

ANNEX 9

Resolution MEPC.11(18)
adopted on 25 March 1983

GUIDELINES FOR SURVEYS UNDER ANNEX I OF
THE INTERNATIONAL CONVENTION FOR THE PREVENTION OF POLLUTION
FROM SHIPS, 1973, AS MODIFIED BY THE PROTOCOL
OF 1978 RELATING THERETO

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 39 of the Convention of the International Maritime Organization concerning the functions of the Marine Environment Protection Committee,

NOTING that the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78) will enter into force on 2 October 1983,

DESIRING to provide an agreed international standard for conducting initial, mandatory annual, intermediate and periodical surveys under MARPOL 73/78,

HAVING NOTED Resolution 10 of the International Conference on Tanker Safety and Pollution Prevention, 1978, which recommends that the International Maritime Organization take early action to develop guidelines for Administrations as to the extent, particulars and frequency of such surveys,

NOTING FURTHER that the Committee was requested by the Assembly by resolution A.413(XI) of 15 October 1979 to adopt guidelines for surveys under Annex I of MARPOL 73/78 and was authorized to communicate direct to Member Governments such guidelines,

HAVING CONSIDERED the proposals of the Member Governments,

- .1 ADOPTS the Guidelines for Surveys 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), which are set out in the Annex to the present resolution and which are intended to provide a general framework upon which Administrations will be able to base their arrangements for carrying out surveys; and

- .2 URGES Parties to MARPOL 73/78 to institute arrangements for surveys in accordance with these Guidelines when MARPOL 73/78 enters into force.

ANNEX

DRAFT GUIDELINES ON SURVEYS UNDER ANNEX I OF MARPOL 73/78

Table of Contents

- PREAMBLE
1. DEFINITIONS
 2. INITIAL SURVEY
 - 2.1 General
 - 2.2 Examination of the designs of the ship and its equipment
 - 2.3 Examination of current certificates, oil record books, manuals and other documents
 - 2.4 Survey of the condition of the ship and its equipment
 - 2.5 Completion of Survey
 3. MANDATORY ANNUAL SURVEY
 - 3.1 Periodicity
 - 3.2 General
 - 3.3 Examination of current certificates, oil record books, manuals and other documents
 - 3.4 Survey of the condition of the ship and its equipment
 - 3.5 Completion of Survey
 4. INTERMEDIATE SURVEY
 - 4.1 Periodicity
 - 4.2 General
 - 4.3 Examination of current certificates, oil record books, manuals and other documents
 - 4.4 Survey of the condition of the ship and its equipment
 - 4.5 Completion of Survey
 5. PERIODICAL SURVEY
 - 5.1 Periodicity
 - 5.2 General
 - 5.3 Examination of current certificates, oil record books, manuals and other documents
 - 5.4 Survey of the condition of the ship and its equipment
 - 5.5 Completion of Survey
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PREAMBLE

1 Resolution 10 of the International Conference on Tanker Safety and Pollution Prevention, 1978, called upon the International Maritime Organization to develop guidelines for Administrations, as to the extent, particulars and frequency of intermediate surveys and inspections of ships having due regard to their construction, machinery, equipment and age, and also containing requirements for the frequency and scope of unscheduled inspections and the scope of mandatory annual surveys conducted in lieu of unscheduled inspections. The Conference recognized that uniform requirements in this field, such as the Guidelines can provide, would make a valuable contribution to the cause of ensuring compliance with the requirements of the Convention.

2 Accordingly, these Guidelines have been developed to provide an agreed general standard for conducting initial, mandatory annual, intermediate and periodical surveys for all ships under Annex I of MARPOL 73/78 as proposed to be amended (MEPC Circs. 97, 97/Corr.1 and 99).

3 Standards for unscheduled inspections have not been included in the Guidelines. Although recognizing that under Annex I of MARPOL 73/78, each Administration is free to adopt either mandatory annual or unscheduled survey schemes, the Marine Environment Protection Committee in IMO Circular letter No. 817 of 15 April 1981 has urged all Parties to MARPOL 73/78 to implement the mandatory annual survey scheme when the Convention enters into force. This is further supported by the Maritime Safety Committee which has expressed the view that mandatory annual surveys were preferable to unscheduled surveys.

4 The Administration, in guaranteeing the completeness and efficiency of the surveys, should establish appropriate instructions and guidelines to enable officers of the Administration, nominated surveyors or recognized organizations to conduct the survey.

5 These Guidelines provide a general framework upon which Administrations will be able to formulate their procedures for carrying out the relevant surveys. It is recognized that survey provisions contained in these Guidelines are not necessarily applicable to all types and sizes of ships.

6 The thoroughness or severity of the annual, intermediate and periodical surveys should depend upon the conditions of the ship and its equipment. Should any doubt arise as to the maintenance of the condition of the ship or its equipment, then further examination and testing should be considered necessary.

