Regulations of 1 July 2014 No. 1099 on fire protection on ships

Legal basis: Laid down by the Norwegian Maritime Authority on 1 July 2014 under the Act of 16 February 2007 No. 9 relating to ship safety and security (Ship Safety and Security Act) sections 2, 6, 9, 11, 19, 20. 21, 28a, 29, 30 and 45, cf. Formal Delegation of 16 February 2007 No. 171 and Formal Delegation of 31 May 2007 No. 590.
EEA references: EEA Agreement Annex XIII point 56f (Directive 2009/45/EC as amended by Directive 2010/36/EU).
Amendments: Amended by Regulations of 19 December 2014 No. 1853, 2 February 2015 No. 74, 7 December 2015 No. 1628, 29 June 2016 No. 850, 27 December 2016 No. 1884, 6 September 2017 No. 1360, 16 December 2019 No. 1817 (in force on 1 January 2020), 10 October 2023 No. 1594 (in force on 1 January 2024), 26 June 2025 No. 1372, 19 December 2025 No. 2842 (in force on 1 January 2026).

Section 1
Scope of application

These Regulations apply to Norwegian:

a. cargo ships of 24 metres in length (L) and upwards, or of 500 gross tonnage and upwards;
b. ships required to have Passenger Certificate;
c. class C and D passenger ships of 24 metres in length (L) and upwards, constructed before 1 May 2000;
d. ships with Passenger Ship Safety Certificate engaged on foreign voyages;
e. barges.

Amended by Regulations of 19 December 2014 No. 1853, 29 June 2016 No. 850 (in force on 1 July 2016).

Section 2
Fire protection on ships engaged on foreign voyages

For cargo ships of 500 gross tonnage and upwards engaged on foreign voyages and passenger ships engaged on foreign voyages, the following shall apply as regulation:

a. the International Convention for the Safety of Life at Sea, 1974 (SOLAS), consolidated edition 2020, Chapter II-2, as amended by MSC.520(106), MSC.532(107) and MSC.550(108);
b. the International Code for Fire Safety Systems (FSS Code), cf. MSC.98(73), as amended by MSC.206(81), MSC.217(82), MSC.292(87), MSC.311(88), MSC.327(90), MSC.339(91), MSC.367(93), MSC.403(96), MSC.410(97), MSC.457(101), MSC.484(103) and MSC.555(108).

Amended by Regulations of 7 December 2015 No. 1628 (in force on 1 January 2016), 29 June 2016 No.850 (in force on 1 July 2016), 27 December 2016 No. 1884 (in force on 1 January 2017), 16 December 2019 No. 1817 (in force on 1 January 2020), 10 October 2023 No. 1594 (in force on 1 January 2024), 19 December 2025 No. 2842 (in force on 1 January 2026).

Section 3
Fire protection on ships engaged on domestic voyages and cargo ships of less than 500 gross tonnage engaged on foreign voyages

Section 2 shall apply correspondingly to

a. cargo ships engaged on domestic voyages;
b. cargo ships of less than 500 gross tonnage engaged on foreign voyages;
c. passenger ships of 15 metres in overall length and upwards engaged on domestic voyages, with the exception of MSC.550(108).

Sections 4, 5, 7, 9, 10, 12, 13 and 14 do not apply to high-speed craft of less than 24 metres in length (L) required to have Passenger Certificate. High-speed craft means a craft capable of a maximum speed of 20 knots or more.

High-speed craft of less than 24 metres in length (L) required to have Passenger Certificate shall comply with the requirements of Appendix I to these Regulations.

Passenger high-speed craft of less than 15 metres in overall length engaged on domestic voyages shall comply with Nordic Boat standard 1990 for Commercial Boats less than 15 metres, sections C14 and C31.5, or Appendix 1 to these Regulations.

Passenger ships of less than 15 metres in overall length engaged on domestic voyages that are not high-speed craft shall comply with Nordic Boat Standard 1990 for Commercial Boats less than 15 metres, sections C14 and C31.5, or sections 4, 8 and 17 of these Regulations.

