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## **UNIFIED INTERPRETATIONS TO MARPOL ANNEX VI**

1 The Marine Environment Protection Committee, at its eighty-first session (17 to 22 March 2024), approved unified interpretations to regulations 2.2.15 and 2.2.18 of MARPOL Annex VI, in order to provide clarity concerning:

- .1 the definition of "heavy load carrier" within the definition of "general cargo ship"; and
- .2 the applicable dates for the different ship types for the calculation of the required EEDI under each EEDI Phase.

2 The consolidated text of all existing unified interpretations to MARPOL Annex VI, listed in numerical order of interpreted regulations in MARPOL Annex VI, is set out in the annex.

3 Member Governments are invited to apply the annexed unified interpretations to MARPOL Annex VI, as appropriate, and bring them to the attention of all Parties concerned.

4 This circular revokes MEPC.1/Circ.795/Rev.8.

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## ANNEX

### UNIFIED INTERPRETATIONS TO MARPOL ANNEX VI

#### 1 Definition of "heavy load carrier"

##### Regulation 2

##### Definitions

Regulation 2.2.15 reads as follows:

"*General cargo ship* means a ship with a multi-deck or single deck hull designed primarily for the carriage of general cargo. This definition excludes specialized dry cargo ships, which are not included in the calculation of reference lines for general cargo ships, namely livestock carrier, barge carrier, heavy load carrier, yacht carrier, nuclear fuel carrier."

##### **Interpretation:**

1.1 The following are considered as a "heavy load carrier":

- .1 heavy load deck carriers<sup>1</sup>;
- .2 semi-submersible project cargo carriers;
- .3 semi-submersible heavy load deck carriers (including dock lift ships);
- .4 heavy lift multi-purpose ships (see paragraph 1.2 below);
- .5 premium project carriers (see paragraph 1.2 below); and
- .6 project cargo carriers (see paragraph 1.3 below).

1.2 Heavy lift multi-purpose ships and premium project carriers should fulfil the adapted criterion of "ships engaged in lifting operations" contained in regulation 2.3 of the International Code on Intact Stability, 2008 (2008 IS Code), as amended by resolution MSC.443(99), and comply as follows:

$$SWL \times Outreach \geq 0.67 \times Displacement \times (D - T) / B$$

where:

SWL = maximum safe working load of crane of one single crane;

Outreach = outreach from turning axis of crane;

Displacement = displacement of vessel at draft  $T$ ;

$T$  = freeboard draft;

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<sup>1</sup> Ships, which do not feature a cargo hold and carry project cargo on a flat deck; not fitted with cargo coamings/chutes/tippers.

$B$  = moulded breadth of the vessel measured amidships at draft  $T$ ;

$D$  = depth for freeboard.

1.3 For project cargo carriers with or without cargo gear, the Administration may base its decision on a design and operation-specific application compiled by the owner/company.

## 2 Major conversion

### Regulation 2

#### Definitions

Regulation 2.2.17 reads as follows:

"*Major conversion* means in relation to chapter 4 of this Annex a conversion of a ship:

- .1 which substantially alters the dimensions, carrying capacity or engine power of the ship; or
- .2 which changes the type of the ship; or
- .3 the intent of which in the opinion of the Administration is substantially to prolong the life of the ship; or
- .4 which otherwise so alters the ship that, if it were a new ship, it would become subject to relevant provisions of the present Convention not applicable to it as an existing ship; or
- .5 which substantially alters the energy efficiency of the ship and includes any modifications that could cause the ship to exceed the applicable required EEDI as set out in regulation 24 of this Annex or the applicable required EEXI as set out in regulation 25 of this Annex."

#### **Interpretation:**

2.1 For regulation 2.2.17.1, any substantial change in hull dimensions and/or capacity (e.g. change of length between perpendiculars ( $L_{PP}$ ) or change of assigned freeboard) should be considered a major conversion. Any substantial increase of total engine power for propulsion (e.g. 5% or more) should be considered a major conversion. In any case, it is the Administration's authority to evaluate and decide whether an alteration should be considered a major conversion, consistent with chapter 4.

**Note:** Notwithstanding paragraph 2.1, assuming no alteration to the ship structure, both decrease of assigned freeboard and temporary increase of assigned freeboard due to the limitation of deadweight or draft at calling port should not be construed as a major conversion. However, an increase of assigned freeboard, except a temporary increase, should be construed as a major conversion.

2.2 Notwithstanding paragraph 2.1, for regulation 2.2.17.5, the effect on Attained EEDI as a result of any change of ships' parameters, particularly any increase in total engine power for propulsion, should be investigated. In any case, it is the Administration's authority to evaluate and decide whether an alteration should be considered a major conversion, consistent with chapter 4.

2.3 A company may, at any time, voluntarily request re-certification of the EEDI, with IEE Certificate reissuance, on the basis of any new improvements to the ships' efficiency that are not considered to be major conversions.