7 It is recognized that these Guidelines are intended to assist the survey of ships with the intention of issuing or endorsing the International Oil Pollution Prevention (IOPP) Certificates. However, it is further recognized that these Guidelines will also be beneficial to the survey of ships which are not required to be issued an IOPP Certificate.

8 Oil pollution prevention equipment fitted in addition to that required by the Convention should also be subject to survey, using the present Guidelines as a basis for survey.

1 DEFINITIONS

For the purpose of these Guidelines the following definitions apply:

- 1.1 Initial survey means a thorough and complete examination, and tests where required, of a ship and its equipment in accordance with the requirements of the Convention to ensure that the IOPP Certificate may be issued for the first time.
- 1.2 Mandatory annual survey means a general examination of a ship and its equipment, conducted annually, which 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.
- 1.3 Intermediate survey means an examination of a ship and its equipment during the period of validity of the IOPP Certificate to ensure compliance with the applicable requirements of the Convention.
- 1.4 Periodical survey means a thorough and complete examination, and tests where required, of a ship and its equipment in accordance with the requirements of the Convention at specified regular periods to ensure that the IOPP Certificate may be renewed.

2 INITIAL SURVEY

2.1 General

2.1.1 The initial survey should include a thorough and complete examination, and tests when required, of a ship and its equipment in accordance with the relevant requirements of Annex I of MARPOL 73/78 to ensure that the IOPP Certificate may be issued for the first time.

2.1.2 The initial survey should consist of the following:

- .1 examination of the plans, specifications and other technical documentation to verify that the designs of the ship and its equipment comply with the relevant requirements of MARPOL 73/78 and confirmation that the oil pollution prevention equipment has been type approved as required by MARPOL 73/78 under the terms of the relevant resolutions;
- .2 confirmation that the ship carries on board required certificates, oil record books, manuals and other documents; and
- .3 survey of the condition of the ship and its equipment to ascertain that they are constructed and installed in accordance with the approved plans, specifications and other technical documents and that material, construction and workmanship are in all respects satisfactory.

2.1.3 The Guidelines contained in this Chapter include all items covered by MARPOL 73/78. Depending on the type and status of ship (e.g. "new" or "existing" ship, crude oil tanker or product carrier, SBT tanker or COW tanker, etc.), all of these items may not necessarily be applicable to a particular ship. In order to identify those requirements applicable to a particular ship, it is advised to conduct the survey according to the items listed in the Record of Construction and Equipment (Supplement to the IOPP Certificate, Forms A and B).

2.1.4 In existing ships where the installation of equipment is not required for a certain period, the initial survey of the ship may be treated as completed without the installation of such equipment, provided that a survey

as comprehensive as the initial survey relating to the installation of the relevant equipment is carried out within the period specified by MARPOL 73/78, and the Record of Construction and Equipment is revised accordingly.

2.1.5 When certain parts of the ship or its equipment have been previously surveyed and certified, the extent of any examination or testing for such items should be determined, having regard to the type of survey carried out and certificate provided, when survey was carried out and also to the condition of the relevant parts of the ship or its equipment.

2.1.6 For special ships, such as chemical tankers carrying oil, or drilling rigs and other platforms referred to in Regulation 21, the Guidelines contained in this Chapter should be applied as appropriate.

2.2 Examination of the designs of the ship and its equipment

2.2.1 When applying for the initial survey, plans, specifications and other relevant documentation* should be submitted to the Administration, to enable it to ascertain that the ship and its equipment comply with the applicable requirements of MARPOL 73/78 and associated resolutions, including:

- .1 particulars of ship (section 1 of the Record of Construction and Equipment);
- .2 in the case of "unforeseen delay" (Unified Interpretations 1.2) in delivery, a document describing the reasons therefor;
- .3 for existing oil tankers engaged in specific trades (Regulation 13C), information concerning the adequacy of reception facilities in ports or terminals between which the ship is to be engaged; and

* There may be cases, particularly for older ships, where all the necessary documentation is not available. In such cases, the Administration should consider conducting additional tests and examinations.

- .4 in cases where the granting of exemptions under Regulation 2(4)(a) or the approval of equivalents under Regulation 3 is requested, information supporting such exemption or details for equivalent arrangements.

2.2.2 The examination of plans, specifications and other technical documentation for all ships should include:

- .1 the installation plans for oily-water separating or filtering equipment or oil discharge control systems (Regulation 16 and resolutions A.393(X) and A.444(XI));
- .2 arrangements for the segregation of oil and water ballast and the prohibition of carriage of oil in tanks forward of the collision bulkhead (Regulation 14); and
- .3 capacity of sludge tanks and discharge arrangements (Regulations 17 and 19).

