



Maritime &  
Coastguard  
Agency

MERCHANT SHIPPING NOTICE

# MSN 1670 (M) Amendment 2

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## The Merchant Shipping (Fire Protection) Regulations 2023 and the Merchant Shipping (Fire Protection: Small Ships) Regulations 1998

### Conditions for exemptions for small ships constructed before 26th May 1965 and requirements for certain ships constructed during certain periods before 1st September 1984

Notice to all Shipowners, Shipbuilders, Masters, Certifying Authorities and Surveyors

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#### Summary

This Notice, which is the second amendment to Merchant Shipping Notice 1670 (M), advises all Shipowners, Shipbuilders, Masters, Certifying Authorities and Surveyors of the fire protection requirements for certain ships constructed before 1st September 1984, including for classes of ship constructed before 26th May 1965. This Notice also contains the conditions for the exemption for ships constructed before 26th May 1965 and granted under the Merchant Shipping (Fire Protection: Small Ships) Regulations 1998 (SI 1998/1011).

#### Key Points: -

This Notice forms an integral part of the new Merchant Shipping (Fire Protection) Regulations 2023 (SI 2023/XXXX) (“the 2023 Regulations”) and of the Merchant Shipping (Fire Protection: Small Ships) Regulations 1998 (SI 1998/1011) (“the Small Ships Regulations”).

Schedules contained in this Notice are invoked by both sets of Regulations and are therefore a statutory obligation.

This amendment updates the text to reflect changes made by the 2023 Regulations and to provide references to those Regulations and to Merchant Shipping Notice 1900 (M) (“MSN 1900”). The conditions for the exemption given under the Small Ships Regulations are unchanged since Amendment 1.



Schedule 1:

Ships constructed before 26th May 1965:

- (a) Conditions for the general exemption granted under regulation 1(8) of the Small Ships Regulations
- (b) Requirements for ships subject to the 2023 Regulations

Schedule 2:

Structural fire protection for passenger ships of Class I, Class II and Class II(A) of 21.34 metres in length or over, constructed before 25th May 1980.

Schedule 3:

Structural fire protection for ships of Classes VII(T), VIII(T) and IX(A)(T) constructed between 25th May 1980 and 1st September 1984.

Schedule 4:

Structural fire protection for cargo ships of 500 tons or more built between 26th May 1965 and 1st September 1984, other than tankers to which Schedule 3 applies.

In this Merchant Shipping Notice-

1. The references to the top right of each Schedule indicate where that Schedule is referenced in the relevant Regulations or in MSN 1900.
2. A reference to a numbered paragraph is, unless otherwise stated, a reference to a paragraph of that number in that Schedule.
3. A reference to a numbered Schedule is, unless otherwise stated, a reference to the Schedule of that number in this Merchant Shipping Notice.



## **SCHEDULE 1**

**This Schedule contains:**

- (a) requirements for ships constructed before 26th May 1965 as referred to in regulation 13 of the 2023 Regulations**
  - (b) conditions for the general exemption granted in respect of ships constructed before 26th May 1965 under regulation 1(8) of the Small Ships Regulations**
1. A ship constructed before 26th May 1965 and to which the 2023 Regulations apply, must comply with the following requirements:
- (a) the provisions of the Merchant Shipping (Fire Appliances) Rules 1952 and Merchant Shipping (Construction) Rules 1952 which would have applied to it if those Rules had not been revoked;
  - (b) the provisions of Merchant Shipping Notice 1900 (M) listed in column 2 of Part 1 of the Annex to this Schedule that apply to it, except that the requirement for a fire detection system in paragraph 10.1 of Merchant Shipping Notice 1900 (M) may be met by compliance with paragraph 3 of this Schedule;
  - (c) for the purposes of the requirements of paragraph 4.7 of Merchant Shipping Notice 1900 (M), compliance with the requirements in paragraph 2 of this Schedule;
  - (d) in the case of a passenger ship of Class I, Class II or Class II(A) of 21.34 metres in length or over carrying 36 or fewer passengers, the provisions of Schedule 2 that apply to it (structural fire protection for passenger ships); and
  - (e) in the case of a passenger ship of Class I, Class II or Class II(A) of 21.34 metres in length or over carrying more than 36 passengers, each of the following requirements of Merchant Shipping Notice 1900 (M)—
    - (i) paragraph 3.24 (fixed fire-extinguishing systems in machinery spaces of category A);
    - (ii) paragraph 3.40 (general emergency alarm to be provided in every Class I ship);
    - (iii) paragraph 3.41 (public address system in every Class I ship); and
    - (iv) paragraphs 7.3 to 7.76 (structural fire protection for passenger ships), that applies to it.
2. A ship of Class VII, VII(A) or VIII of 2,000 gross tons or more constructed before 1st July 2002 and which is carrying explosives, and to which **paragraph 4.7** of Merchant Shipping Notice 1900 (M) (fixed fire-extinguishing arrangements in cargo spaces) applies, may, instead of complying with paragraph 4.7, satisfy the following requirements:
- (a) the compartments on the ship containing explosives, and any adjacent compartments, are not fitted with steam for fire smothering purposes; and
  - (b) the compartments include either—
    - (i) an efficient temporary fire smothering gas installation; or
    - (ii) a system of perforated pipes so designed and fitted that water can be sprayed into the compartment at the rate of 5 litres per square metre per minute.