Passenger ships of less than 15 metres in overall length engaged on domestic voyages shall comply with Nordic Boat Standard 1990 for Commercial Boats less than 15 metres, sections C31.7.3 and C13.6.

Amended by Regulations of 2 February 2015 No. 74 (in force on 15 February 2015), 29 June 2016 No. 850 (in force on 1 July 2016), 19 December 2025 No. 2842 (in force on 1 January 2026).

Section 4

Structural fire protection on passenger ships engaged on domestic voyages

The requirements for structural fire protection pursuant to SOLAS regulations II-2/5.3, 9.2.2 and 11, cf. section 3, do not apply to passenger ships engaged on domestic voyages, which have:

a. steel or other equivalent material in bulkheads and decks forming divisions that separate accommodation and public spaces from machinery and cargo spaces;
b. steel or other equivalent material in bulkheads and decks in galleys, paint lockers, lamp rooms, store rooms including spaces intended for luggage and mail, adjacent to accommodation spaces, and door to these rooms, except around galleys where no hot food is prepared;
c. all stairways of steel frame construction;
d. "B" class divisions in bulkheads where there are no requirements for steel or other equivalent material pursuant to subparagraphs a) to c); and
e. smoke uptake and exhaust pipes so arranged that the temperature does not lead to risk of ignition.

A ship pursuant to first paragraph (a) to (e) of 300 gross tonnage and upwards shall have:

a. enclosed stairways with "A-30" class divisions from the deck where the stairways begin and to the lifeboat embarkation deck;
b. non-combustible corridor bulkheads extending from deck to deck and right out to the ship's side; and
c. ceilings of non-combustible material in corridors and stairways.

A ship pursuant to first paragraph (a) to (e) or second paragraph (a) to (c) constructed on or after 1 July 2005 shall have assembly stations, appurtenant embarkation stations and intermediate escape routes which are separated from open car deck by an "A-30" class division. A ship with assembly capacity and survival craft for 100% of the number of passengers on either side may have half of the capacity separated from open car deck by an "A-30" class division. The escape routes shall have documented capacity for escape between assembly stations and embarkation stations.

Section 5

Fixed fire-extinguishing systems in machinery and boiler spaces on passenger ships engaged on domestic voyages

The requirements for fixed fire-extinguishing systems in machinery and boiler spaces pursuant to SOLAS regulations II-2/10.4 and 10.5, cf. section 3, do not apply to passenger ships of less than 300 gross tonnage engaged on domestic voyages.

The requirements for fixed fire-extinguishing systems in machinery and boiler spaces pursuant to SOLAS regulations II-2/10.5.6, cf. section 3, do not apply to passenger ships of less than 2,000 gross tonnage engaged on domestic voyages and constructed before 1 August 2000.

Section 6

Ro-ro ships engaged on domestic voyages with fixed foam fire-extinguishing system on the car deck

Ro-ro ships engaged on domestic voyages, which form a part of the classified or county road network in Norway, carry packaged dangerous goods and have fixed foam fire-extinguishing systems on the car decks, shall in lieu of SOLAS consolidated edition 2014 Chapter II-2 Regulation 19, cf. section 3, satisfy the following requirements:

a. the foam fire-extinguishing system shall have sufficient capacity for an application time of at least 30 minutes and a foam application rate of at least 6.5 l/m^2/minute in the parking area for vehicles used for the carriage of persons and goods which are not packaged dangerous goods (vehicle space) and 10 l/m^2/minute in the parking area for vehicles used for the carriage of packaged dangerous goods (dangerous goods area), where vehicle spaces are at least 15 metres in length and dangerous goods areas are at least 20 metres in length;
b. the foam fire-extinguishing system shall be capable of operating a parking area where there is a fire as well as adjacent parking areas, or only the area where there is a fire when the ship has an extra protective wall of foam with at least 35 per cent additional coverage in front of and behind this area;
c. the necessary amount of foam concentrate shall be calculated on the basis of the zone combination with the greatest simultaneous need for foam application, cf. subparagraphs a) and b);
d. foam tanks shall be provided with a level alarm or a gauge glass;
e. power supply to the foam fire-extinguishing system shall come from the main and emergency source of power, or from a special generator for the foam fire-extinguishing system;
f. fixed foam-generating equipment shall be independent of manual operation;
g. it shall be possible to activate release of the foam fire-extinguishing system manually from two locations; from the bridge or fire control central, and from a location near parked vehicles.