2.2.3 The examination of plans, specifications and other technical documentation for oil tankers should include, in addition to 2.2.2, the following, as applicable:

- .1 the capacity of SBT or CBT confirming that they meet the minimum draft and trim requirements (Regulation 13);
- .2 piping and pumping arrangements for CBT, and CBT Manual (Regulation 13A and resolution A.495(XII))*;
- .3 arrangements for COW systems, including shadow diagrams, and COW Manual (Regulation 13B and resolution A.446(XII));
- .4 for existing oil tankers having special ballast arrangements, operational procedures and ballast arrangements (Regulation 13D);
- .5 protective location of SBT (Regulation 13E);
- .6 slop tank arrangements (Regulation 15(2));

* Any connexion between cargo and CBT tanks through piping systems other than cargo/ballast lines, e.g. IGS and COW piping, should also be examined.

- .7 oil discharge monitoring and control systems including the operations manual (Regulation 15(3)(a) and resolution A.496(XII));
- .8 pumping, piping and discharge arrangements, including part flow arrangements (Regulation 18);
- .9 size and arrangements of cargo tanks (Regulation 24); and
- .10 subdivision and stability, and loading and stability information (Regulation 25).

2.3 Examination of current certificates, oil record books, manuals and other documents

2.3.1 The examination should confirm that the current certificates, oil record books, manuals and other documents required by MARPOL 73/78 are on board, including:

- .1 certificates for type approval of oil pollution prevention equipment, such as oily-water separating equipment, oil filtering equipment, process units, oil content meters, oil/water interface detectors;
- .2 operations manual for the oil discharge monitoring and control system;
- .3 Dedicated Clean Ballast Tank Operation Manual;
- .4 Crude Oil Washing Operations and Equipment Manual;
- .5 instructions for the operation of the part flow system which may be included in the ship's cargo and ballast handling manuals; and
- .6 information and data concerning loading and damage stability of ships required by Regulation 25(5).

2.3.2 To confirm that for COW tankers, the inert gas system has been installed and tested in accordance with the applicable requirements of the SOLAS Convention.

2.3.3 To confirm that the oil record book is on board.

2.4 Survey of the condition of the ship and its equipment

2.4.1 For all ships, the survey should consist of the following:

2.4.1.1 Equipment for the control of oil discharge from machinery space bilges (Regulations 9, 10 and 16):

- .1 to confirm the satisfactory installation and operation* of the oily-water separating equipment or the oil filtering equipment or the process unit, where fitted;
- .2 to confirm the satisfactory installation and operation* of the oil discharge monitoring and control systems including the automatic and manual operation of the means provided to stop the discharge of effluent;
- .3 to observe that indicators and recording devices installed in the monitor are operable;
- .4 to verify that a sufficient supply of consumables for the recording devices are on board;
- .5 to confirm the satisfactory operation of the alarm for the oil filtering equipment; and
- .6 to test, where fitted, the automatic stopping device required for discharges in Special Areas.

2.4.1.2 Oil fuel tanks (Regulation 14):

- .1 to confirm the segregation of the oil fuel and water ballast system.

2.4.1.3 Oily residue (sludge) tanks (Regulation 17):

- .1 to confirm that the oily residue (sludge) tank and its discharge arrangements are satisfactory; and
- .2 to confirm the satisfactory operation of homogenizers, sludge incinerators or other recognized means for the control of sludge when the size of oily residue (sludge) tank is approved on the basis of such installations.

* Confirmation of satisfactory operation may be achieved by simulation test or equivalent.

2.4.1.4 Standard discharge connection (Regulation 19):

- .1 to confirm the provision of the standard discharge connection.

2.4.2 For oil tankers, the survey should include, in addition to 2.4.1 the following, as applicable:

2.4.2.1 Segregated ballast tanks (Regulation 13):

- .1 to confirm that the arrangements of pumps, pipes and valves are in accordance with the requirements for SBT systems;
- .2 to confirm that no cross-connections have been fitted between the cargo and segregated ballast systems;
- .3 where a portable spool piece is provided for the emergency discharge of segregated ballast by connecting the segregated ballast system to a cargo pump, to confirm that non-return valves are fitted on the segregated ballast connections and that the spool piece is mounted in a conspicuous position in the pump room with a permanent notice restricting its use; and
- .4 to confirm that there is no leakage from those ballast pipelines passing through cargo tanks and those cargo pipelines passing through ballast tanks.