3. A ship constructed before 26th May 1965 and to which **paragraph 10.1** of Merchant Shipping Notice 1900 (M) applies (ships (other than passenger ships) carrying explosives), may meet the requirement of that paragraph to provide a fire detection system if—
  - (a) efficient means in the form of pipes or ventilators are provided in every compartment containing explosives and in every adjacent cargo compartment by which fire in any such compartment may readily be detected in other parts of the ship by sense of smell; and
  - (c) the Standing Instructions to the ship's officers and crew require—
    - (i) the inspection of every such compartment at intervals of not more than 2 hours; and
    - (ii) that the making of every such inspection be recorded in the ship's log together with the time at which it was made.
  
4. A ship constructed before 26th May 1965 and to which the Small Ships Regulations apply, must, for the purposes of the exemption given in regulation 1(8) of those Regulations, comply with:
  - (a) the requirements of the Merchant Shipping (Fire Appliances) Rules 1952 and Merchant Shipping (Construction) Rules 1952 which would have applied to it if those Rules had not been revoked; and
  - (b) the provisions of the regulations specified in relation to those ships in column 2 of Part 2 of the Annex to this Schedule, as amended by Merchant Shipping Notice 1670 Amendment 1.
  
5. A ship constructed before 26th May 1965 which is engaged on **international voyages** and which is subject to the 2023 Regulations, must be aware of the requirements for ships constructed before 1st July 2002 in Chapter II-2 of the International Convention for the Safety of Life at Sea 1974 (SOLAS) and listed in regulation 13(3) of the 2023 Regulations. Regulation 13(4) provides that where there is a conflict between the requirements of the Merchant Shipping Notices applicable to those ships and the requirements of Chapter II-2, the provisions of Chapter II-2 take precedence.



## ANNEX TO SCHEDULE 1

### PART 1: LARGE SHIPS

| Column 1<br>(Class of Ship)  | Column 2<br>(Provisions of Merchant Shipping<br>Notice 1900 (M) which must be<br>complied with)  |
|--|--|
| Passenger ships of Classes I and II<br>and of Class II(A) of 21.34 metres<br>in length or over | paragraph 3.8 (provision of dual<br>purpose nozzles)<br><br>paragraph 3.13 (portable fire<br>extinguishers in accommodation,<br>cargo and service spaces,) and parts<br>6.27-6.31<br><br>paragraph 3.36(c)<br><br>paragraph 3.38 (response to fire<br>alarm)<br><br>paragraph 3.46-3.48 (firemen's<br>outfits) and regulation 6.34-6.35<br><br>paragraph 3.54 (international<br>shoreconnection) |

| Column 1<br>(Class of Ship)  | Column 2<br>(Provisions of Merchant Shipping<br>Notice 1900 (M) which must be<br>complied with)  |
|--|--|
| <p>Passenger ships of Classes I and II and of Class II(A) of 21.34 metres in length or over and carrying more than 36 passengers</p> | <p>paragraph 3.7 (availability of water supply)</p> <p>paragraph 3.8 (provision of dual purpose nozzles)</p> <p>paragraph 3.9 (water-fog applicators in special category spaces)</p> <p>paragraph 3.11 (water-fog applicators in machinery spaces)</p> <p>paragraph 3.16(b) (foam-applicatorunit in special category spaces)</p> <p>paragraph 3.26(b) (foam-applicatorunit in spaces containing boilers)</p> <p>Paragraph 3.27(b) (foam-applicator units in spaces containing internal combustion type machinery)</p> <p>paragraph 3.36(d) (two-way portable radio telephones for fire patrols)</p> <p>paragraph 3.39 and 3.40 (special alarm and public address system)</p> <p>paragraph 3.48(a) (water-fog applicator in firemen's outfits)</p> <p>paragraph 6.44 (information on structural fire protection measures to be included in General Arrangement plans)</p> |