Amended by Regulation of 6 September 2017 No. 1360 (in force on 15 September 2017).

Section 7

Fire pumps and fire mains on passenger ships engaged on domestic voyages

The requirements for fire pumps pursuant to SOLAS regulation II-2/10.2.2, cf. section 3, do not apply to passenger ships engaged on domestic voyages, of:

a. less than 50 gross tonnage;
b. 50 gross tonnage and upwards, but less than 100 gross tonnage, having a fire pump driven by a main engine or other engine;
c. 100 gross tonnage and upwards, but less than 500 gross tonnage, having at least one independently driven fire pump, or driven by the main engine if the propeller can be disconnected;
d. 500 gross tonnage and upwards, but less than 1,000 gross tonnage, having at least to independently driven fire pumps;
e. 1,000 gross tonnage and upwards, having fire pumps with sources of power supply and seawater inlets, whereof at least one shall not be possible to put out of action in the event of fire in any one compartment.

For ships pursuant to first paragraph (a) to (f):

a. a pressure of at least 4.0 bar shall be obtained anywhere on the ship's fire main, when dual-purpose type nozzles (spray/jet type) are in operation;
b. the fire pump(s) shall, at the pressure specified in subparagraph a), be capable of delivering a quantity of water which is not less than two thirds of the quantity required to be dealt with by the bilge pumps when employed for bilge pumping;
c. sanitary, ballast, general service or other pumps may be accepted as fire pumps. When a centrifugal pump is used as a fire pump, a non-return valve shall be fitted at the pump.

Section 8

Fire hydrants, hoses and nozzles on passenger ships engaged on domestic voyages

The requirements for fire hydrants, hoses and nozzles pursuant to SOLAS regulation II-2/10.2.1 and 10.2.3, cf. section 3, do not apply to passenger ships engaged on domestic voyages, when:

a. fire hoses may be readily connected to the hydrants;
b. the hydrants are always readily accessible and the piping is so arranged that it will not be damaged by cargo or vehicles;
c. a hose station is provided at each hydrant, consisting of a hose and a dual-purpose nozzle (spray/jet type) with a coupling connecting it to the hydrant, as well as two sets of spanners.

Ships pursuant to the first paragraph:

a. of 200 gross tonnage and upwards shall have a sufficient number of hydrants so positioned that at least two jets of water from different hydrants may reach any part of the ship;
b. of less than 500 gross tonnage shall, when a fire pump is mandatory, have at least one hose station in machinery and boiler spaces;
c. of 500 gross tonnage and upwards shall have at least two hose stations in machinery and boiler spaces;
d. shall have hose stations to the same extent as specified in subparagraphs b) and c) in the auxiliary machinery space when the auxiliary machinery is located in a separate space.

Section 9

Fire-fighter's outfits on passenger ships engaged on domestic voyages

The requirements for fire-fighter's outfits pursuant to SOLAS regulation II-2/10.10, cf. section 3, do not apply to passenger ships engaged on domestic voyages, of:

a. 1,000 gross tonnage and upwards, having at least four fire-fighter's outfits and one set of personal equipment;
b. 500 gross tonnage and upwards, but less than 1,000 gross tonnage, having at least two fire-fighter's outfits and one set of personal equipment;
c. 300 gross tonnage and upwards, but less than 500 gross tonnage, having at least one fire-fighter's outfit;
d. less than 300 gross tonnage.

The requirements for personal equipment pursuant to the first paragraph do not apply to passenger ships engaged on domestic voyages constructed before 1 July 1986.

Amended by Regulation of 26 June 2025 No. 1372.