2.4 In regulation 2.2.17.4, the terms "new ship" and "existing ship" should be understood as they are used in MARPOL Annex I, regulation 1.9.1.4, rather than as the defined terms in regulations 2.2.13 and 2.2.18.

2.5 The term "a ship" referred to in regulation 5.4.2 is interpreted as "new ship".

### **3 Definition of "new ship" for calculation of the required EEDI**

#### **Regulation 2**

##### *Definitions*

Regulation 2.2.18 reads as follows:

*"New ship* means a ship:

- .1 for which the building contract is placed on or after 1 January 2013; or
- .2 in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction on or after 1 July 2013; or
- .3 the delivery of which is on or after 1 July 2015."

##### ***Interpretation:***

3.1 For the application of the definition "new ship" as specified in regulation 2.2.18 to each Phase specified in table 1 of regulation 24, it should be interpreted as follows:

- .1 the date specified in regulation 2.2.18.1 should be replaced with the start date of each Phase;
- .2 the date specified in regulation 2.2.18.2 should be replaced with the date six months after the start date and end date of each Phase; and
- .3 the date specified in regulation 2.2.18.3 should, for Phases 1, 2 and 3, be replaced with the date 48 months after the start date and end date of each Phase.

3.2 With the above interpretations, the required EEDI of each phase is applied to the following new ship to which chapter 4 is applicable:

- .1 the required EEDI of Phase 0 is applied to the following new ship which falls into one of the categories defined in regulations 2.2.5, 2.2.7, 2.2.9, 2.2.14, 2.2.15, 2.2.22 and 2.2.29:
  - .1 the building contract of which is placed in Phase 0, and the delivery is before 1 January 2019; or
  - .2 the building contract of which is placed before Phase 0, and the delivery is on or after 1 July 2015 and before 1 January 2019; orin the absence of a building contract:

- .3 the keel of which is laid or which is at a similar stage of construction on or after 1 July 2013 and before 1 July 2015, and the delivery is before 1 January 2019; or
- .4 the keel of which is laid or which is at a similar stage of construction before 1 July 2013, and the delivery is on or after 1 July 2015 and before 1 January 2019;
- .2 the required EEDI of Phase 1 is applied to the following new ship which falls into one of the categories defined in regulations 2.2.5, 2.2.7, 2.2.9, 2.2.11, 2.2.14, 2.2.15, 2.2.16, 2.2.22, 2.2.26, 2.2.27, 2.2.28 and 2.2.29:
  - .1 for ship types where Phase 1 commences on 1 January 2015:
    - .1 the building contract of which is placed in Phase 1, and the delivery is before 1 January 2024; or
    - .2 the building contract of which is placed before Phase 1, and the delivery is on or after 1 January 2019 and before 1 January 2024; orin the absence of a building contract:
    - .3 the keel of which is laid or which is at a similar stage of construction on or after 1 July 2015 and before 1 July 2020, and the delivery is before 1 January 2024; or
    - .4 the keel of which is laid or which is at a similar stage of construction before 1 July 2015, and the delivery is on or after 1 January 2019 and before 1 January 2024;
  - .2 for ship types where Phase 1 commences on 1 September 2015:
    - .1 the building contract of which is placed in Phase 1, and the delivery is before 1 January 2024; or
    - .2 the building contract of which is placed before Phase 1, and the delivery is on or after 1 September 2019 and before 1 January 2024; orin the absence of a building contract:
    - .3 the keel of which is laid or which is at a similar stage of construction on or after 1 March 2016 and before 1 July 2020, and the delivery is before 1 January 2024; or
    - .4 the keel of which is laid or which is at a similar stage of construction before 1 March 2016, and the delivery is on or after 1 September 2019 and before 1 January 2024;
- .3 the required EEDI of Phase 2 is applied to the following new ship which falls into one of the categories defined in regulations 2.2.5, 2.2.7, 2.2.9, 2.2.11, 2.2.14, 2.2.15, 2.2.16, 2.2.22, 2.2.26, 2.2.27, 2.2.28, and 2.2.29:
  - .1 for ship types where Phase 2 ends on 31 March 2022:

- .1 the building contract of which is placed in Phase 2, and the delivery is before 1 April 2026; or
- .2 the building contract of which is placed before Phase 2, and the delivery is on or after 1 January 2024 and before 1 April 2026; or

in the absence of a building contract:

- .3 the keel of which is laid or which is at a similar stage of construction on or after 1 July 2020 and before 1 October 2022, and the delivery is before 1 April 2026; or
- .4 the keel of which is laid or which is at a similar stage of construction before 1 July 2020, and the delivery is on or after 1 January 2024 and before 1 April 2026;

.2 for ship types where Phase 2 ends on 31 December 2024:

- .1 the building contract of which is placed in Phase 2, and the delivery is before 1 January 2029; or
- .2 the building contract of which is placed before Phase 2, and the delivery is on or after 1 January 2024 and before 1 January 2029; or

in the absence of a building contract:

- .3 the keel of which is laid or which is at a similar stage of construction on or after 1 July 2020 and before 1 July 2025, and the delivery is before 1 January 2029; or
- .4 the keel of which is laid or which is at a similar stage of construction before 1 July 2020, and the delivery is on or after 1 January 2024 and before 1 January 2029;

.4 the required EEDI of Phase 3 is applied to the following new ship which falls into one of the categories defined in regulations 2.2.5, 2.2.7, 2.2.9, 2.2.11, 2.2.14, 2.2.15, 2.2.16, 2.2.22, 2.2.26, 2.2.27, 2.2.28 and 2.2.29:

.1 for ship types where Phase 3 commences with 1 April 2022 and onwards:

- .1 the building contract of which is placed in Phase 3; or
- .2 the building contract of which is placed before Phase 3, and the delivery is on or after 1 April 2026; or

in the absence of a building contract:

- .3 the keel of which is laid or which is at a similar stage of construction on or after 1 October 2022; or

- .4 the keel of which is laid or which is at a similar stage of construction before 1 October 2022 and the delivery of which is on or after 1 April 2026;
  - .2 for ship types where Phase 3 commences with 1 January 2025 and onwards:
    - .1 the building contract of which is placed in Phase 3; or
    - .2 the building contract of which is placed before Phase 3, and the delivery is on or after 1 January 2029; or
- in the absence of a building contract:
- .3 the keel of which is laid or which is at a similar stage of construction on or after 1 July 2025; or
  - .4 the keel of which is laid or which is at a similar stage of construction before 1 July 2025 and the delivery of which is on or after 1 January 2029.

#### **4 Ships dedicated to the carriage of fruit juice in refrigerated cargo tanks**

##### **Regulation 2**

###### *Definitions*

Regulation 2.2.22 reads as follows:

*"Refrigerated cargo carrier means a ship designed exclusively for the carriage of refrigerated cargoes in holds."*

###### ***Interpretation:***

Ships dedicated to the carriage of fruit juice in refrigerated cargo tanks should be categorized as refrigerated cargo carriers.

#### **5 Timing for existing ships to have a SEEMP on board**

##### **Regulation 5**

###### *Surveys*

Regulation 5.4.4 reads as follows:

*"For existing ships, the verification of the requirement to have a SEEMP on board according to regulation 26 of this Annex shall take place at the first intermediate or renewal survey identified in paragraph 1 of this regulation, whichever is the first, on or after 1 January 2013."*

##### **Regulation 6**

###### *Issue or endorsement of Certificates and Statements of Compliance related to fuel oil consumption reporting and operational carbon intensity rating*

Regulation 6.4 reads as follows:



"An International Energy Efficiency Certificate for the ship shall be issued after a survey in accordance with the provisions of regulation 5.4 of this Annex to any ship of 400 gross tonnage and above before that ship may engage in voyages to ports or offshore terminals under the jurisdiction of other Parties."

## **Regulation 26**

### *Ship Energy Efficiency Management Plan (SEEMP)*

Regulation 26.1 reads as follows:

"Each ship shall keep on board a ship specific Ship Energy Efficiency Management Plan (SEEMP). This may form part of the ship's Safety Management System (SMS)."

### ***Interpretation:***

5.1 The International Energy Efficiency Certificate (IEEC) should be issued for both new and existing ships to which chapter 4 applies. Ships which are not required to keep a SEEMP on board are not required to be issued with an IEEC.

5.2 The SEEMP required by regulation 26.1 is not required to be placed on board an existing ship to which this regulation applies until the verification survey specified in regulation 5.4.4 is carried out.

5.3 For existing ships, a SEEMP required in accordance with regulation 26 should be verified on board according to regulation 5.4.4, and an IEEC should be issued, not later than the first intermediate or renewal survey, in accordance with chapter 2, whichever is earlier, on or after 1 January 2013, i.e. a survey connected to an intermediate/renewal survey of the IAPP Certificate.

5.4 The intermediate or renewal survey referenced in paragraph 5.3 relates solely to the timing of the verification of the SEEMP on board, i.e. these IAPP Certificate survey windows will also become the IEEC initial survey date for existing ships. The SEEMP is, however, a survey item solely under chapter 4 and is not a survey item relating to IAPP Certificate surveys.

5.5 In the event that the SEEMP is not available on board during the first intermediate/renewal survey of the IAPP Certificate on or after 1 January 2013, the RO should seek the advice of the Administration concerning the issuance of an IEEC and be guided accordingly. However, the validity of the IAPP Certificate is not impacted by the lack of a SEEMP as the SEEMP is a survey item solely under chapter 4 and not under the IAPP Certificate surveys.

5.6 With respect to ships required to keep on board a SEEMP, such ships exclude platforms (including FPSOs and FSUs) and drilling rigs, regardless of their propulsion, and any other ship without means of propulsion.

