
STATUTORY INSTRUMENTS

1999 No. 992

**The Merchant Shipping (Fire Protection)
(Amendment) Regulations 1999**

PART I

**AMENDMENTS OF THE MERCHANT SHIPPING (FIRE
PROTECTION: LARGE SHIPS) REGULATIONS 1998**

2. The Merchant Shipping (Fire Protection: Large Ships) Regulations 1998(1) shall be amended as follows in this Part of these Regulations.

3. In regulation 1(2):

- (a) in the definition of “‘A’ Class division”, for “139°C” there shall be substituted “140°C”;
- (b) in the definition of “‘B’ Class division”, for “139°C” there shall be substituted “140°C”;
- (c) in the definition of “cargo ship”, after “passenger ship” there shall be inserted “pleasure vessel or fishing vessel”;
- (d) after the definition of “equivalent material”, the following definition shall be inserted:

“‘Fire Test Procedures Code’ means the International Code for Application of Fire Test Procedures, as adopted by the MSC Resolution MSC.61(67);”;
- (e) after the definition of “lightweight”, the following definition shall be inserted:

“‘low flame spread’ means that the surface thus described will adequately restrict the spread of flame, this being determined in accordance with the Fire Test Procedures Code;”;
- (f) for the definition of “machinery spaces of Category A” there shall be substituted:

“‘machinery spaces of category A’ are those spaces and trunks to such spaces which contain—

 - (a) internal combustion machinery used for main propulsion; or
 - (b) internal combustion machinery used for purposes other than main propulsion where such machinery has in the aggregate a total power output of not less than 375kW; or
 - (c) any oil-fired boiler or oil fuel unit;”;
 - (g) for the definition of “non-combustible material” there shall be substituted:

“‘non-combustible material’ means a material which neither burns nor gives off flammable vapours in sufficient quantity for self-ignition when heated to approximately 750°C, this being determined in accordance with the Fire Test Procedures Code. Any other material is a combustible material;”;

- (h) in the definition of “rooms containing furniture and furnishings of restricted fire risk”, after subparagraph (b) the following subparagraphs shall be substituted for subparagraphs (c), (d) and (e):
 - “(c) bedding components have qualities of resistance to the ignition and propagation of flame, determined in accordance with the Fire Test Procedures Code;
 - (d) in the case of ships constructed before 1st July 1998:
 - (i) all draperies, curtains and other suspended textile materials have qualities of resistance to the propagation of flame in accordance with the requirement of Type B performance of British Standard 5867: Part 2: 1980;
 - (ii) all surface floor coverings have qualities of resistance to the propagation of flame to the satisfaction of the Secretary of State; and
 - (iii) the upholstered parts of furniture have qualities of resistance to the ignition and propagation of flame to the satisfaction of the Secretary of State;
 - (e) in the case of ships constructed on or after 1st July 1998:
 - (i) all draperies curtains and other suspended textile materials have qualities of resistance to the propagation of flame determined in accordance with the Fire Tests Procedures Code;
 - (ii) all surface floor coverings have low flame spread; and
 - (iii) the upholstered parts of furniture have qualities of resistance to the ignition and propagation of flame, determined in accordance with the Fire Test Procedures Code;”;
- (i) for the definition “standard fire test” there shall be substituted the following:
 - ““standard fire test” is one in which a specimen of the relevant bulkhead or deck is exposed in a test furnace to temperatures corresponding approximately to a standard time-temperature curve in accordance with the Fire Test Procedures Code;”;
- (j) the definition of “surface spread of flame” shall be deleted.

