

# Polar Ship Certificate Guidance

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Guidance on how to comply with safety and pollution  
prevention requirements in polar waters



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# Polar Code Guidance

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# 1. Overview

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## 1.1 The Polar Code

This guideline covers the tasks a ship owner would need to complete to gain a polar ship certificate and to satisfy the polar pollution prevention requirements.

The purpose of the Polar Code is safe ship operation and environmental protection in polar waters. Polar waters include both the Arctic and Antarctic areas. The Polar Code acknowledges that polar waters place additional demands on ships. The safety measures in Part I of the Code require ships to be thoroughly prepared for polar conditions. The Polar Code requires owners of relevant ships to hold a Polar Ship Certificate as evidence of compliance with the additional safety measures in Part I. Part II of the Polar Code is concerned with additional measures to prevent pollution in polar waters.

New Zealand has brought the Polar Code into force through amendments to the Maritime Rules and Marine Protection Rules. This guidance document explains the safety and pollution prevention requirements in Maritime Rules Parts 31, 32, 40B, 42A, 46 and Marine Protection Rules Parts 100, 120, 121, 122, 123, 125, 130, 140, 141, 142, 143, and 170.

To apply for a Polar Ship Certificate, ship owners should contact a classification society listed on the Maritime NZ website:

**[maritimenz.govt.nz/polarcode](https://maritimenz.govt.nz/polarcode)**

## 1.2 Who does the Polar Code apply to?

### Part I-A Safety Measures

The Maritime Rules apply to owners and masters of ships subject to the Safety of Life at Sea (SOLAS) Convention and ships of 45 meters in length that proceed beyond restricted limits and operate in polar waters.

The Polar Code Part I-A safety measures apply to ships constructed;

- before 1 February 2018, the first intermediate or renewal survey after 1 February 2018 (whichever occurs first)
- after 1 February 2018, the date of construction.

Masters, chief mates and officers in charge of a navigational watch on ships that must have a Polar Ship Certificate or Polar Ship Document of Compliance are required to hold the basic or advanced polar waters endorsement. Further information about how to apply for the polar waters endorsements is available on the website here:

**[maritimenz.govt.nz/seafarers](https://maritimenz.govt.nz/seafarers)**

## Part II-A Pollution prevention

The pollution prevention requirements in Marine Protection Rules apply to all owners and masters of ships subject to Annex I, Annex II, or Annex V of the International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978 (MARPOL) that operate in polar waters. The pollution prevention requirements came into effect on 1 February 2018.

### Disclaimer

These guidelines provide information and explanations about the requirements set out in the maritime rules, but are not a substitute for the rules themselves, which are the law. In this guideline, any references to 'we' or Maritime New Zealand (Maritime NZ) relating to a decision about the issue or renewal of any certificate are references to the Director or a person acting under the Director's delegated authority.

These guidelines cover the ship owner's obligations under New Zealand Maritime Rules and Marine Protection rules. In addition, ship owners with ships that may enter foreign states' waters will need to understand their obligations under the laws of that country. That might include obligations under Conventions or other legal instruments that New Zealand is not party to. This includes for example, MARPOL Annex IV that regulates the discharge of sewage.

The maritime and marine protection rules can be found here:

**[maritimenz.govt.nz/rules](https://maritimenz.govt.nz/rules)**

## Overview (continued)

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### Where does the Polar Code apply?

The Polar Code applies to ships operating in polar waters. Polar waters include Arctic Waters and the Antarctic Area. These are defined as follows. The Antarctic area includes all waters South of Latitude 60 degrees as shown in the figure below.

