



**Ministry of sustainable infrastructures
and mobility**

Italian Coast Guard Headquarters

6th Department

Safety of Navigation and Maritime Security

Annex

Circular Title “Safety of Navigation”

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Section A

International Convention for the Safety of Life at Sea, 1974, as amended – Chapter XIV

Regulation XIV/2.3

Application

Ships to which the requirement is applicable

Ships flying the Italian flag subject to the provisions of Chapter XIV of the SOLAS 74 Convention, as amended.

Instruction

Part I-B of the Code shall be applied for consistent implementation of the following instructions.

Relevant national requirement

Not applicable

Section B
**International Code for Ships Operating in Polar Waters (Polar Code), adopted with
resolution MSC.385(94) dated 21st November 2014**

Part I-A
Safety Measures
Chapter 1 - General

Section 1.1

Structure of this part

*Ships to which the
requirement is
applicable*

Ships flying the Italian flag subject to the provisions of Chapter XIV of the SOLAS 74 Convention, as amended.

Instruction

Any goals/functional requirements mentioned for reference in these instructions are not intended to be applied instead of those set out in the Polar Code.

*Relevant national
requirement*

Not applicable

Section 1.2

Definition

*Ships to which the
requirement is
applicable*

Ships flying the Italian flag subject to the provisions of Chapter XIV of the SOLAS 74 Convention, as amended.

Instruction

For the application of the present instructions some definitions are provided below for the sake of clarity:

1. *Code*: the International Code for ships operating in Polar Waters (Polar Code) adopted by Resolution MSC.385(94) on date 21 November 2014 and entered into force on 1st January 2017;
2. *IACS*: the International Association of Classification Societies;
3. *WMO*: the World Meteorological Organization;
4. *IHO*: the International Hydrographic Organization.
5. *Recognized organization*: the Organization, including the Classification Society, authorized by the Administration to conduct inspections and surveillance of the ship according to Regulation XI-1/1 of the 1974 SOLAS Convention, as amended, and which issued the class certificate;
6. *Ship owner*: means the Owner of the ship or ISM Company.

*Relevant national
requirement*

Not applicable

Section 1.2.9

Definition

Mean Daily Low Temperature (MDLT)

Ships to which the requirements is applicable

Ships flying the Italian flag subject to the provisions of Chapter XIV of the SOLAS 74 Convention, as amended.

Instruction

If the data referring to the Mean Daily Minimum Temperature (MDTL) over a ten-year period (10 years) are not available, the Recognized Organization may accept shorter temperature observation data sets (at least 5 years), relating to the area and the season in which the ship intends to operate, provided that this information is obtained from official sources of the local competent authorities or recognized scientific organizations.

Relevant national requirement

Not applicable

Section 1.3

Certificate and survey

Ship to which the requirement is applicable

Ship flying the Italian flag subject to the provisions of Chapter XIV of the SOLAS 74 Convention, as amended.

Instruction

1. The Polar Ship Certificate for vessels engaged in polar waters has a maximum validity of 5 years and is issued by the Recognized Organization using the model approved by Italian Coast Guard Headquarters.
2. The certificate includes a supplement containing the list of ships' equipment required by the Code.
3. In accordance with paragraph 5.1.3 of the harmonized system of survey and certification (HSSC), the Polar Ship Certificate validity, survey dates and endorsements shall be aligned with the relevant SOLAS certificates in compliance with the provisions of SOLAS Regulation I/14, as amended.
4. The validity of the Polar Ship Certificate shall not affect the validity of other relevant certificates.
5. After the other relevant SOLAS certificates have been confirmed, the certificate is issued by the Recognized Organization, on behalf of the Administration, on the basis of the instructions contained in the IMO Circular MSC.1/Circ.1562, "*Unified interpretation of SOLAS regulation XIV / 2.2 and paragraphs 1.3.2 and 1.3.6, part IA of the Polar Code*".

Relevant national requirement

Non-Series Circular n. 08/2020 (latest revision in force) - "*Approval of new models of Safety Certificates*".

Section 1.5

Ships to which the requirement is applicable

Instruction

Relevant national requirement

Operational assessment

Ships flying the Italian flag subject to the provisions of Chapter XIV of the SOLAS 74 Convention, as amended.

