):**

12.1 Equivalent have been approved by the Administration for certain requirements of Annex I on those items listed under paragraph(s):

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

of this Record. (If additional space is needed, continue on a separate sheet.) .....

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

**Issued at:** \_\_\_\_\_

*Place of Issue of the Record*

\_\_\_\_\_  
*Date of issue*

\_\_\_\_\_  
*Officer in Charge, Marine Inspection, U.S. Coast Guard*



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