Regulations of 16 June 1983 No. 1122 concerning the Prevention of Pollution from Ships
(MARPOL Regulations)


Chapter 1
General provisions

§ 1-1
Scope of application

These Regulations shall apply to all Norwegian ships, and to foreign ships in Norwegian territorial waters, including the territorial waters surrounding Svalbard and Jan Mayen, and in the Norwegian economic zone, unless otherwise provided by § 1-5 or is expressly provided otherwise.

Amended by Regulation of 10 January 2007 No. 23.

§ 1-2
Duties

The company, master and other persons working on board shall perform their duties in accordance with the Ship Safety and Security Act and the supplementary provisions laid down in these Regulations.

Amended by Regulation of 29 June 2007 No. 1006 (in force on 1 July 2007).

§ 1-3
Exemptions

The Norwegian Maritime Directorate may, in individual cases and upon written application, grant exemption from the requirements of these Regulations. There must be special reasons that make the exemption necessary and it must be justifiable in terms of safety. Exemptions can only be granted where they do not contravene international agreements to which Norway has acceded.

Amended by Regulation of 10 January 2007 No. 23.
§ 1-4

Definitions

For the purpose of these Regulations, the following definitions shall apply:

a) Administration: The Norwegian Maritime Directorate.

b) Accepted: Equipment accepted by the Norwegian Maritime Directorate on the basis of approval or type-approval of the equipment by:
   1. a recognized classification society,
   2. a Notified Body,
   3. another public or private institution specified by name, or
   4. the Administration in a country which has ratified the International Convention for the Prevention of Pollution from ships (MARPOL) with later amendments as specified below.

c) Offshore support vessels:
   1. a vessel primarily engaged in the transport of stores, materials and equipment to and from mobile offshore drilling units, fixed and floating facilities and other similar offshore installations; or
   2. vessels, including well stimulation vessels, which are primarily engaged in supporting the operation of offshore installations. This definition does not include mobile offshore drilling units, crane barges, bybarges or floating living quarters.

d) Approved:
   1. In respect of equipment covered by the Regulations of 29 December 1998 No. 1455 concerning marine equipment: Type-approved by a Notified Body and marked in accordance with the said Regulations.
   2. In respect of other equipment: Approved or accepted by the Norwegian Maritime Directorate.
   3. In respect of drawings: Approved by the Norwegian Maritime Directorate or any other institution to which such supervisory authority is granted.

e) The Organization means the International Maritime Organization (IMO).

f) ppm means parts per million.

g) Ship means any vessel, including lighters/barges and also mobile offshore platforms during a transfer. Mobile platforms engaged in exploration, exploitation and associated production processes of mineral deposits on the Norwegian continental shelf are covered by Regulations of 22 July 1983 No. 1331 concerning the prevention of pollution from the maritime operation of mobile offshore units.

h) Discharge means any release or discharge of harmful substances, regardless of cause, which is part of the operation of the ship. The term includes any escape, disposal, spilling, leaking, pumping, emitting or emptying.

Amended by Regulations of 10 January 2007 No. 23 and 29 June 2007 No. 1006 (in force on 1 July 2007).

§ 1-5

Exceptions

These Regulations shall not apply to:

a) a discharge which is essential to the safety of the ship, the health of those on board or in order to save human life; or

b) a discharge resulting from damage to a ship or equipment, if all reasonable precautions have been taken both prior to and after the occurrence for preventing or minimizing the discharge.

c) the requirement for an emergency preparedness plan in Section 34 of the Ship Safety and Security Act shall not apply unless otherwise provided.

Amended by Regulation of 29 June 2007 No. 1006 (in force on 1 July 2007).
Chapter 2
MARPOL Annex I
Regulations for the Prevention of Pollution by Oil

Chapter 2 is amended by Regulation of 10 January 2007 No. 23.

§ 2-1
MARPOL Annex I

(1) The provisions for ships in the International Convention for the Prevention of Pollution from Ships (MARPOL), Annex I including Appendices, Unified Interpretations and Appendices to Unified Interpretations, with all amendments up to and including resolution MEPC.141(54) adopted on 24 March 2006 shall be complied with.

(2) The oil record book shall be kept in accordance with the Regulation of 15 September 1992 No. 693 concerning the Form and Keeping of Log Books for Ships and Mobile Offshore Units.

Amended by Regulation of 26 July 2007 No. 908 (in force on 1 August 2007).

§ 2-2
Drawings

Drawings of systems, equipment, etc. for the prevention of oil pollution of the sea in accordance with the Convention, shall be submitted for approval in triplicate for each ship. The drawings shall indicate clearly the proposed installations with segregated ballast tanks, slop tanks, piping, pumps, oil monitoring instruments, equipment, etc. In addition, necessary information as to the capacity and type, etc. of separators and pumps, and also information as to instruments and equipment, the volume of tanks, etc., in accordance with the requirements of the Convention shall be submitted.

§ 2-3
Oily water filtering equipment on ships of less than 400 gross tonnage

Oil and oily mixtures shall be retained on board or discharged in accordance with paragraph 6 of regulation 15 of the Convention. For equipment for the retention on board of oily bilge water the following is required:

1. Ships of 200 gross tonnage and above, but less than 400 gross tonnage shall have a permanently fitted holding tank below deck with piping for the discharge of oily bilge water to reception facilities.

2. Ships of 100 gross tonnage and above, but less than 200 gross tonnage shall have a permanently fitted holding tank below or on the deck with piping for the discharge of oily bilge water to reception facilities.