4. In regulation 2:

- (a) in sub-paragraph (2) the following shall be added after the entry for “Class II(A)”:

“Class III	Passenger ships engaged only on voyages in the course of which they are at no time more than 70 miles by sea from their point of departure and not more than 18 miles from the coast of the United Kingdom, and which are at sea only in favourable weather and during restricted periods;
Class IV	Passenger ships engaged only on voyages in Category A, B, C or D waters;
Class V	Passenger ships engaged only on voyages in Category A, B or C waters;
Class VI	Passenger ships engaged only on voyages with not more than 250 passengers on board, to sea, or in Category A, B, C or D waters, in all cases in favourable weather and during restricted periods, in the course

of which the ships are at no time more than 15 miles, exclusive of any Category A, B and C waters, from their point of departure nor more than 3 miles from land;

Class VI(A)

Passenger ships carrying not more than 50 passengers for a distance of not more than 6 miles on voyages to or from isolated communities on the islands or coast of the United Kingdom and which do not proceed for a distance of more than 3 miles from land subject to any conditions which the Secretary of State may impose;”;

- (b) in paragraph 2(2), in sub-paragraph (a) the following definition shall be inserted after the definition of “long international voyage”:

““restricted period” means a period falling wholly within the following limits–

- (a) from 1st April to 31st October, both dates inclusive; and
- (b) between one hour before sunrise and one hour after sunset in the case of ships fitted with navigation lights conforming to the regulations for the prevention of collisions(2) and between sunrise and sunset in the case of any other ships;”.

5. In regulation 12:

- (a) for subparagraph (1)(b) there shall be substituted:

“(b) every such outfit shall comply with the requirements of regulation 46; each outfit shall include breathing apparatus complying with Schedule 5 in Merchant Shipping Notice MSN 1665; such breathing apparatus may be either the self-contained type, or the smoke helmet/smoke mask type.”; and

- (b) at the end of subparagraph (3)(c) the following shall be added:

“provided that, for stairway enclosures which constitute entire main vertical zones and for main vertical zones in the fore or aft end of a ship which do not contain spaces classified in accordance with Schedule 1 of MSN 1667 (M) as 6, 7, 8 or 12, no additional fireman’s outfits are required;”.

6. In regulation 16 for subparagraph (2)(c) there shall be substituted the following:

“(c) In every ship of Class VII of 500 tons or over, one of the other pumps fitted in the machinery space such as general service, bilge and ballast pumps capable of providing water to the fire main at the required capacity and the pressure of the fire pumps, may be regarded as one of the fire pumps required in subparagraph (a), provided that the safe operation of the ship is not impaired.”.

7. In regulation 18:

- (a) at the end of paragraph (2) there shall be added:

“When an exemption is granted in accordance with this paragraph, an Exemption Certificate shall be issued. The certificate shall list all the cargoes the ship is permitted to carry.”; and

- (b) at the end of paragraph (6) there shall be added:

“Additional requirement for ships constructed on or after 1st July 1998(3)

(7) Permanent openings for ventilation in the side plating, the ends or deckhead of ro-ro cargo spaces shall be so situated that a fire in the cargo space is not likely to endanger stowage areas or embarkation stations for survival craft or accommodation spaces, service spaces and control stations in superstructures and deckhouses above the special category spaces or ro-ro cargo spaces.”.

8. For paragraphs (2) to (5) of regulation 25 there shall be substituted:

“(2) Each outfit shall include breathing apparatus in accordance with Schedule 5 of Merchant Shipping Notice MSN 1665; such breathing apparatus can be either the self-contained type, or the smoke helmet/smoke mask type.

Requirements for ships constructed on or after 25th May 1980

(3) Every ship of Class VII of 500 tons or over shall carry firemen’s outfits which shall comply with the requirements of regulation 46 in accordance with the following scale

<i>Tonnage of the ship</i>	<i>Number of outfits</i>
500 but under 2,500	2
2,500 but under 4,000	3
4,000 or over	4

(4) Each outfit referred to in paragraph (1) or (2) above shall include breathing apparatus in accordance with Schedule 5 of Merchant Shipping Notice MSN 1665; such breathing apparatus can be either the self-contained type, or the smoke helmet/smoke mask type.”.

9. In regulation 30:

- (a) in paragraph (1) for the word “tons” there shall be substituted “tonnes deadweight”; and
- (b) in paragraphs (7) and (8) for “tons deadweight” there shall in each case be substituted “tonnes deadweight”.

