RULES FOR MARINE POLLUTION PREVENTION SYSTEMS

RULES

2019 AMENDMENT NO.2

Rule No.104 27 December 2019

Resolved by Technical Committee on 22 July 2019

An asterisk (*) after the title of a requirement indicates that there is also relevant information in the corresponding Guidance.

Rule No.104 27 December 2019
AMENDMENT TO THE RULES FOR MARINE POLLUTION PREVENTION SYSTEMS

"Rules for marine pollution prevention systems" has been partly amended as follows:

Amendment 2-1

Part 2 SURVEYS

Chapter 1 GENERAL

1.1 General

1.1.3 Intervals of Surveys*

Sub-paragraph -5 has been amended as follows.

5 Occasional Surveys

The classed ships are to be subject to Occasional Surveys when they fall under one of the conditions of **(1)** through **(4)** below. To implement the survey, in lieu of the traditional ordinary surveys where a surveyor is in attendance, the Society may approve survey methods which it considers to be appropriate. Periodical Surveys may substitute for the Occasional Surveys where the survey items of the Occasional Surveys are inspected as a part of the Periodical Surveys.
((1) to (4) are omitted.)

Chapter 4 OCCASIONAL SURVEYS

4.1 General

Paragraph 4.1.2 has been amended as follows.

4.1.2 Inspection*

1 Occasional Surveys listed in **1.1.3-5(1)** and **(2)** are to be carried out in a manner mutatis mutandis the Special Surveys on the Marine Pollution Prevention Installations according to the extent of modifications or repairs.

2 To implement the survey, in lieu of the traditional ordinary surveys where a surveyor is in attendance, the Society may approve survey methods which it considers to be appropriate.

Part 3 CONSTRUCTION AND EQUIPMENT FOR THE PREVENTION OF POLLUTION BY OIL

Chapter 1 GENERAL

1.1 Application and Terminology

1.1.1 Application*

Sub-paragraph -4 has been amended as follows.

4 Fixed or floating platforms including drilling rigs, floating production, storage, and offloading facilities (*FPSOs*)used for the offshore production and storage of oil, floating storage units(*FSUs*) used for the offshore storage of produced oil are to comply with the following.

(1) Fixed or floating drilling rigs when engaged in the exploration, exploitation and associated ~~O~~offshore ~~drilling rigs~~ processing of sea-bed mineral resources and other platforms ~~for under sea mineral resources are to comply with the requirements which~~ are ~~applied to~~ subject to the provisions for ships of 400 *gross tonnage* and above other than oil tankers~~.~~, except for the following **(1)** and **(2)**:

(a) They are to be equipped as far as practicable with the installations required in **2.2.1**, **2.2.2**, **2.3** and **2.4**.

(b) They are to keep a record of all operations involving oil or oily mixture discharges, in a form approved by the Society.

(2) Platforms configured as *FPSOs* or *FSUs* are to comply with other guidelines deemed appropriate by the Society in addition to **(1)** above.

Part 8 EQUIPMENT FOR THE PREVENTION OF AIR POLLUTION FROM SHIPS

Chapter 3 ENERGY EFFICIENCY FOR SHIPS

3.5 Statements of Compliance related to Fuel Oil Consumption Reporting and Others (*Regulation* 22A of *Annex* VI)

3.5.2 Data Collection and Reporting, etc. (*Regulations* 22A.1 to 22A.7 of *Annex* VI)*

Sub-paragraph (1) has been amended as follows.

Data collection and reporting to be carried out to obtain the Statements of Compliance required by **3.5.1** are to be in accordance with the following **(1)** to **(3)**:

(1) Each ship is to collect data (i.e. that specified in *Appendix* IX of *Annex* VI) according to the methodology included in the SEEMP for that and each subsequent calendar year.

((2) and (3) are omitted.)

EFFECTIVE DATE AND APPLICATION (Amendment 2-1)

1. The effective date of the amendments is 27 December 2019.

Amendment 2-2

Part 2 SURVEYS

Chapter 1 GENERAL

1.3 Verification Survey of Certificates, etc.

1.3.2 Certificates and Documents other than those Specified in 1.3.1*

Sub-paragraph -1(3) has been amended as follows.

1 At surveys, the following certificates and other documents are to be presented to the Surveyor to verify that these certificates and documents are placed on board the ship (excluding unmanned towed ships), and are appropriate. However, at Occasional Surveys, the presentation of certificates and documents to the Surveyor may be limited to the concerned ones.
((1) and (2) are omitted.)
(3) Relating to the equipment for the prevention of air pollution from ships
((a) to (d) are omitted)
(e) List of equipment containing ozone depleting substances (when the requirements of **1.2.1-5, Part 8** are applied) and Ozone Depleting Substances Record Book (when the requirements of **1.2.1-6, Part 8** are applied)
((f) to (k) are omitted.)

Part 8 EQUIPMENT FOR THE PREVENTION OF AIR POLLUTION FROM SHIPS

Chapter 1 GENERAL

1.1 General

1.1.2 Terminology (*Regulation* 2, 13, 14 and 16 of *Annex* VI and 1.3, 4.1, 4.3.9 and 4.4.8 of *NOx Technical Code*)*****

Sub-paragraph (22) has been added as follows.

For the purpose of the requirements in this Part, the following definitions apply unless specified otherwise in Chapters 2 or 3:
((1) to (21) are omitted.)
(22) "Installations" as specified in **1.2.1** means the installation of systems, equipment including portable fire-extinguishing units, insulation, or other material on a ship, but excludes the repair or recharge of previously installed systems, equipment, insulation, or other material, or the recharge of portable fire-extinguishing units.

1.2 General Requirement

Paragraph 1.2.1 has been amended as follows.

1.2.1 Ozone Depleting Substances (*Regulation* 12 of *Annex* VI)*****
1 The requirements specified in this **1.2.1** apply to all installations excluding permanently sealed equipment which meets the following **(1)** and **(2)** requirements:
(1) there are no refrigerant charging connections, and
(2) there are no potentially removable components containing ozone depleting substances.
2 ~~Systems, equipment, including portable fire extinguishers, insulation, and other material~~ Installations which contain ozone depleting substances ~~are not to be newly installed on a ship except where deemed appropriate by the Society~~ are to be arranged so as to prevent emissions of ozone depleting substances, where necessary, in the course of maintaining, servicing, repairing or disposing of systems or equipment.
3 Installations which contain ozone depleting substances, other than hydro-chlorofluorocarbons are prohibited:
(1) on ships constructed on or after 19 May 2005; or
(2) on ships constructed before 19 May 2005 in the following cases:
  (a) the contractual delivery date of the equipment to the ship is on or after 19 May 2005; or,
  (b) in the absence of a contractual delivery date, the actual delivery of the equipment to the ship is on or after 19 May 2005.
4 Installations which contain hydro-chlorofluorocarbons are prohibited:
(1) on ships constructed on or after 1 January 2020; or
(2) on ships constructed before 1 January 2020 in the following cases:
  (a) the contractual delivery date of the equipment to the ship is on or after 1 January 2020; or,

(b) in the absence of a contractual delivery date, the actual delivery of the equipment to the ship is on or after 1 January 2020.