1. The ship owner, in order to establish the operational measures or limitations and in accordance with Polar Code, shall carry out an assessment of the ship and its equipment to identify, in advance, the possible operational and environmental conditions in which the vessel will operate.
2. The assessment shall be based on the appropriate risk-assessment methodologies to address all hazards and including the operational capabilities and limitations in ice.
3. The assessment must be carried out in accordance with the International Safety Management (ISM) Code and must be:
 - included in the Safety Management System (SMS); and
 - submitted to the ship's Recognized Organization after any modification subsequent the completion of the relevant ISM audit.
4. The environmental conditions in which the ship will be engaged shall be clearly identified in the operational assessment.
5. For risk acceptance criteria, in terms of safety of navigation and protection of human life, the MSC-MEPC.2/Circ.12 - *FSA Guidelines*, as amended, shall be applied

Paragraph 3: Circular Title: Safety of Navigation - General Series, n.83/2010 - "*Amendments to the ISM Code - adopted through resolution MSC 273 (85) of 4 December 2008 - and to Circular S.G. n. 69 of 2.8.2007*".

Chapter 2 – Polar Water Operational Manual (PWOM)

Section 2.3

Regulation

Ships to which the requirement is applicable

Ships flying the Italian flag subject to the provisions of Chapter XIV of the SOLAS 74 Convention, as amended.

Instruction

1. A vessel operating in polar waters shall carry on board a Polar Water Operational Manual (PWOM), which contains sufficient information regarding the ship's operational capabilities and limitations in order to support the decision-making process of the Master and the crew of the ship.
2. The PWOM shall be developed in accordance with Polar Code by ship owner.
3. The model format contained in Appendix II of the Polar Code shall be used in the development of the PWOM in order to retain a common structure that will facilitate review. The PWOM shall be written in the working language, as defined in Chapter V of the SOLAS, as amended. If the working language is not English, an English translation is also required.
4. In order to ensure that the PWOM adequately addresses each element listed in the Appendix 2 of the Polar Code, as applicable, it shall be reviewed (not approved) by the Recognized Organization, prior to the issuance of a Polar Ship Certificate. Evidence of such review shall be clearly indicated in the PWOM.
5. The PWOM must be drawn up in accordance with the principles listed above and the International Safety Management (ISM) Code, and it must be:
 - kept updated under the responsibility of the ship owner and included in the Safety Management System (SMS); and
 - submitted to the ship's Recognized Organization after any modification following the completion of the relevant certification survey. Evidence of such revision shall be clearly indicated in the PWOM.

Relevant national requirement

Paragraph 5: Circular Title: Safety of Navigation - General Series, n.69/2007 - "*Management for the safety of ships and for the prevention of pollution - Procedures for the issue of DOC and SMC certificates*".

Chapter 3 – Ship Structures

Section 3.3

Regulation (IMO Obligation)

Ships to which the requirement is applicable

Ships flying the Italian flag subject to the provisions of Chapter XIV of the SOLAS 74 Convention, as amended.

Instruction

1. The material used for the exposed structures of ships operating in polar waters shall be compliant with the requirements of the Recognized Organization.
2. The scantlings of category A and B ships should be approved by the Recognized Organization in accordance with IACS Requirements concerning POLAR CLASS (I1 and I2), as amended.
3. The scantlings of category C ships should be approved in accordance with Class rules according to the operational polar area and the season in which the vessel will be engaged.

Relevant national requirement

Italian Presidential Decree 435/91 – article 56 “*Structural Strength*”.

Chapter 4 – Subdivision and Stability

Section 4.3

Regulation (IMO Obligation)

Ships to which the requirement is applicable

Ships flying the Italian flag subject to the provisions of Chapter XIV of the SOLAS 74 Convention, as amended.