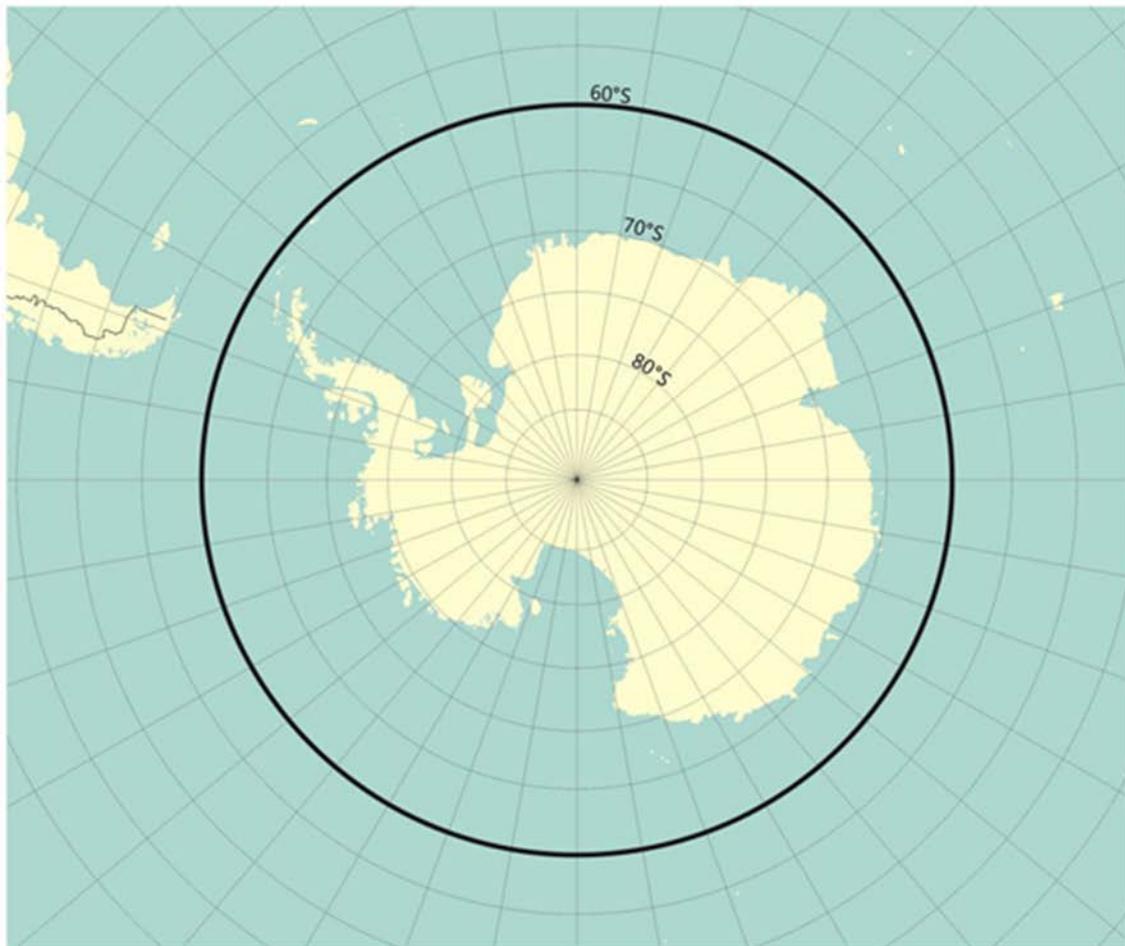


Figure 1 Maximum area of Antarctic area application

## Overview (continued)

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The Arctic waters include the water north of 60 degrees, including the south of Greenland, but excluding the waters around Iceland, Norway, Russia's Kola Peninsula, the White Sea, the Sea of Okhotsk and the Alaskan Prince William Sound. Arctic waters are shown in the figure below.



Figure 2 Maximum area of Arctic area application

### 1.2 Sources of hazards

The Polar Code considers hazards which may lead to elevated levels of risk due to increased probability of occurrence, more severe consequences, or both:

- 1 Ice, as it may affect hull structure, stability characteristics, machinery systems, navigation, the outdoor working environment, maintenance and emergency preparedness tasks and malfunction of safety equipment and systems
- 2 experiencing topside icing, with potential reduction of stability and equipment functionality
- 3 low temperature, as it affects the working environment and human performance, maintenance and emergency preparedness tasks, material properties and equipment efficiency, survival time and performance of safety equipment and systems
- 4 extended periods of darkness or daylight as it may affect navigation and human performance
- 5 high latitude, as it affects navigation systems, communication systems and the quality of ice imagery information
- 6 remoteness and possible lack of accurate and complete hydrographic data and information, reduced availability of navigational aids and seamarks with increased potential for groundings compounded by remoteness, limited readily deployable SAR facilities, delays in emergency response and limited communications capability, with the potential to affect incident response
- 7 potential lack of ship crew experience in polar operations, with potential for human error
- 8 potential lack of suitable emergency response equipment, with the potential for limiting the effectiveness of mitigation measures
- 9 rapidly changing and severe weather conditions, with the potential for escalation of incidents; and
- 10 the environment with respect to sensitivity to harmful substances and other environmental impacts and its need for longer restoration