5 Each ship which keeps an International Air Pollution Prevention Certificate issued in accordance with Regulation 6.1 of Annex VI is to maintain a list of equipment containing ozone depleting substances.

6 Each ship, in accordance with **-5** above, which has rechargeable systems that contain ozone depleting substances is to maintain an Ozone Depleting Substances Record Book of which entries are to be recorded in terms of substance mass and to be completed without delay on each occasion, in respect of the following **(1)** through **(5)**. This Record Book may form part of an existing log-book or electronic recording system as approved by the Administration.

(1) Recharge, full or partial, of equipment containing ozone depleting substances.

(2) Repair or maintenance of equipment containing ozone depleting substances.

(3) Discharge of ozone depleting substances to the atmosphere:

(a) deliberate (includes emissions of ozone depleting substances in the course of maintaining, servicing, repairing or disposing of systems or equipment), and

(b) non-deliberate.

(4) Discharge of ozone depleting substances to land-based reception facilities.

(5) Supply of ozone depleting substances to the ship.

EFFECTIVE DATE AND APPLICATION (Amendment 2-2)

1. The effective date of the amendments is 1 January 2020.

Amendment 2-3

Part 1 GENERAL

Chapter 1 GENERAL

1.1 General

1.1.4 Class Notations

Sub-paragraph -4 has been amended as follows.

4 Based on **2.1.3-2 of the Rules for the Classification and Registry of Ships**, "*Sulphur Oxides*" (abbreviated as "*SOx*") is to be affixed to the classification characters of ships provided with the following **(1)** and/or **(2)** that comply with the requirements related to sulphur content specified in **-1** or **-2** of **1.2.2-1~~(1)(c)~~, Part 8**, ~~**or 2.2-1(3), Part 8**~~ or that are compliance methods at least equivalent to those complying with such requirements. The notations referred to in **(1)** and **(2)** below are listed in parentheses after *SOx* according to the provided arrangement/system. Details of the fuel referred to in **(1)** below as well as the purposes of machinery using the fuel referred to in **(1)** below and machinery fitted with the systems referred to in **(2)** below are to be entered in the Classification Register as descriptive notes for the ship.
((1) and (2) are omitted.)

Part 2 SURVEYS

Chapter 1 GENERAL

1.3 Verification Survey of Certificates, etc.

1.3.2 Certificates and Documents other than those Specified in 1.3.1*

Sub-paragraph -1(3) has been amended as follows.

1 At surveys, the following certificates and other documents are to be presented to the Surveyor to verify that these certificates and documents are placed on board the ship (excluding unmanned towed ships), and are appropriate. However, at Occasional Surveys, the presentation of certificates and documents to the Surveyor may be limited to the concerned ones.

((1) and (2) are omitted.)

(3) Relating to the equipment for the prevention of air pollution from ships

(a) Bunker delivery note (when the requirements of **1.2.3-2, Part 8** are applied)

((b) to (e) are omitted.)

(f) Log-book (when the requirements of **2.1.4** or ~~**2.2-2**~**2.2.1-1, Part 8** are applied)

(g) Procedure manual of fuel oil change-over (when the requirements of ~~**2.2-2**~**2.2.1-1, Part 8** are applied)

((h) to (k) are omitted.)

Part 8 EQUIPMENT FOR THE PREVENTION OF AIR POLLUTION FROM SHIPS

Chapter 1 GENERAL

1.1 General

1.1.2 Terminology (*Regulation* 2, 13, 14 and 16 of *Annex* VI and 1.3, 4.1, 4.3.9 and 4.4.8 of *NOx Technical Code*)*****

Sub-paragraph (16) has been amended as follows.

For the purpose of the requirements in this Part, the following definitions apply unless specified otherwise in Chapters 2 or 3:
((1) to (15) are omitted.)
(16) "SOx Emission Control Areas" means any sea area, including any port area, designated by the *IMO* in accordance with the criteria and procedures set forth in Appendix III to *Annex* VI. The emission control areas are those areas listed in the following **(a)** to **(~~c~~d)**:
(a) The North American Area
The area specified in **(a)** of **(15)** above.
(b) The United States Caribbean Sea Area
The area specified in **(b)** of **(15)** above.
(c) The Baltic Sea Area
The area specified in **(c)** of **(15)** above.
(d) The North Sea Area
The area specified in **(d)** of **(15)** above.
~~(e) A sea area, including port areas, designated by the *IMO* in accordance with criteria and procedures set forth in Appendix III to *Annex* VI other than those specified in **(a)** to **(d)** above.~~
((17) to (21) are omitted.)

1.2 General Requirement

Paragraph 1.2.3 has been renumbered to Paragraph 1.2.4, and Paragraph 1.2.2 has been amended as follows.

1.2.2 Use and Carriage of Fuel Oil (*Regulation* ~~3,~~ 14~~, and 18~~ of *Annex* VI)*****
1 The sulphur content of fuel oil used or carried for use on board a ship is not to exceed 0.50% *m*/*m*.
2 While a ship is operating within an emission control area, the sulphur content of fuel oil used on board that ship is not to exceed 0.10% *m*/*m*, in addition to the requirements specified in **-1** above.
3 The sulphur content of fuel oil referred to in **-1** and **-2** above is to be documented by its supplier as required by Regulation 18 of *Annex* VI.

1.2.3 Delivery of Fuel Oil and Bunker Delivery Notes (*Regulation* 18 of *Annex* VI)
1 Except where it may otherwise be accepted in accordance with Regulations 18.2.1 to 18.2.5 of

Annex VI, ~~F~~fuel oil for combustion purposes delivered to and used on board ships is to meet the following **(1)** and **(2)** requirements:

~~(1) The sulphur content of the fuel oil is not to exceed the following limits.~~

~~(a) 4.5% *m/m* prior to 1 January 2012~~

~~(b) 3.5% *m/m* on and after 1 January 2012~~

~~(c) 0.5% *m/m* on and after 1 January 2020~~

(1) Except as provided in **(2)** below, the following **(a)** to **(c)** requirements are to be satisfied.

(~~4~~a) The fuel oil is to be blends of hydrocarbons derived from petroleum refining ~~is to be blends of hydrocarbons~~. ~~However,~~ This is not to preclude the incorporation of small amounts of additives intended to improve some aspects of performance ~~may be incorporated~~.

(~~2~~b) The fuel oil is to be free from inorganic acid.