2.4.2.2 Dedicated clean ballast tanks (Regulation 13A):

- .1 to confirm that the arrangements of pumps, pipes and valves are in accordance with the approved plans and the Revised Specifications for Oil Tankers with Dedicated Clean Ballast Tanks;
 - .2 to sight the dedicated clean ballast tanks to confirm that there has been no contamination with oil; and
 - .3 to confirm that there is no leakage from those ballast pipelines passing through cargo tanks and those cargo pipelines passing through ballast tanks.
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2.4.2.3 Crude oil washing system (Regulation 13B):

- .1 to confirm that the crude oil washing system is installed in accordance with the approved plans and the Revised Specifications for the Design, Operation and Control of the Crude Oil Washing Systems (resolutions A.446(XI) and A.497(XII)) and, in particular:
 - .1.1 to examine crude oil washing piping, pumps, valves and deck mounted washing machines for signs of leakage and to check that all anchoring devices for crude oil washing piping are intact and secure;
 - .1.2 to carry out pressure testing of the crude oil washing system to 1.5 times the working pressure;
 - .1.3 to confirm in those cases where drive units are not integral with the tank washing machines, that the number of operational drive units specified in the Manual are on board;
 - .1.4 to check that, when fitted, steam heaters for water washing can be properly isolated during crude oil washing operations, either by double shut-off valves or by clearly identifiable blanks;
 - .1.5 to check that the prescribed means of communications between the deck watchkeeper and the cargo control position is operational;
 - .1.6 to confirm that an overpressure relief device (or other approved arrangement) is fitted to the pumps supplying the crude oil washing system; and
 - .1.7 to verify 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.

- .2 to verify the effectiveness of the crude oil washing system in accordance with paragraph 4.2.10 of the Revised COW Specifications (resolutions A.446(XI) and A.497(XII)) and, in particular:
 - .2.1 to check tanks containing departure and/or arrival ballast water, as applicable, to confirm the effectiveness of the cleaning and stripping;
 - .2.2 to check that the crude oil washing machines are operable and to observe the proper operation of the washing machines by means of the movement indicators and/or sound patterns or other approved methods;
 - .2.3 to check the effectiveness of the stripping system in appropriate cargo tanks by observing the monitoring equipment and by hand-dipping or other approved means; and
 - .2.4 to verify by internal tank inspection after crude oil washing that the installation and operational procedures laid down in the Operations and Equipment Manual are satisfactory; and
- .3 to confirm that there is no leakage from those ballast pipelines passing through cargo tanks and those cargo pipelines passing through ballast tanks.

2.4.2.4 Retention of oil on board (Regulation 15):

- .1 to confirm that the arrangements of slop tanks or cargo tanks designated as slop tanks and associated piping systems are satisfactory;
- .2 to examine the oil discharge monitoring and control system* and its associated equipment and, in particular:

* Reference is made to the Guidelines for Installation Approval and On-Board Testing of the Installation Arrangements of Oil Discharge Monitoring and Control Systems being developed by the Organization.

- .2.1 to confirm the satisfactory installation and operation* of the oil discharge monitoring and control system including the oil content meter and, where applicable, the automatic and manual means provided to stop the discharge of effluent, the starting interlock and the accuracy of the flow meter as required by 6.3.4 of the Guidelines and Specifications for the Oil Discharge Monitoring and Control System for Oil Tankers (resolution A.496(XII));
 - .2.2 to observe that the indicators and recording devices installed in the discharge monitor are operable;
 - .2.3 to test any audible or visual alarms fitted to the oil discharge monitoring and control system; and
 - .2.4 to verify that a sufficient supply of consumables for the recording devices are on board; and
 - .3 to confirm that approved oil/water interface detectors are on board and operational.
- 2.4.2.5 Pumping, piping and discharge arrangements (Regulation 18):
- .1 to confirm that the piping systems associated with the discharge of dirty ballast water or oil-contaminated water are satisfactory;
 - .2 to confirm that 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 are satisfactory;
 - .3 to confirm that 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 are satisfactory; and

* Confirmation of satisfactory operation may be achieved by simulation test or equivalent.

- .4 to confirm that the arrangements for the part flow system, where fitted, are satisfactory.

2.4.2.6 Arrangements of cargo tanks (Regulation 24):

- .1 to confirm that closing devices installed in the cargo transfer system and cargo piping as appropriate are satisfactory.

2.4.2.7 Subdivision and stability (Regulation 25):

- .1 to confirm that arrangements, in addition to the provision of 2.4.2.6, to prevent progressive flooding are satisfactory.

2.4.2.8 Existing oil tankers having special ballast arrangements (Regulation 13D):

- .1 to confirm that approved arrangements and operational procedures for special ballast are on board.

2.5 Completion of survey

- 2.5.1 On completion of satisfactory initial survey, the IOPP Certificate and the Record for the Construction and Equipment shall be issued.

3 MANDATORY ANNUAL SURVEY

3.1 Periodicity

3.1.1 The mandatory annual survey as required by Regulation 4(3)(b) should be held within three months before or after the anniversary date of the IOPP Certificate.

3.1.2 When the mandatory annual survey coincides with an intermediate survey as prescribed in Regulation 4(1)(c), the mandatory annual survey will not be required.

