



Maritime and Coastguard Agency

MERCHANT SHIPPING NOTICE

**MSN 1733 (M)**

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

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

*To be read in conjunction with The Merchant Shipping (Fire Protection: Large Ships) Regulations 1998 No.1012 and The Merchant Shipping (Fire Protection: Small Ships) Regulations 1998 No.1011. This Notice amends MSNs 1665, 1666, 1667, 1668, 1669 and 1670.*

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### *Summary*

This Notice advises about amendments to The Merchant Shipping (Fire Protection: Large Ships) Regulations 1998, The Merchant Shipping (Fire Protection: Small Ships) Regulations 1998 and the Merchant Shipping Notices that are an integral part of these Regulations.

#### Key Points:-

- The Merchant Shipping (Fire Protection: Large Ships) Regulations 1998 (Statutory Instrument 1998 No. 1012) and The Merchant Shipping (Fire Protection: Small Ships) Regulations 1998 (Statutory Instrument 1998 No. 1011) make reference to Merchant Shipping Notices MSN 1665, 1666, 1667, 1668, 1669 and 1670 and hence these MSNs form an integral part of the Regulations.
- The Merchant Shipping (Fire Protection) (Amendment) Regulations 1999 (Statutory Instrument 1999 No.992) amends the Statutory Instruments 1998 No. 1012 and 1998 No. 1011. These amendments have become necessary mainly due to changes in the International Convention for the Safety of Life at Sea (SOLAS). The changes to SOLAS also mean that the MSNs associated with the Regulations require amendment and hence this MSN specifies the amendments to MSNs 1665, 1666, 1667, 1668, 1669 and 1670.

#### Amendment to Merchant Shipping Notice MSN 1665

In Schedule 8 paragraph 4 the reference "BS 5423:1987" shall be replaced by "BS EN 3 Parts 1 to 6: 1996".

#### Amendments to Merchant Shipping Notice MSN 1666

The meanings of expressions section at the beginning shall be deleted.

In Schedule 1 sub-paragraph 1.(b)(i) shall be replaced with the following:

“(b) Each section of sprinklers shall include means for giving a visual and audible alarm signal automatically at one or more indicating units whenever any sprinkler comes into operation. Such alarm systems shall be such as to indicate if any fault occurs in the system. Such units shall indicate in which section served by the system fire has occurred and shall be centralised on the navigation bridge and in addition, visible and audible alarms from the unit shall be located in a position other than on the navigation bridge, so as to ensure that the indication of fire is immediately received by the crew.”

In Schedule 1 sub-paragraphs 1.(b)(ii) and (b)(iii) are to be deleted.

In Schedule 9, at the end of sub-paragraph 11.(b)(i) the following sentence shall be added:

“In the case of ships constructed on or after 1st July 1998, any such means of control shall provide positive indication of the operational status of control valves.”

#### Amendments to Merchant Shipping Notice MSN 1667

The meanings of expressions section at the beginning shall be deleted.

In Schedule 1 paragraph 1.(g) the following sub-paragraph shall be added:

“(iv) “d” - Where spaces of Category 6, 7, 8 and 9 are located completely within the outer perimeter of the muster station, the bulkheads of these spaces are allowed to be of B-0 standard. Control positions for audio, video and light installations may be considered as part of the muster station.”

In Schedule 1 Table 5:

Add the superscript “d” in the fourth row under columns 6, 7, 8 and 9.

In Schedule 3 sub-paragraph 1.(c)(i) is to be replaced by the following:

“(i) the ducts shall be constructed of material which has low flame spread characteristics;”

#### Amendments to Merchant Shipping Notice MSN 1668

The meanings of expressions section at the beginning shall be deleted.

In Schedule 3 paragraph 1.(a) the words “steel or other equivalent material;” shall be replaced by “non-combustible material;”.

In Schedule 3 sub-paragraph 1.(c)(i) is to be replaced by the following:

“(i) the ducts shall be constructed of material which has low flame spread characteristics;”

#### Amendments to Merchant Shipping Notice MSN 1669

The meanings of expressions section at the beginning shall be deleted.

Paragraph 2 shall be replaced by the following:

“2. In Table 1, ships and cargo spaces are divided into categories A-F as set out below -

- (A) ro-ro cargo spaces on the weather deck;
- (B) ships and cargo spaces not specifically designed for the carriage of freight containers but intended for the carriage of dangerous goods in package form including goods in freight containers and portable tanks;

- (C) purpose built container ships and cargo spaces intended for the carriage of dangerous goods in freight containers and portable tanks;
- (D) spaces intended for the carriage of dangerous goods which are -
  - (i) closed ro-ro cargo spaces; or
  - (ii) open ro-ro cargo spaces;
- (E) ships and cargo spaces intended for the carriage of solid dangerous goods in bulk; and
- (F) ships and cargo spaces intended for the carriage of dangerous goods other than liquids and gases in bulk in shipborne barges.

Such categories are listed in the top horizontal row of Table 1."

In paragraph 3 a new sub-paragraph shall be added after (h):

"(hh) natural ventilation shall be provided in enclosed cargo spaces intended for the carriage of solid dangerous goods in bulk, where there is no provision for mechanical ventilation;"

New paragraphs 10 and 11 shall be added:

"10. In ships having ro-ro cargo spaces, a separation shall be provided between a closed ro-ro cargo space and an adjacent open ro-ro cargo space. The separation shall be such as to minimise the passage of dangerous vapours and liquids between such spaces. Alternatively, such separation need not be provided if the ro-ro cargo space is considered to be a closed cargo space over its entire length and shall fully comply with the relevant special requirements of this regulation."