3. Ships of 15 m in length and above, but of less than 100 gross tonnage shall have a permanently fitted holding tank or a properly fixed holding drum with piping for the discharge of oily bilge water to reception facilities.

Chapter 3
MARPOL Annex II Regulations for the Control of Pollution by Noxious Liquid Substances in Bulk


§ 3-1
MARPOL Annex II

(1) The provisions for ships in the International Convention for the Prevention of Pollution from Ships (MARPOL), Annex II including Appendices, with all amendments up to and including resolution MEPC.118(52) adopted on 15 October 2004 shall be complied with.

(2) The cargo record book shall be kept in accordance with the Regulation of 15 September 1992 No. 693 concerning the Form and Keeping of Log Books for Ships and Mobile Offshore Units.

§ 3-2
Offshore support vessels

For offshore support vessels, the provisions of resolution A.673(16) adapted on 19 October 1989, as amended by resolution MEPC.158(55) adapted on 13 October 2006, shall apply.
§ 3-3

Drawings

Drawings, etc. showing arrangements for minimizing the discharge of noxious liquid substances in accordance with the Convention shall be submitted for approval in triplicate for each ship.

§ 3-4

Notification

The master of a ship carrying noxious liquid substances in category X, or substances in category Y and Z, who in accordance with the ship’s Procedure and Arrangements Manual shall check the residues in the cargo tanks after unloading, or is required to carry out a prewash or concentration measurement after unloading, shall give notification of this. The notification shall be given through the ship’s agent to the Norwegian Maritime Directorate at least 12 hours prior to arrival in the port of discharge, so that inspections according to the Convention may be carried out.

Chapter 4

MARPOL Annex III

Regulations for the Prevention of Pollution by Harmful Substances Carried by Sea in Packaged Form

Chapter 4 amended by Regulation of 10 January 2007 No. 23.

§ 4-1

MARPOL Annex III

The provisions for ships in the International Convention for the Prevention of Pollution from Ships (MARPOL), Annex III including Appendices and Unified Interpretations, with all amendments up to and including resolution MEPC.84(44) adopted on 13 March 2000 shall be complied with.

§ 4-2

IMDG Code

Harmful substances marked as MARINE POLLUTANTS in the International Maritime Dangerous Goods Code (IMDG Code), as adopted by resolution A.716(17) on 6 November 1991 with all amendments up to and including resolution MSC.157(78) adopted on 20 May 2004 shall be packed in accordance with the provisions for each individual substance in this Code. This shall not apply to substances marked MARINE POLLUTANTS which are packed in accordance with the provisions of resolution MSC.205 (81) adopted on 18 May 2006.

Chapter 5

MARPOL Annex IV

Regulations for the Prevention of Pollution by Sewage from Ships

Cf. Chapter 23 of the Regulations of 1 June 2004 No. 931 relating to pollution control (Pollution Regulations).

Chapter 5 added by Regulation of 10 January 2007 No. 23.

Chapter 6

MARPOL Annex V

Regulations for the Prevention of Pollution by Garbage from Ships

Chapter 6 amended by Regulation of 10 January 2007 No. 23 (formerly chapter 5).
§ 6-1
*MARPOL Annex V*

The provisions for ships in the International Convention for the Prevention of Pollution from Ships (MARPOL), Annex V including Appendices, with all amendments up to and including resolution MEPC.116(51) adopted on 1 April 2004 shall be complied with:

1) Regulation 1
2) Regulation 2
3) Regulation 3
4) Regulation 4
5) Regulation 5 (1), (2) and (3)
6) Regulation 6.

§ 6-2
*The Antarctic area*

All ships entering the Antarctic area shall have sufficient capacity for the retention on board of all garbage produced on board while operating in the area and have arrangements for the discharge of retained garbage at a reception facility.
Chapter 7

MARPOL Annex VI

Regulations for the Prevention of Air Pollution from Ships

Chapter added by Regulation of 24 January 2006 No. 119. Chapter amended by Regulation of 10 January 2007 No. 23 (previously chapter 6).


Amended by Regulation of 29 June 2007 No. 751 (in force on 1 July 2007).

Part I. Introductory provisions

Chapter 7 amended by Regulation of 10 January 2007 No. 23 (previously chapter 6).

§ 7-1

Objective

The purpose of this chapter is to protect the external environment from pollution and to reduce emissions of harmful substances from ships by establishing requirements for emission limits for ozone-depleting substances, nitrogen oxides, sulphur oxides and volatile organic compounds from ships.

§ 7-2

Scope of application

(1) The provisions of this chapter shall apply to all Norwegian and foreign ships in Norwegian territorial waters, including the territorial waters surrounding Svalbard and Jan Mayen, and in the Norwegian economic zone unless expressively provided otherwise.

(2) The rules of this chapter shall not apply to:

(a) any emission necessary for the purpose of securing the safety of a ship or saving life at sea; or

(b) any emission resulting from damage to a ship or its equipment provided that all reasonable precautions have been taken after the occurrence of the damage or discovery of the emission for the purpose of preventing or minimizing the emission.

(3) The provisions of § 7-14 shall also apply to suppliers of fuel to ships covered by this chapter.

Amended by Regulation of 29 June 2007 No. 751 (in force on 1 July 2007).

§ 7-3

Duties

The company, master and other persons working on board shall perform their duties in accordance with the Ship Safety and Security Act and the supplementary provisions laid down in these Regulations.

Where this follows from the individual sections, fuel suppliers shall ensure that the provisions of this chapter are complied with.

Amended by Regulation of 29 June 2007 No. 751 (in force on 1 July 2007).