Section 10

Structural fire protection on cargo ships of less than 500 gross tonnage

The requirements for structural fire protection pursuant to SOLAS regulations II-2/5.3, 9.2.3 and 11, cf. section 3, do not apply to cargo ships of less than 500 gross tonnage, which have:

a. steel or other equivalent material in the bulkheads in galleys, paint lockers, lamp rooms and store rooms adjacent to accommodation spaces;
b. bulkhead and linings in corridors and stairways below deck with surfaces having low flame spread and limited smoke development characteristics;
c. non-combustible insulating materials; and
d. exhaust pipes and smoke uptake so arranged that the temperature does not lead to risk of ignition.

Section 11

Alarm systems on cargo ships of less than 500 gross tonnage

The requirements for alarm systems pursuant to SOLAS regulation II-2/7, cf. section 3, do not apply to cargo ships of less than 500 gross tonnage having an alarm system that ensures that the persons on board are alerted in the event of danger.

Section 12

Fire-extinguishing arrangements in machinery spaces of cargo ships of less than 500 gross tonnage

The requirement for fire-extinguishing arrangements in machinery spaces pursuant to SOLAS regulation II-2/10.5, cf. section 3, do not apply to cargo ships of 200 gross tonnage and upwards, but less than 500 gross tonnage, when the ship has:

a. a sufficient number of fire extinguishers so that no point in the machinery space is more than 10 m away from an extinguisher, but at least two portable fire extinguishers;
b. one fire extinguisher at each oil-fired boiler installation.

The exception pursuant to the first paragraph also applies to cargo ships of less than 200 gross tonnage having at least two portable fire extinguishers in the machinery space.

Amended by Regulation of 19 December 2014 No. 1853.

Section 13

Fire-fighter's outfits on cargo ships of less than 500 gross tonnage

The requirements for fire-fighter's outfits pursuant to SOLAS regulation II-2/10.10, cf. section 3, do not apply to cargo ships of less than 500 gross tonnage.

Amended by Regulation of 26 June 2025 No. 1372.

Section 14

Fire pumps and fire mains on cargo ships of less than 500 gross tonnage

The requirements for fire pumps, fire mains, fire hydrants and hoses pursuant to SOLAS regulation II-2/10.2, cf. section 3, do not apply to cargo ships of less than 500 gross tonnage having an independently driven fire pump.

For ships pursuant to the first paragraph:

a. a pressure of at least 4.0 bar shall be obtained anywhere on the ship's fire main, when dual-purpose type nozzles (spray/jet type) are in operation;
b. the fire pump(s) shall, at the pressure specified in subparagraph a), be capable of delivering a quantity of water calculated according to $Q = (0.15 \sqrt{} L(B+D) + 2.25)^2$ m³/t, where
   – L = the ship's length between perpendiculars in metres
   – B = the ship's maximum moulded breadth in metres
   – D = the ship's moulded depth to bulkhead deck amidships in metres;
c. the fire mains shall be heat-resistant and non-combustible;
d. the fire mains shall have a diameter ensuring a uniform distribution and a steady pressure at required capacity.

Amended by Regulation of 19 December 2014 No. 1853.

Section 15

Fire hydrants, hoses and nozzles on cargo ships of less than 500 gross tonnage

The requirements for fire hydrants, hoses and nozzles pursuant to SOLAS regulation II-2/10.2, cf. section 3, do not apply to cargo ships of less than 500 gross tonnage when:

a. fire hoses may be readily connected to the hydrants;
b. the hydrants are always readily accessible and the piping is so arranged that it will not be damaged by deck cargo;
c. a hose station is provided at each hydrant, consisting of a hose and a dual-purpose nozzle (spray/jet type) with a coupling connecting it to the hydrant, as well as two sets of spanners;
d. the ship has hose station(s) pursuant to subparagraph c) in machinery and boiler spaces.

Ships pursuant to the first paragraph:

a. of 200 gross tonnage and upwards shall have a sufficient number of hydrants so positioned that at least two jets of water from different hydrants may reach any part of the ship, one of which shall be from a single length of hose;
b. of less than 200 gross tonnage shall have a sufficient number of hydrants so positioned that at least one jet of water from a single length of hose may reach any part of the ship.