Instruction

1. In addition to the requirements of the Polar Code and other applicable requirements, the stability of the ships operating in the polar waters shall as a minimum comply with the provisions of the chapter 6 – part B of the International Code on Intact Stability, 2008 (2008 IS Code) and with requirements of the Recognized Organization.
2. The values of accreted ice per square meter of open decks and projected lateral areas, indicated in the paragraph 4.3.1 of the code, shall be adequately increased if it is considered necessary following the operational assessment conducted by the ship owner/ship operator according to the paragraph 1.5 of the code or, if adequately justified, it is required by Recognized Organization. The values obtained shall be indicated in the approved “Stability information to be supplied to the master.
3. The master shall be supplied with appropriate information and sources to enable him to obtain sufficient data on expected icing rate in way to ensure that the limits on ice accretion set out in the PWOM are not exceeded.

Relevant national requirement

Italian Presidential Decree 435/91:

- article 60 “*Intact Ship Stability*”;
- article 63 “*Instructions on Stability*”.

Chapter 5 – Watertight and Weathertight Integrity

Section 5.3

Regulation (IMO Obligation)

Ships to which the requirement is applicable

Ships flying the Italian flag subject to the provisions of Chapter XIV of the SOLAS 74 Convention, as amended.

Instruction

1. Ships operating in polar waters shall be equipped with suitable means for reducing ice accretion (e.g. vapour) to the satisfaction of the Recognized Organization.
2. The ship's Master shall ensure that all doors relevant to the watertight and weathertight integrity, including escape hatches, are always operable.

Relevant national requirement

Italian Presidential Decree 579/67:

- article 54 “*Class I closing means for openings of the superstructures end bulkheads*”;
- article 55 “*Class II closing means for openings of the superstructures end bulkheads*”.

Italian Presidential Decree 435/91 – article 89 “*Stairways, corridors and escape doors*”.

Chapter 6 – Machinery

Section 6.3.1

Regulation

Ships to which the requirement is applicable

Ships flying the Italian flag subject to the provisions of Chapter XIV of the SOLAS 74 Convention, as amended.

Instruction

For the purposes of paragraph 6.3.1.3 of the code, the seawater inlets connected to internal combustion engines shall comply at least with the provisions contained in the MSC/Circ.504 "*Guidance on design and construction of sea inlets under slush ice conditions*".

Relevant national requirement

Italian Presidential Decree 435/91:

- article 78 "*General criteria for the construction and arrangement of the propulsion machinery, of the auxiliary machinery and of the electrical installation*";
- article 79 "*Design of ships constructed on or after the entry into force of the present regulations and their construction*".

Section 6.3.2

Regulation (IMO Obligation)

Ships to which the requirement is applicable

Ship flying the Italian flag subject to the provisions of Chapter XIV of the SOLAS 74 Convention, as amended, and operating in low air temperature.

Instruction

For the purposes of paragraph 6.3.2 of the code, the materials of the exposed machinery and foundations shall be approved by the ship's Recognized Organization in accordance with the IACS requirements relating to the POLAR class - (I1, I2 and I3).

Relevant national requirement

Italian Presidential Decree 435/91:

- article 71 "*Marine outfitting*";
- article 72 "*Power operation of anchor capstan or windlass and for capstan or winches for mooring and warping operations*".

Section 6.3.3

Ships to which the requirement is applicable

Instruction

Relevant national requirement

Regulation (IMO Obligation)

Ships flying the Italian flag subject to the provisions of Chapter XIV of the SOLAS 74 Convention, as amended, to which the criteria of ice strengthened referred to in Chapter 3 of the code apply

For the purposes of paragraph 6.3.3 of the code:

1. For the Category A and B ship, the scantlings of propeller blades, propulsion line, steering equipment and other appendages shall be approved by the Recognized Organization in accordance with the IACS requirements relating to the POLAR class - (I1 and I3) on polar class basis.
2. For the Category C ship, the scantlings of propeller blades, propulsion line, steering equipment and other appendages shall be approved by Recognized Organization in accordance with the area in which the vessel will be engaged.

Italian Presidential Decree 435/91 - article 70 "*Steering gear*".

Chapter 7 – Fire Safety/Protection

Section 7.3

Ships to which the requirement is applicable

Instruction

Regulation (IMO Obligation)

Ships flying the Italian flag subject to the provisions of Chapter XIV of the SOLAS 74 Convention, as amended, and operating in low air temperature.