(~~3~~c) The fuel oil is not to include any added substance or chemical waste ~~corresponding to one of the following **(a)** through **(c)**.~~ which:

(~~a~~i) ~~It~~ jeopardizes the safety of ships or adversely affects the performance of the machinery~~.~~,

(~~b~~ii) ~~It~~ is harmful to personnel~~.~~, or

(~~c~~iii) ~~It~~ contributes overall to additional air pollution.

(~~5~~2) The fuel oil derived by methods other than petroleum refining is not:

(a) to exceed the applicable sulphur content specified in **-1** or **-2** of **1.2.2**,

(b) to cause the NOx emission from a diesel engine to exceed the limits specified in **2.1.2-1**~~.~~,

(c) to contain inorganic acid,

(d) to jeopardize the safety of ships or adversely affect the performance of the machinery,

(e) to be harmful to personnel, or

(f) to contribute overall to additional air pollution.

2 For each ship ~~of 400 *tons* gross tonnage or above engaged in international voyages~~ deemed necessary by the Society, including mobile offshore drilling unit and other platform, details of fuel oil for combustion purposes delivered to and used on board is to be recorded by means of a bunker delivery note ~~written in English, French or Spanish~~. The bunker delivery note is ~~to contain the information listed in the following **(1)** through **(9)** and~~ to be retained on board the ship for a period of 3 *years* after the fuel oil has been delivered on board. The bunker delivery note is to be kept on board the ship in such a place as to be readily available for inspection at all reasonable times.

~~(1) Name and *IMO* Number of receiving ship~~

~~(2) Port~~

~~(3) Date of commencement of delivery~~

~~(4) Name, address, and telephone number of the fuel oil supplier~~

~~(5) Product name(s)~~

~~(6) Quantity in *metric tons*~~

~~(7) Density at 15 °C (*kg/m*^{3}) derived from the test in accordance with *ISO* 3675~~

~~(8) Sulphur content (% by mass) derived from the test in accordance with *ISO* 8754~~

~~(9) A declaration signed and certified by the fuel oil supplier's representative that the fuel oil supplied is in conformity with **-1** and **2.2-1(2)**.~~

3 The bunker delivery note referred to **-2** above is to contain at least the information specified in Appendix V to *Annex* VI.

~~3~~4 The bunker delivery note referred to in **-~~2~~3** is to be accompanied by a representative sample of the fuel oil delivered obtained in a way deemed appropriate by the Society. The sample is to be sealed and signed by the supplier's representative and the master or officer in charge of the bunker operation on completion of bunkering operations and retained on board the ship in a way deemed appropriate by the Society until the fuel oil is substantially consumed, but in any case for a period

of not less than 12 *months* from the time of delivery.

~~**4 The requirements specified in -1 through -3 do not apply to the use of hydrocarbons which are produced and subsequently used on a mobile offshore drilling unit, etc. as fuel.**~~

5 The requirements specified in **-1** to **-4** above do not apply to coal in its solid form or nuclear fuels. The requirements specified in **-2** to **-4** above do not apply to gas fuels such as liquefied natural gas, compressed natural gas or liquefied petroleum gas. The sulphur content of gas fuels delivered to a ship specifically for combustion purposes on board that ship is to be documented by the supplier.

1.2.~~3~~4 Substances Prohibited to ~~be~~ Be Incinerated On Board (*Regulation* 16 of *Annex* VI)

Substances prohibited to be incinerated on board ships are those listed below.

(1) Residue of the cargoes listed in the following **(a)** through **(c)** and related contaminated packing materials.
   (a) Oil
   (b) Noxious liquid substance
   (c) Marine pollutant

(2) Polychlorinated biphenyls (PCBs).

(3) Garbage containing heavy metals. (The term "garbage" means all kinds of victual, domestic and operational waste excluding fresh fish and parts thereof, generated during the normal operation of the ship and liable to be disposed of continuously or periodically.)

(4) Refined petroleum products containing halogen compounds.

(5) Polyvinyl chlorides (PVCs) (except when incinerated in an incinerator complying with the requirements in **2.4-1(2)** or the equivalent).

(6) Sewage sludge and sludge oil which are not generated by the ship.

(7) Exhaust gas cleaning system residues.

Chapter 2 EQUIPMENT FOR THE PREVENTION OF AIR POLLUTION FROM SHIPS

Section 2.2 has been amended as follows.

2.2 Sulphur Oxides (SOx) and Particulate Matter ~~(*Regulation* 14 *of Annex* VI)*~~

2.2.1 Fuel Oil Change-over on Ship Operating in SOx Emission Control Areas (*Regulation* 14 *of Annex* VI)

~~**1** Fuel oil used for every ship engaged in a voyage in a SOx Emission Control Area is to be certified by the bunker delivery note specified in **1.2.2-2** that its sulphur content does not exceed the following specified limits. However, this regulation is not to apply, prior to 1 January 2020, to ships operating in the areas specified in **(a)** and **(b)** of **1.1.2(16)** which were built on or before 1 August 2011 and which are powered by propulsion boilers that were not originally designed for continuous operation on marine distillate fuel or natural gas.~~

~~(1) 1.5% *m/m* prior to 1 July 2010~~

~~(2) 1.0% *m/m* on and after 1 July 2010~~

~~(3) 0.1% *m/m* on and after 1 January 2015~~

~~**2**~~**1** ~~All ships which use fuel oils complying with **-1** in SOx Emission Control Areas and other fuels in other areas are to carry a written procedure showing how the fuel oil change-over is to be done, allowing sufficient time for the fuel oil service system to be fully flushed of all fuel oils exceeding the applicable sulphur content specified in **-1** prior to entry into a SOx Emission Control Area. The date, time, position of the ship and the volume of the fuel oils complying with **-1** in each tank on occasions listed in **(1)** and **(2)** are to be recorded in such a log-book as prescribed by the Administration.~~ Those ships using separate fuel oils to comply with **1.2.2-2** and entering or leaving a SOx Emission Control Area are to carry a written procedure showing how the fuel oil change-over is to be done, allowing sufficient time for the fuel oil service system to be fully flushed of all fuel oils exceeding the applicable sulphur content specified in **1.2.2-2** prior to entry into such an Emission Control Area. The volume of low sulphur fuel oils (complying with **1.2.2-2**) in each tank as well as the date, time, and position of the ship on the following **(1)** and **(2)** occasions is to be recorded in such log-book as prescribed by the Administration.

(1) When any fuel-changeover operation is completed prior to entry into a SOx Emission Control Area, to flush all fuels used out of the area and to start using fuel oils complying with ~~**-1**~~**1.2.2-2**~~**, is completed**~~.

(2) When fuel-changeover operation is commenced after exit~~**ing**~~ from such a SOx Emission Control Area, to start using fuels to be used out of the area~~**, is commencing**~~.

