IMO Polar Code

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13th MEETING OF THE INTERNATIONAL ICE CHARTING WORKING GROUP

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Background

- Increased tourism in Polar areas
- Large cruise ships with many passengers
- New ship lanes
- Cargo transport
Current regulations in the Polar regions

Mandatory international conventions apply worldwide

- SOLAS — Safety of Life at Sea
- MARPOL — Prevention of Pollution From Ships
- AFS — Anti-Fouling system
- BWM — Ballast Water Management (Not yet in force)
- Convention on Load Lines
- STCW — Standards of Training, Certification and Watchkeeping
- COLREG — Preventing Collisions at Sea

Various mandatory Codes

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23.03.2012
Various guidelines

Guidelines for ships operating in Polar waters (Res. A.1024(26) adopted 2009, recommended to be used from 1. January 2011)

Guidelines on voyage planning for passenger ships operating in remote areas (Res. A.999(25))

Enhanced contingency planning guidance for passenger ships operating in areas remote from SAR facilities (MSC.1/Circ.1184)

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24.10.2012
The Polar Code Process

• Approved as a new agenda item by MSC 86 in May 2009 based on proposal from Denmark, Norway and the US.

• The Sub-Committee on Ship Design and Equipment (DE) coordinates the work.

• The work is carried out in Working Groups which meets at the DE sessions, and Correspondence Groups in between the DE sessions.

• Target Completion date for DE is 2014 (originally 2012)
Geographical demarcation of the Arctic

Preliminary agreement, the same as in the Guidelines:

60 degree north with exceptions
Geographical demarcation of the Antarctic

Preliminary agreement, the same as in the Guidelines:

60 degrees south all the way round

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The Polar Code format

- The **Add-On-principle**. Requirements beyond SOLAS, MARPOL etc. to address **risks** specific for the Polar Waters

- **Functional requirements** supported by **deterministic requirements**, where deemed necessary

- As the Code shall be Risk based, a draft **hazard identification matrix** has been developed to identify **additional** hazards in polar waters/areas.

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23.03.2012
Content of the draft Polar Code

• Preamble

• General regulations (application, definitions, certification)

• Part A - mandatory requirements

• Part B – additional guidance
Content of Draft Polar Code – Part A

- Chapter 1  Polar Water Operational Manual
- Chapter 2  Structural integrity and deck machinery
- Chapter 3  Stability and sub-division
- Chapter 4  Watertight and weathertight integrity
- Chapter 5  Machinery
- Chapter 6  Accommodation and escape measures
- Chapter 7  Fire safety/protection
- Chapter 8  Life saving appliances and arrangements
- Chapter 9  Navigation
- Chapter 10  Communications
- Chapter 11  Alternative design
- Chapter 12  Operational requirements
- Chapter 13  Manning, qualification and training
- Chapter 14  Emergency control
- Chapter 15  Environmental protection
DE 56

- Developed a work plan.
- Agreed in general on content of goal and functional requirements for the various chapters.
- Identified chapters for referral to other sub-committees and developed questions and guidance for these.
- Developed “work explanation” on the “concept of categories”.
- Decided to defer discussions on the environmental chapter to DE 57
DE 56 – Work plan – Step 1

Polar Code for Passenger- and cargo ships:

- **2012-2013** DE Correspondence group - further develop:
  introduction, reg.1-4 and chapters 1, 2, 5, 6, 11, 12 and 14.

  SLF – further develop chapter 3 and 4
  FP – further develop chapter 7
  NAV – further develop chapter 9
  COMSAR – further develop chapter 10
  STW – further develop chapter 13

- **2013 (DE 57)** DE working group (further develop the Code incorporate feedback from other sub-committees)

- **2013-2014** DE correspondence group (finalize the content of the Code)

- **2014 (DE 58)** DE drafting group (finalize draft text of the Code for referral to MSC and MEPC for approval and subsequent adoption)
DE 56 - concept of categories

- **A Category A** ship has ice strengthening in accordance with the IACS Unified Requirements for Polar Class ships, or an acceptable alternative. It will operate, with due caution, in severe ice conditions;
- **A Category B** ship has some level of ice strengthening. It will operate, with due caution, in first year ice conditions and will avoid (manoeuvre around) structurally dangerous types and concentrations of ice.
- **A Category C** ship has no ice strengthening. It will operate, with due caution, only in very thin (new) ice and will avoid (manoeuvre around) structurally dangerous ice.

A standard SOLAS ship may operate in Polar Waters that are ice free with no special measures, subject only to its ability to check and confirm on a regular basis that no ice is present along its route, and that it is not subjected to extreme environmental conditions that will compromise the functionality of its safety equipment.
How to make the Polar Code mandatory

3 options from IMO’s legal division:

1. Through SOLAS only
2. Through MARPOL and SOLAS
3. New Convention

MEPC 62 (February 2012) decided to use option 2, pending MSC 91’s decision (November 2012)
DE 56 – Work plan – Step 2

Step 2 – measures for “non-SOLAS” vessels:

2013 (DE 57) If agreed, invite SLF to develop measures for fishing vessels operating in Polar waters.

2014 (DE 58) Consider how to approach “non-SOLAS” vessels and establish a correspondence group to commence work.

2014-2015 Correspondence group
2015 (DE 59) Working group
2015-2016 Correspondence group
2016 (DE 60) Drafting group
Some challenges in the development

- Geographical limitations – possible new discussion
- Various opinions on additional risks/ need for additional (polar) requirements
- Various opinions of mitigation of additional risks/ need and level of details
- Various opinions on the need for additional environmental protection measures and how to implement
- Existing vessels, which requirements shall apply
- Ice strengthening requirements/ thresholds
- Sailing permit system in addition to certification
- Time – progress / expedite finalization – thoroughness

23.03.2012

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Navigation chapter submitted to NAV

NAV is requested to consider the draft provision and their efficacy in addressing the risks below and any other risk identified by the NAV:

1. a higher probability of occurrence of hull damage due to floating ice in ice-infested waters;
2. a higher probability of occurrence of grounding in coastal waters, due to limited hydrography, lack of navigation aids, and other navigational issues;
3. a higher probability of occurrence topside icing, due to low temperatures and strong winds; and
4. unique hazards associated with potential lack of functionality of certain equipment in high latitudes.

These are coupled with potentially more severe consequences due to remoteness and the associated problems of emergency response and search and rescue operations.

NAV is further requested to comment on the additional consequences of adopting the measures that could adversely affect their cost/benefit.
9.2 Functional requirements

9.2.1 In order to achieve the goal set out in 9.1.1 above, the following functional requirements are embodied in the regulations of this chapter as appropriate:

.1 Systems for providing reference headings and position fixing shall be suitable for the intended areas.

.2 The navigational equipment and systems shall be designed, constructed, and installed to remain operational considering the operational limitations of the ship.

.3 Appropriate level of redundancy shall be provided for the navigation equipment and systems.
9.3 Regulations/requirements (excerpts)

9.3.1 All ships shall be fitted with Class A automatic identification system (AIS).

9.3.2 Ships shall have access to ice information

9.3.3 Ships, as appropriate, shall be equipped with means for ice detection.

9.3.4 The following equipment shall [as a minimum] be installed on board, as follows:

.1 equipment capable of receiving and displaying ice imagery;

(Note: SOLAS chapter IV requires reception of weather information, including ice warnings, but this information is only available as text and is not displayed as charted information.)

.2 at least one radar with enhanced ice detection capability
Thank you for your attention