## 1.3 Definitions

The following definitions are used in these guidelines.

Term	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.
First year ice	Sea ice of not more than one winter growth developing from young ice with thickness from 0.3 m to 2.0 m.
Ice free waters	Waters with no ice present. If ice of any kind is present this term must not be used.
Medium first year ice	First-year ice of 0.7 m to 1.2 m thickness.
Old ice	Sea ice which has survived at least one summer's melt; typical thickness up to 3 m or more. It is subdivided into residual first-year ice, second-year ice and multi-year ice.
Open water	A large area of freely navigable water in which sea ice is present in concentrations less than 1/10. No ice of land origin is present.
Thin first year ice	First-year ice 0.3 m to 0.7 m thick.
Escort	Any ship with superior ice capability in transit with another ship.
Escorted operation	Any operation in which a ship's movement is facilitated through the intervention of an escort.
Ice class	The notation assigned to the ship by the Administration or by an organisation recognised by the Administration showing that the ship has been designed for navigation in sea-ice conditions.
Maximum expected time of rescue	The time adopted for the design of equipment and system that provide survival support. It must never be less than 5 days.
Machinery installations	Equipment and machinery and its associated piping and cabling, which is necessary for the safe operation of the ship.
Mean Daily Low Temperature (MDLT)	The mean value of the daily low temperature for each day of the year over a minimum 10 year period. A data set acceptable to the Administration may be used if 10 years of data is not available.
Polar service temperature	A temperature specified for a ship which is intended to operate in low air temperature, which must be set at least 10 degrees Celsius below the lowest

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<b>(PST)</b>	MDLT for the intended area and season of operation in polar waters.
<b>Ship intended to operate in low air temperature</b>	A ship which is intended to undertake voyages to or through areas where the lowest Mean Daily Low Temperature (MDLT) is below -10 degrees Celsius.
<b>SOLAS</b>	The International Convention for the Safety of Life at Sea 1974, as amended.
<b>MARPOL</b>	International Convention for the Prevention of Pollution from Ships 1973 as amended.

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## 3. Part I-A Safety Measures

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This section explains the twelve chapters in the safety measures part of the Polar Code.

### Part I-A Safety Measures

Ship owners and masters need to meet the following key requirements:

To meet the safety requirements set out in Maritime Rules Part 31, 32, 40B, 42A, and 46 you need:

- a Polar Ship Certificate or a Polar Ship Document of Compliance on the ship
- crew with the appropriate polar water endorsements
- to carry the Ship's polar water operational manual on the ship
- to carry out voyage planning before every voyage to polar waters.

### Chapter 1 General

#### Polar Ship Certificate

SOLAS ships must have a Polar Ship Certificate. Ships over 45 meters that proceed beyond restricted limits must have a Polar Ship Document of Compliance. To gain the Certificate or Document of Compliance the owner must:

- have the ship surveyed against the SOLAS Chapter XIV safety measures
- do an assessment of the ship's operational limitations
- complete a Polar Water Operational Manual for the ship.

The recognized organisations that have the delegations to carry out the survey and issue of the Polar Ship Certificate or Polar Ship Document of Compliance can be found on the Maritime NZ website.

[maritimenz.govt.nz/commercial/ships/polarcode](https://maritimenz.govt.nz/commercial/ships/polarcode)

#### Operational assessment

An assessment of the ships operational limitations must be carried out. The assessment can be done by considering the capability of the ship and its equipment in the following conditions:

- operation in low air temperature
- operation in ice
- operation in high latitude
- potential for abandonment onto ice or land.