| <p>Column 1<br/>(Class of Ship)</p>  | <p>Column 2<br/>(Provisions of Merchant Shipping<br/>Notice 1900 (M) which must be<br/>complied with)</p>  |
|--|--|
| <p>Ships of Class VII and VII (A)-<br/>(1) of 500 tons or over</p>                 | <p>paragraph 4.4(b)(i) and (iv) (fire hoses) and regulation 6.16, 6.17 and 6.18</p> <p>paragraph 4.21 (fire detection in machinery spaces when operating with unmanned machinery spaces)</p> <p>paragraph 4.25-4.28 (firemen's outfits) and regulation 6.34 and 6.35</p> <p>paragraph 4.33 (international shoreconnection)</p> <p>paragraph 6.1 -6.6 (additional requirementsfor ships with helicopter facilities)</p> <p>paragraph 7.2 of Merchant Shipping Notice MSN 1665 (M)(availability of water supply when operating with unmanned machinery spaces)</p> |
| <p>Ships of Class VII(T), VIII(T), VIII(A)(T) and IX(A)(T) of 500 tons or over</p> | <p>paragraph 4.21 (fire detection in machinery spaces when operating with unmanned machinery spaces)</p> <p>paragraphs 5.2-5.8 (requirements for inert gas systems)</p> <p>paragraphs 5.9-5.14 (requirements for deck foam systems)</p> <p>paragraph 5.34 (firemen's outfits)</p> <p>paragraph 6.1-6.6 (additional requirementsfor ships with helicopter facilities)</p> <p>paragraph 7.2 of Merchant Shipping Notice MSN 1665 (M)(availability of water supply when operating with unmanned machinery spaces)</p>   |

| <p>Column 1<br/>(Class of Ship)</p>  | <p>Column 2<br/>(Provisions of Merchant Shipping Notice 1900 (M) which must be complied with)</p>   |
|--|---|
| <p>Ships of Classes VII, VIII(A), IX, IX(A) and XI - (1) of 1,000 tons or over</p>   | <p>paragraph 4.4(b)(i) (fire hoses) and regulation 6.16-6.18</p> <p>paragraph 4.21 (fire detection in machinery spaces when operating with unmanned machinery spaces)</p> <p>paragraphs 4.25-4.28 (firemen's outfits) and regulation 6.34 and 6.35</p> <p>paragraph 4.33 (international shore connection)</p> <p>paragraphs 6.1-6.6 (additional requirements for ships with helicopter facilities)</p> <p>paragraph 7.2 of Merchant Shipping Notice MSN 1665 (M) (availability of water supply when operating with unmanned machinery spaces)</p> |
| <p>(2) of 500 tons or over but under 1,000 tons</p>                                  | <p>paragraph 4.4(b)(iv) (fire hoses) and regulation 6.16-6.18</p> <p>paragraphs 4.16(a) and 4.17(c) (fire extinguishers in machinery spaces containing internal combustion type machinery) and 6.27-6.31</p>  |
| <p>Ships of any class to which this exemption applies other than passenger ships</p> | <p>paragraphs 10.1 and 10.2 (requirements for ships carrying explosives) in so far as it prohibits the use of steam for fire smothering purposes in any compartment containing explosives</p>   |
| <p>Ships of Class XII - (1) of 1,000 tons or over</p>                                | <p>paragraphs 4.15-4.17 (fixed fire extinguishing installation and fire extinguishers for machinery spaces containing oil-fired boilers or oil burning equipment)</p>   |
| <p>(2) of 500 tons or over but under 1,000 tons</p>                                  | <p>paragraphs 4.15-4.17 (fixed fire extinguishing installation and fire extinguishers for machinery spaces as above)</p>  |



