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Regulations on safety measures for ships operating in polar waters and amendments to Regulations on environmental safety

1. Introduction

The Norwegian Maritime Authority has laid down amendments to the Regulations of 30 May 2012 No. 488 on environmental safety for ships and mobile offshore units, and new Regulations on safety measures for ships operating in polar waters. The International Code for Ships Operating in Polar Waters (Polar Code) enters into force on 1 January 2017. In this connection, SOLAS and MARPOL will also be amended.

The Polar Code was adopted by IMO¹ by Resolution MSC.385(94) and MEPC.264(69) in November 2014 and May 2015, respectively. A new chapter XIV of SOLAS² was adopted (MSC.386(94)), and amendments were made to Annexes I, II, IV and V of MARPOL³ (MEPC.265(68)).

The sea areas around the poles are demanding, remote and vulnerable, which is significant for the safety of ships, crew and passengers as well as for the environment in which the ship is operating. For a long time, there have been ongoing international efforts to draw up regulations that take into account the special conditions associated with operation in polar waters. Norway and the Norwegian Maritime Authority has lead the work related to the development of a mandatory international code for operation in polar waters that takes into account the special risk factors that are not sufficiently covered by the other Conventions.

The Polar Code provides rules for the design and construction of ships, for equipment, operational conditions, training and protection of the environment. The actual Code is divided into two separate parts, one related to safety (Part I) and the other related to protection of the environment (Part II). The safety and environmental parts are in turn divided into one mandatory part (Part A) and one guidance part (Part B).

2. Consultation

The proposal was circulated for review from 8 April to 10 July of this year.

¹ The International Maritime Organization.

² The International Convention for the Safety of Life at Sea.

³ The International Convention for the Prevention of Pollution from Ships

The Norwegian Shipowners' Association (NSA) and CEFOR support rules on special safety measures for ships operating in polar waters, and the NSA expressed their support for the chosen implementation structure.

The Norwegian Fishermen's Association and Norwegian Fishing Vessel Owners Association (Fiskebåt) expressed uncertainty as to the degree to which this legislation will apply to the fishing fleet. We will in this Circular try to further clarify the consequences for fishing vessels.

The Norwegian Bar Association had some specific suggestions to a clearer wording of the regulations. These were, however, related to the Code itself, which has been negotiated and adopted internationally. In our translation, the Norwegian Maritime Authority found it appropriate to be true to the original text of the Code, so as to not create slight unintentional differences in this legislation, which in its nature is distinctively international.

Apart from this, we did not receive any material comments to the circulated proposal.

3. Details about the legislation

Implementation

Each SOLAS chapter has been implemented into Norwegian legislation in separate Regulations. For example, the Regulations on navigational aids for ships⁴ implement SOLAS Chapter V (Safety of Navigation) and the Regulations on life-saving appliances on ships⁵ implement SOLAS Chapter III (Life-saving appliances and arrangements).

MARPOL Annexes I to VI are today implemented in the Regulations on environmental safety.

This structure is maintained in the legislation now laid down. The amendments to SOLAS and the safety-related parts of the Polar Code are implemented in new Regulations on safety measures for ships operating in polar waters. The amendments to MARPOL and the pollution prevention parts of the Polar Code are implemented in the existing Regulations on environmental safety.

The Polar Code and the amendments to the international Conventions are incorporated, that is to say that MSC.385(94), MEPC.264(68), MSC.386(94) and MEPC.265(68) will apply as regulation. The NMA's translation of the Polar Code is published together with the Regulations that incorporate the respective parts of the Code. In line with the current practice, a consolidated translation of MARPOL will also be published together with the Regulations on environmental safety. The NMA's translation of the new Chapter XIV of SOLAS is published together with the new Regulations on safety measures for ships operating in polar waters.

Operation in polar waters

The requirements of the safety part are goal-based and functional requirements, and the requirements that apply to the ship are related to the risk factors in the areas in which the ship will be operating, such as e.g. ice conditions and temperature. It is central for the company to assess the area of operation for the ship, and these matters along with operational limitations, if any, should be set out in the ship's operational manual.

Polar waters mean Arctic waters and/or the Antarctic area as defined in the amendments to SOLAS and MARPOL in accordance with MSC.386(86) and MEPC.265(68), respectively. Ships that will be operating in such areas are categorised as category A, B or C ships, depending on the ice conditions in the waters in which the ships will operate. The design, construction and equipment requirements will depend on the ship's category and the operational evaluation of the ship that the company must carry out.