§ 7-4

Definitions

For the purpose of this chapter, the following definitions shall apply:

(a) Fuel oil: Marine fuel oil.

(b) Mobile offshore unit: A mobile platform, including drilling ships, equipped for drilling for subsea petroleum deposits, and mobile platform for other purposes than drilling for subsea petroleum deposits.
(c) **Shipboard incineration**: The incineration of wastes or other matter on board a ship, if such wastes or other matter were generated during the normal operation of the ship.

(d) **Shipboard incinerator**: A shipboard facility designed for the primary purpose of incineration.

(e) **IMO**: International Maritime Organization.

(f) **Continuous feeding**: The process whereby waste is fed into a combustion chamber without human assistance while the incinerator is in normal operating conditions with the combustion chamber operative temperature between 850 °C and 1200 °C.

(g) **Convention**: The International Convention for the Prevention of Pollution from Ships and subsequent additions and amendments, including agreed interpretations, appendices and supplements (MARPOL).

(h) **Marine fuel oil**: Any petroleum-based liquid fuel intended for use on board vessels, including the fuels defined in ISO 8217.

(i) **Marine diesel oil**: Any marine fuel with a viscosity and density falling within the viscosity and density requirements for DMB or DMC quality contained in the ISO 8217 standard, Table I.

(j) **Marine gas oil**: Any marine fuel with a viscosity and density falling within the viscosity and density requirements for DMX or DMA quality contained in the ISO 8217 standard, Table I.

(k) **Norwegian domestic trade**: Ships carrying cargoes or passengers between Norwegian ports.


(m) **New installations**: In relation to § 7-6 of this chapter, the installation of systems, equipment, including new portable fire-extinguishing units, insulation, or other material on a ship after 24 January 2006, but excludes repair or recharge of previously installed systems, equipment, insulation, or other material, or recharge of portable fire-extinguishing units.

(n) **New ship**: Ship the keel of which is laid, or which is at a similar stage of construction on or after 1 January 2000.

(o) **Sludge oil**: Sludge from the fuel or lubricating oil separators, waste lubricating oil from main or auxiliary machinery, or waste oil from bilge water separators, oil filtering equipment or drip trays.

(p) **Ozone-depleting substances**: Controlled substances defined in paragraph 4 of article 1 of the Montreal Protocol on Substances that Deplete the Ozone Layer, 1987, listed in Annexes A, B, C or E to the said Protocol in force 24 January 2006. Ozone-depleting substances that may be found on board ship include, but are not limited to:

i) Halon 1211 Bromochlorodifluoromethane

ii) Halon 1301 Bromotrifluoromethane

iii) Halon 2402 1,2-Dibromo-1,1,2,2-tetrafluoroethane (also known as Halon114B2)

iv) CFC-11 Trichlorofluoromethane

v) CFC-12 Dichlorodifluoromethane

vi) CFC-113 1,1,2-Trichloro-1,2,2-trifluoroethane

vii) CFC-114 1,2-Dichloro-1,1,2,2-tetrafluoroethane

viii) CFC-115 Chloropentafluoroethane

ix) HCFC hydrochlorofluorocarbons.

(q) **Passenger ship**: A ship that can carry more than 12 passengers or which is required to have official permission to carry passengers.


(s) **Regular service**: A series of ship crossings between two or more ports or a series of ship crossing with ships or a series of voyages from and to the same port without intermediate calls, either

1) according to a published timetable; or

2) with crossing so regular or frequent that they constitute a recognizable systematic series.

(t) **Ship**: Any vessel, including barges and lighters, mobile offshore units and pleasure craft.

(u) **SO₂ emission control area**: An area where the adoption of special mandatory measures for SO₂ emissions from ships is required to prevent, reduce and control air pollution from SO₂ and its attendant adverse impacts on land and sea areas. SO₂ emission control areas shall include those listed in § 7-10 of this chapter.

(v) **Tanker**: Oil tanker constructed or adapted primarily to carry oil in bulk in its cargo spaces as defined in Regulation 1(4) of Annex I to the Convention, and includes combination carriers and any chemical tanker as defined in Regulation 1(1) of Annex II to the Convention which is constructed or adapted primarily for the carriage of harmful liquid substances in bulk as cargo or part of cargo.

(w) **A similar stage of construction**: The stage at which

i) construction identifiable with a specific ship begins; and

ii) assembly of that ship has commenced comprising at least 50 tons or one per cent of the estimated mass of all structural material, whichever is less.

(x) **Emission**: Any release of substances subject to control by this chapter from ships into the atmosphere or sea.
§ 7-5

Mobile offshore units

(1) Mobile offshore units shall comply with the requirements of this chapter, with the exception of cases referred to in the second and third paragraphs.

(2) Emissions directly arising from the exploration, exploitation and associated offshore processing of sea-bed mineral resources are exempt from the provisions of this chapter. Such emissions include the following:

   (a) emissions resulting from the incineration of substances that are solely and directly the result of exploration, exploitation and associated offshore processing of seabed mineral resources, including but not limited to the flaring of hydrocarbons and the burning of cuttings, muds, and/or stimulation fluids during well completion and testing operations, and flaring arising from upset conditions;

   (b) the release of gases and volatile compounds entrained in drilling fluids and cuttings;

   (c) emissions associated solely and directly with the treatment, handling, or storage of seabed minerals; and

   (d) emissions from diesel engines that are solely dedicated to the exploration, exploitation and associated offshore processing of seabed mineral resources.