## PART 2: SMALL SHIPS

| Column 1<br>(Class of Ship)   | Column 2<br>(Provisions of the Merchant Shipping(Fire Protection: Small Ships) Regulations 1998 which must be complied with)  |
|---|---|
| Passenger ships of Class III of 21.34metres in length or over                           | regulation 9 (firemen's outfits)  |
| Passenger ships of Class III, IV , V and VI and VI(A)                                   | regulation 5A (fire detection systems)  |
| Passenger ships of Class III, irrespective of the age of the ship                       | regulation 8 (fixed fire-extinguishing systems)   |
| Passenger ships of Class IV and V, irrespective of the age of the ship                  | regulation 8 (non-portable fire extinguishers in spaces containing oil-fired boilers or oil burning equipment) and regulation 35<br>paragraphs 10 and 11 in Schedule 8 of Merchant Shipping Notice (MSN) 1665 (M) |
| Passenger ships of Class III, IV, V, VI and VI(A)                                       | regulation 8A (machinery spaces other than Category A)  |
| Ships of Class VII and VII(A) of under 500 tons   | regulation 17(2)(d) in so far as it requires the provision of fire hoses, and regulation 32(1), (2) and (3)   |
| Ships of Classes VIII, VIII(A), IX, IX(A) and XI of 150 tons or over but under 500 tons | paragraph 2 of Schedule 7 in Merchant Shipping Notice (MSN) 1665 (M) (availability of water supply when operating with unmanned machinery spaces)   |
| Ships of Classes VIII, VIII(A), IX, IX(A) and XI of 150 tons or over but under 500 tons | regulation 17(6) (fire extinguishers in machinery spaces containing internal combustion type machinery) and regulation 35   |
| of under 150 tons   | regulation 20(5) (additional requirement for ships of wooden construction)  |
| Ships of Class XII of 150 tons or over but under 500 tons                               | regulation 8 inclusive (fixed fire extinguishing installation and fire extinguishers for machinery spaces as above)   |

## SCHEDULE 2

### **Structural fire protection for ships of Classes I, II and Class II(A) of 21.34m in length or over constructed before 25th May 1980 carrying 36 or fewer passengers**

1. Every ship to which this Schedule applies must comply with Rules 48 to 51 inclusive, Rule 58, Rule 59(1), Rule 61, Rule 63(1), (a), (b), (c) and (d), Rule 63(2), (c), (d), (e), (f) and (g) of the Merchant Shipping (Passenger Ship Construction) Rules 1965. Where insulated "A" Class divisions are required by those Rules, smaller amounts of insulation than are required by Rule 50(1) of those Rules may be permitted subject to approval by the Secretary of State under the 2023 Regulations.
2. In every ship to which this Schedule applies, the following additional provisions apply—
  - (a) all stairways and means of escape in accommodation and service spaces must be of steel or other equivalent material;
  - (b) power ventilation of a machinery space must be capable of being stopped from an easily accessible position outside the space;
  - (c) except where all bulkheads in accommodation spaces conform with the requirements of Rules 53(1) and 54(1) of the Merchant Shipping (Passenger Ship Construction) Rules 1965, such ships must be provided with an automatic fire alarm and fire detection system conforming with Rule 55 of those Rules, and in accommodation spaces the corridor bulkheads must be of steel and must be non-combustible "B" Class divisions.

## SCHEDULE 3

### **Structural fire protection for Ships of Classes VII(T), VIII(T), VIII(A)(T) and IX(A)(T) constructed between 25th May 1980 and 1st September 1984**

#### **Application**

1. This Schedule applies to sea-going United Kingdom tankers of 500 tons or over carrying crude oil and petroleum products having a closed flashpoint not exceeding 60°C and the Reid vapour pressure of which is below that of atmospheric pressure, or other liquids having similar fire hazards, and the keels of which were laid, or were at a similar stage of construction on or after 25th May 1980 but before 1st September 1984.

#### **Structure**

2. The hull, superstructures, structural bulkheads, decks and deckhouses must be constructed of steel or other equivalent material except that the crowns and casings of machinery spaces of Category A and the exterior boundaries of superstructures and deckhouses which are required to be insulated to "A-60" standard by paragraph 3(a) of this Schedule must be constructed only of steel.

#### ***Exterior boundaries of superstructure and deckhouses***

3. The exterior boundaries of superstructures and deckhouses enclosing accommodation and service spaces, control stations and cargo control stations and any overhanging deck which supports such spaces must be insulated to "A-60" standard on the portions of such boundaries which face cargo oil tanks and on the sides of such boundaries for a distance of 3 metres measured horizontally and parallel to the middle line of the ship from the front boundary at each deck level, except that such insulation need not be fitted to –
  - (a) the external bulkheads and overhanging decks of the wheelhouse; and
  - (b) the external boundaries of spaces in which doors referred to in sub-paragraph (b)(i) below are fitted.
4. In the exterior boundary bulkheads facing cargo oil tanks of superstructures and deckhouses enclosing accommodation and service spaces—
  - (a) doors must not be fitted except to provide access to those spaces which do not have access to accommodation and service spaces and whose internal boundaries are insulated to "A-60" standard;
  - (b) sidescuttles and windows other than wheelhouse windows must be of a non-opening type;
  - (c) windows must not be fitted in the first tier of such superstructures and deckhouses on the upper deck and sidescuttles fitted in such a tier must be fitted internally with permanently attached covers of steel; and
  - (d) sidescuttles and windows fitted in tiers above the first tier of such superstructures and deckhouses must either be fitted internally with permanently attached covers of steel or

be provided with portable covers of steel which must be stowed within the space they are intended to serve.