5.7 The SEEMP should be written in a working language or languages understood by ships' personnel.

## **6 Confirmation of compliance for new ships**

### **Regulation 5**

#### *Surveys*

Regulation 5.4.5 reads as follows:

"The Administration shall ensure that for each ship to which regulation 27 applies, the SEEMP complies with regulation 26.2 of this Annex. This shall be done prior to collecting data under regulation 27 of this Annex in order to ensure the methodology and processes are in place prior to the beginning of the ship's first reporting period. Confirmation of compliance shall be provided to and retained on board the ship."

**Regulation 26**

*Ship Energy Efficiency Management Plan (SEEMP)*

Regulation 26.2 reads as follows:

"In the case of a ship of 5,000 gross tonnage and above, the SEEMP shall include a description of the methodology that will be used to collect the data required by regulation 27.1 of this Annex and the processes that will be used to report the data to the ship's Administration."

**Interpretation:**

Ships should keep on board both a SEEMP that is in compliance with regulation 26.2 and confirmation of compliance as required by regulation 5.4.5.

**7 Section 2.3 of the supplement to the IAPP Certificate**

**Regulation 8**

*Form of Certificates and Statements of Compliance related to fuel oil consumption reporting and operational carbon intensity rating*

Regulation 8.1 reads as follows:

"The International Air Pollution Prevention Certificate shall be drawn up in a form corresponding to the model given in appendix I to this Annex and shall be at least in English, French or Spanish. If an official language of the issuing country is also used, this shall prevail in case of a dispute or discrepancy."

**Appendix I**

*Form of International Air Pollution Prevention (IAPP) Certificate (Regulation 8)*

Section 2.3 of the supplement to the International Air Pollution Prevention Certificate reads as follows:

- "2.3 Sulphur oxides (SO<sub>x</sub>) and particulate matter (regulation 14).
  - 2.3.1 When the ship operates outside of an emission control area specified in regulation 14.3, the ship uses:
    - .1 fuel oil with a sulphur content as documented by bunker delivery notes that does not exceed the limit value of 0.50% m/m, and/or .....□
    - .2 an equivalent arrangement approved in accordance with regulation 4.1 as listed in paragraph 2.6 that is at least as effective in terms of SO<sub>x</sub> emission reductions as compared to using a fuel oil with a sulphur content limit value of 0.50% m/m .....□

- 2.3.2 When the ship operates inside an emission control area specified in regulation 14.3, the ship uses:
- .1 fuel oil with a sulphur content as documented by bunker delivery notes that does not exceed the limit value of 0.10% m/m, and/or .....
  - .2 an equivalent arrangement approved in accordance with regulation 4.1 as listed in paragraph 2.6 that is at least as effective in terms of SO<sub>x</sub> emission reductions as compared to using a fuel oil with a sulphur content limit value of 0.10% m/m .....
- 2.3.3 For a ship without an equivalent arrangement approved in accordance with regulation 4.1 as listed in paragraph 2.6, the sulphur content of fuel oil carried for use on board the ship shall not exceed 0.50% m/m as documented by bunker delivery notes .....

**Interpretation:**

Section 2.3 of the Supplement ("as documented by bunker delivery notes") allows for an "x" to be entered in advance of the dates indicated in all of the relevant check boxes recognizing that the bunker delivery notes, required to be retained on board for a minimum period of three years, provide the subsequent means to check that a ship is actually operating in a manner consistent with the intent as given in section 2.3.

**8 Inclusion of the annual operational CII and rating in the Statement of Compliance**

**Regulation 8**

*Form of Certificates and Statements of Compliance related to fuel oil consumption reporting and operational carbon intensity rating*

Regulation 8.3 reads as follows:

"The Statement of Compliance pursuant to regulations 6.6 and 6.7 of this Annex shall be drawn up in a form corresponding to the model given in appendix X to this Annex and shall be at least in English, French or Spanish. If an official language of the issuing Party is also used, this shall prevail in case of a dispute or discrepancy."

**Interpretation:**

The Statement of Compliance form given in appendix X of MARPOL Annex VI has been updated to include the attained annual operational CII and the rating for ships to which regulation 28 applies. The new form should be used from the entry into force date (1 November 2022); however, the new parts for the attained CII and rating will not be populated until 2024 when the relevant values are available.

## 9 Identical replacement engines

### Regulation 13

#### *Nitrogen oxides (NO<sub>x</sub>)*

Regulation 13.1.1.2 reads as follows:

"Each marine diesel engine with a power output of more than 130 kW that undergoes a major conversion on or after 1 January 2000 except when demonstrated to the satisfaction of the Administration that such engine is an identical replacement to the engine that it is replacing and is otherwise not covered under paragraph 1.1.1 of this regulation."

Regulation 13.2.2 reads as follows:

"For a major conversion involving the replacement of a marine diesel engine with a non-identical marine diesel engine or the installation of an additional marine diesel engine, the standards in this regulation at the time of the replacement or addition of the engine shall apply."