3.2 General

3.2.1 The mandatory annual surveys enable the Administration to verify that the condition of the ship and its equipment are being maintained in accordance with the relevant requirements of MARPOL 73/78.

3.2.2 In general, the mandatory annual survey should consist of:

- .1 a certificate examination, a visual examination to a sufficient extent of the ship and its equipment and of certain tests to confirm that their condition is being properly maintained; and
- .2 a visual examination to confirm that no unapproved modifications have been made to the ship and its equipment.

3.3 Examination of current certificates, oil record books, manuals and other documents

3.3.1 The examination of current certificates, oil record books, manuals and other documents should consist of:

- .1 checking the validity of the International Oil Pollution Prevention Certificate issued in conformity with Regulations 5 and 8 of Annex I of MARPOL 73/78;
- .2 checking of the certificates for type approval of oil pollution prevention equipment, such as oily-water separating equipment, oil filtering equipment, process units, oil content meters and oil/water interface detectors;

- .3 confirming that surveys of the inert gas system, when required to be fitted, have been carried out. This may be evidenced by endorsements on the appropriate SOLAS Certificates;
- .4 checking of all other relevant certificates as required, which may include certificates of Class;
- .5 checking whether the appropriate entries have been made in the oil record book;
- .6 confirming that the approved Dedicated Clean Ballast Tank Operations Manual (Regulation 13A(4)) and/or the approved Operations and Equipment Manual for the Crude Oil Washing System (Regulation 13B(5)), as applicable, is/are on board;
- .7 confirming that the operations manual for the oil discharge monitoring and control system (Regulation 15(3)(c)) is on board;
- .8 confirming that the loading and stability information in an approved form as required by Regulation 25(5), where applicable, is on board;
- .9 sighting the records of the various oil discharge monitoring equipment as applicable; and
- .10 confirming approved operational procedures for existing oil tankers having special ballast arrangements (Regulation 13D) is on board.

3.4 Survey of the condition of the ship and its equipment

3.4.1 For all ships the survey should include the following:

3.4.1.1 Equipment for the control of oil discharge from machinery space bilges (Regulations 9, 10 and 16):

- .1 to examine externally the oily-water separating equipment or oil filtering equipment or process unit, where fitted;
- .2 to examine externally the oil discharge monitoring and control system;
- .3 to confirm, as far as practicable, the satisfactory operation of the oily-water separating equipment or oil filtering equipment or process unit where fitted;

- .4 to confirm, as far as practicable, the satisfactory operation* of the oil discharge monitoring and control systems, including, where possible, the automatic and manual operation of the means provided to stop the discharge of effluent;
- .5 to observe that indicators and recording devices in the monitor are operable and to verify that a sufficient supply of consumables for the recorders are on board;
- .6 to test the alarm for the oil filtering equipment; and
- .7 to test, where fitted, the automatic stopping device required for discharge in Special Areas.

3.4.1.2 Oil fuel tanks (Regulation 14):

- .1 to confirm the segregation of oil fuel and water ballast systems.

3.4.1.3 Oil residue (sludge) tanks and standard discharge connection (Regulations 17 and 19):

- .1 to check that the arrangement of the oily residues (sludge) tank and its discharge arrangements are satisfactory;
- .2 to confirm, where applicable, homogenizers, sludge incinerators or other recognized means for the control of sludge are satisfactory; and
- .3 to confirm the provision of the standard discharge connection.

3.4.2 For oil tankers, the survey should include, in addition to 3.4.1, the following, as applicable:

3.4.2.1 Segregated ballast tanks (Regulation 13):

- .1 to confirm that no cross-connections have been fitted between the cargo and segregated ballast systems;
- .2 where a portable spool piece is provided for the emergency discharge of segregated ballast by connecting the segregated ballast system to a cargo pump, to confirm that non-return

* Confirmation of satisfactory operation may be achieved by simulation or equivalent.

valves are fitted on the segregated ballast connections and that the spool piece is mounted in a conspicuous position in the pump room with a permanent notice restricting its use; and

- .3 to confirm by sighting that there has been no contamination with oil in the segregated ballast tanks.

3.4.2.2 Dedicated clean ballast tanks (Regulation 13A):

- .1 to confirm, as far as practicable, that the dedicated clean ballast tank arrangement remains satisfactory; and
- .2 to confirm by sighting that there has been no contamination with oil in the dedicated clean ballast tanks.

