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ANY OTHER BUSINESS

Implementation of IMO's Polar Code

Submitted by WWF

SUMMARY

Executive summary:	In this document, WWF presents challenges experienced with the implementation of IMO's Polar Code based on information from a variety of sources, including work commissioned by WWF, presentations given at the Arctic Shipping Best Practice Information Forum, submissions to relevant policy frameworks and investigations of polar incidents. WWF seeks clarification on the process for the 2021 review of the guidance on methodologies for assessing operational capabilities and limitations in ice and proposes to bring forward more detailed information on challenges in implementation and gaps in the Polar Code to a future meeting of the Committee.
Strategic direction, if applicable:	Other work
Output:	OW 43
Action to be taken:	Paragraphs14 and 15
Related documents:	III 7/14/2 and III 7/14/2/Add.1

Introduction

1 The International Maritime Organization's (IMO) International Code for Ships Operating in Polar Waters (Polar Code) came into effect in January 2017, nearly five years ago. The Polar Code addresses both safety measures for ships operating in polar regions in Part I of the Code and environmental protection measures in Part II of the Code. It currently applies to ships operating in polar waters, certified in accordance with chapter I of the *International Convention for the Safety of Life at Sea* (SOLAS). The Maritime Safety Committee (MSC) and the Sub-Committee on Navigation, Communications and Search and Rescue (NCSR) are currently considering extending the application to vessels which are excepted under chapter 1, including fishing vessels and pleasure yachts not engaged in trade.

* *Re-issued on 09/08/2021: corrected referencing to the Arctic Shipping Best Practice Information Forum.*

2 Although resolution MSC.385(94) does not contain a requirement for a formal review of the Polar Code, MSC.1/Circ.1519 includes the accompanying POLARIS Guidance on methodologies for assessing operational capabilities and limitations in ice. It is clearly the intent in the circular that the POLARIS Guidance be reviewed four years after the entry into force of the Polar Code, that is in 2021. Paragraph 4 of the Guidance states:

> "This guidance has been issued as "interim guidance" in order to gain experience in its use. It should be reviewed four years after the entry into force of the Polar Code in order to make any necessary amendments based on experience gained."

WWF's work considering implementation of the Polar Code

3 Following a study of flag States' plans to enact and enforce the Polar Code requirements on fleets flying their flag and operating in polar waters, documents III 7/14/2 and III 7/14/2/Add.1 (WWF) identify a number of challenges in respect of implementation of the Code, including the provision of polar ship certificates and the preparation of polar water operational manuals (PWOMs). The provision of certificates is frequently left to an Administration's "recognized organization" or RO. However, the ROs have no knowledge of which ships require a polar ship certificate, so the provision of a polar ship certificate is reliant on the shipowner. This can be problematic since tracking of vessels and their compliance with Polar Code provisions is the responsibility of the flag State and not the RO; there is no tracking by ROs of vessels which are Polar Code certified, or indeed of vessels which are not certified. There are concerns that these challenges could lead to ships which fail to meet the requirements of the Polar Code operating in polar waters.

4 The development of polar water operational manuals (PWOMs) has in some cases been outsourced, which based on the findings of the study reported in document III 7/14/2/Add.1 is resulting in some PWOMs being generic rather than ship- or operation-specific. In addition, document III 7/14/2/Add.1 identifies a number of challenges have been experienced in developing PWOMs including:

.1 difficulties in obtaining mean daily low temperature data, as some areas are not covered by meteorological data;

.2 establishing and providing adequate resources – communications, food, water – for a full ship's complement for the anticipated maximum rescue time (five days) due to the remoteness and limited rescue assets; and

.3 difficulties in establishing operating limits due to many variables.

Challenges to implementing the Polar Code

5 Further work has been carried out by shipping stakeholders and environmental non-governmental organizations (NGOs) highlighting gaps in the Polar Code and challenges in its implementation. Already during the development of the Code, environmental groups were worried that there could be inadequacies in the Code. Document MSC 94/3/17 (FOEI, Pacific Environment and CSC) highlights concerns that the Code could lead to different interpretations of ice strengthening standards for Category C ships[1] and, as a result, not provide the necessary levels of safety or protection. Category A and B ships need to be ice-strengthened in

[1] Category A: ships designed for operation in polar waters at least in medium first-year ice, which may include old ice inclusions; Category B: ships not included in Category A, designed for operation in polar waters in at least thin first-year ice, which may include old ice inclusions; and Category C: ships designed to operate in open water or in ice conditions less severe than those included in Categories A and B.

accordance with the ice conditions in which they operate and are required to meet damage stability provisions. Category C ships are not required to meet these provisions despite the fact that some are ice strengthened and able to operate in quite thick first year ice, and even those that are not ice-strengthened are able to operate in some level of ice cover. Environmental non-governmental organizations argued for a reversal of the burden of proof with all vessels required to meet the damage stability provisions unless exempt due to the intended area of operation.

6 In addition, some provisions of the Code were recognized early on to present new challenges in terms of implementation. The voyage planning requirements included provisions requiring consideration of marine mammal populations and migratory routes that might be encountered on a voyage and the identification of marine protected areas in the vicinity of a route. These two voyage planning requirements present challenges since there is limited experience among the shipping community of considering these elements as a part of voyage plans, compounded by the fact that relevant data is dispersed and not all collated centrally.

