

Safety measures for non-SOLAS ships operating in polar waters





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Background

Following the implementation of the Polar Code in 2017, concerns persisted regarding the lack of international requirements, which may ensure the safety of non-SOLAS ships operating in the polar waters.

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In response to these concerns, the Maritime Safety Committee of IMO, at its 107th session, adopted amendments to SOLAS chapter XIV and the Polar Code through resolutions MSC.532(107) and MSC.538(107). These amendments introduce new chapters 9-1 (safety of navigation) and 11-1 (voyage planning) to the Polar Code Part I-A, aimed at enhancing the safety of non-SOLAS ships navigating in the polar waters. The amendments will enter into force on 1 January 2026

Non-SOLAS ships navigating in the polar waters shall in principle comply with chapters 9-1 and 11-1 of the Polar Code Part I-A, but the application of chapter 9-1 may be subject to relaxation based on the policy of flag Administrations. Nonetheless, as the amendments do not specify survey and certification requirements, there remains uncertainty as to whether flag Administrations will establish relevant regulations within their national legal frameworks. In light of this, there is a need for KR to develop its own voluntary survey and certification services, apart from national legal frameworks.

Amongst the various types of non-SOLAS vessels, fishing vessels operating in the polar waters are expected to be the most significantly impacted by these amendments.

Major concepts in the Polar Code applied to non-SOLAS ships

In the introduction part of the Polar Code, ships navigating in polar waters are categorized into the following three(3) groups against the ice conditions the ship is designed to operate in. While category A and B ships should be ice-strengthened according to class rules, category C ships may or may not be ice-strengthened.

Category	Definition
Category A ship	a ship designed for operation in polar waters in at least medium first-year ice, which may include old ice inclusions.
Category B ship	a ship not included in category A, designed for operation in polar waters in at least thin first-year ice, which may include old ice inclusions.
Category C ship	a ship designed to operate in open water or in ice conditions less severe than those included in categories A and B.

Conducting an operational assessment of a ship and its equipment against the exposed polar environment serves as a fundamental starting point for the effective implementation of the Polar Code. The operational assessment is crucial in identifying operational limitations of a ship for safe operation in polar waters and establishing appropriate countermeasures. While SOLAS chapter XIV and the Polar Code part I-A do not explicitly mandate an operational assessment for non-SOLAS ships, it may play a vital role in developing an operating manual relating to ship's voyage planning.

For more information, you are guided to refer to the introduction and the safety-related provisions of paragraphs 1.2, 1.4 and 1.5 of chapter 1 of part I-A of the Polar Code.

Application

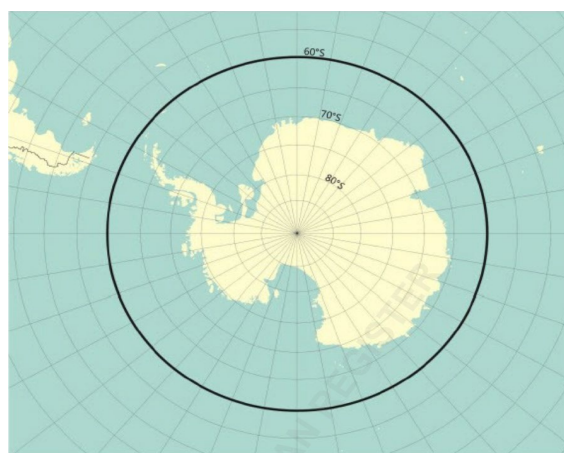
The amendments of SOLAS chapter XIV and the Polar Code, as adopted by resolutions MSC.532(107) and MSC.538(107), apply to the following categories of non-SOLAS ships from 1 January 2026, where they are engaged in any voyages in the Antarctic area and voyages in Arctic waters beyond the outer limit of the territorial sea of the Contracting Government whose flag the ship is entitled to fly.

- fishing vessels of 24 m in length overall and above;
- pleasure yachts of 300 GT and upwards not engaged in trade; and
- cargo ships of 300 GT and upwards but below 500 GT

If constructed(K/L) before 1 January 2026, such non-SOLAS ships, for navigation in the polar waters, shall meet the new chapters 9-1 and 11-1 of the Polar Code Part I-A by 1 January 2027.

In implementing the amendments, the Administration may determine to mitigate the application of the provisions in regulation 9-1.3.1 and 9-1.3.2 of chapter 9-1 of the Polar Code Part I-A in accordance with SOLAS regulation XIV/3-1.2.

The scope of polar waters in Arctic and Antarctic area are as defined in SOLAS chapter XIV and the Polar Code.



The scope of polar waters in Arctic and Antarctic areas

Safety measures for ships not certified under the SOLAS Convention operating in polar waters

Where non-SOLAS ships, as categorized in the application part of this document, operate in the polar waters, up-to-date nautical information, including ice condition and suitable navigation equipment shall be provided onboard in accordance with Polar Code, part I-A, chapters 9-1. In addition, appropriate voyage planning should be established by ship's master, in accordance with the Polar Code, part I-A, chapter 11-1 to ensure safe navigation in the polar waters

The details of concerned requirements are as listed in the table below.