(3) The requirements of § 7-14 of this chapter shall not apply to the use of hydrocarbons which are produced and subsequently used on site as fuel.
Part 2. Emission requirements

Chapter 7 amended by Regulation of 10 January 2007 No. 23 (previously chapter 6).

§ 7-6
Ozone-depleting substances

(1) All practicable prevention measures shall be used to prevent and reduce emissions of ozone-depleting substances. With the exception of the cases referred to in the second paragraph of § 7-2, emissions of ozone-depleting substances shall be prohibited. This includes emissions occurring in the course of maintaining, servicing, repairing or disposing of systems or equipment. Minimal releases associated with the recapture or recycling of an ozone-depleting substance are not included.

(2) New installations which contain ozone-depleting substances shall be prohibited on all ships. However, new installations containing hydrochlorofluorocarbons (HCFC), are permitted until 1 January 2020.

(3) The substances referred to in this section, and equipment containing such substances, shall be delivered to appropriate reception facilities when removed from ships.

(4) The requirements of this provision shall not preclude the application of chapter 6 of the Regulations of 1 June 2004 No. 922 relating to restrictions on the use of chemicals and other products hazardous to health and the environment (Product regulations).

§ 7-7
Nitrogen oxides (NOₓ)

(1) This section shall apply to:
(i) each diesel engine with a power output of more than 130 kW which is installed on new ships; and
(ii) each diesel engine with a power output of more than 130 kW which underwent a major conversion on or after 1 January 2000.

(2) This section does not apply to:
(i) emergency diesel engines, engines installed in lifeboats and any device or equipment intended to be used solely in case of emergency; and
(ii) engines installed on ships solely engaged in Norwegian domestic voyages, provided that such engines are subject to an alternative NOₓ control measure established by the Norwegian Maritime Directorate.

(3) Notwithstanding the provisions of the first paragraph (a) of this section, the Norwegian Maritime Directorate may allow exclusion from the application of this section to any diesel engine which is installed on a ship constructed, or on a ship which underwent a major conversion before 24 January 2006, provided that the ship is solely engaged in voyages between Norwegian ports.

(2) For the purpose of this section, major conversion means a modification of an engine where:
(i) the engine is replaced by a new engine built on or after 1 January 2000, or
(ii) any substantial modification, as defined in the NOₓ Technical Code, is made to the engine, or
(iii) the maximum continuous rating of the engine is increased by more than 10%.

(3) The NOₓ emissions resulting from modifications referred to in sub-paragraph (a) above, shall be approved and documented in accordance with the NOₓ Technical Code.

(3) The operation of diesel engines as referred to in this section is prohibited, unless they are included in the exceptions of § 7-2, or that emission of nitrogen oxides (calculated as the total weighted emission of NO₂) from the engine is within the following limits:
(i) 17.0 g/kWh when n is less than 130 rpm
(ii) $45.0 \times n^{(-0.2)}$ g/kWh when n is 130 or more, but less than 2000 rpm
(iii) 9.8 g/kWh when n is 2000 rpm or more where $n =$ rated engine speed (crankshaft revolutions per minute).

When using fuel composed of blends from hydrocarbons derived from petroleum refining, test procedure and measurement methods shall be in accordance with the NOₓ Technical Code, taking into consideration the test cycles and weighting factors referred to in Annex A II to these Regulations.

(b) Notwithstanding the requirements of sub-paragraph (a) of this paragraph, the operation of a diesel engine is permitted when:
(i) an exhaust gas cleaning system, approved by the Norwegian Maritime Directorate or whoever is authorized by the Directorate in accordance with the NOₓ Technical Code, is applied to the engine to
reduce onboard NO\textsubscript{x} emissions at least to the limits specified in sub-paragraph (a) of this paragraph, or
(ii) any other equivalent method, approved in accordance with the relevant guidelines to be developed by IMO, is applied to reduce onboard NO\textsubscript{x} emissions at least to the limits specified in sub-paragraph (a) of this paragraph.

\textbf{§ 7-8}

\textit{NO\textsubscript{x} requirements for ships in Norwegian domestic trade}

(Not decided)

\textbf{§ 7-9}

\textit{Sulphur oxides (SO\textsubscript{x})}

(1) The sulphur content of any marine fuel oil shall not exceed 4.5\% m/m.
(2) The sulphur content of any marine gas oil shall not exceed 0.2\% m/m until 1 January 2008, and shall not exceed 0.1 m/m from 1 January 2008.

\textbf{§ 7-10}

\textit{SO\textsubscript{x} emission control areas and emissions from passenger ships in Norwegian territorial waters or in the Norwegian economic zone}