3.4.2.3 Crude oil washing system (Regulation 13B):

- .1 to confirm, as far as practicable, that the crude oil washing system remains satisfactory and, in particular:
 - .1.1 to make external examination of crude oil washing piping, pumps, valves and deck mounted washing machines for signs of leakage and to check that all anchoring devices for crude oil washing piping are intact and secure;
 - .1.2 to confirm, in those cases where drive units are not integral with the tank cleaning machines, that the number of operational drive units as specified in the Manual are on board;
 - .1.3 to check that, when fitted, steam heaters for water washing can be properly isolated during crude oil washing operations, either by double shut-off valves or clearly identifiable blanks;
 - .1.4 to check that the prescribed means of communications between the deck watchkeeper and the cargo control position is operational;
 - .1.5 to confirm that an overpressure relief device (or other approved arrangement) is fitted to the pumps supplying the crude oil washing system; and

- .1.6 to confirm 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.
- .2 to verify, as far as practicable, the effectiveness of the crude oil washing system and, in particular:
 - .2.1 to check tanks containing departure and/or arrival ballast water, as far as practicable, to confirm the effectiveness of the cleaning and stripping;
 - .2.2 to check, as far as practicable, that the crude oil washing machines are operable and, when the survey is carried out during crude oil washing operations, to observe the proper operation of the washing machines by means of the movement indicators and/or sound patterns or other approved methods; and
 - .2.3 to check, as far as practicable, the effectiveness of the stripping system in appropriate cargo tanks by observing the monitoring equipment and by hand-dipping or other approved means.
- 3.4.2.4 Retention of oil on board (Regulation 15):
 - .1 to examine the oil discharge monitoring and control system* and its associated equipment and, in particular:
 - .1.1 to make external examination of the system and equipment;
 - .1.2 to confirm, as far as practicable, the satisfactory operation** of the oil discharge monitoring and control

* Reference is made to the Guidelines for Installation Approval and On-board Testing of the Oil Discharge Monitoring and Control Systems being developed by the Organization.

** Confirmation of satisfactory operation may be achieved by simulation test or equivalent.

system including the oil content meter and, where applicable, the automatic and manual means provided to stop the discharge of effluent and the starting interlock;

- .1.3 to observe that indicators and recording devices are operable and to verify that a sufficient supply of consumables for the recorders are on board; and
- .1.4 to test, as far as practicable, any audible or visual alarms fitted to the oil discharge monitoring and control system.

.2 to examine the oil/water interface detectors.

3.4.2.5 Pumping, piping and discharge arrangements (Regulation 18):

- .1 to examine the piping systems associated with the discharge of dirty ballast or oil-contaminated water including the part flow system, if fitted;
- .2 to test the communication system between the observation and discharge control positions; and
- .3 to examine the means of draining cargo pumps and cargo lines, including the stripping device and the connections for pumping to the slop or cargo tanks or ashore.

3.4.2.6 Existing oil tankers having special ballast arrangements (Regulation 13D):

- .1 to confirm that on those ships operating with special ballast arrangements, the approved arrangements are satisfactory.

3.5 Completion of survey

3.5.1 After satisfactory survey the IOPP Certificate shall be endorsed.

3.5.2 If a survey shows that the condition of the ship or its equipment is unsatisfactory, the officer of the Administration, nominated surveyor or recognized organization should be guided by the requirements of Regulation 4(3)(d).

4 INTERMEDIATE SURVEY

4.1 Periodicity

4.1.1 As required by Regulation 4(1)(c), a minimum of one intermediate survey during the period of validity of the IOPP Certificate must be conducted. In cases where only one such intermediate survey is carried out in any one Certificate validity period, it must be held not before six months prior to, nor later than six months after, the half-way date of the Certificate's period of validity.

4.2 General

4.2.1 The intermediate survey should be a thorough examination and should be sufficiently extensive to enable the Administration to ensure that the equipment and associated pumping and piping systems, including oil discharge monitoring and control systems, crude oil washing systems, oily-water separating equipment and oil filtering systems comply with the applicable requirements of MARPOL 73/78 and are in good working order.

4.3 Examination of current certificates, oil record books, manuals, and other documents

4.3.1 The examination of current certificates, oil record books, manuals and other documents should consist of items referred to in 3.3.1.

4.4 Survey of the condition of the ship and its equipment

4.4.1 For all ships the survey should include, in addition to 3.4.1, the following:

- .1 to examine the oily-water separating equipment or oil filtering equipment or process unit where fitted, including associated pumps, piping and fittings for wear and corrosion; and
- .2 to examine the oil content meter (15 ppm alarm and bilge monitor) for obvious defects, deterioration or damage and to check the record of calibration of the meter when done in accordance with the manufacturer's operation and instruction manual.

4.4.2 For oil tankers, the survey should include, in addition to 3.4.2 and 4.4.1, the following, as applicable:

.1 Crude oil washing system:

- .1.1 to examine crude oil washing piping outside cargo tanks. If upon examination there is any doubt as to its condition, the piping may be required to be pressure tested, gauged or both. Particular attention is to be paid to any repairs such as welded doublers;
 - .1.2 to confirm the satisfactory operation of isolation valves to steam heaters for washing water when fitted; and
 - .1.3 to examine at least two selected cargo tanks for the express purpose of verifying the continued effectiveness of the installed crude oil washing and stripping systems*.
- .2 to examine the oil discharge monitoring and control system and the oil content meter for obvious defects, deterioration or damage, and to check the record of calibration of the meter when done in accordance with the manufacturer's operation and instruction manual;
- .3 to examine the manual and/or remote operation of the individual tank valves (or other similar closing devices) to be kept closed at sea; and
- .4 to confirm the satisfactory operation of the oil/water interface detectors.