~~**3**~~**2** During the first 12 *months* immediately following a designation of a specific SOx Emission Control Area, the requirements in this **2.2.1** do not apply to the fuel oils used in the area.

EFFECTIVE DATE AND APPLICATION (Amendment 2-3)

1. The effective date of the amendments is 1 March 2020.

GUIDANCE FOR MARINE POLLUTION PREVENTION SYSTEMS

GUIDANCE

2019 AMENDMENT NO.2

Notice No.71 27 December 2019
Resolved by Technical Committee on 22 July 2019

Notice No.71 27 December 2019
AMENDMENT TO THE GUIDANCE FOR MARINE POLLUTION PREVENTION SYSTEMS

"Guidance for marine pollution prevention systems" has been partly amended as follows:

Amendment 2-1

Part 2 SURVEYS

Chapter 1 GENERAL

1.1 General

1.1.3 Intervals of Surveys

Sub-paragraphs -1 to -6 have been renumbered to Sub-paragraphs -2 to -7, and Sub-paragraph -1 has been added as follows.

1 The wording "the Society may approve the survey methods which it considers to be appropriate." in **1.1.3-5, Part 2 of the Rules** means survey methods which the Society considers to be able to obtain information equivalent to that obtained through traditional ordinary surveys where a surveyor is in attendance.
~~**1**~~**2** (Omitted)
~~**2**~~**3** (Omitted)
~~**3**~~**4** (Omitted)
~~**4**~~**5** (Omitted)
~~**5**~~**6** (Omitted)
~~**6**~~**7** (Omitted)

Chapter 4 OCCASIONAL SURVEYS

4.1 General

4.1.2 Inspection

Sub-paragraphs -1 to -5 have been renumbered to Sub-paragraphs -2 to -6, and Sub-paragraph -1 has been added as follows.

1 The wording "the Society may approve the survey methods which it considers to be appropriate." in **4.1.2-2, Part 2 of the Rules** means survey methods which the Society considers to be able to obtain information equivalent to that obtained through traditional ordinary surveys where a surveyor is in attendance.

~~**1**~~**2** (Omitted)

~~**2**~~**3** (Omitted)

~~**3**~~**4** (Omitted)

~~**4**~~**5** (Omitted)

~~**5**~~**6** (Omitted)

Part 3 CONSTRUCTION AND EQUIPMENT FOR THE PREVENTION OF POLLUTION BY OIL

Chapter 1 GENERAL

1.1 Application and Terminology

1.1.1 Application

Sub-paragraphs -1 and -2 has been amended as follows.

1 Discharges related to the operations of ~~drilling rigs and other~~ fixed and floating platforms which are engaged in exploration and deployment of undersea resources specified in **1.1.1-4 in Part 3 of the Rules** are divided into the following three as shown in **Fig. 3.1.1-1**, where the requirements of **Part 3 of the Rules** apply to **(1)** and **(5)** only:

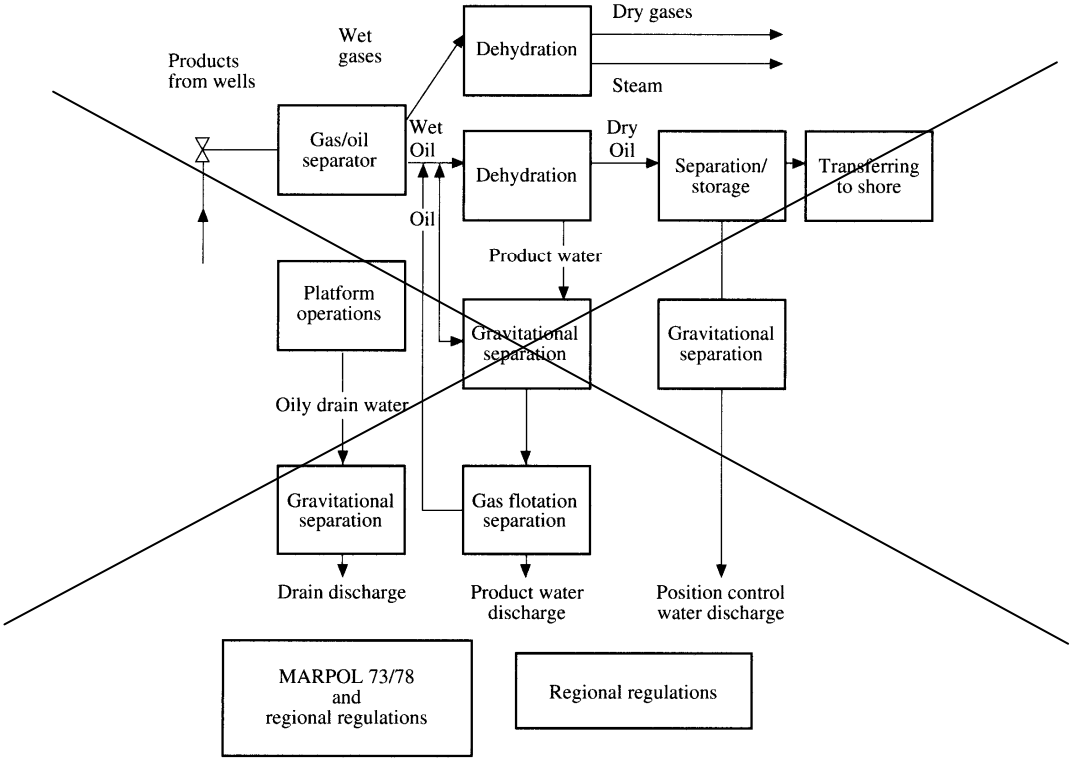
(1) ~~Discharges of drainage from rigs and platforms themselves~~ Machinery space drainage
(2) Offshore processing drainage
(~~2~~3) ~~Discharges of p~~Production water discharge
(~~3~~4) ~~Discharges of position control water~~ Displacement water discharge
(5) Contaminated seawater from operational purposes (such as produced oil tank cleaning water, produced oil tank hydrostatic testing water, water from ballasting of produced oil tank to carry out inspection by rafting)