5. The provisions of paragraph 4 must apply to the exterior boundary bulkheads at the sides of the superstructures and deckhouses enclosing accommodation and service spaces for a distance of 5 metres measured horizontally and parallel to the middle line of the ship from the front exterior boundary bulkhead at each deck level as the said provisions apply to exterior boundary bulkheads of the wheelhouse.

#### ***Separation of cargo pump rooms from machinery spaces of Category A***

6. The bulkheads and decks separating cargo pump rooms from machinery spaces of Category A must be "A" Class divisions of "A-0" standard.
7. Where lighting enclosures are fitted in bulkheads and decks to which subparagraph (a) refers for the purpose of illuminating the cargo pump room, such lighting enclosures must be such that the "A" Class integrity and gas-tightness of such bulkheads and decks are not impaired.

#### ***Boundary bulkheads and decks of machinery spaces of Category A and cargo pump rooms***

8. Windows and sidescuttles must not be fitted in internal and external boundary bulkheads or decks of machinery spaces of Category A and cargo pump rooms, including skylights to such spaces, except that such windows and sidescuttles may be fitted in the bulkhead between a machinery space of Category A and a machinery control room located within the boundaries of such a space.
9. Skylights to machinery spaces of Category A and cargo pump rooms must be capable of being closed and opened from outside the spaces which they serve.

#### ***Separation of accommodation spaces and service spaces from machinery spaces of Category A and cargo pump rooms***

10. Bulkheads and decks separating accommodation spaces and service spaces from machinery spaces of Category A and cargo pump rooms must be "A" Class divisions of "A-60" standard.
11. Where lighting enclosures are fitted in a bulkhead to which paragraph 3(a) refers for the purpose of illuminating the cargo pump room, such lighting enclosures must be such that the "A" Class integrity, insulation standard and gas tightness of such divisions are not impaired.

#### ***Separation of accommodation spaces from galleys, storerooms and similar spaces***

12. The boundary bulkheads separating accommodation spaces from galleys, paint rooms, lamp rooms or boatswain's stores must be constructed of steel or other equivalent material.

#### ***Protection of control stations from other enclosed spaces***

13. Bulkheads and decks separating control stations from other enclosed spaces must be "A" Class divisions having insulation standards in accordance with Tables 1 and 2 set out in the Annex to this Schedule.
14. The deck separating the navigating space from the open space required by regulation 54(3)(b) of the Merchant Shipping (Cargo Ship Construction and Survey) Regulations 1981(a) when the navigation spaces are positioned above cargo tank spaces must be an "A" Class division of "A-60" standard.

### ***Bulkheads within accommodation spaces, service spaces and control stations***

15. All bulkheads within accommodation spaces, service spaces and control stations which are not required to be either "A" Class divisions or "B" Class divisions of "B-0" standard must be "C" Class divisions.
16. Corridor bulkheads serving accommodation spaces, service spaces and control stations which are not required to be "A" Class divisions must be "B" Class divisions of "B-0" standard.
17. All bulkheads required to be "B" Class divisions of "B-0" standard must extend from deck to deck and to the shell plating or other boundaries, except that where continuous "B" Class ceilings or linings of "B-0" standard are fitted on both sides of the bulkheads the bulkheads may terminate at such ceilings or linings.
18. All materials used in the construction of bulkheads and doors in such bulkheads must be non combustible.

