

# Marine Protection Rules

## Part 141 – Ship Design, Construction, Equipment and Operation – Noxious Liquid Substances in Bulk

*MNZ Consolidation*

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## **Part objective**

The objective of Part 141 is to provide rules for preventing pollution of the sea by ships carrying noxious liquid substances in bulk as cargo, drawn from revised Annex II of MARPOL.

The Part is concerned with regulating the design, construction, equipment and operation of ships in accordance with the new more stringent international standards, which came into force internationally on 1 January 2007.

Part 141 incorporates by reference, and applies to relevant types of ship, the extensive requirements set out in the following International Maritime Organization publications and guidelines—

- Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk
- International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk
- Guidelines for the Transport and Handling of Limited Amounts of Hazardous and Noxious Liquid Substances in Bulk on Offshore Support Vessels
- Revised Guidelines for the Transport of Vegetable Oils in Deep Tanks or Independent Tanks Specially Designed for the Carriage of Such Vegetable Oils in General Dry Cargo Ships.

The specific MARPOL provisions given effect to by Part 141 are found in—

- regulation 11 of Annex II concerning design, construction and operations categorisation of noxious liquid substances
- regulation 12 of Annex II concerning pumping, piping and unloading arrangements.

The rules are made pursuant to sections 386 and 388 of the Maritime Transport Act 1994.

### *Rules subject to Regulations (Disallowance) Act 1989*

Marine protection rules are subject to the Regulations (Disallowance) Act 1989. Under that Act, the rules are required to be tabled in the House of Representatives. The House of Representatives may, by resolution, disallow any rules. The Regulations Review Committee is the select committee responsible for considering rules under the Regulations (Disallowance) Act 1989.

### **Disclaimer:**

This document is the current consolidated version of Marine Protection Rules Part 141 produced by Maritime New Zealand, and serves as a reference only. It has been compiled from the official rules that have been signed into law by the Minister of Transport. Copies of the official rule and amendments as signed by the Minister of Transport may be downloaded from the Maritime New Zealand website. [www.maritimenz.govt.nz](http://www.maritimenz.govt.nz)

## History of Part 141

Part 141 first came into force on 20 August 1998 and now incorporates the following amendments:

<b>Amendment</b>	<b>Effective date</b>
Amendment 1	4 August 2008
Amendment 2	1 October 2010
Amendment 3	1 January 2015
Amendment 4	1 April 2015
Amendment 5	1 April 2015
Amendment 6	1 February 2018

### Summary of amendments

#### **Amendment 1**

Marine Protection Amendment – MARPOL Annex 2 103.2, 103.4(d)

#### **Amendment 2**

Marine Protection Various Amendments 2010 141.2, 141.4, 141.6

#### **Amendment 3**

Marine Protection Rules Various Amendments 2014 Part objective, 141.2,

#### **Amendment 4**

Marine Protection Rules Various Amendments 2015 141.2

#### **Amendment 5**

Marine Protection Rules Various IMO-related Amendments 2015 141.5(2)(b), 141.8(2)(b)

#### **Amendment 6**

Marine Protection Rules Various Amendments [Changes Related to Conventions] 2017 141.2, 141.3, 141.7, 141.8

All signed rules can be found on our website.

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## General

### 141.1 Entry into force

This Part comes into force on the 4th August 2008

### 141.2 Definitions

In this Part—

**Act** means the Maritime Transport Act 1994:

**Antarctic area** means the sea area south of latitude 60°S:

**Arctic waters** means those waters which are located north of a line from the latitude 58°00'.0 N and longitude 042°00'.0 W to latitude 64°37'.0 N, longitude 035°27'.0 W and thence by a rhumb line to latitude 67°03'.9 N, longitude 026°33'.4 W and thence by a rhumb line to the latitude 70°49'.56 N and longitude 008°59'.61 W (Sørkapp, Jan Mayen) and by the southern shore of Jan Mayen to 73°31'.6 N and 019°01'.0 E by the Island of Bjørnøya, and thence by a great circle line to the latitude 68°38'.29 N and longitude 043°23'.08 E (Cap Kanin Nos) and hence by the northern shore of the Asian Continent eastward to the Bering Strait and thence from the Bering Strait westward to latitude 60° N as far as Il'pyrskiy and following the 60th North parallel eastward as far as and including Etolin Strait and thence by the northern shore of the North American continent as far south as latitude 60° N and thence eastward along parallel of latitude 60° N, to longitude 056°37'.1 W and thence to the latitude 58°00'.0 N, longitude 042°00'.0 W:

**BCH Code** means the *Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk* adopted by the IMO, as amended by that organisation from time to time:

**category X, Y, Z or OS substance** means, respectively, any liquid substance—

- (a) listed and categorised as a category X, Y, Z or OS substance in the IBC Code; or
- (b) otherwise categorised, or provisionally assessed or categorised, as a category X, Y, Z or OS substance—
  - (i) by the IMO; or
  - (ii) by the Director under rule 140.9:

**Chemical tanker** means a ship constructed or adapted for the carriage in bulk of any liquid product listed in chapter 17 of the IBC Code:

**Director** means the person who is for the time being the Director of Maritime New Zealand under section 439 of the Maritime Transport Act 1994:

**Foreign ship** means any ship that is not a New Zealand ship:

**IBC Code** means the *International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk* adopted by the IMO, as amended by that organisation from time to time:

**IMO** means International Maritime Organization:

**Liquid substances** are those having a vapour pressure not exceeding 0.28 MPa absolute at a temperature of 37.8°C:

**MARPOL** means the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto; and includes any subsequent protocol, amendment or revision of that convention accepted or ratified by New Zealand:

**New Zealand Defence Force** has the same meaning as the term “Defence Force” in section 2(1) of the Defence Act 1990:

**New Zealand jurisdiction** means—

- (a) the internal waters of New Zealand; and
- (b) the territorial sea of New Zealand; and
- (c) the exclusive economic zone of New Zealand; and
- (d) those areas on or under or above or about any ship or offshore installation constructed, erected, placed or used in, on, or above the continental shelf of New Zealand but beyond the outer limits of the exclusive economic zone of New Zealand in connection with the exploration of the continental shelf or the exploitation of its natural resources:

**New Zealand ship** means a ship that is registered under the Ship Registration Act 1992; and includes a ship that is not registered under that Act but is required or entitled to be registered under that Act;

**Noxious liquid substance or substances of category x, y or z** means—

- (a) any category X substance; and
- (b) any category Y substance; and
- (c) any category Z substance; and
- (d) any uncategorised substance, except—
  - (i) clean ballast;
  - (ii) segregated ballast;
  - (iii) any category OS substance; and
- (e) any mixture containing a noxious liquid substance; and

a noxious liquid substance, as defined here, is a harmful substance and a noxious liquid substance for the purposes of section 225 of the Act:

**Offshore installation or installation** includes any artificial structure (including a floating structure other than a ship) used or intended to be used in or on, or anchored or attached to, the seabed for the purpose of the exploration for, or the exploitation or associated processing of, any mineral; but does not include a pipeline:

**Offshore terminal** means any place in the sea where cargo is loaded or unloaded:

**Owner** includes—

- (a) any person who is the legal or equitable owner, or both, of the ship; and
- (b) any person in possession of the ship; and
- (c) any charterer, manager, or operator of the ship, or any other person (other than a pilot) responsible for the navigation or management of the ship:

**Part** means a group of rules made under the Maritime Transport Act 1994:

**Polar Code** means the environment-related provisions in the Introduction, and all of Part II-A, of the International Code for Ships Operating in Polar Waters adopted by the International Maritime Organization:

**polar waters** means any of the following:

- (a) Arctic waters:
- (b) the Antarctic area:

**Residue** means any noxious liquid substance which remains for disposal:

**Rules** includes maritime rules and marine protection rules:

**Ship constructed** means a ship the keel of which was laid or which is at a similar stage of construction. A ship converted to a chemical tanker, irrespective of the date of construction, shall be treated as a chemical tanker constructed on the date on which such conversion



commenced. This conversion provision shall not apply to the modification of a ship which complies with all of the following conditions—

- (a) the ship is constructed before 1 July 1986; and
- (b) the ship is certified under the BCH Code to carry only those products identified by the Code as substances with pollution hazards only:

**Ship other than a chemical tanker** means a ship constructed or adapted to carry a cargo of noxious liquid substances in bulk and includes an oil tanker as defined in Annex I of MARPOL when certified to carry a cargo or part cargo of noxious liquid substances in bulk:

**Similar stage of construction** means the stage at which—

- (a) construction identifiable with a specific ship begins; and
- (b) assembly of that ship has commenced comprising at least 50 tons or one percent of the estimated mass of all structural material, whichever is less.

### **141.3 Application**

- (1) Part 141 applies to every New Zealand ship, and every warship or other ship of the New Zealand Defence Force, that carries noxious liquid substances in bulk as cargo.
- (2) Rules 141.7 and 141.8 apply to every foreign ship carrying noxious liquid substances in bulk as cargo while operating under New Zealand jurisdiction.