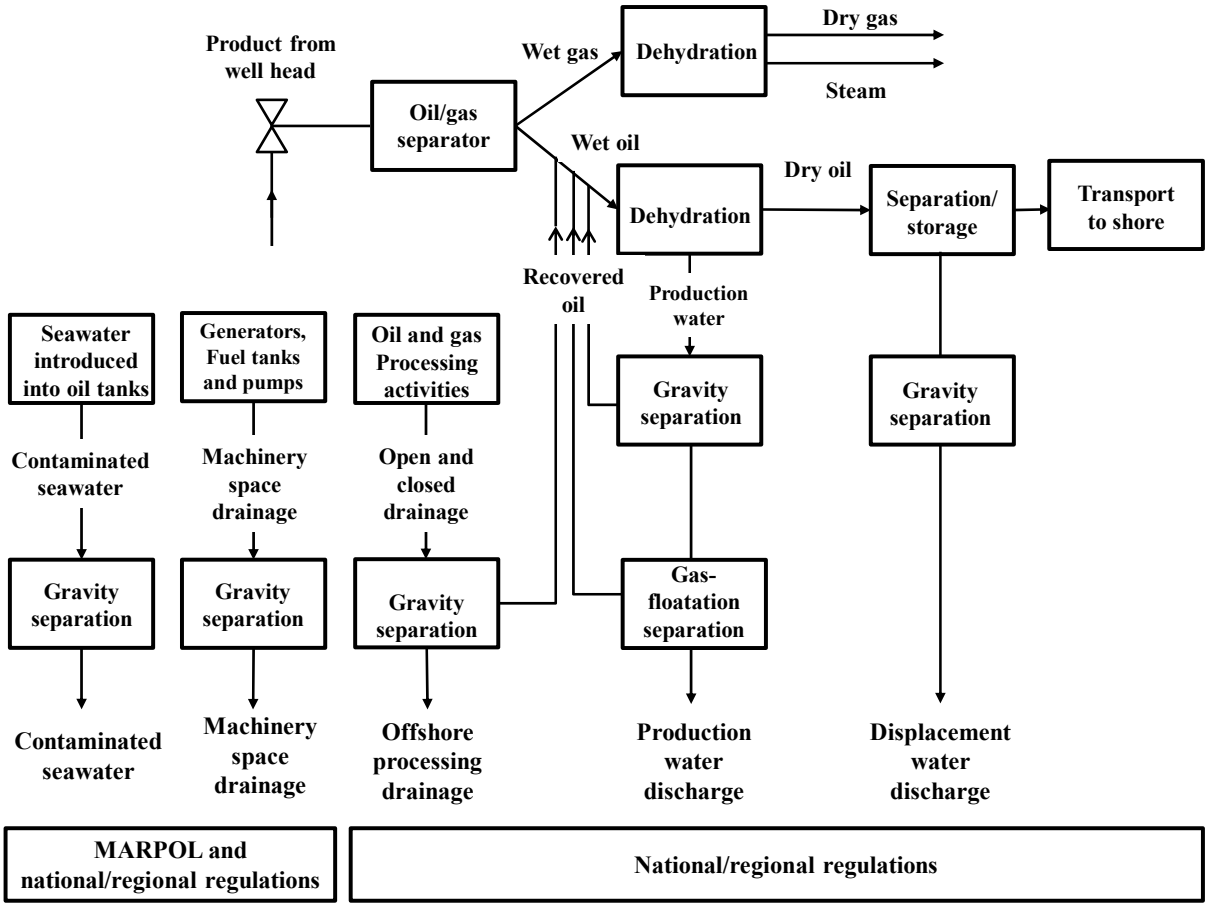
2 ~~For the purpose of~~ The wording "other guidelines deemed appropriate by the Society" in **1.1.1-4 ~~in~~ of Part 3 of the Rules~~, the provisions of **Part 3 of the Rules** apply to ships or fixed or floating platforms used for the offshore production, storage and offloading of oil, etc. taking account of "*Guidelines for the application of the revised MARPOL ANNEX I requirements to floating production, storage and offloading facilities (FPSOs) and floating storage units (FSUs)*", adopted by *IMO* resolution *MEPC*.139(53) as may be amended.~~ means "*2018 Guidelines for the Application of MARPOL ANNEX I Requirements to Floating Production, Storage and Offloading Facilities (FPSOs) and Floating Storage Units (FSUs)*", *IMO* resolution *MEPC*.311(73) or what the Government of the concerned coastal State, taking into account this resolution, recognizes as appropriate.

3 (Omitted)

Fig.3.1.1-1 has been amended as follows.

Fig. 3.1.1-1 Discharges from ~~Offshore~~ Fixed or Floating Platforms




Product from well head
Oil/gas separator
Wet gas
Dehydration
Dry gas
Steam
Wet oil
Dehydration
Dry oil
Separation/ storage
Transport to shore
Recovered oil
Production water
Seawater introduced into oil tanks
Generators, Fuel tanks and pumps
Oil and gas Processing activities
Gravity separation
Gravity separation
Contaminated seawater
Machinery space drainage
Open and closed drainage
Gravity separation
Gravity separation
Gravity separation
Gas-floatation separation
Contaminated seawater
Machinery space drainage
Offshore processing drainage
Production water discharge
Displacement water discharge
MARPOL and national/regional regulations
National/regional regulations

Part 8 EQUIPMENT FOR THE PREVENTION OF AIR POLLUTION FROM SHIPS

Chapter 3 ENERGY EFFICIENCY FOR SHIPS

3.2 Attained Energy Efficiency Design Index (Attained EEDI) (*Regulation* 20 of *Annex* VI)

Sub-paragraph -2 has been amended as follows.

2 "Guidelines deemed appropriate by the Society" specified in **3.2-3, Part 8 of the Rules** refers to the ~~"*2014 Guidelines on the Method of Calculation of the Attained Energy Efficiency Design Index (EEDI) for New Ships (IMO Res. MEPC.245(66), as amended)*"~~"*2018 Guidelines on the Method of Calculation of the Attained Energy Efficiency Design Index (EEDI) for New Ships (IMO Res.MEPC.308(73))*" as well as IACS Procedural Requirement (PR) No.38 *"Procedure for calculation and verification of the Energy Efficiency Design Index (EEDI)"*.

3.5 Statements of Compliance related to Fuel Oil Consumption Reporting and Others (*Regulation* 22A of *Annex* VI)

Paragraph 3.5.1 has been added as follows.

3.5.1 Statements of Compliance to be Kept and Data to be Retained (*Regulation* 22A.8 of *Annex* VI)

The "data" specified in **3.5.1-2, Part 8 of the Rules** is not required to be kept onboard the ship provided that the data can be made available by the Company.

3.5.2 Data Collection and Reporting, etc. (*Regulations* 22A.1 to 22A.7 of *Annex* VI)

Sub-paragraph -1 has been amended as follows.

1 ~~With respect to the reporting required in **(a)** and **(b)** of **3.5.2(2), Part 8 of the Rules**, the information specified in *Appendix* IX of *Annex* VI is to be included~~ The data required to be collected and reported set forth in **3.5.2, Part 8 of the Rules** includes data relating to boil-off gas consumed on board the ship for propulsion or operation.