#### ***Interpretation:***

9.1 In regulation 13.1.1.2, the term "identical" (and hence, by application of the converse, in regulation 13.2.2 the term "non-identical") as applied to engines under regulation 13 should be taken as:

9.2 An "identical engine" is, as compared to the engine being replaced,<sup>2</sup> an engine which is of the same:

- .1 design and model;
- .2 rated power;
- .3 rated speed;
- .4 use;
- .5 number of cylinders; and
- .6 fuel system type (including, if applicable, injection control software):

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<sup>2</sup> In those instances where the replaced engine will not be available to be directly compared with the replacing engine at the time of updating the Supplement to the IAPP Certificate reflecting that engine change, it is to be ensured that the necessary records in respect of the replaced engine are available in order that it can be confirmed that the replacing engine represents "an identical engine".

- .1 for engines without EIAPP certification, have the same NO<sub>x</sub> critical components and settings;<sup>3</sup> or
- .2 for engines with EIAPP certification, belonging to the same Engine Group/Engine Family.

## 10 Time of replacement of an engine

### Regulation 13

#### *Nitrogen oxides (NO<sub>x</sub>)*

Regulation 13.2.2 reads as follows:

"For a major conversion involving the replacement of a marine diesel engine with a non-identical marine diesel engine, or the installation of an additional marine diesel engine, the standards in this regulation at the time of the replacement or addition of the engine shall apply."

#### ***Interpretation:***

10.1 The term "time of the replacement or addition" of the engine in regulation 13.2.2 should be taken as the date of:

- .1 the contractual delivery date of the engine to the ship;<sup>4</sup> or
- .2 in the absence of a contractual delivery date, the actual delivery date of the engine to the ship,<sup>3</sup> provided that the date is confirmed by a delivery receipt; or
- .3 in the event the engine is fitted on board and tested for its intended purpose on or after six months from the date specified in sub-paragraphs of regulation 13.5.1.2, as appropriate, the actual date that the engine is tested on board for its intended purpose applies in determining the standards in this regulation in force at the time of the replacement or addition of the engine.

10.2 Entry of the date in paragraph 10.1 above, provided the conditions associated with those dates apply, should be made in item 8.a "Major conversion – According to regulations 13.2.1.1 and 13.2.2" of the Supplement of IAPP Certificate.

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<sup>3</sup> For engines without EIAPP Certification there will not be the defining NO<sub>x</sub> critical component markings or setting values as usually given in the approved Technical File. Consequently, in these instances, the assessment of "... same NO<sub>x</sub> critical components and settings ..." shall be established on the basis that the following components and settings are the same:

Fuel system:

- .1 fuel pump model and injection timing; and
- .2 injection nozzle model.

Charge air:

- .1 configuration and, if applicable, turbocharger model and auxiliary blower specification; and
- .2 cooling medium (seawater/freshwater).

<sup>4</sup> The engine is to be fitted on board and tested for its intended purpose within six months after the date specified in sub-paragraphs of regulation 13.5.1.2, as appropriate.

10.3 If the engine is not tested within six months after the date specified in the sub-paragraphs of regulation 13.5.1.2, as appropriate due to unforeseen circumstances beyond the control of the shipowner, then the provisions of "unforeseen delay in delivery" may be considered by the Administration in a manner similar to UI4 of MARPOL Annex I.

## **11 Engine change-over/on-off recording requirements**

### **Regulation 13**

#### *Nitrogen oxides (NO<sub>x</sub>)*

Regulation 13.5.3 reads as follows:

"The tier and on/off status of marine diesel engines installed on board a ship to which paragraph 5.1 of this regulation applies which are certified to both Tier II and Tier III or which are certified to Tier II only shall be recorded in such logbook or electronic record book as prescribed by the Administration at entry into and exit from a NO<sub>x</sub> Tier III emission control area, or when the on/off status changes within such an area, together with the date, time and position of the ship."

#### ***Interpretation:***

For the application of this regulation:

- .1 "marine diesel engines installed on board a ship to which paragraph 5.1 of this regulation applies" includes additional or replaced engines;<sup>5</sup> installed on or after the relevant emission control area takes effect;
- .2 "certified to Tier II only" means a Tier II engine that is installed on board a ship which is constructed on or after the emission control area where the ship is operating takes effect;
- .3 Tier II engines stipulated under the Tier II requirement of regulation 13.4, i.e. Tier II engines installed on board a ship constructed before the entry into force of the emission control area where the ship is operating, are not considered to be a "Tier II only" engine in the context of record keeping. Such exclusion is extended to Tier II engines replaced after the entry into force of the relevant emission control areas on board ships of this category, if the replacement engines meet resolution MEPC.230(65);
- .4 if an engine installed on a ship constructed before the entry into force of the emission control area where the ship is operating has undergone a major conversion as described in regulation 13.2.1, those engines are to be Tier III engines; thus the above interpretation in .1 above applies; and
- .5 recording is required for the Tier II engine operation in a NECA under the exemption according to regulation 13.5.4.

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<sup>5</sup> Additional or replaced engine: refer to section 10.1 above.