1. The fire equipment and appliances, fire-extinguishing agent and system shall be kept ready and protected against freezing.
2. Fire-fighting systems piping on the exposed decks:
 - a) a drain plug or valve shall be installed below the drain pipe to protect the piping from freezing;
 - b) the fire pipes shall be installed in a protected position or heating covers are to be provided to prevent ice and snow accumulation;
 - c) the isolating valve and pressure/vacuum valve, if fitted on open deck, shall be equipped with a suitable cover or heating system to protect them from ice, snow and freezing;
3. Requirements for fire pumps (including emergency fire pump, water spray pump and injection pump):
 - a) shall be installed in space with temperature greater than 0°C;
 - b) for seawater inlets, measures are to be taken to prevent the ice intake or eliminate it before the entry into system.
4. Fixed deck foam fire-fighting system:
 - a) deck foam fire-fighting system shall use foaming agent complying with polar service temperature (PST).
5. Water spray system:
 - a) the spray nozzle shall be fully drained after use to ensure normal operation of water spray system.
6. Fire appliances:
 - a) portable fire extinguishers shall be stowed in a protected position. If this is not possible, approved fire extinguishers suitable for polar service temperature (PST) shall be provided on board;
 - b) to ensure the effective release of the fire-extinguishing agent, dry powder fire extinguishers shall be capable of preventing blockage or clogging of the nozzle under polar service temperature;
 - c) two-way portable radio communication equipment, approved for polar service temperature, shall be provided on board for communication with the fire station;
 - d) fireman's outfits shall be placed on the Navigation Bridge, in the fire station or in other spaces with

temperature not less than 5°C.

7. Escape routes and passageways for passenger and cargo vessel:
 - a) the width of the means of escape and routes shall be sized taking into consideration the protective clothing to be installed on board, based on the environmental conditions in which the ships will be operated and the place where the equipment is stowed on board as established in the operational assessment;
 - b) the access to the tanker bow shall be fitted with anti-icing or de-icing protection measures. The same requirements shall be applied to the means of access used on cargo vessels with reduced freeboard determined according to Load Line 1969 and relative Protocol 88.
8. Helicopter decks shall be equipped with measures meeting the requirements for quick de-icing (e.g. low pressure steam connector, hot water connector and heating systems).
9. Building material for exposed fire safety system, equipment and appliances should be compliant with IACS UR S6 *Use of Steel Grades for Various Hull Members – Ships of 90 m in length and above (2013)* or IACS URI *Requirements concerning PolarClass (2011)*.

Relevant national requirement

Italian Presidential Decree 435/91:

- article 83 “*General criteria for fire protection*”;
- article 84 “*Passenger ship*”;
- article 85 “*Cargo ship*”;
- article 89 “*Stairways, corridors and escape doors*”;
- article 90 “*Fireman’s outfit*”;
- article 91 “*Fire station*”;
- article 172 “*Helicopter station*”.

Chapter 8 – Life-saving appliances

Section 8.3

Regulation

Ships to which the requirement is applicable

Ships flying the Italian flag subject to the provisions of Chapter XIV of the SOLAS 74 Convention, as amended.

Instruction

1. For the life-saving appliances the provisions of the MSC.1/Circ.1614 "*Interim Guidelines on Life-Saving Appliances and arrangements for Ships operating in Polar Waters*" shall apply.
2. Any additional personal survival equipment, if required in the PWOM, shall be stowed according to the existing provisions issued by the Administration and applicable to the lifejackets. The location of such equipment shall be indicated in the drawing approved according to article 35 of the Italian Safety Regulation (IPD 435/91).

National requirement to which is linked

Italian Presidential Decree 435/91:

- article 35 "*General criteria for the construction and arrangement of the propulsion machinery, of the auxiliary machinery and of the electrical installation*"
- article 93 "*General criteria for life-saving appliances*"
- article 94 "*Characteristics and requirements of the life-saving appliances*"
- article 95 "*General criteria for the arrangement of life-saving appliances*"
- article 98 "*Approved type life-saving appliances and relative apparatus and device*";
- article 108 "*Equipment and distress signals of survival craft*".