### ***Restriction of combustible materials***

19. Within accommodation spaces, service spaces and control stations—
  - (a) all ceilings, linings, draft stops and insulating materials must be of non-combustible materials except for –
    - (i) materials used to insulate refrigerated compartments;
    - (ii) materials used to insulate valves associated with hot and cold service systems, provided that their exposed surfaces are such that a Class 1 or 2 surface spread of flame will not be exceeded;
    - (iii) vapour barriers and adhesives used in conjunction with insulating materials, provided that their exposed surfaces are such that a Class 1 or 2 surface spread of flame will not be exceeded;
  - (b) the framing, grounds and joint pieces of linings, ceilings and draught stops must be non combustible;
  - (c) bulkheads, ceilings and linings must be faced with a combustible veneer unless the thickness of such a veneer does not exceed 2.0 millimetres, except in corridors, stairway enclosures and control stations where it must not exceed 1.5 millimetres;
  - (d) all exposed surfaces in corridors and stairway enclosures and surfaces in concealed or inaccessible spaces must be such that a Class 1 or 2 surface spread of flame is not exceeded;
  - (e) primary deck coverings must be of a type which will not readily ignite.
20. The surface of insulating materials fitted to the inside of the bulkheads and decks forming the casings and crowns of machinery spaces of Category A must be impervious to oil and oil vapours.
21. Paints, varnishes and other finishes used on exposed surfaces within accommodation and service spaces, control stations and machinery spaces must not contain nitrocellulose or other highly flammable base products and such surfaces, except where otherwise required by the 2023 Regulations, and must be such that a Class 3 surface spread of flame will not be exceeded. These requirements do not apply to furniture, furnishings, machinery and similar items.

### ***Draught stops***

23. Every air space enclosed behind a ceiling, panel or lining within accommodation spaces, service spaces and control stations must be divided by close-fitting draught stops which must be spaced not more than 14 metres apart and which must be closed at each deck.

### ***Openings in "A" Class divisions***

24. Where an "A" Class division is pierced for the passage of electric cables, pipes, trunks, girders or beams, or for other purposes, the arrangements must be such that the effectiveness of the division in resisting fire is not thereby impaired, except that this requirement does not apply to shaft glands and similar glanded penetrations in bulkheads and decks between cargo pump rooms, including their trunks, and machinery spaces of Category A.
25. The construction of all doors and frames in "A" Class bulkheads, with the means of securing them when closed, must provide resistance to fire as well as to the passage of smoke and flame, as far as is reasonably practicable, equivalent to that of the bulkheads in which the doors are situated.
26. Every door in an "A" Class bulkhead must be so constructed that it can be opened and closed by one person from either side of the division.
27. Every door in an "A" Class bulkhead which forms part of a stairway enclosure or lift trunk serving accommodation spaces, service spaces or control stations and every door in a casing of a machinery space of Category A must be self-closing.
28. Hold-back arrangements may be fitted to doors to which paragraph (d) refers provided that such arrangements—
- (a) have remote release fittings of a type which in the event of disruption of the control system will automatically close the doors; and
  - (b) will permit each door to be closed manually.

### ***Openings in "B" Class divisions***

29. Where a "B" Class division is pierced for the passage of electric cables, pipes, trunks, girders or beams, or for other purposes, the arrangements must be such that the effectiveness of the division in resisting fire is not thereby impaired.
30. The construction of all doors and door frames in "B" Class bulkheads must provide resistance to fire as well as the passage of flame, as far as is reasonably practicable, equivalent to that of the bulkheads in which the doors are situated.
31. The number of ventilation openings in "B" Class divisions must be kept to a minimum and must be provided as far as is reasonably practicable only in the lower part of a door and fitted with a grille constructed of steel or under a door except that such openings must not be provided in a door in a "B" Class division forming a stairway enclosure. The net area of any such opening or openings must not exceed 0.05 square metre and in no case must a gap under a door exceed 25 millimetres.
32. Every door in a "B" Class bulkhead which forms a stairway enclosure or part thereof must be self-closing.
33. Hold-back arrangements may be fitted to doors to which paragraph (d) refers provided that such arrangements—

- (a) have remote release fittings of a type which in the event of disruption of the control system will automatically close the doors; and
- (b) will permit each door to be closed manually.

***Protection of stairway enclosures and lift trucks***

- 34. Every stairway within accommodation spaces, service spaces and control stations must be constructed of steel or other suitable material and every such stairway and lift must lie respectively within an enclosure or trunk constructed of "A" Class divisions of "A-0" standard, except that a stairway serving only two decks is only required to be enclosed at one level by either "A" Class divisions of "A-0" standard or "B" Class divisions of "B-0" standard; provided that any bulkhead which separates a stairway from a machinery space of Category A is an "A" Class division of "A-60" standard.
- 35. Every opening in a stairway enclosure and lift trunk must be provided with a means of closure which must be permanently attached thereto and which complies with the requirements of paragraph 23 to 28, whichever is applicable.