#### Polar service temperature

A polar service temperature (PST) must be specified for ships in polar waters. The PST must be set at least 10 degrees Celsius below the lowest Mean Daily Low Temperature for the intended area and season of operation in polar waters. Systems and equipment required by the Polar Code must be fully functional at the polar service temperature.

## **Chapter 2 Polar water operational manual**

A polar water operational manual must contain procedures for:

**1 Voyage planning**

Voyage planning to avoid ice and/or temperatures that exceed the ship's design capabilities or limitations.

**2 Weather Forecasts**

Plan for receiving forecasts of the environmental conditions.

**3 Incomplete environmental information**

What actions will be taken when only limited hydrographic, meteorological and navigation information is available.

**4 Operating equipment**

Operation of the equipment required by the Polar Code.

**5 Equipment maintenance**

The actions that will be taken to keep equipment and systems operating under low temperatures, topside icing and the presence of sea ice.

**6 Contacting emergency response**

Contacting emergency response providers for salvage, search and rescue (SAR), spill response.

**7 Entrapment by ice**

For ice strengthened ships, procedures for maintaining ship integrity and life support for prolonged entrapment by ice.

### Chapter 3 Ship structure

This chapter sets standards for the materials and scantlings used in the ships structure. Materials used in the ship structure need to retain structural integrity when exposed to air temperature at the ship's polar service temperature. The structure of ice strengthened ships need to resist global and local loads under expected ice conditions.

#### Requirements

- Although it is not in the amended Maritime Rules, it is good practice for the scantlings of Category A, B and C ships to be approved by a Classification Society. The Classification Society should take into account standards acceptable to Maritime NZ. The International Association of Classification Societies unified requirements for polar ships is one available standard
- A category C ship does not need to be ice strengthened if Maritime NZ or a delegated Classification Society takes a view that the ship's structure is appropriate for its intended operation.

### Chapter 4 Subdivision and stability

This chapter sets standards for subdivision and stability in both intact and damaged conditions. Ships must have enough stability in intact conditions when affected by ice build-up. Category A and B ships, constructed on or after 1 January 2017 must have enough residual stability following ice-related damage. The icing allowance included in the stability calculations must be included in the Polar Water Operational Manual.

#### Requirements

##### Stability in intact conditions

The following ice allowance must be included in the stability calculations if the ship is operating in areas where the gradual build-up of ice is expected:

- 30 kg/m<sup>2</sup> on exposed weather decks and gangways
- 7.5 kg/m<sup>2</sup> for the projected lateral area of the ship above the water plane
- increase the total projected area of continuous surfaces by 5%, and the static moments of this area by 10% to account for the lateral area of rail, sundry booms, spars, and rigging
- appropriate measures must be taken to ensure ice build-up does not exceed the values in the Polar Water Operational Manual.

Ships operating in areas and at times where the build-up of ice is expected must be:

- designed to minimise the build-up of ice
- equipped with such means for removing ice such as, but not limited to electrical and pneumatic devices, axes or clubs.

## Part I-A Safety Measures (continued)

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### Stability in damaged conditions

New Category A and B ships must have enough residual stability to withstand flooding resulting from hull penetration due to ice impact. The location of and size of the damage to be allowed for is:

- 4.5% of the length of the upper ice waterline if centred forward of the maximum width on the upper ice waterline, and 1.5% of the upper ice waterline length, at any point along the ship's length
- the transverse penetration is 760 mm
- the vertical extent is the lesser of 20% of the upper ice waterline draught or the longitudinal extent, and must be assumed at any vertical position between the keel and 120% of the upper ice waterline draught.



## Chapter 5 Watertight and weather-tight integrity

The goal of this chapter is to ensure water-tight and weather-tight integrity on ships in polar waters.

### Requirements

Ship type	Requirements
All ships	All ships need effective ways to prevent or remove ice and snow build-up around doors and hatches.
Ships in low air temperature	Ships in low air temperature with hydraulically operated doors or hatches must have ways to prevent freezing or excessive viscosity of liquids used in the hydraulic system.  Watertight and weather-tight hatches and doors not in a habitable environment and will be accessed while at sea must be designed to be operated by people wearing heavy winter clothing.