4.5 Completion of survey

4.5.1 After satisfactory survey, the IOPP Certificate shall be endorsed.

4.5.2 If a survey shows that the condition of the ship or its equipment is unsatisfactory, the officer of the Administration, nominated surveyor or recognized organization should be guided by the requirements of Regulation 4(3)(d).

* The scope or particulars of this examination need not be in accordance with paragraph 4.2.10(a) of resolution A.446(XI).

5 PERIODICAL SURVEY

5.1 Periodicity

5.1.1 The period between periodical surveys shall not exceed five years as provided in Regulation 8.

5.2 General

5.2.1 The periodical survey, as required by Regulation 4(1)(b), should be such as to ensure that the structure, equipment, systems, fittings, arrangements and materials comply with the relevant requirements of MARPOL 73/78 and should serve as a basis for renewal of the IOPP Certificate for a period of not exceeding 5 years.

5.3 Examination of current certificates, oil record books, manuals, and other documents

5.3.1 The examination of current certificates, oil record books, manuals and other documents should consist of items referred to in 3.3.1.

5.4 Survey of the condition of the ship and its equipment

5.4.1 For all ships the survey should include the following:

5.4.1.1 Equipment for the control of oil discharge from machinery space bilges (Regulations 9, 10 and 16):

- .1 to examine the oily-water separating equipment or oil filtering equipment, process units, where fitted, including associated pumps, piping and fittings for wear and corrosion;
- .2 to examine the oil discharge monitoring and control system;
- .3 to confirm the satisfactory operation* of the oily-water separating equipment or oil filtering equipment;
- .4 to confirm the satisfactory operation* of the oil discharge monitoring and control system including where practicable the automatic and manual operation of the means provided to stop the discharge of effluent;
- .5 to observe that indicators and recorders installed in the

* Confirmation of satisfactory operation may be achieved by simulation test or equivalent.

monitor are operable and to verify that a sufficient supply of consumables for the recorders are on board;

- .6 to examine the oil content meter (15 ppm alarm and bilge monitor) for obvious defects, deterioration or damage and to check the record of calibration of the meter when done in accordance with the manufacturer's operation and instruction manual;
- .7 to confirm satisfactory operation of the alarm for the oil filtering system; and
- .8 to test, where fitted, the automatic stopping device required for discharges in Special Areas.

5.4.1.2 Oil fuel tanks (Regulation 14):

- .1 to confirm the segregation of oil fuel and water ballast systems.

5.4.1.3 Oily residue (sludge) tanks and standard discharge connection (Regulations 17 and 19):

- .1 to confirm that the arrangement of the oil residue (sludge) tank and its discharge arrangements are satisfactory;
- .2 to confirm the satisfactory operation of homogenizers, sludge incinerators or other recognized means for the control of sludge when the size of oily residue (sludge) tank is approved on the basis of such installation; and
- .3 to confirm the provision of the standard discharge connection.

5.4.2 For oil tankers, the survey should include, in addition to 5.4.1, the following, as applicable:

5.4.2.1 Segregated ballast tanks (Regulation 13):

- .1 to confirm that the arrangements of pumps, pipes and valves are in accordance with the requirements for SBT systems;
 - .2 to confirm that no cross-connections have been fitted between the cargo and segregated ballast systems;
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- .3 where a portable spool piece is provided for the emergency discharge of segregated ballast by connecting the segregated ballast system to a cargo pump, to confirm that non-return valves are fitted on the segregated ballast connections and that the spool piece is mounted in a conspicuous position in the pump room with a permanent notice restricting its use; and
- .4 to confirm that there is no leakage from those ballast pipelines passing through cargo tanks and those cargo pipelines passing through ballast tanks.

5.4.2.2 Dedicated clean ballast tanks (Regulation 13A):

- .1 to confirm that the arrangements of pumps, pipes and valves are in accordance with the Revised Specifications for Oil Tankers with Dedicated Clean Ballast Tanks;
- .2 to sight the dedicated clean ballast tanks to confirm that there has been no contamination with oil; and
- .3 to confirm that there is no leakage from those ballast pipelines passing through cargo tanks and those cargo pipelines passing through ballast tanks.