***Ventilating systems***

- 36. Ducts providing ventilation to machinery spaces of Category A must not pass-through accommodation spaces, service spaces or control stations, except that this requirement does not apply to such ducts which—
  - (a) are constructed of steel having a minimum thickness of 3 millimetres for ducts the width or diameter of which does not exceed 300 millimetres, increasing pro rata up to a minimum thickness of 5 millimetres for ducts the width or diameter of which is 760 millimetres or more; and
  - (b) are suitably supported and stiffened; and
  - (c) are insulated to "A-60" standard.
- 37. Ducts providing ventilation to accommodation spaces, service spaces, or control stations other than ducts which comply with paragraph (a)(i), (ii) and (iii) must not pass through machinery spaces of Category A.
- 38. Ventilation inlets and outlets to accommodation and service spaces, control stations and machinery spaces, and other openings in the boundaries of superstructures and deckhouses enclosing such spaces must be positioned as far aft as is practicable taking into account stern cargo handling facilities where these are provided.
- 39. In accommodation spaces, service spaces or control stations, pipes intended to convey oil or other flammable liquids must be of a suitable material having regard to the risk of fire.
- 40. Overboard scuppers, sanitary discharges or other outlets close to the waterline must not be of a material likely to fail in the event of a fire and give rise to a danger of flooding.
- 41. Electrical radiators must—
  - (a) be permanently fixed in position;
  - (b) be so constructed as to reduce the risk of fire to a minimum; and
  - (c) not be equipped with elements so exposed as to scorch or ignite clothing, curtains or other similar materials.

42. Cellulose-nitrate film must not be used in cinematograph installations.

***Means of escape***

43. Stairways and ladderways must be arranged so as to provide ready means of escape to the lifeboat embarkation deck from all crew spaces, passenger spaces and other spaces in which the crew are normally employed.

44. There must be provided from each engine room, shaft tunnel and boiler room two means of escape as widely separated as practicable, one of which may be a watertight door if such a door is available as a means of escape. Where no such watertight door is available, the two means of escape must consist of two sets of steel ladders leading to separate doors in the casing or elsewhere from which there is access to the lifeboat or liferaft embarkation deck or decks. Subject to approval by the Secretary of State under the 2023 Regulations, any ship of less than 2,000 tons may be permitted not to comply with the requirements of this paragraph if at least one effective means of escape is provided.

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**TABLE 1 - FIRE INTEGRITY AND INSULATION STANDARDS OF BULKHEADS SEPARATING CONTROL STATIONS FROM OTHER SPACES**

| Space →         | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
|-----------------|-----|-----|-----|-----|-----|-----|-----|
| Space ↓         |     |     |     |     |     |     |     |
| Control Station | A01 | A0  | A15 | A0  | A15 | A60 | A15 |

Where (1) are control stations

- (2) are corridors
- (3) are accommodation spaces
- (4) are stairways
- (5) are service spaces
- (6) are machinery spaces of Category A
- (7) are machinery spaces other than machinery spaces of Category A

Superscription <sup>1</sup> - bulkheads separating the wheelhouse, chartroom and radio room from each other

may be alternatively "B" Class bulkheads of "B-0" standard.

**TABLE 2 - FIRE INTEGRITY AND INSULATION STANDARDS OF DECKS SEPARATING CONTROL STATIONS FROM OTHER SPACES**

| Space Above →  | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
|--|-----|-----|-----|-----|-----|-----|-----|
| Space Below ↓  |     |     |     |     |     |     |     |
| Control Stations (1)   | AD  | AU  | AD  | AD  | AD  | A6D | AD  |
| Corridors (2)  | AD  |     |     |     |     |     |     |
| Accommodation Spaces (3)                                       | A15 |     |     |     |     |     |     |
| Stairways (4)  | AD  |     |     |     |     |     |     |
| Service Spaces (5)   | A15 |     |     |     |     |     |     |
| Machinery Spaces of Category A (6)                             | A6D |     |     |     |     |     |     |
| Machinery Spaces Other Than Machinery Spaces of Category A (7) | A15 |     |     |     |     |     |     |

## SCHEDULE 4

**Structural fire protection for ships of Classes VII, VII (A), VIII, VIII(A), IX and IX(A), and tankers of Classes VII(T), VIII(T), VIII(A)(T) and IX(A)(T) of 500 tons or over constructed between 26th May 1965 and 1st September 1984 other than tankers to which Schedule 3 applies.**

### ***Application***

1. The requirements of paragraphs 2 to 9 inclusive apply to ships of 4,000 tons or over, and the requirements of paragraph 10 applies to ships of 500 tons or over.

### ***Structure***

2. The hull, superstructure, structural bulkheads, decks and deckhouses must be constructed of steel or of such other suitable materials, subject to approval by the Secretary of State under the 2023 Regulations, in special cases, having regard to the risk of fire.