EFFECTIVE DATE AND APPLICATION (Amendment 2-1)

1. The effective date of the amendments is 27 December 2019.

Amendment 2-2

Part 3 CONSTRUCTION AND EQUIPMENT FOR THE PREVENTION OF POLLUTION BY OIL

Chapter 3 CONSTRUCTION AND EQUIPMENT FOR THE PREVENTION OF POLLUTION BY OIL CARRIED IN BULK

3.2 Hull Construction

Paragraph 3.2.2 has been amended as follows.

3.2.2 Subdivision and Stability

(-1 to -6 are omitted.)

7 The "watertight sliding doors" referred to in **3.2.2-3(1) in Part 3 of the Rules** means such doors satisfying the requirements of **13.13.3, Part C of the Rules**, unless otherwise specified in this chapter.

~~**7**~~**8** In applying the requirements of **3.2.2-3(3) in Part 3 of the Rules**, "other openings which can be closed with a weathertight cover" do not include ventilators provided with weathertight closing appliances in accordance with the requirements of **23.6.5-2, Part C of the Rules** or **21.6.5-2, Part CS of the Rules** that for operational reasons have to remain open to supply air to the engine room or emergency generator room (if the same is considered buoyant in the stability calculation or protecting openings leading below) for the effective operation of the ship.

~~**8**~~**9** For the purpose of the requirements of **3.2.2-3(4) in Part 3 of the Rules**, the stability of oil tankers of ordinary design, combination carriers having vertical longitudinal bulkheads at intermediate stages of flooding is to be investigated by comparing them with the final condition of flooding at each case.

~~**9**~~**10** "The worst possible conditions of cargo and ballast loading during the liquid transfer operations" specified in **3.2.2-6 of the Rules** means the following assumed conditions. For the calculating G_0M, the liquid free surface correction is based on the appropriate upright free surface inertia moment. The lighting lever curve may be corrected on the basis of liquid transfer moments.

(1) All cargo tanks are filled with the cargo to a level corresponding with the maximum combined total of vertical moment of volume plus free surface moment at 0° heel, for each individual tank.

(2) All ballast tanks are filled with 1% of each ballast tank capacity.

(3) The maximum free surface moment is considered in all ballast tanks.

(4) Cargo density ρ is calculated by using the following formula, but may not exceed the value defined in design.

$$\rho = \frac{DWT_{KM\min} - (W_{BW1\%} + W_{CONSUM-FD} + const.)}{V_{CARGO(1)}}$$

$DWT_{KM\min}$: Cargo deadweight at the displacement at which transverse KM reaches a minimum value (Refer to **Fig. 3.3.2-8**) (t)

$W_{BW1\%}$: 1% weight of the total ballast capacity (t)

$W_{CONSUM-FD}$: Weight of the full departure consumables (t)

$Const.$: Weight of crew, their belongings and stored goods (t)

$V_{CARGO(1)}$: Total cargo capacity in the condition specified in preceding **(1)** (m^3)

~~10~~**11** Notwithstanding the provisions of ~~9~~**10**, the confirmation of a ship complying with the requirements of **3.2.2-6(1)** and **(2)** in **Part 3 of the Rules** in every condition as given by the following **(1)** to **(5)**, may be regarded as a ship complying with the intact stability requirements under the worst possible conditions of cargo and ballast loading during the liquid transfer operations as required in **3.2.2-6 in Part 3 of the Rules**. Sufficient and appropriately varied steps between all limits as given in the following **(1)**, **(3)** and **(4)** are to be examined to ensure that the worst conditions are identified. For the draughts as specified in **(1)**, a minimum of 20 steps for the range of cargo and ballast content, between 1% and 99% of total capacity, is to be examined. Where deemed necessary by the Society, more closely spaced steps near critical parts of the range may be required.

(1) Draught
The draughts are to be varied between light ballast and scantling draft.

(2) Consumables such as fuel oil, diesel oil and fresh water
Consumables corresponding to 97%, 50% and 10% content are to be considered.

(3) Ballast and Cargoes
For each draught as specified in **(1)** and variation of consumables as specified in **(2)**, the available deadweight is to comprise ballast water and cargo, such that combinations between maximum ballast and minimum cargo and vice-versa, are to be covered. In all cases the number of ballast and cargo tanks loaded is to be chosen to reflect the worst combination of vertical centre of gravity and free surface effects. Operational limits on the number of tanks considered to be simultaneously slack and exclusion of specific tanks are not permitted. All ballast tanks are to have at least 1% content.

(4) Cargo densities
Cargo densities between the lowest and highest intended to be carried are to be considered.

(5) Weights, centre of gravity and free surface moment
Weight, centre of gravity co-ordinates and free surface moment for all tanks should be according to the actual content considered in the calculations.

~~11~~**12** "The information for intact stability during the liquid transfer operations as deemed appropriate by the Society" specified in **3.2.2-7 of the Rules** means the clear and concise instructions covering the operational restrictions and procedures necessary to ensure the compliance with the intact stability criteria during liquid transfer operations required in **3.2.2-6(1)** and **(2) of the Rules**, and :

(1) is in understandable language by the officer-in-charge of liquid transfer operations;

(2) requires no extensive mathematical stability calculation by the officer-in-charge of liquid transfer operations ;

(3) indicates the maximum number of cargo and ballast tanks which may be slack under any condition of liquid transfer;

(4) provides the pre-planned sequences of cargo/ballast transfer operation; which indicate the cargo and ballast tanks which may be slack to satisfy the stability criteria under any specific condition of liquid transfer, including possible range of cargo density, where the slack tanks may vary during stages of the transfer operations and be any combination which satisfies the stability criteria;

(5) provides instructions for procedures, in addition to sequences specified in **(4)**, in case when liquid transfer operations are carried out by comparisons of attained and required stability by using stability criteria in graphical or tabular form; and for procedure by using the loading instrument, if any; and

(6) provides for corrective actions to be taken by the officer-in-charge in case of unexpected technical difficulties with the pre-planed transfer operations specified in **(4)**, and in case of

emergency situation.

~~12~~13 The wording "performance standards recommended by the *IMO*" specified in **3.2.2-8, Part 3 of the Rules** refers to the following **(1)** to **(3)**:

(1) Chapter 4, Part B of *IMO resolution MSC*.267(85) "*International Code on Intact Stability, 2008* (*2008 IS Code*)"

(2) Section 4, Annex to "*Guidelines for the Approval of Stability Instruments*" (*MSC*.1/*Circ*.1229)

(3) The technical standards provided in Part 1 of "*Guidelines for Verification of Damage Stability Requirements for tankers*" (*MSC*.1/*Circ*.1461)

~~13~~14 In applying the requirements in **3.2.2-11, Part 3 of the Rules**, reference is to be made to the operational guidance provided in Part 2 of "*Guidelines for Verification of Damage Stability Requirements for Tankers*" (*MSC*.1/*Circ*.1461).