⁴ Regulations of 5 September 2014 No. 1157 on navigation and navigational aids for ships and mobile offshore units

⁵ Regulations of 1 July 2014 No. 1019 on life-saving appliances on ships

On 6 June this year, the IMO laid down guidelines, through Circular [MSC.1/Circ. 1519](#), for the evaluation of capabilities and limitations when operating in ice. The NMA presupposes that the methods described in the Circular constitute a good foundation for the assessments that the company has to make in accordance with the new regulations on operation in polar waters.

Details about the scope of application of the Polar Code and the amendments to SOLAS and MARPOL

The safety part (the Polar Code Part I-A) and the environmental part (the Polar Code Part II-A) are built on SOLAS and MARPOL, respectively. These Conventions have somewhat different scopes of application. As a main rule, SOLAS applies to passenger and cargo ships of 500 gross tonnage and upwards engaged on international voyages. In MARPOL, the different Annexes have different scopes of application, but contrary to SOLAS, MARPOL has rules that apply to all ships, including cargo ships of less than 500 gross tonnage, fishing vessels and mobile offshore units. The Polar Code Parts I and II therefore have somewhat different scopes of application.

The new Chapter XIV of SOLAS, and Part I-A of the Polar Code, are set up as additional requirements for ships that hold SOLAS certificates, and that are operating in polar waters. Since they are additional requirements, this means that the rules will only apply to ships required to have international safety certificates in accordance with SOLAS Chapter I, and not, for example, fishing vessels operating in polar waters.

From 1 January 2017, ships constructed after this date (new ships) must comply with the requirements of SOLAS Chapter XIV and Part I-A of the Polar Code. With the exception of certain requirements that only apply to new ships, ships constructed before this date (existing ships) must comply with the requirements within the first intermediate or renewal survey after 1 January 2018.

As documentation of compliance with the requirements, ships operating in polar waters must hold a valid Polar Ship Certificate. In addition, a polar water operational manual must be prepared, which should be available on board. The certificate and the operational manual complement each other, and must be seen as a whole.

The environmental part follows the scope of application of the various MARPOL Annexes, and introduces additional requirements to MARPOL Annex I (pollution by oil), Annex II (noxious liquid substances in bulk), Annex IV (pollution by sewage) and Annex V (pollution by garbage). That the environmental part follows the scope of application of MARPOL, means that some of the requirements apply to all ships, including fishing vessels.

The environment-related requirements of the Polar Code are largely operational, and mainly apply to both new and existing ships. Part II-A chapter 1 of the Polar Code nevertheless introduces certain construction requirements for some groups of new category A and B ships.

Part II-A chapter 1 of the Polar Code, for instance, concerns the prevention of pollution by oil, and this chapter of the Code has the same scope of application as MARPOL Annex 1, and thus applies to all ships. Part II-A chapter 1 paragraph 1.2.1 of the Polar Code has the following construction requirements:

"For category A and B ships constructed on or after 1 January 2017 with an aggregate oil fuel capacity of less than 600 m³, all oil fuel tanks shall be separated from the outer shell by a distance of not less than 0.76 m. This provision does not apply to small oil fuel tanks with a maximum individual capacity not greater than 30 m³."

MARPOL Annex 1 chapter 3 Regulation 12a already has rules for ships with an aggregate oil fuel capacity of more than 600 m³. What is new about the Polar Code is that it introduces requirements for new ships

with an aggregate oil fuel capacity of less than 600 m³, nevertheless with the exception of tanks with a capacity of 30 m³ or less.

For ships required to have an IOPP Certificate (ships of 400 gross tonnage and upwards), it should be stated on the certificate whether the ship satisfies the construction requirements of Part II-A chapter 1 paragraph 1.2 of the Polar Code.

In other words, the mentioned construction requirements applies to new category A and B ships, including fishing vessels. Category B ships are in the Code defined as ships designed for operation in polar waters in at least thin first-year ice, which may include old ice inclusions. Thin first-year ice is defined as first-year ice that is 30 cm to 70 cm thick. Ships operating in areas with first-year ice, but where the ice thickness does not exceed 30 cm or includes second- or multi-year ice, will then be category C ships and will not be required to have a distance of not less than 0.76 m from the tank to the outer shell.