(1) SO\textsubscript{x} emission control areas shall include:
   (a) the Baltic Sea area from 19 May 2006, as defined in regulation 10 (1)(b) of Annex I to the Convention,
   (b) the North Sea are from 11 August 2007, as defined in regulation 5 (1)(f) of Annex V to the Convention, and
   (c) any other sea area, including port areas, designated by the IMO in accordance with criteria and procedures for designation of SO\textsubscript{x} emission control areas with respect to the prevention of air pollution from ships.
(2) While ships are within SO\textsubscript{x} emission control areas, or when passenger ships are engaged on a regular service to or from ports within the EEA area and are in Norwegian territorial waters or in the Norwegian economic zone, at least one of the following conditions shall be fulfilled:
   (a) the sulphur content of fuel oil shall not exceed 1.5\% m/m,
   (b) an exhaust gas cleaning system, approved by the Administration, taking into account guidelines to be developed by IMO, is applied to reduce the total emission of sulphur oxides from ships, including both auxiliary and main propulsion engines, to 6.0g SO\textsubscript{x}/kW h or less calculated as the total weight of sulphur dioxide emission. Waste streams from the use of such equipment shall not be discharged into enclosed ports, harbours and estuaries, unless it can be thoroughly documented by the ship that such waste streams have no adverse impact on the ecosystems of such enclosed ports, harbours and estuaries, based upon criteria communicated by the authorities of the port state to IMO. IMO shall circulate the criteria to all Parties to the Convention, or
   (c) any other technological method that is verifiable and enforceable to limit SO\textsubscript{x} emissions to a level equivalent to that described in sub-paragraph (b) of this paragraph is applied; and any such method shall be approved by the Administration taking into account guidelines to be developed by IMO.
(3) The sulphur content of fuel oil referred to in § 7-9 and sub-paragraph (a) of the second paragraph of this section shall be documented by the supplier as required in § 7-14.
(4) Those ships using separate fuel oils to comply with the requirements of sub-paragraph (a) of the second paragraph shall allow sufficient time for the fuel oil service system to be fully flushed of all fuels exceeding 1.5\% m/m sulphur content prior to entry into a SO\textsubscript{x} emission control area. The volume of low sulphur fuel oils (less than or equal to 1.5\% sulphur content) in each tank as well as the date, time, and position of the ship when any fuel-changeover operation is completed, shall be recorded in the ship’s engine room log.

\textbf{§ 7-10a}

\textit{Sulphur content of fuel oil while at berth}

The sulphur content of fuel oil while vessels are at berth shall, as from 1 January 2010, not exceed 0.1\% m/m. Fuel-changeover operations shall be carried out as fast as practically possible and the changeover shall be logged in the ship’s engine room log. When the scheduled stay at the berth according to published timetable is less than two hours, fuel-changeover is not necessary.
§ 7-11

Volatile organic compounds

(Not decided)

§ 7-12

Shipboard incineration

(1) Shipboard incineration shall be allowed only in an incinerator. This does not apply, however, to the incineration of waste as referred to in the fourth paragraph.

(2) Each incinerator installed on board a ship on or after 1 January 2000 shall meet the requirements of Annex A III to these Regulations. Each incinerator shall be approved taking into account the standard specifications for shipboard incinerators developed by IMO. ¹

However, this shall not apply to incinerators installed on board Norwegian ships engaged on domestic voyages prior to 24 January 2006.

(3) Shipboard incineration of the following substances shall be prohibited:
   (a) Annex I, II and III cargo residues of the Convention and related contaminated packing materials;
   (b) polychlorinated biphenyls (PCBs);
   (c) garbage, as defined in Annex V of the Convention, containing more than traces of heavy metals; and
   (d) refined petroleum products containing halogen compounds.

(4) Shipboard incineration of sewage sludge and sludge oil generated during the normal operation of a ship may also take place in the main or auxiliary power plant or boilers. Such incineration shall not take place inside ports, harbours and estuaries.

(5) Shipboard incineration of polyvinyl chlorides (PVCs) shall be prohibited, except in shipboard incinerators for which IMO Type Approval Certificates have been issued.

(6) All ships with incinerators subject to this section shall possess a manufacturer’s operating manual which shall specify how to operate the incinerator within the limits described in item 2 of Annex A III to these Regulations.

(7) Personnel responsible for operation of any incinerator shall be trained and capable of implementing the guidance provided in the manufacturer’s operating manual.

(8) Monitoring of combustion flue gas outlet temperature shall be required at all times and waste shall not be fed into a continuous-feed shipboard incinerator when the temperature is below the minimum allowed temperature of 850°C. For batch-loaded shipboard incinerators, the unit shall be designed so that the temperature in the combustion chamber shall reach 600°C within five minutes after start-up.

(9) Nothing in this section precludes the development, installation and operation of alternative shipboard thermal waste treatment devices that meet or exceed the requirements laid down here.

¹ Reference is made to resolution MEPC.76(40), «Standard specification for shipboard incinerators»

§ 7-13

Delivery of waste

Waste containing ozone-depleting substances or exhaust gas cleaning residues and similar waste, or waste from incineration in accordance with § 7-12 shall be delivered to ports receiving such waste in accordance with chapter 20 of the Regulations of 1 June 2004 No. 931 relating to Pollution Control (Pollution Regulations).

Part 3. Fuel oil quality

Chapter 7 amended by Regulation of 10 January 2007 Nor. 23 (previously chapter 6).