### Chapter 6 Machinery installations

The goal of this chapter is to ensure machinery can function effectively in the expected conditions.

#### Requirements

Machinery needs to function in the anticipated conditions, taking into account:

- the gradual build-up of ice and/or snow accumulation
- ice intake from seawater pumps
- freezing and increased viscosity of liquids
- seawater intake temperature
- snow intake.

In addition, ships operating machinery in low air temperature must take into account:

- cold and dense inlet air
- loss of performance of battery or other stored energy device
- materials used in machinery installations must be appropriate for operation at the ships polar service temperature.

Ice strengthened ships need machinery to continue to function, even when taking into account loads imposed by contact with ice.

Ship type	Requirements
All ships	<p>Place machinery in a heated compartment where possible.</p> <p>Machinery must be protected against the effect of the build-up of ice, snow build-up, ice intake from sea water, freezing and increased viscosity of liquid, seawater intake temperature and snow intake.</p> <p>Working liquids must be kept at a temperature that allows machinery to operate at the PST.</p> <p>Seawater intakes for machinery must be designed to prevent ice intake.</p>
Ships in low air temperature	<p>Essential exposed machinery and electrical installations must function at the PST.</p> <p>Air used for internal combustion engines driving essential machinery must be kept at a temperature set by the engine manufacturer.</p> <p>Materials of exposed machinery must be approved by an authorised class society.</p>
Ice-strengthened ships	<p>The scantlings of propeller blades, propulsion line, steering equipment, and other attachments of category A, B and C ships must be approved by a class society authorised by Maritime NZ.</p>

## Chapter 7 Fire safety/ protection

The goal of this chapter is to ensure fire safety systems are effective, means of escape are available and lifeboats can be accessed under expected environmental conditions.

### Requirements

Ship type	Requirements
All ships	<p>Fire-fighting equipment and machinery controls must be protected from freezing and remain accessible. Isolating and pressure/vacuum valves are to be protected from ice accretion and remain accessible.</p> <p>Fire pumps must be in heated compartments. The fire main is to be arranged so that exposed sections can be isolated and drained.</p> <p>The ship needs ways to prevent or remove ice build-up from access ways.</p> <p>Fire extinguishing equipment must be suitable for the intended operation.</p> <p>Two way portable radios must work effectively at the PST.</p> <p>Fire fighters outfits must be stored in warm locations on the ship.</p> <p>Sea suction for water-based fire fighting systems must have a way to clear accumulated ice.</p> <p>The design of fire safety systems and appliances must take into consideration the need for people to wear bulky and cumbersome cold weather gear, where appropriate</p>
Ships in low air temperature	<p>Fire safety systems must be capable of operating at the PST. Materials of exposed fire safety system must be suitable for the PST.</p> <p>Portable and semi-portable extinguishers must be stored in locations that are protected from freezing temperatures, or capable of operating at the PST.</p>



### Chapter 8 Life-saving appliances and arrangements

The goal of this chapter is to provide for safe escape, evacuation and survival.

#### Escape

Exposed escape routes must remain accessible and safe. The ship must have ways to prevent or remove ice and snow build-up from escape routes, muster stations, embarkation areas, survival craft and its launching system. Seafarers must be capable of boarding a survival craft while wearing additional polar clothing, on ships in low air temperatures.

#### Evacuation

Ships must have ways of safely evacuating people in survival craft when operating in ice covered waters, or directly onto the ice. Life-saving appliances must be functional under poor environmental conditions during the maximum expected time of rescue. Life-saving appliances must be capable of operating with a power source that is independent from the ship's main power source.

#### Survival

Survival resources must be provided to support the persons on board abandoning the ship to sea, ice, or land for the maximum expected time of rescue. Lifeboats must be partially or totally enclosed.

If the operational assessment identifies a **potential of abandonment of the ship onto ice or land** the following apply:

Thermal protection and personal survival equipment must be provided for all persons on board, to prevent frostbite and maintain core body temperature. Group survival equipment and life-saving equipment that protects against wind chill must be provided for all persons on board. Containers for group survival equipment must be floatable and easily movable over ice. Personal and group survival equipment must be provided for 110% of the persons on board.