EFFECTIVE DATE AND APPLICATION (Amendment 2-2)

1. The effective date of the amendments is 1 January 2020.

2. Notwithstanding the amendments to the Guidance, the current requirements apply to ships other than ships that fall under the following:

(1) for which the contract for construction*[1] is placed on or after the effective date; or

(2) in the absence of a contract for construction, the keels of which are laid or which are at *a similar stage of construction* on or after 1 July 2020; or

(Note) The term "*a similar stage of construction*" means the stage at which the construction identifiable with a specific ship begins and the assembly of that ship has commenced comprising at least 50 *tonnes* or 1%*[2] of the estimated mass of all structural material, whichever is the less.

(3) the delivery of which is on or after 1 January 2024.

*[1] "contract for construction" is defined in the latest version of IACS Procedural Requirement (PR) No.29.

*[2] For high speed craft, "1%" is to be read as "3%".

IACS PR No.29 (Rev.0, July 2009)

1. The date of "contract for construction" of a vessel is the date on which the contract to build the vessel is signed between the prospective owner and the shipbuilder. This date and the construction numbers (i.e. hull numbers) of all the vessels included in the contract are to be declared to the classification society by the party applying for the assignment of class to a newbuilding.

2. The date of "contract for construction" of a series of vessels, including specified optional vessels for which the option is ultimately exercised, is the date on which the contract to build the series is signed between the prospective owner and the shipbuilder.

For the purpose of this Procedural Requirement, vessels built under a single contract for construction are considered a "series of vessels" if they are built to the same approved plans for classification purposes. However, vessels within a series may have design alterations from the original design provided:

(1) such alterations do not affect matters related to classification, or

(2) If the alterations are subject to classification requirements, these alterations are to comply with the classification requirements in effect on the date on which the alterations are contracted between the prospective owner and the shipbuilder or, in the absence of the alteration contract, comply with the classification requirements in effect on the date on which the alterations are submitted to the Society for approval.

The optional vessels will be considered part of the same series of vessels if the option is exercised not later than 1 year after the contract to build the series was signed.

3. If a contract for construction is later amended to include additional vessels or additional options, the date of "contract for construction" for such vessels is the date on which the amendment to the contract, is signed between the prospective owner and the shipbuilder. The amendment to the contract is to be considered as a "new contract" to which **1.** and **2.** above apply.

4. If a contract for construction is amended to change the ship type, the date of "contract for construction" of this modified vessel, or vessels, is the date on which revised contract or new contract is signed between the Owner, or Owners, and the shipbuilder.

Note:
This Procedural Requirement applies from 1 July 2009.

Amendment 2-3

Part 3 CONSTRUCTION AND EQUIPMENT FOR THE PREVENTION OF POLLUTION BY OIL

Chapter 3 CONSTRUCTION AND EQUIPMENT FOR THE PREVENTION OF POLLUTION BY OIL CARRIED IN BULK

3.4 Crude Oil Washing System

3.4.2 Piping Arrangements for Crude Oil Washing System

Sub-paragraph (6) has been amended as follows.

For the purpose of the requirements of **3.4.2 in Part 3 of the Rules**, the following requirements **(1)** through **(7)** are to be complied with:
((1) to (5) are omitted.)
(6)

(a) A slip-on joint complying with the requirements specified in **12.3.3** and **13.2.4**, **Part D of Rules for the Survey and Construction of Steel Ships** may be used as the expansion joint of the *COW* system.
(b) The remotest end of the washing crude oil supply main from the source of supply may be secured by placing a support base as shown in **Fig. 3.3.4-3(1)**.
(c) When the expansion joint is arranged as shown in **Fig. 3.3.4-3(2)**, and the support base marked △ at the branch line is considered to be sufficient against the thrust acting caused by the supply main the pipe end arrangement on the supply main, may be of an appropriate anchor system.
(d) In securing the washing crude supply branch pipe end with utilizing a crude washing machine, the procedure is to be as shown in **Fig. 3.3.4-3(3)**.

((7) is omitted.)

EFFECTIVE DATE AND APPLICATION (Amendment 2-3)

1. The effective date of the amendments is 1 January 2020.

2. Notwithstanding the amendments to the Guidance, the current requirements apply to ships for which the date of contract for construction* is before the effective date.

* "contract for construction" is defined in the latest version of IACS Procedural Requirement (PR) No.29.

IACS PR No.29 (Rev.0, July 2009)

1. The date of "contract for construction" of a vessel is the date on which the contract to build the vessel is signed between the prospective owner and the shipbuilder. This date and the construction numbers (i.e. hull numbers) of all the vessels included in the contract are to be declared to the classification society by the party applying for the assignment of class to a newbuilding.

2. The date of "contract for construction" of a series of vessels, including specified optional vessels for which the option is ultimately exercised, is the date on which the contract to build the series is signed between the prospective owner and the shipbuilder.

For the purpose of this Procedural Requirement, vessels built under a single contract for construction are considered a "series of vessels" if they are built to the same approved plans for classification purposes. However, vessels within a series may have design alterations from the original design provided:

(1) such alterations do not affect matters related to classification, or

(2) If the alterations are subject to classification requirements, these alterations are to comply with the classification requirements in effect on the date on which the alterations are contracted between the prospective owner and the shipbuilder or, in the absence of the alteration contract, comply with the classification requirements in effect on the date on which the alterations are submitted to the Society for approval.

The optional vessels will be considered part of the same series of vessels if the option is exercised not later than 1 year after the contract to build the series was signed.

3. If a contract for construction is later amended to include additional vessels or additional options, the date of "contract for construction" for such vessels is the date on which the amendment to the contract, is signed between the prospective owner and the shipbuilder. The amendment to the contract is to be considered as a "new contract" to which **1.** and **2.** above apply.

4. If a contract for construction is amended to change the ship type, the date of "contract for construction" of this modified vessel, or vessels, is the date on which revised contract or new contract is signed between the Owner, or Owners, and the shipbuilder.

Note:
This Procedural Requirement applies from 1 July 2009.

Amendment 2-4

Part 8 EQUIPMENT FOR THE PREVENTION OF AIR POLLUTION FROM SHIPS

Chapter 1 GENERAL

1.1 General

Paragraph 1.1.1 has been added as follows.

1.1.1 General (*Regulation*1 and 3 of *Annex* VI)

The wording "ships" in **1.1.1-1, Part 8 of the Rules** means a vessel of any type whatsoever operating in the marine environment and includes hydrofoil boats, air-cushion vehicles, submersibles, floating craft and fixed or floating platforms.

1.2 General Requirement

Paragraph 1.2.1 has been amended as follows.