§ 7-14

Marine fuel oil quality

(1) Fuel oil for combustion purposes delivered to and used on board ships to which this chapter applies shall meet the following requirements:
   (a) except as provided in sub-paragraph (b):
      (i) the fuel oil shall be blends of hydrocarbons derived from petroleum refining. This shall not preclude the incorporation of small amounts of additives intended to improve some aspects of performance;
      (ii) the fuel oil shall be free from inorganic acid;
      (iii) the fuel oil shall not contain any added substance or chemical waste which either:
            (1) jeopardizes the safety of ships or adversely affects the performance of the machinery, or
            (2) is harmful to personnel, or
            (3) contributes overall to additional air pollution; and
(b) fuel oil for combustion purposes derived by methods other than petroleum refining shall not:
(i) exceed the sulphur content set forth in §§ 7-9 and 7-10 of this chapter;
(ii) cause an engine to exceed the NOx emission limits set forth in the third paragraph (a) of paragraph § 7-7 of this chapter;
(iii) contain inorganic acid; and
(iv) (1) jeopardize the safety of ships or adversely affect the performance of the machinery, or
(2) be harmful to personnel, or
(3) contribute overall to additional air pollution.
(2) For each ship with a gross tonnage of 400 and above, and which is subject to the provisions of §§ 7-15 and 7-16 of this chapter, details of fuel oil for combustion purposes delivered to and used on board shall be specified by the supplier by means of a bunker delivery note which shall contain at least the information specified in Annex A IV to these Regulations.
(3) The bunker delivery note shall be kept on board the ship in such a place as to be readily available for inspection at all reasonable times. It shall be contained on board for a period of three years after the fuel oil has been delivered on board.
(4) Inspection of bunker delivery notes may be carried out on board any ship to which these Regulations apply while the ship is in a Norwegian port. A copy of each bunker delivery note may be made and the master or person in charge of the ship may be required to certify that each copy is a true copy of such bunker delivery note. The contents of each note may be verified through consultations with the issuer of the note.
(5) The bunker delivery note shall be accompanied by a representative sample of the fuel oil delivered, taking into account guidelines developed by IMO. The sample is to be sealed and signed by the supplier’s representative and the master or officer in charge of the bunker operation on completion of bunkering operations and retained under the ship’s control until the fuel oil is substantially consumed, but in any case for a period of not less than 12 months from the time of delivery. However, for marine gas oil sold in Norway to ships in domestic trade, it is not required that a sample of the delivered oil shall be taken.
(6) The Norwegian Maritime Directorate or whoever is authorized by the Directorate, shall maintain a register of local suppliers of fuel oil.
(7) Local suppliers shall be required to provide the bunker delivery note as required by this section, certified by the fuel oil supplier that the fuel oil meets the requirements of this section and also §§ 7-9 and 7-10 of this chapter. A copy of the bunker delivery note shall be retained by local suppliers for at least three years for inspection and verification by the port state.
(8) This section shall not apply to solid coal or nuclear fuel.

1 Reference is made to resolution MEPC.96(47) – Guidelines for the sampling of fuel oil for determination of compliance with Annex VI of MARPOL 73/78.

Part 4. Supervision

Chapter 7 amended by Regulation of 10 January 2007 No. 23 (previously chapter 6).

§ 7-15
Survey and control

(1) Every ship of 400 gross tonnage and above and every mobile offshore unit shall be subject to the surveys specified below:
(a) an initial survey before the ship is put into service or before the certificate required under § 7-16 of this chapter is issued for the first time. This survey shall be such as to ensure that the equipment, systems, fittings, arrangements and material fully comply with the applicable requirements of this chapter,
(b) a renewal survey at intervals specified by the Norwegian Maritime Directorate or whoever is authorized by the Directorate, but not exceeding five years. The renewal survey shall be such as to ensure that the equipment, systems, fittings, arrangements and material fully comply with the requirements of this chapter, and
(c) at least one intermediate survey during the period of validity of the certificate which shall be such as to ensure that the equipment and arrangements fully comply with the requirements of this chapter and are in good working order. In those cases where only one intermediate survey is undertaken during the period of validity of the certificate, and where the certificate’s period of validity is more than two and a half years, this shall take place not earlier than six months before a date which is midway in the period of validity, and not later than six months after that date. Such intermediate surveys shall be endorsed on the certificate issued under § 7-16 of these Regulations.
(2) The Norwegian Maritime Directorate may establish appropriate control measures for ships of less than 400 gross tonnage in order to ensure that the applicable provisions of this chapter are complied with.
(3) The survey of engines and equipment for compliance with § 7-7 of this chapter shall be conducted in accordance with the NOx Technical Code.
§ 7-16

_Purpose of International Air Pollution Prevention (IAPP) Certificate_

(1) An International Air Pollution Prevention (IAPP) Certificate shall be issued in accordance with the provisions of § 7-15 to any ship of 400 gross tonnage and above and any mobile offshore unit.

(2) Ships constructed before 24 January 2006 shall be issued with an IAPP Certificate in accordance with the first paragraph no later than the first scheduled dry-docking after 24 January 2006, but in no case later than 24 January 2009.

(3) The IAPP Certificate is the Norwegian Maritime Directorate or whoever is authorized by the Directorate.

§ 7-17

_Duration and validity of certificate_

(1) The IAPP Certificate shall be issued for a period of five years at a time.

(2) The period of validity for the International Air Pollution prevention certificate may not be extended beyond this five-year period, unless otherwise for in the third paragraph.

(3) If a ship, at the time when the IAPP Certificate expires, is not in a Norwegian port or in a port in which it was to be surveyed, the Norwegian Maritime Directorate may extend the period of validity of the certificate with up to five months. Such extensions shall be granted only for the purpose of allowing the ship to complete its voyage to the port in which it is to be surveyed.

(4) An IAPP Certificate shall cease to be valid in any of the following cases:
   (a) if inspections and surveys are not completed within the periods specified under § 7-15,
   (b) if substantial modifications have been made to the equipment, systems, fittings, arrangements or material covered by this chapter without definite approval from the Norwegian Maritime Directorate. This shall not, however, apply to the direct replacement of such equipment or fittings with equipment and fittings that conform with the requirements of this chapter. With regard to § 7-7 substantial modifications shall include any modification and adjustment to the system, fittings or arrangement of a diesel engine that causes the engine to exceed the nitrogen oxide limits, or
   (c) upon transfer of the ship to the flag of another State.

Chapter 8

Concluding provisions

Amended by Regulations of 24 January 2006 No. 119 (previously chapter 6) and 10 January 2007 No. 23 (previously chapter 7).