The categorisation of the ship is thus connected with the ice conditions in the area of operation, and it is up to the company to assess and decide this for their ship. Fishing vessels that intend to operate in polar waters where the ice may exceed 30 cm thickness or include second- or multi-year ice, must satisfy the mentioned construction requirement, and it must then be set out in the IOPP Certificate for ships required to hold this certificate pursuant to MARPOL Annex I.

In addition, Part II-A of the Polar Code and the amendments to MARPOL introduce several operational requirements. Examples of such operational requirements in the Polar Code are stricter rules regarding discharge of oily liquids, noxious liquid substances, sewage and garbage in polar waters. Operational requirements could also, however, affect the choices you have to make with regard to design. For instance, new category A and B ships will not be permitted to discharge sewage in polar waters unless the ship has an approved (wheel-marked) sewage treatment plan. In other words, even if the requirement is operational (prohibition of the discharge of sewage), it can affect design and arrangements on board, and the company needs to take such matters into consideration for their ship.

Certification

The Polar Ship Certificate is a supplement for ships which are issued with SOLAS certificates and which will be operating in polar waters. After 1 January 2017, new ships must have a valid Polar Ship Certificate if the ship is to be operated in polar waters. Existing ships must meet the certificate requirement by the first intermediate or renewal survey, whichever occurs first, after 1 January 2018.

The NMA issues the Polar Ship Certificate for ships registered in the Norwegian Ordinary Ship Register (NOR). For ships registered in the Norwegian International Ship Register (NIS), the certification process has been delegated to recognised classification societies.

As regard the environment part, the supplement to the IOPP Certificate has been amended as a result of the construction requirements of Part II-A chapter 1 of the Polar Code for new A and B ships. The IOPP Certificate should reflect whether the ship satisfies the requirements for tank protection in the mentioned chapter of the Polar Code. Since the construction requirements only apply to ships constructed after 1 January 2017, it is not necessary for existing ships to replace the IOPP Certificate before it actually expires. This is in line with guidance circular MEPC.1/Circ.856.

Category A ships operating continuously for more than 30 days, that cannot comply with the requirement of Part II-A chapter 1 of the Polar Code to not discharge any oil or oily mixtures from machinery spaces, may have the time limit for this requirement extended. In these cases, it will, in line with guidance circular MEPC.1/Circ.856., be sufficient to refer to a decision on such extension.

It is set out in Part II-A chapter 2 of the Polar Code that the administration should decide whether new category A and B ships may carry noxious liquid substances, when the ships in question are not subject to the IBC Code's requirements for placement of tanks (type 3 ships). This is done in connection with the

issue of the certificate for carrying noxious liquid substances in bulk, and conditions for operation in polar waters should be included as a note in the certificate. As a starting point, the NMA presupposes that type 3 ships must comply with the requirement for tank distance for type 2 ships (at least 0.76 m distance from the outer shell) in order to carry noxious liquid substances in bulk in polar waters.

For ships certified to carry noxious liquid substances in bulk, the amendments to MARPOL Annex II mean that the format for the PA manual is changed by adding a sentence on discharge in polar waters. It is set out in MARPOL Annex II addendum IC that the PA manual as a main rule is approved by the administration, and that it should not be altered without approval from the administration, cf. point 8 of the introduction. In line with guidance circular MEPC.1/Circ.856 the NMA nevertheless authorises on a general basis that the company can perform the necessary changes in the manual prior to operation in polar waters. The changes will then be endorsed at the next planned certificate survey.

4. Other amendments to the legislation

In connection with the amendments to the Regulations on environmental safety, we are using this opportunity to update the list of MEPC resolutions amending MARPOL consolidated edition 2011. These are amendments that are not connected to the Polar Code, and mean that the following resolutions have been included in the relevant incorporating provisions in the Regulations: MEPC.235(65), MEPC.238(65), MEPC.246(66), MEPC.247(66), MEPC.256(67) and MEPC.258(67).

5. Economic and administrative consequences

For ships with SOLAS certificates operating in polar waters, the Polar Code and the amendments to SOLAS and MARPOL involve a number of requirements that will have economic consequences for the maritime industry, including the requirement for Polar Ship Certificate. For fishing vessels and other ships without SOLAS certificates operating in polar waters, the environment-related provisions of the Polar Code and the amendments to MARPOL will affect the operation and construction of new category A and B ships. The work with this legislation has been ongoing for many years. The Norwegian Shipowners' Association and other industry actors have been strongly involved in the work, and the economic consequences have been included in the assessment during the preparation of the rules. The legislation is mandatory internationally, and the implementation into Norwegian legislation will therefore not have any competitive significance for the Norwegian flag.