## 12 Application of sulphur limit to emergency equipment

### Regulation 14

*Sulphur oxides (SO<sub>x</sub>) and particulate matter*

Regulation 14.1 reads as follows:

"The sulphur content of fuel oil used or carried for use on board a ship shall not exceed 0.50% m/m."

#### **Interpretation:**

Regulation 14.1 of MARPOL Annex VI for the prohibition on the carriage of non-compliant fuel oil should be applied to the fuel oil of emergency equipment.

## 13 VOC management plan

### Regulation 15

*Volatile organic compounds (VOCs)*

Regulations 15.6 and 15.7 read as follows:

- "6 A tanker carrying crude oil shall have on board and implement a VOC management plan approved by the Administration. Such a plan shall be prepared taking into account the guidelines developed by the Organization. The plan shall be specific to each ship and shall at least:
- .1 provide written procedures for minimizing VOC emissions during the loading, sea passage and discharge of cargo;
  - .2 give consideration to the additional VOC generated by crude oil washing;
  - .3 identify a person responsible for implementing the plan; and
  - .4 for ships on international voyages, be written in the working language of the master and officers and, if the working language of the master and officers is not English, French or Spanish, include a translation into one of these languages.
- 7 This regulation shall also apply to gas carriers only if the types of loading and containment systems allow safe retention of non-methane VOCs on board or their safe return ashore.<sup>6</sup>"

#### **Interpretation:**

The requirement for a VOC management plan applies only to a tanker carrying crude oil.

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<sup>6</sup> Resolution MSC.30(61) on *International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk*.

## **14 Continuous-feed type shipboard incinerators**

### **Regulation 16**

#### *Shipboard incineration*

Regulation 16.9 reads as follows:

"For incinerators installed in accordance with the requirements of paragraph 6.1 of this regulation the combustion chamber gas outlet temperature shall be monitored at all times the unit is in operation. Where that incinerator is of the continuous-feed type, waste shall not be fed into the unit when the combustion chamber gas outlet temperature is below 850°C. Where that incinerator is of the batch-loaded type, the unit shall be designed so that the combustion chamber gas outlet temperature shall reach 600°C within five minutes after start-up and will thereafter stabilize at a temperature not less than 850°C."

#### ***Interpretation:***

14.1 For the application of this regulation, the term "waste shall not be fed into the unit" should be interpreted as follows:

For continuous-feed incinerators solid waste shall not be fed into the unit when the combustion chamber flue gas outlet temperature is below 850°C. Sludge oil generated during normal operation of a ship should not be regarded as waste in connection with this regulation, and can be fed into the unit when the required preheat temperature of 650°C in the combustion chamber is achieved.

14.2 For the application of this regulation, the term "the unit shall be designed so that the combustion chamber gas outlet temperature shall reach 600°C within five minutes after start-up" should be interpreted as follows:

Batch loaded incinerators should be designed so that the temperature in the actual combustion space where the solid waste is combusted should reach 600°C within five minutes after start-up.

## **15 Application of regulation 18.3 for biofuel and synthetic fuel**

### **Regulation 18**

#### *Fuel oil availability and quality*

Regulation 18.3 reads as follows:

"Fuel oil for combustion purposes delivered to and used on board ships to which this Annex applies shall meet the following requirements."

#### ***Interpretation:***

15.1 A fuel oil which is a blend of not more than 30% by volume of biofuel or synthetic fuel should meet the requirements of regulation 18.3.1 of MARPOL Annex VI. A fuel oil which is a blend of more than 30% by volume of biofuel or synthetic fuel should meet the requirements of regulation 18.3.2 of MARPOL Annex VI. For the purposes of this interpretation, a biofuel is a fuel oil which is derived from biomass and hence includes, but is not limited to, processed used cooking oils, fatty-acid-methyl-esters (FAME) or fatty-acid-ethyl-esters (FAEE), straight vegetable oils (SVO), hydrotreated vegetable oils (HVO), glycerol or other biomass to liquid (BTL) type products. For the purposes of this interpretation, a synthetic fuel is a fuel oil from



synthetic or renewable sources similar in composition to petroleum distillate fuels. The Product Name, as entered onto the bunker delivery note, should be of sufficient detail to identify whether, and to what extent, a biofuel or a synthetic fuel is blended into the product as supplied.

Regulation 18.3.2.2 reads as follows:

"fuel oil for combustion purposes derived by methods other than petroleum refining shall not cause an engine to exceed the applicable NO<sub>x</sub> emission limit set forth in paragraphs 3, 4, 5.1.1 and 7.4 of regulation 13."

***Interpretation:***

15.2 A marine diesel engine certified in accordance with the requirements of regulation 13 of MARPOL Annex VI, which can operate on a biofuel or a synthetic fuel or blends containing these fuels without changes to its NO<sub>x</sub> critical components or settings/operating values outside those as given by that engine's approved Technical File, should be permitted to use such a fuel oil without having to undertake the assessment as given by regulation 18.3.2.2 of MARPOL Annex VI. For the purposes of this interpretation, parent engine emissions tests undertaken on DM or RM grade fuels to the ISO 8217:2005 standard, as required by paragraph 5.3.2 of the NO<sub>x</sub> Technical Code, should be valid for all DM or RM grade fuels used in operation, or that the engine may be designed for, or capable of operation on, including those meeting ISO 8217 standards superseding ISO 8217:2005.

