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Regulation concerning amendments to the Regulations on environmental safety for ships and mobile offshore units – MEPC.251(66)

The Norwegian Maritime Authority (NMA) has laid down amendments to the Regulations on environmental safety for ships and mobile offshore units. These amendments entered into force on 1 September 2015.

The Regulation implements IMO¹Resolution MEPC.251(66) through amendments to section 12 of the Environmental Safety Regulations. The Resolution states that LNG carriers, cruise passenger ships, ro-ro cargo ships, ro-ro vehicle carriers and ro-ro passenger ships are also covered by the MARPOL² requirement for Energy Efficiency Design Index (EEDI), cf. MARPOL regulations VI/20 and 21. In addition to the extension of the scope of application of the EEDI regulations, MEPC.251(66) contains amendments relating to the Tier III application date of the NO_x emission limits and amendments to the NO_x Technical Code 2008.

The extension of the scope of application of the EEDI regulations to new ship types, cf. MARPOL regulations VI/20 and 21, is in this Regulation limited to apply to ships engaged on foreign voyages.

1. The consultation

The proposed amendments were circulated for review on 2 June 2015, with deadline for comments on 22 August 2015. The NMA received 13 consultative statements, whereof 10 did not include comments to the proposal. The Norwegian Public Roads Administration (NPRA) expresses concern for the consequences of the energy efficiency rules for ships, cf. MARPOL Annex VI chapter 4, being made applicable to ferries, and asks that caution be shown in the introduction of required Energy Efficiency Design Index for ferries engaged on domestic voyages. The NPRA requests the NMA to assess EEDI as a parameter in accident statistics. The Ministry of Transport and Communications supports the consultative statement from the NPRA. The

¹ International Maritime Organization

² International Convention for the Prevention of Pollution from Ships

Norwegian Shipowners' Association (NSA) finds it positive that the NMA incorporates the internationally adopted set of regulations into Norwegian law, and is of the opinion that this contributes to ensuring equal conditions for shipping also in Norway, and simplifies the situation for the companies that will be operating in Norway. Furthermore, the NSA considers it positive that the EEDI regulations will also be made applicable to ships engaged on domestic voyages, with some exceptions.

2. The content of the amendments

The MARPOL amendments ensuing from Resolution MEPC.251(66) are made applicable as Norwegian regulation by adding the Resolution to the list of resolutions in the Environmental Safety Regulations section 12 first paragraph.

By adding an exemption from MEPC.251(66) in a new second paragraph, the expansion is limited to apply exclusively to ships engaged on foreign voyages. However, the exemption only applies to the part of MEPC.251(66) which amends MARPOL Annex VI chapter 4. The amendments to the NO_x provisions in regulation 13 and the NO_x Technical Code will thus also apply to ships engaged on domestic voyages covered by the scope of application, since such ships are already subject to MARPOL's NO_x regime.

Considering the wording of section 12 of the Environmental Safety Regulation after these amendments, it may be difficult to see which specific requirements ships engaged on domestic voyages are exempted from by looking at the consolidated translation of MARPOL. After a reassessment, the NMA has therefore chosen to include footnotes in the four relevant parts of the MARPOL translation, where the versions of the relevant provisions that according to the Regulations will apply to ships engaged on domestic voyages have been inserted, i.e. the version of the regulations without the amendments ensuing from MEPC.251(66). Older versions of the consolidated version of the MARPOL translation may also be obtained by contacting the NMA.

A brief overview of the contents of MEPC.251(66) is given below:

EEDI

The expansion of the EEDI requirements applies to new LNG carriers, ro-ro cargo ships, including vehicle carriers that in part are given separate reduction factors, ro-ro passenger ships and cruise passenger ships.

Furthermore, in the provisions on scope of application in MARPOL regulation VI/19 a specification has been included, stating that regulations VI/20 and 21 are made applicable to cruise passenger ships having non-conventional propulsion and LNG carriers having conventional propulsion which are delivered on or after 1 September 2019, and this is further differentiated in the new regulation VI/2.43, which defines this as ships:

- for which the building contract is placed on or after 1 September 2015;
- 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 March 2016;
- the delivery of which is on or after 1 September 2019.

In the new regulation VI/19.2.2, floating production units and floating storage units engaged in petroleum activities, regardless of their propulsion, are exempted from MARPOL Annex VI

chapter 4 in its entirety, while ships having ice-breaking capability are exempted from regulations 20 and 21 on attained and required EEDI, respectively.

As part of this, new definitions of *gas carrier* (where LNG carriers are excluded), *LNG carrier*, *cruise passenger ship*, *conventional propulsion*, *non-conventional propulsion*, and *cargo ships having ice-breaking capability* have been added to MARPOL regulation VI/2.

The new requirements for these ship categories will be made applicable after the introduction of phase 1 of the implementation of the EEDI regulations. New ships in these categories shall satisfy the requirement for a reduction factor of 5% (for LNG carriers the factor is 10%) compared to the EEDI reference line. In addition, EEDI shall be calculated for each new ship where the criteria in the IMO's guidelines shall be taken into account, cf. MEPC.245(66) Guidelines on the method of calculation of the attained EEDI for new ships.