Section 16

Fire protection on tankers of less than 500 gross tonnage

The requirements for fire protection on tankers pursuant to SOLAS regulations II-2/4.5, 9.2.4, 10.9 and 11.6, cf. section 3, do not apply to tankers of less than 500 gross tonnage, having a transportable dry-powder apparatus with at least 10 m of hose, which is ready for immediate use and placed near the tank deck.

Section 17

Structural fire protection on wooden vessels

The requirements for structural fire protection pursuant to SOLAS regulations II-2/9 and 11, cf. section 3, do not apply to wooden vessels having a fire-extinguishing system in the machinery space.

On wooden vessels where the engine is not placed in a separate compartment, all combustible material which is exposed to heat from exhaust manifolds, exhaust pipes, etc. shall be insulated.

Engine cover shall be insulated on the inside. The insulation shall be surrounded by galvanized or aluminium sheeting.

Section 18

Fire protection on barges

The Norwegian Maritime Authority will in individual decisions specify which requirements of these Regulations a barge shall satisfy.

Section 19

Exemptions

The Norwegian Maritime Authority may upon written application permit other solutions than those required by these Regulations when it is established that such solutions are equivalent to the requirements of the Regulations.

The Norwegian Maritime Authority may exempt a ship engaged on domestic voyages or a cargo ship of less than 500 gross tonnage engaged on foreign voyages from one or more or the requirements of these Regulations if the company applies in writing for such exemption and one of the following conditions is met:

a. it is established that the requirement is not essential and that the exemption is justifiable in terms of safety;
b. it is established that compensating measures will maintain the same level of safety as the requirement of these Regulations.

Section 20

Entry into force

The Regulations enter into force on 15 September 2014.

From the same date, the following regulations are repealed:

a. Regulations of 22 June 1990 No. 536 concerning fire safety measures in ships to which the International Convention for the Safety of Life at Sea (SOLAS-74) applies;

b. Regulations of 17 June 1986 No. 1296 concerning fire safety measures in ships to which the International Convention for the Safety of Life at Sea (SOLAS-74) does not apply.

Section 21

Amendments to other regulations

From 15 September 2014 the following amendments are made to other regulations:
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Appendix 1

1. *Structure*

1.1 High-speed craft of less than 24 metres in length (L) required to have Passenger Certificate shall be constructed of approved materials and shall have sufficient strength for the trade area for which the craft shall be certified.

2. *Fire integrity requirements for bulkheads and decks*

2.1 The insulation value of fire-proof divisions shall be such that, within 30 minutes:

2.1.1 the average temperature at the non-exposed side will not rise more than 140°C above the initial temperature;

2.1.2 the temperature at any one point, including any joint, will not rise more than 225°C above the initial temperature.

2.2 The following bulkheads and decks shall be fire-proof:

2.2.1 bulkheads and decks around machinery spaces, including the ship's sides in machinery spaces from at least 20 cm below the waterline;

2.2.2 bulkheads and decks separating control rooms from accommodation spaces;

2.2.3 bulkheads and decks separating lifeboat and liferaft embarkation station from service spaces, accommodation spaces, public spaces and cargo spaces.

2.3 Where aluminium is allowed as a fire-proof division, the division shall be insulated such that the temperature in the structural core does not rise more than 200°C above the ambient temperature during the first 30 minutes of the standard fire test.

2.4 Where aluminium is used in bulkheads and decks surrounding machinery spaces, the fire insulation shall be on the side of the machinery space. The insulation shall be protected so that oil and oil steam will not penetrate into the insulation.

3. *Ventilation arrangement*

3.1 Ventilation ducts and pipes, etc. to machinery spaces shall be fitted with a fire damper which can be operated from outside the space.

3.2 Ventilation ducts, etc. to machinery spaces shall not be carried through accommodation, and ventilation ducts, etc. to accommodation shall not pass through machinery spaces.