10. For regulation 34 there shall be substituted:

“**34.** In every ship of Class VII(T) of 500 tons or over there shall be provided not less than four firemen’s outfits complying with the requirements of regulation 46. Each outfit shall include breathing apparatus in accordance with Schedule 5 of Merchant Shipping Notice MSN 1665; such breathing apparatus can be either the self-contained type, or the smoke helmet/smoke mask type.”.

11.—(1) In regulation 37 after the main heading, there shall be added:

“Requirements for ships constructed before 1st July 1998”.

(2) After paragraph (4) the following shall be added:

“Requirements for ships constructed on or after 1st July 1998

(4A) In such ships helicopter decks shall comply with the requirements specified in “Standards for on-board helicopter facilities” adopted by IMO Resolution A.855(20).”.

12. In regulation 51 at the beginning of paragraph (1) the following words shall be inserted:

(3) Under regulation 1(6)(c) of S.I. 1998/1012 such sub-headings have mandatory application.

“Except where otherwise provided”.

13. For the subheading at the beginning of regulation 53 there shall be substituted:

***“Requirements for ships constructed on or after
1st February 1992 and before 1st July 1998:”.***

14. At the end of regulation 53 the following regulation shall be inserted:

“**53A.** In ships constructed on or after 1st July 1998 helicopter decks shall comply with the requirements specified in “Standards for on-board helicopter facilities” adopted by IMO Resolution A.855(20).”.

15. In regulation 57(5)(a)(ii) for “regulation 56” there shall be substituted “regulation 55”.

16. In regulation 57(5), in subparagraph (b) for “68(3)(c)” there shall be substituted “68(2)(c)”.

17. In regulation 58:

(a) in paragraph (8) after “on or after 1st October 1994” there shall be inserted “and before 1st July 1998”;

(b) after paragraph (8) a new paragraph (8A) shall be inserted:

“(8A) In the case of a ship constructed on or after 1st July 1998, all fire doors in a division constructed in compliance with regulation 54(1) or 57(1), other than power-operated watertight doors or doors which are normally locked shut, shall comply with the following requirements—

- (a) the doors shall be self-closing and be capable of closing against an angle of inclination of up to 3.5 degrees opposing closure;
- (b) the approximate time of closure for hinged fire doors shall be no more than 40 seconds and no less than 10 seconds from the beginning of their movement with the ship in upright position. The approximate uniform rate of closure for sliding fire doors shall be of no more than 0.2 m/s and no less than 0.1 m/s with the ship in the upright position;
- (c) the doors shall be capable of remote release from the continuously manned central control station, either simultaneously or in groups and shall be capable of release also individually from a position at both sides of the door. Release switches shall have an on-off function to prevent automatic resetting of the system;
- (d) hold-back hooks not subject to central control station release are prohibited;
- (e) a door closed remotely from the central control station shall be capable of being re-opened at both sides of the door by local control. After such local opening, the door shall automatically close again;
- (f) indication shall be provided at the fire door indicator panel in the continuously manned central control station whether each of the remote-released doors is closed;
- (g) the release mechanism shall be so designed that the door will automatically close in the event of disruption of the control system or main source of electric power;
- (h) local power accumulators for power-operated doors shall be provided in the immediate vicinity of the doors to enable the doors to be operated after disruption of the control system or main source of electric power at least ten times (fully opened and closed) using the local controls;