Nitrogen oxides (NO_x)

MEPC 65 reviewed the available technology for NO_x reduction, based on a report from a correspondence group (MEPC 65/4/7). In its report, the correspondence group recommended to keep 1 January 2016 as the implementation date, cf. MARPOL regulation VI/13.5.1. However, a proposal was made to delay the implementation date, and this proposal was discussed under MEPC 66.

MEPC 66 accepted a delay in the application to large yachts (of more than 24 m in length and of less than 500 gross tonnage), but did not accept amendments for other ships operating in the existing Emission Control Areas (ECAs). For any future new ECAs, the Tier III requirements will be made mandatory for ships constructed on or after the adoption date of the relevant ECA. Alternatively, the date will be decided by the country (or countries) proposing the new ECA, but this date will not be set earlier than the adoption date. The Tier III requirements will then be made applicable as follows:

- For ships that will be operating in ECAs in the North American and US Caribbean Sea, the requirements apply to ships constructed on or after 1 January 2016.
- For ships that will be operating in future ECAs that might be established, the requirements will apply to ships constructed on or after the date that the ECA in question is adopted by MEPC, or a date decided by the parties concerned but not earlier than the date of adoption.
- Notwithstanding the above, yachts (ships used solely for recreational purposes) of less than 500 gross tonnage constructed before 1 January 2021 do not need to comply with Tier III requirement, and yachts of less than 24 m will not need to comply with Tier III even after that date.

The amendments to the NO_x Technical Code 2008

In accordance with the definition in the NO_x Technical Code 2008, "marine diesel engines" also includes dual fuel engines. However, the Code lacks definitions of gas composition and necessary factors to determine exhaust gas emissions. The NO_x emissions can therefore not be determined pursuant to existing regulations for vessels with dual fuel engines. Therefore, amendments to

the Code were proposed under BLG 17, so that dual fuel engines can be certified in accordance with the Code. MEPC 65 approved the proposal for amendments, and MEPC 66 adopted the proposal.

This has resulted in the amendments that are included in Res. MEPC.251(66), and are, in brief, as follows:

- new footnotes to table No. 4;
- modified definition of "marine diesel engine", cf. paragraph 1.3.10;
- modified procedures for NO_x emission measurements on a test bed, cf. chapter five, including new formula table included in paragraph 5.12.3.3;
- new table with parameters for exhaust gases in paragraph 5.12.1;
- modified procedures for demonstrating compliance with NO_x emission limits on board, cf. corrected paragraph 6.3.1.4;
- new table 6 for engine parameters to be measured and recorded, cf. paragraph 6.3.2.1;
- new paragraph 6.3.4.3 and corrected paragraph 6.3.11.2;
- new table 9 with default fuel oil parameters, cf. paragraph 6.4.11.1;
- Appendix VI – Calculation of exhaust gas mass flow (carbon balance method) is added to the new paragraph 2.5 together with a table containing formulas for calculating parameters when the engine is operated in dual fuel mode.

3. Administrative and financial implications

EEDI - the amendments

The IMO's regulations for energy efficiency for ships entered into force on 1 January 2013 for ships of 400 gross tonnage and upwards engaged on international voyages. The consequences of the introduction of EEDI as such were explained when those amendments were laid down. As concerns these amendments, the consequences will – apart from the fact that more companies will be faced with the EEDI requirements – essentially be similar to those described in the NMA's consultation letter of 3 December 2014, when there was a proposal to make the EEDI regulations applicable to domestic trade. In line with the proposal, the amendments entered into force on 1 July 2015. We briefly repeat the main points:

For the industry, ships covered by MARPOL regulation VI/21 will have to calculate attained energy efficiency design index (attained EEDI) in accordance with regulation 20. This index value will have to be equal to or below the ship-specific reference value specified in Table 2 in chapter 4 for the applicable phase. A consequence of regulation 21 may be that the cost of new ships will increase. The requirements may also lead to a decrease in the service speed for new ships as the requirements get stricter. Lower fuel consumption could, however, result in cheaper operation of ships.

The requirement for calculation/verification of EEDI could generate required third-party services, which could mean extra costs for the companies, but at the same time generate greater activity and therefore mean increased profit for the service provider.

For the authorities, this will result in an increased level of supervision activities, and therefore increase public expenses.

The basis for these regulations is that there is an expectation that reduced emission to air will result in reduced impact on the environment. It is expected that the addition of new ship categories will result in environmental benefits when the emissions can be further reduced.

NO_x

As this implies that the implementation of the NO_x requirements are limited to some extent, the amendments ensuing from MEPC.251(66) are assumed to have few or no consequences of significance for the industry. For the environment, the amendments are assumed to mean a delayed positive effect, since the emission requirements are not made applicable as early as the correspondence group set out in its report.

NO_x Technical Code 2008

As regards the amendments to the NO_x Technical Code 2008, these are not assumed to entail burdens for the industry, other than that arrangements are made for determining NO_x emissions for dual fuel engines, and thus for the certification of such engines. This has, however, been the intention all along, and the amendments only mend the gaps in the regulations that prevented that this could be implemented according to the intention.

For the authorities, the amendments could result in an increase in the certification tasks, but based on the current ship status, this will be a small-scale increase.

Yours faithfully,

Olav Akselsen
Director General of Shipping and Navigation

Bjørn Pedersen
Head of Department

Attachment:

1. Regulation concerning amendments to the Regulations on environmental safety for ships and mobile offshore units