3.3 It shall be possible to shut off fans in machinery spaces from outside the machinery space.

4. *Fire detection system*

4.1 An automatic fire detection system shall be installed in machinery spaces.

5. *Fuel oil installations*

5.1 Fuel oil tanks shall be separated from machinery spaces and accommodation by means of a cofferdam or similar.

5.2 Fuel oil tanks shall be fitted with a quick-action closing valve. The Norwegian Maritime Authority shall accept the location of the valve.

6. *Fire-extinguishing systems and portable fire extinguishers*

6.1 In machinery spaces, a fixed main fire-extinguishing system complying with the requirements of SOLAS regulation II-2/10.5.1 shall be provided.

6.2 In machinery spaces of ships of less than 100 gross tonnage, at least one portable fire extinguisher shall be provided.

6.3 In machinery spaces of ships of 100 gross tonnage and upwards, but less than 200 gross tonnage, at least two portable fire extinguishers shall be provided.

6.4 In machinery spaces of ships of 200 gross tonnage and upwards, there shall in addition to the requirements of 6.3 be a sufficient number of fire extinguishers to ensure that no point in the machinery space will be more than 10 metres away from a fire extinguisher. A fire extinguisher shall be provided at each oil-fired boiler installation.

6.5 In accommodation spaces, the number and size of fire extinguishers shall be decided by the Norwegian Maritime Authority.

6.6 The weight of a portable fire extinguisher shall not be more than 23 kg.

6.7. When portable fire extinguishers are required, the following applies:

6.7.1 CO_2 extinguishers shall have a CO_2 charge of at least 5 kg;

6.7.2 water extinguishers shall have a contents of at least 9 litres;

6.7.3 dry powder extinguisher shall have at least 6 kg powder.

6.8 Vessels of less than 50 gross tonnage may have fire extinguishers with less contents than required by paragraph 6.7.

6.9 Each fire extinguisher shall have at least one spare charge. Where the extinguishers cannot be charged on board, the number of extinguishers shall be increased by 50 per cent.

6.10 The Norwegian Maritime Authority may require additional fire extinguishers provided in other locations than those mentioned above if the arrangement so requires.

6.11 Extinguishers with pressurised extinguishing medium shall not be installed in passenger or crew cabins. The Norwegian Maritime Authority decides if such extinguishers may be permitted in other accommodation spaces on board.

6.12 Extinguishers which may be exposed to frost shall be of a frost-proof type.

7. *Positioning of portable fire extinguishers*

7.1 When portable extinguishers are required, they shall be placed as follows:

Accommodation spaces:	Water extinguishers Dry powder extinguishers may also be used. The positioning shall then be such that one water extinguisher is always placed within a reasonable range of another water extinguisher. In such cases, the total number of extinguishers in accommodation spaces must be increased.
Wheelhouse and galley:	Dry powder extinguishers
Machinery and boiler spaces, auxiliary machinery spaces:	Dry powder extinguishers
Electrical control panels, generators, etc. in machinery spaces:	Dry powder extinguishers CO_2 extinguishers
Spaces for ropes, store rooms, etc.:	Water extinguishers

7.2 A portable extinguisher intended for use in a particular space shall be available close to the entrance of that space.

8. *Fire pumps, fire mains, hydrants, hoses, nozzles and fireman's outfit*

8.1 High-speed craft shall have a fire pump which cannot be combined with a bilge pump. The pump may be driven by the ship's main engine when the propeller is capable of being quickly released from the main engine. It shall be possible to supply water into the fire main from a safe position outside the machinery space.

8.2 High-speed craft shall have an emergency fire pump installed outside the machinery space. The emergency fire pump may be the same as the emergency bilge pump. On vessels with two independent machinery spaces, the emergency fire pump may be placed in one of these spaces.

8.3 High-speed craft shall have hydrants, fire hoses and nozzles in accordance with section 8 of these Regulations.

9. *Miscellaneous*

9.1 Fire axes shall be available in such number and be placed in such positions near exits and emergency exits to deck as conditions on board may require.

9.2 Where combustible materials have been used in order to give the vessel buoyancy in damaged condition, such materials shall not be used in spaces containing pipes for oil fuel or possible sources of ignition.

Added by Regulation of 2 February 2015 No. 74 (in force on 15 February 2015).