- (i) disruption of the control system or main source of electric power at one door shall not impair the safe functioning of other doors;
 - (j) remote-released sliding or power-operated doors shall be equipped with an alarm that sounds for at least 5 seconds but no more than 10 seconds after the door is released from the central control station and before the door begins to move and continue sounding until the door is completely closed;
 - (k) a door designed to re-open upon contacting an object in its path shall re-open not more than 1 metre from the point of contact;
 - (l) double-leaf doors equipped with a latch necessary to their fire integrity shall have a latch that is automatically activated by the operation of the doors when released by the control system;
 - (m) doors giving direct access to special category spaces which are power-operated and automatically closed need not be equipped with the alarms and remote release mechanisms required in subparagraphs (c) and (j);
 - (n) the components of the local control system shall be accessible for maintenance and adjusting; and
 - (o) power-operated doors shall be provided with a control system of an approved type which shall be able to operate in case of fire, this being determined in accordance with the Fire Test Procedures Code. This system shall satisfy the following requirements:
 - (i) the control system shall be able to operate the door at the temperature of at least 200°C for at least 60 minutes served by the power supply;
 - (ii) the power supply for all other doors not subject to fire shall not be impaired; and
 - (iii) at temperatures exceeding 200°C the control system shall be automatically isolated from the power supply and shall be capable of keeping the door closed up to at least 945°C.”; and
- (c) in paragraph (10) for the second sentence there shall be substituted:
- “The requirements for “A” Class integrity of the outer boundaries of the ship shall not apply to exterior doors, except for those in superstructures and deckhouses facing life-saving appliances, embarkation and external muster station areas, external stairs and open decks used for escape routes. Stairway enclosure external doors need not meet this requirement.”.

18. In regulation 60 at the end of paragraph (6) there shall be added:

“(7) The following arrangements shall be tested in accordance with the Fire Test Procedures Code:

- (a) fire dampers, including relevant means of operation; and
- (b) duct penetrations through “A” Class divisions, except where steel sleeves are directly joined to ventilation ducts by means of riveted or screwed flanges or by welding.”.

19. In regulation 62:

- (a) in paragraph (1) for “The following surfaces” to “exceeded-”, there shall be substituted:

“The following surfaces shall have low flame spread”;
- (b) for subparagraph (2)(d) there shall be substituted:

- “(d) primary deck coverings, if used within accommodation or service spaces or control stations, shall be of an approved material which will not readily ignite or give rise to toxic or explosive hazards at elevated temperatures; in the case of ships constructed on or after 1st July 1998 this shall be determined in accordance with the Fire Test Procedures Code;”;
- (c) for subparagraph (3)(a)(iii) there shall be substituted:
- “(iii) materials used to insulate pipe fittings for cold service systems, provided their exposed surfaces have low flame spread and, in the case of ships constructed before 1st July 1998, have qualities of resistance to the propagation of flame to the satisfaction of the Secretary of State; and”;
- (d) for subparagraph (3)(a)(iv) there shall be substituted:
- “(iv) vapour barriers and adhesives used in conjunction with insulating materials, provided that their exposed surfaces have low flame spread and, in the case of ships constructed before 1st July 1998, have qualities of resistance to the propagation of flame to the satisfaction of the Secretary of State; and”;
- (e) for subparagraph (3)(b) there shall be substituted:
- “(b) paints, varnishes and other finishes used on exposed interior surfaces shall not be capable of producing excessive quantities of smoke and toxic products; and, in the case of ships constructed on or after 1st July 1998, this shall be determined in accordance with the Fire Test Procedures Code.”.
- 20.** In regulation 65:
- (a) at the end of subparagraph (a)(ii) the following shall be added:
- “and where fuel oil tanks are below a special category space or ro-ro cargo space, the integrity of the deck between such spaces may be reduced to “A-0” standard;”;
- (b) at the end of subparagraph (e) there shall be inserted:
- “and
- (f) in the case of ships constructed on or after 1st July 1998 permanent openings for ventilation in the side plating, the ends or deckhead of special category spaces or ro-ro cargo spaces shall be so situated that a fire in the special category space or ro-ro cargo space is not likely to endanger stowage areas or embarkation stations for survival craft or accommodation spaces, service spaces and control stations in superstructures and deckhouses above the special category spaces or ro-ro cargo spaces.”.
- 21.** In regulation 66 at the end of subparagraph (c) there shall be inserted:
- “and
- (d) in the case of ships constructed on or after 1st July 1998 permanent openings for ventilation in the side plating, the ends or deckhead of cargo spaces shall be so situated that a fire in the cargo space is not likely to endanger stowage areas or embarkation stations for survival craft, or accommodation spaces, service spaces or control stations in superstructures and deckhouses above the cargo spaces.”.
- 22.** In regulation 68(7):
- (a) for the words from the beginning to “36 passengers” there shall be substituted:
- “In the case of ships carrying more than 36 passengers—”;
- (b) in subparagraph (a), after “passengers”, there shall be inserted “and crew”.
- 23.** In regulation 75 a new paragraph (1A) shall be inserted as follows:

“(1A) On ships having accommodation for 12 persons or less, where stairways penetrate more than a single deck and where there are at least two escape routes direct to the open deck at every accommodation level, the “A-0” standard in paragraph (1) may be reduced to “B-0” standard.”.

24. For the first sentence of paragraph (3) of regulation 77 there shall be substituted:

“The number of ventilation openings in “B” Class divisions shall be kept to a minimum; such openings shall generally be provided only in the lower part doors or by utilising gaps under doors. Openings in doors shall be provided with a grille made from non-combustible material. Openings shall not be provided in a “B” Class division forming a stairway enclosure.”.

25. In regulation 78 at the end of paragraph (4) there shall be added:

“(5) The following arrangements shall be tested in accordance with the Fire Test Procedures Code:

- (a) fire dampers, including relevant means of operation; and
- (b) duct penetrations through “A” Class divisions, except where steel sleeves are directly joined to ventilation ducts by means of riveted or screwed flanges or by welding.”.

26. In regulation 80:

- (a) for paragraph (1) there shall be substituted the following:

“(1) All exposed surfaces in corridors and stairway enclosures and surfaces in concealed or inaccessible spaces within accommodation or service spaces or control stations shall have low flame spread and, in the case of ships constructed before 1st July 1998, shall have qualities of resistance to the propagation of flame to the satisfaction of the Secretary of State;”;

- (b) for paragraph (2) there shall be substituted the following:

“(2) Primary deck coverings, if applied within accommodation or service spaces or control stations, shall be of an approved material which will not readily ignite or give rise to toxic or explosive hazards at elevated temperatures; in the case ships constructed on or after 1st July 1998, this shall be determined in accordance with the Fire Test Procedures Code;”;

- (c) for the second sentence of paragraph (3) there shall be substituted the following:

“Such surfaces, in the case of ships constructed before 1st July 1998, shall have qualities of resistance to the propagation of flame to the satisfaction of the Secretary of State and, in the case of ships constructed on or after 1st July 1998, shall not be capable of producing excessive quantities of smoke or toxic products, this being determined in accordance with the Fire Test Procedures Code;”;

- (d) for subparagraph (4)(a)(iii) there shall be substituted the following:

“(iii) materials used to insulate pipe fittings for cold service systems, provided that their exposed surfaces have low flame spread or, in the case of ships constructed before 1st July 1998, have qualities of resistance to the propagation of flame to the satisfaction of the Secretary of State; and”;

- (e) for subparagraph (4)(a)(iv) there shall be substituted the following:

“(iv) vapour barriers and adhesives used in conjunction with insulating materials provided that their exposed surfaces have low flame spread or, in the case of ships constructed before 1st July 1998, have qualities of resistance to the propagation of flame to the satisfaction of the Secretary of State.”.

27. In regulation 88:

- (a) in paragraph (1) before “insulated” there shall be inserted “constructed of steel and”;
- (b) after the first sentence of paragraph (4) there shall be inserted:

“In the case of ships constructed on or after 1st July 1998, such windows and sidescuttles, except wheelhouse windows, shall be of “A-60” standard;” and
- (c) for the final sentence of paragraph (4) there shall be substituted the following:

“In the case of ships constructed before 1st July 1998, such windows and side scuttles in the first tier on the main deck shall be fitted with inside covers of steel or equivalent material.”.