5.4.2.3 Crude oil washing system (Regulation 13B):

- .1 to confirm that the crude oil washing system is installed in accordance with the Revised Specifications for the Design, Operation and Control of the Crude Oil Washing Systems (resolutions A.446(XI) and A.497(XII)) and, in particular:
 - .1.1 to examine crude oil washing piping, pumps, valves and deck mounted washing machines for signs of leakage and to check that all anchoring devices for crude oil washing piping are intact and secure;
 - .1.2 to carry out pressure testing of the crude oil washing system to at least the working pressure;

- .1.3 to confirm in those cases where drive units are not integral with the tank washing machines, that the number of operational drive units as specified in the Manual are on board;
- .1.4 to confirm by internal tank inspection that internal equipment and arrangements remain satisfactory*;
- .1.5 to check that, when fitted, steam heaters for water washing can be properly isolated during crude oil washing operations, either by double shut-off valves or by clearly identifiable blanks. When isolation valves are fitted, they should be disassembled for examination;
- .1.6 to check that the prescribed means of communications between the deck watchkeeper and the cargo control position is operational;
- .1.7 to confirm that an overpressure relief device (or other approved arrangement) is fitted to the pumps supplying the crude oil washing system; and
- .1.8 to verify 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; and

* This inspection may be made in conjunction with the internal examination of cargo tanks required by paragraph 5.3.2.5 of the SOLAS Survey Guidelines (resolution A.413(XI)) or any other opportunities within six months prior to or after the date of the periodical survey.

- .2 to verify the effectiveness* of the crude oil washing system in accordance with paragraph 4.2.10 of the Revised COW Specifications (resolutions A.446(XI) and A.497(XII)) and, in particular:
 - .2.1 to check tanks containing departure and/or arrival ballast water, as applicable, to confirm the effectiveness of the cleaning and stripping;
 - .2.2 to check that the crude oil washing machines are operable and to observe the proper operation of the washing machines by means of the movement indicators and/or sound patterns or other approved methods;
 - .2.3 to check the effectiveness of the stripping system in appropriate cargo tanks by observing the monitoring equipment and by hand-dipping or other approved means; and
 - .2.4 to confirm by internal tank inspection or by other alternative method acceptable to the Administration after crude oil washing that the installation and operational procedures laid down in the Operations and Equipment Manual are satisfactory.**
- .3 to confirm that there is no leakage from those ballast pipelines passing through cargo tanks and those cargo pipelines passing through ballast tanks.

* Effectiveness of crude oil washing system may be verified at an appropriate time when crude oil operation is carried out within six months prior to or after the date of periodical survey.

** The scope or particulars of this examination need not be in accordance with paragraph 4.2.10(a) of resolution A.446(XI).

5.4.2.4 Retention of oil on board (Regulation 15):

- .1 to confirm that the arrangements of slop tanks or cargo tanks designated as slop tanks and associated piping systems are satisfactory;
- .2 to examine the oil discharge monitoring and control system* and its associated equipment and in particular:
 - .2.1 to confirm the satisfactory operation** of the oil discharge monitoring and control system including the oil content meter and, where applicable, the automatic and manual means provided to stop the discharge of effluent, the starting interlock and the accuracy of the flow meter as required by 6.3.4 of the Guidelines and Specifications for the Oil Discharge Monitoring and Control System for Oil Tankers (resolution A.496(XII));
 - .2.2 to observe that the indicators and recording devices installed in the discharge monitor are operable and to verify that a sufficient supply of consumables for the recording devices are on board; and
 - .2.3 to test any audible or visual alarms fitted to the oil discharge monitoring and control system; and
- .3 to confirm the satisfactory operation of the oil/water interface detectors.

* Reference should be made to the Guidelines for Installation Approval and On-board Testing of the Oil Discharge Monitoring and Control Systems being developed by the Organization.

** Confirmation of satisfactory operation may be achieved by simulation test or equivalent.

5.4.2.5 Pumping, piping and discharge arrangements (Regulation 18):

- .1 to confirm that the piping systems associated with the discharge of dirty ballast water or oil contaminated water are satisfactory;
- .2 to test the communication system between the observation and discharge control positions;
- .3 to confirm that the means of draining cargo pumps and cargo lines, including the stripping device and the connections for pumping to the slop or cargo tanks or ashore are satisfactory; and
- .4 to confirm that the arrangements for the part flow system, where fitted, are satisfactory.

5.4.2.6 Arrangements of cargo tanks (Regulation 24):

- .1 to confirm that closing devices installed in the cargo transfer system and cargo piping as appropriate are satisfactory.

5.4.2.7 Existing oil tankers having special ballast arrangements (Regulation 13D):

- .1 to confirm that approved arrangements for special ballast are satisfactory.

5.5 Completion of survey

5.5.1 After satisfactory survey, the IOPP Certificate shall be issued.

5.5.2 If a survey shows that the condition of the ship or its equipment is unsatisfactory, the officer of the Administration, nominated surveyor or recognized organization should be guided by the requirements of Regulation 4(3)(d).