§ 8-1

_Investigation_

The provisions of the third chapter of the Seaworthiness Act shall apply correspondingly to the investigation of violations of these Regulations.

Amended by Regulations of 24 January 2006 No. 119 (previously § 6-3) and 10 January 2007 No. 23 (previously § 7-3).

§ 8-2

_Entry into force_

(1) Chapters I, II and VI of these Regulations enters into force on 2 October 1983. As from this date, the Regulations of 26 June 1980 concerning the prohibition of the discharge of oil or oily mixture into the sea from ships, etc., are repealed.
(2) Chapter III of these Regulations enters into force on 6 April 1987.
(3) Chapter IV of these Regulations enters into force on 16 October 1992.
(4) Chapter V of these Regulations enters into force on 1 April 1989.
(5) These Regulations shall enter into force for foreign ships at Svalbard and Jan Mayen from the date decided by
the King.
(6) Injunctions and prohibitions issued pursuant to the said Regulations shall continue to apply until they are
amended or repealed, provided this is not in contravention of the present Regulations.

Annex A

Amended by Regulation of 10 January 2007 No. 23 (previously Annex C).

1) Form of IAPP Certificate (§ 7-16 of these Regulations)
Supplement to International Air Pollution Certificate

(IIAP Certificate)
Record of construction and equipment

In respect of the provisions of Annex VI of the International Convention for the Prevention of Pollution from Ships,
1973, as modified by the protocol of 1978 relating thereto (hereinafter referred to as «the Convention »).

Notes:
1 This Record shall be permanently attached to the IAPP Certificate. The IAPP Certificate shall be available on
board the ship at all times.
2 If the language of the original record is not English, French or Spanish the text shall include a translation into
one of these languages.
3 Entries in boxes shall be made by inserting either a cross (X) for the answer «yes» and «applicable» or a (-) for
the answers «no» and «not applicable» as appropriate.
4 Unless otherwise stated, regulations mentioned in this Record refer to regulations of Annex VI of the Convention
and resolutions and circulars refer to those adopted by the International Maritime Organization.

1 Particulars of ship
1.1 Name of ship
1.2 Distinctive number or letters
1.3 IMO number
1.4 Port of registry
1.5 Gross tonnage
1.6 Date on which keel was laid or ship was at a similar stage of construction: ....................
1.7 Date of commencement of major engine conversion (if applicable) (regulation 13): ..........

2 Control of emissions from ships
2.1 Ozone-depleting substances (regulation 12)
2.1.1 The following fire-extinguishing systems and equipment containing halons may continue in service:

<table>
<thead>
<tr>
<th>System equipment</th>
<th>Location on board</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2.1.2 The following systems and equipment containing CFCs may continue in service: ..............................

<table>
<thead>
<tr>
<th>System equipment</th>
<th>Location on board</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2.1.3 The following systems containing hydro-chlorofluorocarbons (HCFCs) installed before 1 January 2020 may
continue in service: ..............................
2.2 Nitrogen oxides (NO\textsubscript{x}) (regulation 13)
2.2.1 The following diesel engines with power output greater than 130 kW, and installed on a ship constructed on or after 1 January 2000, comply with the emission standards of regulation 13(3)(a) in accordance with the NO\textsubscript{x} Technical Code: ...........................................

<table>
<thead>
<tr>
<th>Manufacturer and model</th>
<th>Serial number</th>
<th>Use</th>
<th>Power output (kW)</th>
<th>Rated speed (rpm)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

2.2.2 The following diesel engines with power output greater than 130 kW, and which underwent major conversion per regulation 13(2) on or after 1 January 2000, comply with the emission standards of regulation 13(3)(a) in accordance with the NO\textsubscript{x} technical Code: ......................

<table>
<thead>
<tr>
<th>Manufacturer and model</th>
<th>Serial number</th>
<th>Use</th>
<th>Power output (kW)</th>
<th>Rated speed (rpm)</th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
</tr>
</tbody>
</table>

2.2.3 The following diesel engines with a power output greater than 130 kW and installed on a ship constructed on or after 1 January 2000, or with a power output greater than 130 kW and which underwent major conversion per regulation 13(2) on or after 1 January 2000, are fitted with an exhaust cleaning system or other equivalent methods in accordance with regulation 13(3) and the NO\textsubscript{x} Technical Code: ..........................

<table>
<thead>
<tr>
<th>Manufacturer and model</th>
<th>Serial number</th>
<th>Use</th>
<th>Power output (kW)</th>
<th>Rated speed (rpm)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

2.2.4 The following diesel engines from 2.2.1, 2.2.2 and 2.2.3 above are fitted with NO\textsubscript{x} emission monitoring and recording devices in accordance with the NO\textsubscript{x} Technical Code:

<table>
<thead>
<tr>
<th>Manufacturer and model</th>
<th>Serial number</th>
<th>Use</th>
<th>Power output (kW)</th>
<th>Rated speed (rpm)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

2.3 Sulphur oxides (SO\textsubscript{x}) (regulation 14)
2.3.1 When the ship operates within a SO\textsubscript{x} emission control area specified in regulation 14(3), the ship uses:
.1 fuel oil with a sulphur content that does not exceed 1.5% m/m as documented by bunker delivery notes; or ..........  
.2 an approved exhaust gas cleaning system to reduce SO\textsubscript{x} emissions below 6.0 g SO\textsubscript{x}/kWh; or .............  
.3 other approved technology to reduce SO\textsubscript{x} emissions below 6.0 g SO\textsubscript{x}/kWh

2.4 Volatile organic compounds (regulation 15)
2.4.1 The tanker has a vapour collection system installed and approved in accordance with MSC/Circ. 585 ..................................