For **ships operating in extended periods of darkness**, lifeboats must be equipped with searchlights for identifying ice.

Emergency rations must be provided for the maximum expected time of rescue.

The ship owner must provide training to the crew and passengers on the use of personal survival equipment. The crew must be trained in group survival equipment.

### Chapter 9 Safety of navigation

The goal of this chapter is safe navigation when operating in ice, darkness, high latitudes, or with icebreaker assistance.

#### Navigation information

Ships must have ways to receive and display current information on ice conditions in the area of operation.

#### Navigation equipment functionality

The navigation equipment and systems must be designed and constructed to retain functionality under the expected conditions. The ships windows must allow a clear view through at least two of the navigation bridge front windows. An additional number of clear-view windows must be provided, regardless of weather conditions.

Ships operating in areas and during periods when the build-up of ice is likely to occur, must have ways to prevent the build-up of ice on antennas.

Ships must have two non-magnetic means to determine and display heading. The systems must be independent and connected to the ship's main and emergency power. Ships operating in latitudes over 80 degrees must have at least one Global Navigation Satellite System (GNSS) compass or equivalent.

Ice strengthened ships constructed on or after 1 January 2017 must have either two independent echo sounding devices or one echo sounding device with two transducers.

#### Ice strengthened ships

Where equipment required by SOLAS chapter V or the polar code requires sensors to project below the hull, such sensors must be protected against ice. Category A and B ships constructed on or after 1 January 2017 must have enclosed bridge wings, or protected navigation equipment and operating personnel.

### Chapter 10 Communication

The goal of this chapter is effective communication for ships and survival craft during normal operations and in emergency situations.

#### Ship communication

Ships must have communications equipment for:

- ship-to-ship voice and/or data communications
- ship-to-shore voice and/or data communications
- two-way on-scene and SAR coordination communications, including aeronautical frequencies
- two-way voice and data communications with telemedical assistance services.

Ships providing icebreaker escort must have a horn that faces astern to signal manoeuvres to following ships.

#### Survival craft and rescue boat communications

Ships intended to operate in low air temperature must have the following communications equipment that is capable of operation for the maximum expected time of rescue:

- all rescue boats and lifeboats must have a way to send distress alerts, transmit a signal for location and on-scene communication
- all other survival craft must have the capability to send signals for location and communication.

### Chapter 11 Voyage planning

The goal of this chapter is to document the ship's capabilities and limitations for polar water operations. The voyage plan must take into account the potential hazards of the voyage. The voyage plan provides information to the master and crew to support the safety of the ship, the safety of persons on board, and environmental protection.

#### Requirements

When the master is planning a route through polar waters, the following must be considered:

- the procedures in the polar water operational manual,
- limitation in the hydrographic information and aids to navigation,
- Current information on the extent and type of ice and icebergs in the vicinity of the intended route,
- statistical information on the ice and temperatures from former years,
- places of refuge,
- current information on known areas of marine mammal populations, seasonal migration areas and measures to take when marine mammals are encountered,
- current information on relevant ships routing systems and speed recommendations in relation to known areas of marine mammal populations and seasonal migration areas,
- national and international designated protected areas along the route, and
- operation in areas remote from search and rescue capabilities.

## **Chapter 12 Crewing and Training**

The goal of this chapter is to ensure that ships operating in polar waters have a crew that is adequately qualified, trained and experienced personnel.

### **Requirements**

You can find out how to apply for the basic or advanced polar water endorsement on the Maritime NZ website here:

**[maritimenz.govt.nz/seafarers](http://maritimenz.govt.nz/seafarers)**

Masters, chief mates and officers in charge of a navigational watch on SOLAS ships and ships of 45 meters in length that proceed beyond restricted limits that operate in waters south of 60 degrees are required to hold polar water endorsement as follows:

#### **Certification of Masters and Deck Officers in Polar Waters**

<b>Ice conditions</b>	<b>Tankers</b>	<b>Passenger ships</b>	<b>Other</b>
Ice free waters	Not applicable	Not applicable	Not applicable
Open water	Basic polar waters endorsement for master, chief mate, and officers in charge of a navigational watch	Basic polar waters endorsement for master, chief mate, and officers in charge of a navigational watch	Not applicable
Other waters	Advanced polar waters endorsement for master and chief mate  Basic polar waters endorsement for officers in charge of a navigational watch	Advanced polar waters endorsement for master and chief mate  Basic polar waters endorsement for officers in charge of a navigational watch	Advanced polar waters endorsement for master and chief mate  Basic polar waters endorsement for officers in charge of a navigational watch

## Alternative Design and Arrangement

### **Note: Alternative Design and Arrangement**

Structural arrangements, machinery and electrical installation, fire safety appliances and arrangements may deviate from the requirements in this guidance if the following criteria can be met:

- alternative design and arrangements must meet the intent of the goal in the relevant polar code chapter, and
- alternative designs and arrangements must provide an equivalent level of safety to the requirements in the relevant polar code chapter.
- an engineering analysis of the design and arrangements must be submitted to Maritime NZ for approval. The analysis should be based on the IMO Guidelines for the approval of alternatives and equivalents as provided for in various IMO instruments (MSC.1/Circ.1455).

If you are submitting an application to Maritime NZ for approval of an alternative design and arrangement please send the information referred to above to:

**operators@maritimenz.govt.nz**

# 4. Part II-A Pollution Prevention

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## 4.1 Who does this apply to?

The polar code pollution prevention requirements apply to ships in polar waters that are subject to Annex I, Annex II, or Annex V of the International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978 (MARPOL).

The existing requirements in Marine Protection Rules for owners and masters of ships operating in Polar Waters covering oil pollution prevention, noxious liquid substances, and garbage disposal continue to apply.

### Oil pollution prevention

This section applies to New Zealand ships and New Zealand Defence Force Ships that enter polar waters.

The discharge of oil or oily mixtures is prohibited in Polar waters.

Oil tankers, other ships of 400 gross tonnes and New Zealand Defence Force Ships must take into account the controls for operations in polar waters when preparing oil record books, manuals and the shipboard oil pollution emergency plan.

### Noxious Liquid Substances

This section applies to ships that have been certified to carry noxious liquid substances in bulk that enter polar waters.

The prohibition on discharging noxious liquid substances in Antarctic waters now also applies to Arctic waters. Take into account the above controls for operations in polar waters in the cargo record book, and the shipboard marine pollution emergency plan.

### Garbage disposal in Antarctic waters

This section applies to New Zealand ships and New Zealand Defence Force Ships that enter polar waters.

New conditions have been placed on the discharge of any garbage in Antarctic waters permitted under regulation 6 of MARPOL Annex V.

Discharge of food wastes into the sea is permitted when the ship is as far as practicable from areas of ice concentration exceeding 1/10, and not less than 12 nautical miles from the nearest land, nearest ice-shelf, or nearest fast ice. Food waste must be ground-up so that it can pass through a screen with openings no larger than 25 mm. Food waste must not be discharged onto the ice. Discharge of animal carcasses is prohibited.

Food waste must not be discharged onto ice.

Take into account the above controls for operations in polar waters when preparing a garbage record book, garbage management plan and placards.

## Part II-A Pollution Prevention (continued)

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### Garbage disposal in Arctic waters

This section applies to New Zealand ships and New Zealand Defence Force Ships that enter polar waters.

This section applies to ships subject to Annex V of MARPOL that enter polar waters.

New conditions are placed on the discharge of any garbage in Arctic waters permitted under regulation 4 of MARPOL Annex V.

#### Food waste

Discharge of food wastes into the sea is permitted when the ship is as far as practicable from areas of ice concentration exceeding 1/10, and not less than 12 nautical miles from the nearest land, nearest ice-shelf, or nearest fast ice.

Food waste must be ground-up so that it can pass through a screen with openings no larger than 25 mm. Food waste must not be discharged onto the ice. Discharge of animal carcasses is prohibited.