No. Required installations	Application
1 Means of receiving and displaying current information on ice conditions in the area of operation	All ships
2 Either two independent echo-sounding devices or one echo-sounding device with two separate independent transducers. ¹ Other devices capable of depth sounding, such as fish finders, may be used as equivalent means, where accepted by the Administration ² .	Ice-strengthen ships constructed(K/L) on or after 1 January 2026
3 Clear views ³ through at least two of the navigation bridge front windows, and at least one towards astern	All ships
4 Means to prevent the accumulation of ice on antennas required for navigation and communication	Ships operating in areas and during periods, where ice accretion is likely to occur
5 Protection against ice for sensors of navigation equipment projecting below ship's hull	ice-strengthened ships
6 Bridge wings enclosed or designed to protect navigational equipment and operating personnel	category A and B ships constructed on or after 1 January 2026
7 Two non-magnetic means to determine and display their heading ¹ (e.g. gyro compasses, GNSS compasses, etc.) Both means shall be independent and shall be connected to the ship's main and emergency source of power	Ships of 500 GT and upwards
8 At least one GNSS compass or equivalent, connected to the ship's main and emergency source of power	Ships proceeding to latitudes over 80 degrees
9 Two means of illumination to aid visual detection of ice	Ships, except those solely operating in areas with 24 hours daylight
10 Provision of voyage plan ⁴ for operation in polar waters. To establish a suitable voyage plan, at least a documented procedure shall be provided onboard with regard to ship's operation in polar waters.	All ships

Survey and certification

Based on MSC 106's decision, the certification proving compliance with the requirements of chapters 9-1 and 11-1 of part I-A of the Polar Code will be left to the discretion of the flag Administration.

Therefore, where ship's flag Administration establishes its own national legislation relating to the survey and certification of non-SOLAS ships navigating in the polar waters, such requirements shall be adhered to. If such

¹ Taking into account paragraph 1.4 of part I-A of the Polar Code, it is highly recommended that the navigation equipment complies with related performance standards footnoted under SOLAS regulation V/18.

² Limited to the SOC issued apart from any national legislation of flag Administration, other devices capable of depth sounding, such as fish finders, may be used as an equivalent means, regardless of the acceptance from ship's flag Administration.

³ Ensuring clear views through at least two of the navigation bridge front windows should be in accordance with SOLAS regulation V/22.1.9.4

⁴ Voyage plan shall take into account ship's ice class (i.e. category A, B and C).

survey and certification is delegated to KR from ship's flag Administration, KR may conduct its survey and certification, upon the request of ship owners or operators and based on the flag Administration's national laws and requirements.

Nonetheless, where ship's flag Administration does not establish such a survey and certification scheme and where ship owners request KR on a voluntary basis to conduct related survey, KR may conduct the survey to confirm the compliance of their fleet with chapters 9-1 and 11-1 of part I-A of the Polar Code. Upon successful verification, KR may issue a statement of compliance for non-SOLAS ships operating in polar waters.

If non-SOLAS ships are to be constructed on or after 1 January 2026 in accordance with the relevant requirements of the Polar Code, ship owners or shipyards may request KR through a survey application to carry out pertinent drawing approval and survey with a view towards obtaining the statement of compliance.

For existing ships, where no additional equipment or upgrades are required to comply with the requirements of chapters 9-1 and 11-1 of part I-A of the Polar Code, ship owners or operators should submit the master's statement together with relevant evidence confirming such a fact. The statement of compliance may be issued by KR surveyors without physical onboard attendance, provided compliance with the relevant requirements in the Polar Code can be verified through documented review of already approved drawings and documents. In this case, for continued validity of the statement of compliance, an on-board physical survey should be undertaken at the next scheduled periodical class survey and/or any other statutory survey, if any.

However, if additional equipment should be provided onboard or existing arrangements should be modified to comply with the requirements of chapters 9-1 and 11-1 of part I-A of the Polar Code or where evidence to allow documented review may not be available, relevant drawing approval and/or onboard survey should be conducted for the issuance of the statement of compliance.

Once issued, the statement of compliance may be valid no longer than 5 years and can be renewed in line with ship's classification special survey and/or other statutory renewal surveys, if any.

The above process is described as a flow chart more in detail as appended to this document.

In this regard, ship owners or shipyards should submit documented evidence, as listed below, to KR⁵ before the verification process is initiated.

- Drawings and/or documents to confirm the compliance with the above items No.1 to No.9;
- Ship's voyage plan covering all intended operating areas in the polar waters;
- Ice information during the intended operation in the polar waters and ship's corresponding category under the Polar Code (e.g. Categories A, B or C);
- Where relevant, master's statement that existing arrangements need not be modified to comply with the requirements of chapters 9-1 and 11-1 of part I-A of the Polar Code; and
- Any other information that surveyor(s) requests

Actions to be taken

Where their non-SOLAS fleet operates in the polar waters on or after **1 January 2026**, **shipowners/operators** shall ensure that such vessels comply with chapters 9-1 and 11-1 of part I-A of the Polar Code. For existing non-SOLAS ships constructed before 1 January 2026, the compliance should be achieved by **1 January 2027**.

On a voluntary basis, **shipowners/operators** may apply KR^{5, 6} for the verification on the compliance of their fleet with chapters 9-1 and 11-1 of part I-A of the Polar Code and, thereafter, the issuance of the statement of compliance. The end.

⁵ Where related drawings should be modified and/or (re)approved, they should be submitted to Electric and Automation Team (elec@krs.co.kr), etc. Any other documented evidence, including already approved drawings, should be submitted to a concerned KR branch office.

⁶ KR branch office or KR e-Fleet (<https://e-fleet.krs.co.kr>) for survey request

General Manager
Convention & Legislation Service Team
Korean Register

P.I.C KIM Kyoungyong / Principal Surveyor
PARK Sungbeom / Surveyor

Tel: +82 70 8799 8328

E-mail: convention@krs.co.kr / kykim@krs.co.kr

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Appendix

Flow chart for the issuance of the statement of compliance for non-SOLAS ships operating in polar waters