2.5 The ship has an incinerator:
.1 which complies with resolution MEPC.76(40), as amended ...............  
.2 installed before 1 January 2000, which does not comply with resolution MEPC.76(40), as amended ...............  

THIS IS TO CERTIFY that this Record is correct in all respects.
Issued at .........................
(Place of issue of the Record)
2) Test cycles and weighting factors (§ 7-7 of these Regulations)

The following test cycles and weighting factors should be applied for verification of compliance of marine diesel engines with the NO\textsubscript{x} limits in accordance § 7-7 of these Regulations using the test procedure and calculation method as specified in the NO\textsubscript{x} Technical Code.

.1 For constant-speed marine engines for ship main propulsion, including diesel-electric drive, test cycle E2 should be applied.
.2 For variable-pitch propeller sets test cycle E2 should be applied.
.3 For propeller-law-operated main and propeller-law-operated auxiliary engines the test cycle E3 should be applied.
.4 For constant-speed auxiliary engines test cycle D2 should be applied.
.5 For variable-speed, variable-load auxiliary engines, not included above, test cycle C1 should be applied.

Test cycle for constant-speed main propulsion application
(including diesel-electric drive or variable-pitch propeller installations)

<table>
<thead>
<tr>
<th>Test cycle type E2</th>
<th>Speed</th>
<th>100%</th>
<th>100%</th>
<th>100%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Power</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>100%</td>
<td>75%</td>
<td>50%</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td>Weighting factor</td>
<td>0.2</td>
<td>0.5</td>
<td>0.15</td>
<td>0.15</td>
</tr>
</tbody>
</table>

Test cycle for propeller-law-operated main and propeller-law-operated auxiliary engine application

<table>
<thead>
<tr>
<th>Test cycle type E3</th>
<th>Speed</th>
<th>100%</th>
<th>91%</th>
<th>80%</th>
<th>6%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Power</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>100%</td>
<td>75%</td>
<td>50%</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td>Weighting factor</td>
<td>0.2</td>
<td>0.5</td>
<td>0.15</td>
<td>0.15</td>
</tr>
</tbody>
</table>

Test cycle for constant-speed auxiliary engine application

<table>
<thead>
<tr>
<th>Test cycle type D2</th>
<th>Speed</th>
<th>100%</th>
<th>100%</th>
<th>100%</th>
<th>100%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Power</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>100%</td>
<td>75%</td>
<td>50%</td>
<td>25%</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>Weighting factor</td>
<td>0.05</td>
<td>0.25</td>
<td>0.3</td>
<td>0.3</td>
<td>0.1</td>
</tr>
</tbody>
</table>

Test cycle for variable-speed and –load auxiliary engine application

<table>
<thead>
<tr>
<th>Test cycle type C1</th>
<th>Speed</th>
<th>Nominelt</th>
<th>Middels</th>
<th>Tomgang</th>
</tr>
</thead>
</table>
### 3) Type approval and operating limits for shipboard incinerators (§ 7-12 of these Regulations)

1. Shipboard incinerators described in the second paragraph of § 7-12 shall possess an IMO type approval certificate for each incinerator. In order to obtain such certificate, the incinerator shall be designed and built to an approved standard as described in the second paragraph of § 7-12. Each model shall be subject to a specified type approval test operation at the factory or an approved test facility, and under the responsibility of the Administration, using the following standard fuel/waste specification for the type approval test for determining whether the incinerator operates within the limits specified in paragraph (2) of this Annex:

- **Sludge oil consisting of:**
  - 75% sludge oil from HFO
  - 5% waste lubrication oil;
  - and
  - 20% emulsified water

- **Solid waste consisting of:**
  - 50% food waste
  - 50% rubbish containing:
    - approx. 30% paper,
    - approx. 40% cardboard,
    - approx. 10% rags,
    - approx. 20% plastic
  - The mixture will have up to 50% moisture and 7% incombustible solids.

2. Incinerators described in the second paragraph of § 7-12 shall operate within the following limits:

- **O₂ in combustion chamber:** 6–12%
- **CO in flue gas maximum average:** 200 mg/MJ
- **Soot number maximum average:** Bacharach 3 or Ringelman 1 (20% opacity)
- **Unburned components in ash residues:** maximum 10% by weight
- **Combustion chamber flue gas outlet temperature range:** 850–1200°C

### 4) Information to be included in the bunker delivery note (second paragraph of § 7-14 of these Regulations)

- Name and IMO number of receiving ship
- Port
- Date of commencement of delivery
- Name, address and telephone number of marine fuel oil supplier
- Product name(s)
- Quantity (metric tons)
Density at 15°C (kg/m³)*
Sulphur content (% m/m)**

For marine gas fuel for sale domestically it shall be sufficient to state the maximum value.
A declaration signed and certified by the fuel oil supplier’s representative that the fuel oil supplied is in conformity with § 7-9 or sub-paragraph (a) of the second paragraph of § 7-10 and the first paragraph of § 7-14 of these Regulations.

* Fuel oil should be tested in accordance with ISO 3675.
** Fuel oil should be tested in accordance with ISO 8754.

Added by Regulation of 24 January 2006 No. 119. Amended by Regulations of 10 August 2006 No. 965 (in force on 11 August 2006), 10 January 2007 No. 23 (previously Annex C) and 22 January 2007 No. 79.