#### Cargo residues or cleaning agents

Cargo residues or cleaning agents that cannot be unloaded can be discharged while the ship is en route, if the following conditions can be met:

- the residues or cleaning agents are not harmful to the marine environment
- the ports of departure and destination are both within Arctic waters and the ship will not be outside polar waters between the two ports
- No adequate reception facilities are available at those ports
- If these conditions can be met, discharge must be as far as practicable from areas of ice concentration exceeding 1/10, and not less than 12 nautical miles from the nearest land, nearest ice-shelf, or nearest fast ice.

Take note of operations in polar waters in garbage record book, garbage management plan and placards.

### New Zealand ships operating in foreign waters

This guidance covers the ship owner's obligations under New Zealand law. In addition, ship owners with ships sailing in foreign states' waters will need to understand their obligations under the laws of that country. That might include obligations under Conventions or other legal instruments that New Zealand is not party to. This includes for example, MARPOL Annex IV that regulates the discharge of sewage. In such cases, foreign State may also prosecute discharges of sewage in Polar Waters if MARPOL Annex IV has been breached.

## Part II-A Pollution Prevention (continued)

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### Restrictions on sewage discharge

Ships that plan to be in the waters of a foreign State that is party to MARPOL Annex IV should be aware of the following requirements;

For ships built before 1 January 2017 that are subject to MARPOL Annex IV. Sewage can only be discharged in polar waters in the following circumstances:

- reduced and disinfected sewage at a distance of more than 3 nautical miles from any ice shelf or fast ice and must be as far as practicable from areas of ice concentration exceeding 1/10, or
- sewage that is not reduced or disinfected can be discharged 12 nautical miles or more from any ice shelf or fast ice and must be as far as practicable from areas of ice concentration exceeding 1/10, or

If the ship has a sewage treatment plant type approved by a State that is party to MARPOL Annex IV, sewage can be discharged as far as realistically possible from the nearest land, any ice shelf, fast ice or areas of ice concentrations exceeding 1/10.

## 4.2 Structural requirements for category A and B ships constructed on or after 1 January 2017

### Restrictions on sewage discharge

For Category A or B ships, and all passenger ships, built after 1 January 2017 the discharge of sewage is prohibited except when such discharges are through a sewage treatment plant type approved by a State that is party to MARPOL Annex IV, and discharged as far as realistically possible from the nearest land, any ice shelf, fast ice or areas of ice concentrations exceeding 1/10.

Category A or B ships that operate in ice concentrations exceeding 1/10 for extended periods can only discharge sewage using a sewage treatment plant type approved by a State that is party to MARPOL Annex IV and if the discharge is approved by the Administration.

### Oil pollution prevention

For category A and B ships constructed on or after 1 January 2017 with an aggregate oil fuel capacity of less than 600 m<sup>3</sup>, all oil fuel tanks must 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 less than 30 m<sup>3</sup>.

For category A and B ships other than oil tankers constructed on or after 1 January 2017, all cargo tanks constructed and used to carry oil must be separated from the outer shell by a distance of not less than 0.76 m.

## Part II-A Pollution Prevention (continued)

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For category A and B oil tankers of less than 5,000 tonnes deadweight constructed on or after 1 January 2017, the entire cargo tank length must be protected with:

- double bottom tanks or spaces complying with the applicable requirements of regulation 19.6.1 of MARPOL Annex I; and
- wing tanks or spaces arranged in accordance with regulation 19.3.1 of MARPOL Annex I and complying with the applicable requirements for distance referred to in regulation 19.6.2 of MARPOL Annex I.

For category A and B ships constructed on or after 1 January 2017 all oil residue (sludge) tanks and oily bilge water holding tanks must be separated from the outer shell by a distance of not less than 0.76 m. This provision does not apply to small tanks with a maximum individual capacity less than 30 m<sup>3</sup>.

## 5. Contact us for help

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If you need more information about how to apply for a polar ship certificate or a Polar Ship Document of Compliance, visit the Commercial/Ships section of our website.

**[maritimenz.govt.nz/commercial/ships/polarcode](https://maritimenz.govt.nz/commercial/ships/polarcode)**

If you can't find the information you need, send us an email:

**[email@maritimenz.govt.nz](mailto:email@maritimenz.govt.nz)**

Or you can phone us toll free.

**0508 22 55 22**

Tell us what you need help with and remember to include your contact details (email address and phone numbers).