For the NMA, the rules involve administrative consequences in the form of certification, survey commitments and duty to provide guidance.

At present, amendments to the NMA's Tariff of Fees⁶ are being circulated for review. The amendments propose a time-based fee for the issue and renewal of the Polar Ship Certificate, and the number of hours is estimated to be between 100 and 115 hours depending on the ship's size and classification, if any.

6. Regulations on safety measures for ships operating in polar waters - comments to the individual sections

To section 1, Scope of application

The scope of application of the Regulations is related to ships required to have international safety certificates. This is done to emphasize that the Regulations are only relevant to ships that hold SOLAS certificates. The Polar Code refers to ships required to have certificates in accordance with SOLAS chapter I, and in our opinion, the term "international safety certificates" is an accurate term in this regards.

To section 2, SOLAS chapter XIV

The first paragraph incorporates the new chapter XIV of SOLAS, cf. MSC.386(94). This means that chapter XIV of SOLAS shall apply as regulation.

⁶ Regulations of 21 December 2009 No. 1738 on the collection of fees to the Treasury for surveys, issue of certificates, etc.

Pursuant to the second paragraph, chapter XIV of SOLAS will also apply correspondingly to State-owned ships with SOLAS certificates, when such ships operate in polar waters. This specification has been included because it is expressly provided in SOLAS chapter XIV that State-owned ships are exempted, unless the Member States choose to include these ships in the scope of application. The extent of the provision is limited by the Regulations on exceptions from the Ship Safety and Security Act for ships belonging to the Norwegian Armed Forces⁷.

To section 3, Part I-A of the Polar Code

The first paragraph incorporates the safety part of the Polar Code, as well as the safety-related provisions of the introduction. The second paragraph specifies that the Code shall also apply to State-owned ships with SOLAS certificates.

7. Regulation concerning amendments to Regulations of 30 May 2012 No. 488 on environmental safety for ships and mobile offshore units - comments to the individual sections

To section 4 Prevention of pollution by oil from ships and mobile offshore units - MARPOL Annex I
Reference to MEPC.265(68) is included in the provision. The same goes for reference to MEPC.235(65), MEPC.238(65), MEPC.246(66), MEPC.248(66), MEPC.256(67). The amendments to MARPOL Annex I are incorporated and apply as regulation.

To section 7 Control of pollution by noxious liquid substances in bulk - MARPOL Annex II, etc.
Reference to MEPC.265(68) is included in the provision. The same goes for MEPC.238(65) and MEPC.246(66). The amendments to MARPOL Annex II are incorporated and apply as regulation.

To section 8 Prevention of pollution by harmful substances in packaged form - MARPOL Annex III
Reference to MEPC.246(66) is included in the provision. The amendments to MARPOL Annex III are incorporated and apply as regulation.

To section 9 Prevention of pollution by sewage from ships and mobile offshore units - MARPOL Annex IV
Reference to MEPC.265(68) is included in the provision. The same goes for MEPC.246(66). The amendments to MARPOL Annex IV are incorporated and apply as regulation.

To section 11 Prevention of pollution by garbage from ships and mobile offshore units - MARPOL Annex V
Reference to MEPC.265(68) is included in the provision. The same goes for MEPC.246(66). The amendments to MARPOL Annex V are incorporated and apply as regulation.

To section 12 Prevention of air pollution from ships and mobile offshore units - MARPOL Annex VI
Reference to MEPC.247(66) and MEPC.258(67) is included in the provision. The amendments to MARPOL Annex VI are incorporated and apply as regulation.

To section 19 The Polar Code Part II-A

The first paragraph incorporates the environmental part of the Polar Code, as well as the environment-related provisions of the introduction.

The second paragraph takes into consideration the administration's opportunity, from Part II-A paragraph 1.1.3 of the Polar Code, to postpone the requirements of 1.1.1 for existing category A ships. The NMA allows the possibility for such an extension, when such ships operate continuously for more than 30 days and cannot comply with the requirement for no discharge of oil or oily mixtures from machinery spaces. These ships should then comply with the requirements for discharge in special areas in accordance with MARPOL Annex I regulation 15.3.

⁷ Regulations of 29 June 2007 No. 819 on exceptions from provisions in the Act of 16 February 2007 No. 9 relating to Ship Safety and Security for ships belonging to the Norwegian Armed Forces or ships used in such service

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