### ***Bulkheads***

3. Where a bulkhead is required to be constructed of "B" Class panels, such panels must be capable of preventing the passage of flame throughout a standard fire test of 30 minutes duration. Every "B" Class panel must be such that if either face is exposed to a standard fire test of 30 minutes duration, the average temperature on the unexposed face of the panel will not increase at any time during the first 15 minutes of the test in the case of a non-combustible panel or the duration of the test in the case of a combustible panel by more than 139°C above the initial temperature on that face, nor must the temperature at any point increase by more than 225°C above the initial temperature.
4. The corridor bulkheads serving accommodation spaces and control stations must be constructed of steel or of non-combustible "B" Class panels, except that combustible "B" Class panels may be fitted—
  - (a) in any portion of a corridor bulkhead which abuts on spaces containing no significant fire load; and
  - (b) where a corridor is provided with two or more exits through doors leading directly to an open deck on the same level, in the end portions of the corridor bulkheads over a distance not exceeding 6 metres measured from any such exit.
5. The boundary bulkheads of any emergency generator room and the bulkheads separating a galley, paint-room, lamp-room or boatswain's store from an accommodation space must be constructed of steel or other equivalent material.
6. Doorways and similar openings in corridor bulkheads must be capable of being closed by permanently attached doors or by shutters.

### ***Ventilation systems***

7. The number of ventilation openings in such bulkheads must be kept to a minimum. Such openings must, so far as is reasonably practicable, be provided only in or under doors and must, wherever practicable, be in the lower part of the door.

### ***Restriction of combustible materials***

8. Deck coverings within accommodation spaces and control stations on the deck forming the crown of machinery and cargo spaces must be of a type which will not readily ignite.
9. In the case of the following specific materials—
  - (a) paints, varnishes and other surface materials having a nitrocellulose or other highly flammable base must not be used in accommodation spaces, machinery spaces or control stations;
  - (b) pipes intended to convey oil or other flammable liquids must be of a material acceptable to the Certifying Authority having regard to the risk of fire;
  - (c) overboard scuppers, sanitary discharges or other outlets close to or below the waterline must not be of a material likely to fail in the event of fire and thereby give rise to a danger of flooding; and
  - (d) cellulose-nitrate film must not be used in cinematograph installations.

### ***Protection of stairways***

10. Interior stairways, ladders and crew lift trunks within accommodation spaces must be constructed of steel or other equivalent material

### ***Boundaries of machinery spaces***

11. In the case of boundaries of machinery spaces—
  - (a) skylights to spaces containing main propulsion machinery or oil-fired boilers or auxiliary internal combustion type machinery of a total power of 746 kilowatts or over must be capable of being closed and, where practicable, opened from outside the space in the event of fire and, where they contain glass panels, such panels must be of fire resisting construction fitted with wire reinforced glass and must have external, permanently attached shutters of steel or other equivalent material;
  - (b) windows must not be fitted in engine casings except where they are necessary and will not constitute a fire hazard. Where such windows are fitted they must be of a non-opening type and must be of fire resisting construction fitted with wire reinforced glass and must have external, permanently attached shutters of steel or other equivalent material.

### ***Means of escape***

12. For the purposes of means of escape—
  - (a) stairways and ladderways must be arranged so as to provide ready means of escape to the lifeboat embarkation deck from all crew spaces, passenger spaces and other spaces in which the crew are normally employed; and
  - (b) there must be provided from each engine room, shaft tunnel and boiler room two means of escape as widely separated as practicable, one of which may be a watertight door if such a door is available as a means of escape. Where no such watertight door is available, the two means of escape must consist of two sets of steel ladders leading to separate doors in the casing or elsewhere from which there is access to the lifeboat or liferaft embarkation deck or decks. Subject to approval by the Secretary of State under the 2023 Regulations, any such ship of less than 2,000 tons may be permitted

not to comply with the requirements of this paragraph if at least one effective means of escape is provided.

## More Information

Ship Standards  
Maritime and Coastguard Agency  
Bay 2/23  
Spring Place  
105 Commercial Road  
Southampton  
SO15 1EG

Tel: +44 (0) 203 81 817 2000  
e-mail: [marinetechology@mcga.gov.uk](mailto:marinetechology@mcga.gov.uk)

Website Address: [www.gov.uk/government/organisations/maritime-and-coastguard-agency](http://www.gov.uk/government/organisations/maritime-and-coastguard-agency)

General Enquiries: [infoline@mcga.gov.uk](mailto:infoline@mcga.gov.uk)

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