## **Ship design, construction, and equipment**

### **141.4 Chemical tankers**

- (1) The owner of every chemical tanker to which this rule applies which is carrying noxious liquid substances in bulk as cargo must ensure that the design, construction, and equipment of the ship is such as to minimise the uncontrolled discharge into the sea of such substances.
- (2) The owner of every chemical tanker to which this rule applies, constructed on or after 1 July 1986, must ensure its design, construction, and equipment complies with the requirements of the IBC Code.
- (3) The owner of every chemical tanker to which this rule applies—
  - (a) constructed before 1 July 1986 and for which the building contract is placed on or after 2 November 1973 and which is engaged on voyages to ports or offshore terminals or offshore installations under the jurisdiction of other States parties to MARPOL; or
  - (b) constructed before 1 July 1986 but on or after 1 July 1983 and which is engaged solely on voyages between ports or offshore terminals or offshore installations under New Zealand jurisdiction;

must ensure that the tanker's design, construction, and equipment complies with the requirements of the BCH Code as applicable to ships referred to in sub-paragraph 1.7.2 of that Code.

- (4) The owner of every chemical tanker to which this rule applies—
  - (a) constructed before 1 July 1986 and for which the building contract is placed before 2 November 1973 and which is engaged on voyages to ports or offshore terminals or offshore installations under the jurisdiction of other States parties to MARPOL; or
  - (b) constructed before 1 July 1983 which is solely engaged on voyages between ports or to offshore terminals or offshore installations under New Zealand jurisdiction—

must ensure that the tanker's design, construction, and equipment complies with the requirements of the BCH Code as applicable to ships referred to in sub-paragraph 1.7.3 of that Code.

**141.5 Ships other than chemical tankers**

- (1) The owner of a ship to which this rule applies, which is carrying noxious liquid substances in bulk, but which is not a chemical tanker, must ensure that the design, construction, and equipment of the ship is such as to minimise the uncontrolled discharge into the sea of such substances.
- (2) In order to ensure that the provisions of rule 141.5(1) are complied with, the owner of a ship which is carrying noxious liquid substances in bulk, but which is not a chemical tanker, must ensure that the design, construction, and equipment of the ship is in accordance with—
  - (a) the applicable requirements of the IBC Code or BCH Code; or
  - (b) if the ship is an offshore support vessel or a general dry cargo ship, the guidelines developed by the IMO for such ships as amended from time to time.<sup>1</sup>

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<sup>1</sup> Guidelines for the Transport and Handling of Limited Amounts of Hazardous and Noxious Liquid Substances in Bulk on Offshore Support Vessels; and Marine Environment Protection Committee resolution MEPC.148(54) Revised Guidelines for the Transport of Vegetable Oils in Deep Tanks or Independent Tanks Specially Designed for the Carriage of Such Vegetable Oils in General Dry Cargo Ships.

**141.6 Pumping, piping and unloading arrangements**

- (1) Except as provided in subrules (2) and (11), the owner of every ship to which this rule applies that carries any category X, Y, or Z substance in bulk as cargo must ensure that the ship is provided with pumping and piping arrangements that ensure that every tank that is designated for the carriage of the substance, and its associated piping, does not contain any residue in excess of the quantities specified in Table 1.

**Table 1**

	<b>category X</b>	<b>category Y</b>	<b>category Z</b>
Ship constructed before 1 July 1986	300 litres	300 litres	900 litres
Ship constructed on or after 1 July 1986 but before 1 January 2007	100 litres	100 litres	300 litres
Ship constructed on or after 1 January 2007	75 litres	75 litres	75 litres

- (2) If the owner of a ship, other than a chemical tanker, constructed before 1 January 2007 cannot comply with sub-rule (1) in respect of a category Z substance, the owner shall be deemed to have complied with that sub-rule if the tank is emptied as far as is practicable.
- (3) The owner of a ship to which this rule applies must ensure that before the ship carries a category X, Y or Z substance, a test of the performance of the pumping and piping arrangements—
- is carried out using a test procedure approved by the Director; and
  - which complies with the procedure for the assessment of residue quantities in cargo tanks, pumps and associated piping, prescribed in Appendix 5 of Annex II of MARPOL.
- (4) Except as provided for in sub-rule (5), the owner of a ship certified to carry substances of category X, Y or Z, must ensure that the ship has an underwater discharge outlet (or outlets) complying with sub-rules (6) to (8).
- (5) For ships constructed before 1 January 2007 and certified to carry substances in category Z, an underwater discharge outlet is not required.
- (6) The underwater discharge outlet (or outlets) shall be located within the cargo area in the vicinity of the turn of the bilge and shall be so arranged as to avoid the re-intake of residue/water mixtures by the ship's seawater intakes.
- (7) The underwater discharge outlet arrangement shall be such that the residue/water mixture discharged into the sea will not pass through the ship's boundary layer. To this end, when the discharge is made normal to the ship's shell plating, the minimum diameter of the discharge outlet is governed by the following equation:

$$d = \frac{Q_d}{5L_d}$$

where:

- $d$  = minimum diameter of the discharge outlet (m)
- $L_d$  = distance from the forward perpendicular to the discharge outlet (m)
- $Q_d$  = the maximum rate selected at which the ship may discharge a residue/water mixture through the outlet (m<sup>3</sup>/h).