1.2.1 Ozone Depleting Substances (*Regulation*12 of *Annex* VI)

1 ~~The wording "where deemed appropriate by the Society" in~~ Even for ships in which it is acceptable to install ozone depleting substances by **1.2.1, Part 8 of the Rules** ~~means one of those listed bellow. Even in those cases~~, the requirement specified in **10.4.1-3, Part R of the Rules for the Survey and Construction of Steel Ships** is to be complied with.

~~(1) In case system, etc. containing ozone depleting substances of which the contractual delivery date to the shipyard or, in the absence of the contractual delivery date, the actual delivery date to the shipyard is before 19 May 2005 is installed on a ship which had been at beginning stage of construction before 19 May 2005.~~

~~(2) In case system, etc. containing hydro-chlorofluorocarbons (HCFCs) of which the contractual delivery date to the shipyard or, in the absence of the contractual delivery date, the actual delivery date to the shipyard is before 1 January 2020 is installed on a ship which had been at beginning stage of construction before 1 January 2020.~~

~~(3) In case repair or recharge is carried out to the system, etc. or installed on a ship in accordance with **(1)** or **(2)**.~~

~~(4) In cases where systems, etc. containing ozone depleting substances that are installed on ships are permanently sealed equipment where there are no refrigerant charging connections or potentially removable components containing ozone depleting substances.~~

~~**2** Each ship, in accordance with **-1.(1)** or **-1.(2)**, is to maintain a list of equipment containing ozone depleting substances.~~

~~**3** Each ship, in accordance with **-1.(1)** or **-1.(2),** which has rechargeable systems that contain ozone depleting substances is to maintain an Ozone Depleting Substances Record Book of which entries are to be recorded in terms of substance mass and to be completed without delay on each occasion, in respect of the following **(1)** through **(5)**. This Record Book may form part of an existing log-book or electronic recording system as approved by the Administration.~~

~~(1) Recharge, full or partial, of equipment containing ozone depleting substances~~

~~(2) Repair or maintenance of equipment containing ozone depleting substances~~

~~(3) Deliberate and non-deliberate discharge of ozone depleting substances into the atmosphere~~
~~(4) Discharge of ozone depleting substances to land-based reception facilities~~
~~(5) Supply of ozone depleting substances to the ship~~

Chapter 2 EQUIPMENT FOR THE PREVENTION OF AIR POLLUTION FROM SHIPS

2.1 Nitrogen Oxides (NOx) (*Regulation*13 of *Annex* VI)

2.1.2 Requirements for Installation

Sub-paragraph -1(1) has been amended as follows.

1 Major conversion of a diesel engine is to be accordance with following:

(1) The wording "time of the replacement or addition" of the diesel engine~~"~~ specified in **2.1.2-1(2), Part 8 of the Rules** means any of the date following **(a)** to **(c)**:

(a) The contractual delivery date of the engine to the ship. However, the engine is to be fitted on board and tested ~~before 1 July 2016~~ within six (6) months after the date specified in **2.1.2-1(1)(c)i)** to **iii)**, **Part 8 of the Rules**, as appropriate.

(b) In the absence of a contractual delivery date, the actual delivery date of the engine to the ship, provided that the date is confirmed by a delivery receipt. However, the engine is to be fitted on board and tested ~~before 1 July 2016~~ within six (6) months after the date specified in **2.1.2-1(1)(c)i)** to **iii)**, **Part 8 of the Rules**, as appropriate.

(c) In the event the engine is fitted on board and tested for its intended purpose on or after ~~1~~ ~~July 2016~~ 6 months from the date specified in **2.1.2-1(1)(c)i)** to **iii)**, **Part 8 of the Rules** as appropriate, the actual date that the engine is tested on board.

Entry of the date in **(a)** to **(c)** above, provided the conditions associated with those dates apply, is to be made in the item 8.a "Major conversion – According to Reg. 13.2.1.1 &13.2.2" of the IAPP Certificate Supplement.

If the engine is not tested within six (6) months after the date specified in **2.1.2-1(1)(c)i)** to **iii)**, **Part 8 of the Rules** as appropriate due to unforeseen circumstances beyond the control of the ship owner, then the provisions of "unforeseen delay in delivery" may be considered by the Administration in a manner similar to MARPOL Annex I UI6.

((2) and (3) are omitted.)

EFFECTIVE DATE AND APPLICATION (Amendment 2-4)

1. The effective date of the amendments is 1 January 2020.

Amendment 2-5

Part 8 EQUIPMENT FOR THE PREVENTION OF AIR POLLUTION FROM SHIPS

Chapter 1 GENERAL

1.2 General Requirement

Paragraph 1.2.2 has been amended as follows.

1.2.2 Use and Carriage of Fuel Oil (*Regulation* ~~3,~~ 14 ~~and 18~~ of *Annex* VI)

~~1~~ In applying **1.1.3, Part 8 of the Rules** and **-1** or **-2** of **1.2.2~~-1(1)~~, Part 8 of the Rules**, in cases where an exhaust gas cleaning system is used as an "alternative" to the use of fuel oil whose sulphur content is equal to or below ~~specified limits~~ 0.50% *m*/*m* or 0.10% *m*/*m*, such an exhaust gas cleaning system is to comply with the requirements of *IMO* resolution *MEPC*.259(68) or others deemed appropriate by the Administration taking into account said resolution.

1.2.3 Delivery of Fuel Oil and Bunker Delivery Notes (*Regulation* 18 of *Annex* VI)

1 The "ship deemed necessary by the Society" referred to **1.2.3-2, Part 8 of the Rules** means all ships of 400 *gross tonnage* or above and, at the Administration's discretion, ships of less than 400 *gross tonnage*.

2 The wording "obtained in a way deemed appropriate by the Society" and "retained on board the ship in a way deemed appropriate by the Society" in ~~**1.2.2-3**~~**1.2.3-4, Part 8 of the Rules** mean that to be obtained in accordance with *IMO* resolution *MEPC*.182(59) and to be retained on board the ship in accordance with the resolution accompanied with the label of the sample~~, written in English, French or Spanish,~~ required in the resolution respectively.

Chapter 2 EQUIPMENT FOR THE PREVENTION OF AIR POLLUTION FROM SHIPS

Section 2.2 has been deleted.

~~**2.2 Sulphur Oxides (SOx) and Particulate Matter** (*Regulation* 14 *of Annex* VI)~~

~~In applying **1.1.3, Part 8 of the Rules** and **2.2-1, Part 8 of the Rules**, in cases where an exhaust gas cleaning system is used as an "alternative" to the use of fuel oil whose sulphur content is equal to or below specified limits, such an exhaust gas cleaning system is to comply with the requirements of *IMO* resolution *MEPC*.259(68) or others deemed appropriate by the Administration taking into account said resolution.~~

EFFECTIVE DATE AND APPLICATION (Amendment 2-5)

1. The effective date of the amendments is 1 March 2020.