7 A presentation to the second Arctic Shipping Best Practice Information Forum (ASBPIF) by Lloyd's Register identified key challenges with the implementation of the Polar Code including the fact that the operation assessment output is not captured in the PWOM; a need for a PWOM standard template; and difficulties with interpreting the Code, since much is based on goal-based requirements.[2]

8 At the fourth ASBPIF, a presentation from the American Bureau of Shipping and Aker Arctic[3] identified the importance of the POLARIS Guidance but noted that it is considered interim guidance and is due to be reviewed in 2021. However, data is needed to inform such review, and currently there is no mechanism for collecting and collating the data. The Polar Ice project run by NORSE Norwegian Research Centre also identified the POLARIS Guidance as being in need of strengthening and enhanced implementation.[4]

Gaps in the Polar Code

9 In documents[5] submitted to the Antarctic Treaty Consultation Meetings in 2015 and 2016, the following issues were identified as gaps in the Polar Code by the Antarctic and Southern Ocean Coalition – spill preparedness and response, the risk of introduced species (via ballast water discharge or hull fouling), the treatment and discharge of grey water, and emissions of air pollutants such as black carbon, sulphur and nitrogen oxides. Other issues considered to not be sufficiently progressive included the fact that the threat from the use of heavy fuel oil (HFO) in the Arctic was not addressed, and raw, untreated sewage can still be discharged into the sea provided the ships is more than 12nm from land, ice-shelves, or fast ice and as far as possible from areas of ice concentrations exceeding 1/10. The Code did not address the management of polar shipping and protection of the environment through routeing measures such as areas to be avoided and deep-water routes. Since these documents were prepared, an amendment to MARPOL Annex I banning the use and carriage of HFO by vessels operating in the Arctic from July 2029 has been adopted by MEPC 75.

2 Lloyds Register (pame.is).

3 Polaris: What's Next. Industry Perspective. Bond & Hindley. Best Practice Information Forum, 2020.

4 Polar ICE – Polar Code Implementation, Compliance and Enforcement, Graczyk, 2020. Best Practice Information Forum, 2020.

5 ATCM 38_ip113_e Next steps for Vessel Management in the Southern Ocean submitted by ASOC, 05/05/2015 ATCM 39_ip082_e Progress on the Polar Code submitted by ASOC, 25/04/2016.

10 At the fourth meeting of the ASBPIF in November 2020, presentations were made which identified further gaps and weaknesses in the Polar Code, including Polar ICE (Polar Code Implementation, Compliance and Enforcement), a project run by NORSE Norwegian Research Centre, which noted that some parts of the Code were left blank and not addressed and that these are primarily environmental. The following gaps were listed: heavy fuel oil, grey water, underwater noise, air emissions from ships/black carbon and marine plastic litter.

Learning lessons from incidents in the Arctic

11 In addition to reports from various bodies and stakeholders involved in implementing the Polar Code, it is important to also learn lessons from incidents and particularly those within polar waters. In August 2018, the passenger vessel **Akademik Ioffe** ran aground on an uncharted shoal 78 nautical miles north-west of Kugaaruk, Nunavut. Although the number of groundings in Canadian Arctic waters in the past 15 years is low – three passenger vessels and one chartered yacht – it is in fact high in proportion to the number of passenger voyages during this period. Voyage planning or execution of voyage plans were found to be significant contributing factors in each case.[6]

12 Following the investigation, the Transportation Safety Board of Canada recommended that the Department of Transport in collaboration with the Department of Fisheries and Oceans should develop and implement mandatory risk mitigation measures for all passenger vessels operating in Canadian Arctic coastal waters. A number of key findings were identified, including that the area had not been surveyed to modern or adequate hydrographic standards and the master had relied on a Canadian chart that contained incomplete bathymetric data. In addition, the echosounders were not being closely monitored and the echo sounders low water depth alarms were turned off. Further, none of the crew had sailed in the region beforehand. Another finding was that there were not enough life-saving appliances available on the "rescue" vessel for the combined complement of both vessels. As more experience is gained with the Polar Code, it will be important to cross-reference incidents and identify if there are lessons and patterns that are important for the implementation and further development of the Polar Code.

Ongoing work to consider challenges in the implementation of the Polar Code

13 In this submission, WWF identifies a number of areas of the Polar Code where the implementation has proved challenging, along with a number of gaps in the Code. The work will be developed further and a more systematic review will be made available in due course. In addition, it is noted that Norway is also leading an Arctic Council/Protection of the Arctic Marine Environment (PAME) Working Group study on the implementation of the Polar Code, which is due to provide an interim report later in 2021 and may bring additional insights.

Action requested of the Committee

14 The Committee is invited to note that MSC.1/Circular 1519 providing *Guidance on methodologies for assessing operational capabilities and limitations in ice* is due for review and to clarify how the review will be organized.

15 The Committee is also invited to consider the information contained in paragraphs 3 to 13 and to note the commitment of WWF to provide more detailed information on challenges in implementation and gaps in the Polar Code to a future meeting of MSC.

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[6] Safety communications related to TSB investigation M18C0225 – August 2018 grounding of passenger vessel **Akademik Ioffe** in Nunavut – Backgrounder – Transportation Safety Board of Canada (bst-tsb.gc.ca).