- (8) When the discharge is directed at an angle to the ship's shell plating, the above relationship shall be modified by substituting for  $Q_d$  the component of  $Q_d$  which is normal to the ship's shell plating.

## **Marine Protection Rules**

- (9) Subject to sub-rule (10), the provisions of sub-rule (1) do not apply to a ship constructed before 1 July 1986 which is engaged only in voyages within New Zealand jurisdiction if—
- (a) each time a tank containing category X, Y or Z substances or mixtures is to be washed or ballasted, the tank is washed in accordance with a prewash procedure approved by the Director in compliance with appendix 6 to Annex II of MARPOL and the tank washings are discharged to a reception facility; and
  - (b) subsequent washings or ballast water are discharged to a reception facility or at sea in accordance with the provisions of Part 140; and
  - (c) the adequacy of any reception facilities to be used for the purpose of this paragraph is approved by the Director; and
  - (d) the certificate required by Part 142A is endorsed to the effect that the ship is solely engaged in voyages within New Zealand jurisdiction.
- (10) The Director may approve in writing the reception facilities within New Zealand jurisdiction for the purposes of sub-rules (9)(b) and (11)(a).
- (11) The provisions of sub-rule (1) shall not apply to a ship whose constructional and operational features are such that ballasting of cargo tanks is not required and cargo tank washing is only required for repair or dry-docking, if—
- (a) any effluent from tank washings which may be carried before a repair or dry-docking is discharged to a reception facility approved by the Director; and
  - (b) the certificate required under Part 142A indicates—
    - (i) that each cargo tank is certified for the carriage of a restricted number of substances which are comparable and can be carried alternately in the same tank without intermediate cleaning; and
    - (ii) that the ship does not comply with sub-rule (1); and
  - (c) the ship's Procedures and Arrangements Manual required by Part 142B contains procedures for carrying out the requirement in sub-rule (11)(a).

## **Operations**

### **141.7 Chemical tankers**

- (1) The owner and the master of every chemical tanker to which this rule applies, carrying noxious liquid substances in bulk as cargo, must ensure that—
- (a) the operation of the ship is such as to minimise the uncontrolled discharge into the sea of such substances: and
  - (b) if the voyage is in polar waters, the operation of the ship in polar waters is taken into account, as appropriate, in the Cargo Record Book, Manual, and emergency plans in accordance with paragraph 2.1.2 of Chapter 2 of the Polar Code.
- (2) The owner and the master of every chemical tanker to which this rule applies, constructed on or after 1 July 1986 must ensure that the operation of the ship complies with the operational requirements of the IBC Code.
- (3) The owner and the master of every chemical tanker to which this rule applies, constructed before 1 July 1986 must ensure that the operation of the ship complies with the operational requirements of the BCH Code.

**141.8 Ships other than chemical tankers**

- (1) The owner and the master of a ship to which this rule applies, which is carrying noxious liquid substances in bulk as cargo, but which is not a chemical tanker, must ensure that—
  - (a) the operation of the ship is such as to minimise the uncontrolled discharge into the sea of such substances: and
  - (b) if the voyage is in polar waters, the operation of the ship in polar waters is taken into account, as appropriate, in the Cargo Record Book, Manual, and emergency plans in accordance with paragraph 2.1.2 of Chapter 2 of the Polar Code.
- (2) In order to ensure that the provisions of sub-rule (1) are complied with, the owner and the master of a ship which is carrying noxious liquid substances in bulk as cargo, but which is not a chemical tanker, must ensure the operation of the ship is in accordance with—
  - (a) the applicable requirements of the IBC Code or BCH Code; or
  - (b) if the ship is an offshore support vessel or a general dry cargo ship, the guidelines developed by the IMO for such ships as amended from time to time.<sup>2</sup>

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<sup>2</sup> Guidelines for the Transport and Handling of Limited Amounts of Hazardous and Noxious Liquid Substances in Bulk on Offshore Support Vessels; and Marine Environment Protection Committee resolution MEPC.148(54) Revised Guidelines for the Transport of Vegetable Oils in Deep Tanks or Independent Tanks Specially Designed for the Carriage of Such Vegetable Oils in General Dry Cargo Ships.