15.3 Where fuel oils are derived from methods other than petroleum refining, or fuel oil which is a blend of more than 30% by volume of biofuel or synthetic fuel and does not fall under 15.2 of this unified interpretation, or other fuels required to undertake the assessment as given by regulation 18.3.2.2 of MARPOL Annex VI and for which have not been specifically certified in accordance with the regulation 13 limits at test bed for that specific fuel and Engine Group/Family, the following is interpreted as an acceptable route to demonstrate compliance with regulation 18.3.2.2:

The ship's IAPP Certificate may continue to be issued where the overall NO<sub>x</sub> emissions performance has been verified to not cause the specified engine to exceed the applicable NO<sub>x</sub> emissions limit when burning said fuels using the onboard simplified measurement method in accordance with 6.3 of the NO<sub>x</sub> Technical Code 2008, or the direct measurement and monitoring method in accordance with 6.4 of the NO<sub>x</sub> Technical Code 2008, or by reference to relevant test-bed testing. For the purposes of this interpretation and demonstration of compliance with regulation 18.3.2.2 of MARPOL Annex VI, and as applicable to possible deviations when undertaking measurements on board, an allowance of 10% of the applicable limit may be accepted.

## **16 Applicability of the requirements for a bunker delivery note (BDN)**

### **Regulation 18**

#### *Fuel oil availability and quality*

Regulation 18.5 reads as follows:

"For each ship subject to regulations 5 and 6 of this Annex, details of fuel oil for combustion purposes delivered to and used on board shall be recorded by means of a bunker delivery note that shall contain at least the information specified in appendix V to this Annex."

Regulation 18.6 reads as follows:

"The bunker delivery note shall be kept on board the ship in such a place as to be readily available for inspection at all reasonable times. It shall be retained for a period of three years after the fuel oil has been delivered on board."

***Interpretation:***

16.1 For the application of these regulations, they should be interpreted as being applicable to all ships of 400 gross tonnage or above and, at the Administration's discretion, to ships of less than 400 gross tonnage.

16.2 The bunker delivery note (BDN) required by regulation 18.5 is acceptable in either hard copy or electronic format provided it contains at least the information specified in appendix V to MARPOL Annex VI and is retained and made available on board in accordance with regulation 18.6. In addition, an electronic BDN should be protected from edits, modifications or revisions and authentication be possible by a verification method such as a tracking number, watermark, date and time stamp, QR code, GPS coordinates or other verification methods.

## **17 Requirements for reporting attained EEDI and relevant information**

### **Regulation 22**

*Attained Energy Efficiency Design Index (attained EEDI)*

Regulation 22.3 reads as follows:

"For each ship subject to regulation 24 of this Annex, the Administration or any organization duly authorized by it shall report to the Organization the required and attained EEDI values and relevant information, taking into account the guidelines developed by the Organization, via electronic communication:

- .1 within seven months of completing the survey required under regulation 5.4 of this Annex; or
- .2 within seven months following 1 April 2022 for a ship delivered prior to 1 April 2022."

***Interpretation:***

17.1 For new ships that have completed the initial survey required in regulation 5.4.1 of MARPOL Annex VI on or after 1 April 2022, the EEDI data and relevant information shall be submitted within seven months after the completion date of the initial survey (in accordance with regulation 22.3.1).

17.2 For new ships that have completed the initial survey required in regulation 5.4.1 of MARPOL Annex VI prior to 1 April 2022:

- .1 if they have not undergone a major conversion specified in regulation 5.4.2 or 5.4.3, the EEDI data and relevant information shall be submitted within seven months after 1 April 2022 (in accordance with regulation 22.3.2);
- .2 if they have undergone a major conversion specified in regulation 5.4.2 or 5.4.3 on or after 1 April 2022, the EEDI data and relevant information of

the major conversion shall be submitted within seven months after the completion date of general or partial survey required in regulation 5.4.2 or the initial survey required in regulation 5.4.3 (in accordance with regulation 22.3.1); and

- .3 if they have completed a major conversion specified in regulation 5.4.2 or 5.4.3 prior to 1 April 2022, the EEDI data and relevant information of the major conversion shall be submitted within seven months after 1 April 2022 (in accordance with regulation 22.3.2).

17.3 For existing ships that have completed the initial survey required in regulation 5.4.3 of MARPOL Annex VI on or after 1 April 2022, the EEDI data and relevant information shall be submitted within seven months after the completion date of the initial survey (in accordance with regulation 22.3.1).