For paragraph 2 of the above instructions: Circular Title: Safety of Navigation - General Series, n.46/2003 - "*Consistency and arrangement of lifejackets on board ships and high-speed passenger craft*".

Chapter 9 – Safety of Navigation

Section 9.3

Ships to which the requirement is applicable

Instruction

Regulation

Ships flying the Italian flag subject to the provisions of Chapter XIV of the SOLAS 74 Convention, as amended.

1. For the bridge equipment the provisions of the MSC.1/Circ.1612 "*Guidance for Navigation and Communication equipment for use on Ships operating in Polar Waters*" shall apply.
2. Ships shall have on board the specific publications published by the World Meteorological Organization (WMO).
3. Nautical information:
 - a. means of receiving and displaying current information on ice conditions in the area of operation, can be realized by following means of:
 - i. meteorological fax receiver capable of receiving ice regime or equivalent equipment, for all ships; or
 - ii. If provided and for Category A and B ship, ECDIS comply with and series S-100 standard.
4. Nautical publications: ships shall have on board, in addition to nautical publications required by others regulations, the following:
 - i. WMO – No.259 “WMO Sea Ice Nomenclature”;
 - ii. WMO – No.574 “Sea-Ice Information Services in the World”;
 - iii. WMO – No.558 “Manual on Marine Meteorological Services”;
 - iv. WMO – No.471 “Guide to Marine Meteorological Services”; and
 - v. WMO – No.306 “Manual on Codes”.

Relevant national requirement

Italian Presidential Decree 435/91 – Title VI “*Nautical equipment and arrangements; various equipment*”

Chapter 10 – Communication

Section 10.3

Ship to which the requirements is applicable

Regulation

Ship flying the Italian flag subject to the provisions of Chapter XIV of the SOLAS 74 Convention, as amended.

Instruction

For the bridge equipment the provisions of the MSC.1/Circ.1612 "*Guidance for Navigation and Communication equipment for use on Ships operating in Polar Waters*" shall apply.

National requirement to which is linked

- Italian Presidential Decree 435/91 – Title VII "*Radiotelegraphy and radiotelephony*".
- Italian Legislative Decree August 1st, 2003, n.259 – "*Code of communications*".
- Decree April 15th, 2003, n.130 "*Regulation concerning the technical requirements for the radio-electric systems and arrangements to be installed on board ships subject to the requirements of the GMDSS*".

Chapter 11 – Voyage planning

Section 11.3

Ship to which the requirements is applicable

Instruction

Relevant national requirement

Regulation

Ship flying the Italian flag subject to the provisions of Chapter XIV of the SOLAS 74 Convention, as amended.

1. For the aspects relating to the protection of marine mammals, referred to in paragraphs 11.3.6 and 11.3.7 of the Code, the provisions of the MSC/Circ.674 "*Guidance document for minimizing the risk of ship strikes with cetaceans*" shall apply.
2. With regard to search and rescue (SAR) operations in remote areas, referred to in paragraph 11.3.9 of the Code, the following provisions/instructions apply:
 - a) MSC.1/Circ.1184 "*Enhanced contingency planning guidance for passenger ships operating in remote areas from SAR facilities*";
 - b) Resolution A.999(25) "*Guidelines on voyage planning for passenger ships operating in remote areas*"; and
 - c) Document SSE/INF.6 "*Methodology for estimating exposure time in polar Region*" (**Annex 1**).

Not applicable

Chapter 12 – Manning and training

Section 12.3

Ships to which the requirement is applicable

Regulation

Ships flying the Italian flag subject to the provisions of Chapter XIV of the SOLAS 74 Convention, as amended.

Instruction

For Seafarer training required in section 12.3 of the Code, the Decree of June 5th, 2018 "*Establishment of the educational and training course for maritime personnel serving on ships subject to the Polar Code*" shall apply.

Relevant national requirement

- Italian Presidential Decree 435/91 – article 201 “*Safe manning*”;
- Decree of June 5th, 2018 "*Establishment of the educational and training course for maritime personnel serving on ships subject to the Polar Code*";
- Circular Title: Maritime Personnel – Safe Manning Series, n.001;
- Circular Title: Maritime Personnel – Safe Manning Series, n.002.