17.4 For existing ships that have completed the initial survey required in regulation 5.4.3 of MARPOL Annex VI prior to 1 April 2022, the EEDI data and relevant information shall be submitted within seven months after 1 April 2022 (in accordance with regulation 22.3.2).

17.5 For ships for which up-to-date EEDI data has already been reported to the Organization prior to 1 April 2022, the reporting of EEDI data and information shall not be required on or after 1 April 2022.

## **18 Ship Energy Efficiency Management Plan (SEEMP) Part III**

### **Regulation 26**

#### *Ship Energy Efficiency Management Plan (SEEMP)*

Regulation 26.3.1 reads as follows:

"In the case of a ship of 5,000 gross tonnage and above, which falls into one or more of the categories in regulations 2.2.5, 2.2.7, 2.2.9, 2.2.11, 2.2.14 to 2.2.16, 2.2.22, and 2.2.26 to 2.2.29 of this Annex:

- .1 On or before 1 January 2023 the SEEMP shall include:
  - .1 a description of the methodology that will be used to calculate the ship's attained annual operational CII required by regulation 28 of this Annex and the processes that will be used to report this value to the ship's Administration;
  - .2 the required annual operational CII, as specified in regulation 28 of this Annex, for the next three years;
  - .3 an implementation plan documenting how the required annual operational CII will be achieved during the next three years; and
  - .4 a procedure for self-evaluation and improvement."

***Interpretation:***

18.1 A ship delivered after 1 January 2023 should comply with regulation 26.3.1 of MARPOL Annex VI at delivery. If delivered on 1 October or later, the following year will then be the first year of the three-year implementation plan and an inferior rating given, in accordance with regulation 28.6 of MARPOL Annex VI, for the remainder of the calendar year of delivery needs not to be counted in for the determination of whether the ship should develop a Corrective Action Plan required by regulation 26.3.2 of MARPOL Annex VI. Nothing in this interpretation relieves any ship of its reporting obligations under regulations 27 and 28 of MARPOL Annex VI.

18.2 A ship changing company, or changing from one Administration to another and from one company to another concurrently, after 1 January 2023 should comply with regulation 26.3.1 at change of company and a new SEEMP III will be required. The year of change should be the first year of the next three-year implementation plan.

18.3 In order to document how the required annual operational CII will be achieved during the next three years, the SEEMP Part III should be a rolling three-year plan, YYYY (first year of implementation plan), YYYY+1 and YYYY+2.

18.4 In the case of updating the SEEMP Part III on the elements in regulation 26.3.1 of MARPOL Annex VI, the original three-year plan may remain.

## **19 Boil-off gas consumed on board ships**

### **Regulation 2**

#### *Definitions*

Regulation 2.1.14 reads as follows:

"*Fuel oil* means any fuel delivered to and intended for combustion purposes for propulsion or operation on board a ship, including gas, distillate and residual fuels."

### **Regulation 27**

#### *Collection and reporting of ship fuel oil consumption data*

Regulation 27.1 reads as follows:

"From calendar year 2019, each ship of 5,000 gross tonnage and above shall collect the data specified in appendix IX to this Annex, for that and each subsequent calendar year or portion thereof, as appropriate, according to the methodology included in the SEEMP."

### **Appendix IX**

#### *Information to be submitted to the IMO Ship Fuel Oil Consumption Database*

Appendix IX reads as follows:

"Fuel oil consumption, by fuel oil type in metric tonnes and methods used for collecting fuel oil consumption data".

***Interpretation:***

For Data relating to boil-off gas (BOG) consumed on board the ship for propulsion or operation (e.g. BOG used for propulsion, operational needs such as in a boiler, or burnt in a gas combustion unit (GCU) for cargo tank pressure control or other operational purposes) is required to be collected and reported as fuel as part of the Ship Fuel Oil Consumption Data Collection System.

**20 Access to the disaggregated data**

**Regulation 27**

*Collection and reporting of ship fuel oil consumption data*

Regulation 27.8 reads as follows:

"Except as provided for in paragraphs 4, 5 and 6 of this regulation, the disaggregated data that underlies the reported data noted in appendix IX to this Annex for the previous calendar year shall be readily accessible for a period of not less than 12 months from the end of that calendar year and be made available to the Administration upon request."

***Interpretation:***

The disaggregated data is not required to be kept on board the ship provided that the disaggregated data can be made available by the Company.

**21 Plan of corrective actions to achieve the required annual operational CII**

**Regulation 28**

*Operational carbon intensity*

Regulation 28.7 reads as follows:

"A ship rated as D for three consecutive years or rated as E shall develop a plan of corrective actions to achieve the required annual operational CII."

Regulation 28.9 reads as follows:

"A ship rated as D for three consecutive years or rated as E shall duly undertake the planned corrective actions in accordance with the revised SEEMP."

***Interpretation:***

In case an inferior rating is given for data collected in calendar year YYYY, the revised SEEMP, including the plan of corrective actions, should be verified in year YYYY+1, and it should be developed to achieve the required annual operational CII for data collected in the calendar year YYYY+2.