11. In ships having ro-ro cargo spaces, a separation shall be provided between a closed ro-ro cargo space and the adjacent weather deck. The separation shall be such as to minimise the passage of dangerous vapours and liquids between such spaces. Alternatively, a separation need not be provided if the arrangements of the closed ro-ro cargo spaces are in accordance with those required for the dangerous goods carried on the adjacent weather deck."

Tables 1, 2 and 3 shall be replaced by the tables in the Annex of this Notice.

#### Amendments to Merchant Shipping Notice MSN 1670

In Schedule 3, sub-paragraph 10.(a)(i)(b) shall be replaced with the following:

"(b) materials used to insulate valves associated with hot and cold service systems, provided that their exposed surfaces have qualities of resistance to the propagation of flame to the satisfaction of the Secretary of State;"

In Schedule 3, sub-paragraph 10.(a)(i)(c) shall be replaced with the following:

"(c) vapour barriers and adhesives used in conjunction with insulating materials, provided that their exposed surfaces have qualities of resistance to the propagation of flame to the satisfaction of the Secretary of State;"

In Schedule 3, sub-paragraph 10.(a)(iv) shall be replaced with the following:

"(iv) all exposed surfaces in corridors and stairway enclosures and surfaces in concealed or inaccessible spaces shall have qualities of resistance to the propagation of flame to the satisfaction of the Secretary of State;"

In Schedule 3, paragraph 10.(c) shall be replaced with the following:

“(c) Paints, varnishes and other finishes used on exposed surfaces within accommodation and service spaces, control stations and machinery spaces shall not contain nitrocellulose or other highly inflammable base products and such surfaces, except where otherwise required by these Regulations, shall have qualities of resistance to the propagation of flame to the satisfaction of the Secretary of State; provided that these requirements shall not apply to furniture, furnishings, machinery and similar items.”

In Schedule 4, paragraph 7 shall be replaced by the following:

“The number of ventilation openings in bulkheads shall be kept to a minimum. Such openings shall generally be provided only in the lower part of doors or by utilising gaps under doors.”

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## ANNEX

EXISTING TABLE 1 IN MSN 1669 SHALL BE REPLACED BY THE FOLLOWING:  
**TABLE 1 - APPLICATION OF THE REQUIREMENTS TO DIFFERENT MODES OF CARRIAGE OF DANGEROUS GOODS IN SHIPS AND CARGO SPACES**

Paragraph 2 →	(A)	(B)	(C)	(D)		(E)	(F)
Paragraph 3 ↓	Weather decks	Not specifically designed	Container cargo spaces	Closed ro-ro cargo spaces	Open ro-ro cargo spaces <sup>e</sup>	Intended for solid dangerous goods in bulk	Shipborne barges
(a) Immediate availability of supplies	X	X	X	X	X	For application of requirements of these Regulations to different classes of dangerous goods – see Table 2	X
(b) Quantity of water	X	X	X	X	X		–
(c) Water cooling	–	X	X	X	X		X
(d) Cargo space flooding	–	X	X	X	X		X
(e) Electrical equipment	–	X	X	X	X		X <sup>d</sup>
(f) Fire detection	–	X	X	X	–		X <sup>d</sup>
(g) Power ventilation	–	X	X <sup>a</sup>	X	–		X <sup>d</sup>
(h) Fans	–	X	X <sup>a</sup>	X	–		X <sup>d</sup>
(i) Bilge pumping	–	X	X	X	–		–
(j) Protective clothing	X	X	X	X	X		–
(k) Breathing apparatus	X	X	X	X	X		–
(l) Fire extinguishers	X	X	–	–	X		–
(m) Insulation of boundaries	X	X	X <sup>b</sup>	X	X		–
(n) Water spray	–	–	X	X <sup>c</sup>	X		–

Notes (Table 1)

- a** For dangerous goods of classes 4 and 5.1 not applicable to closed freight containers. For dangerous goods of classes 2, 3, 6.1 and 8 when carried in closed freight containers the ventilation rate may be reduced to not less than two air changes. For the purpose of this requirement a portable tank is a closed freight container.
- b** Applicable to decks only.
- c** Applies only to closed ro-ro cargo spaces, not capable of being sealed.
- d** In the special case where the barges are capable of containing flammable vapours or alternatively if they are capable of discharging flammable vapours to a safe space outside the barge carrier compartment by means of ventilation ducts connected to the barges, these requirements may be reduced or waived to the satisfaction of the Secretary of State.
- e** Special category spaces shall be treated as closed ro-ro spaces when dangerous goods are carried.

**EXISTING TABLE 2 IN MSN 1669 SHALL BE REPLACED BY THE FOLLOWING:  
TABLE 2 - APPLICATION OF THE REQUIREMENTS TO DIFFERENT CLASSES OF  
DANGEROUS GOODS FOR SHIPS AND CARGO SPACES CARRYING SOLID  
DANGEROUS GOODS IN BULK**

Class of Dangerous Goods →	4.1	4.2	4.3 <sup>f</sup>	5.1	6.1	8	9
Paragraph 3 ↓							
(a) Immediate availability of water supplies	X	X	-	X	-	-	X
(b) Quantity of water	X	X	-	X	-	-	X
(e) Electrical equipment	X	X <sup>g</sup>	X	X <sup>h</sup>	-	-	X <sup>h</sup>
(g) Power ventilation	-	X <sup>g</sup>	X	-	-	-	-
(h) Fans	X <sup>i</sup>	X <sup>g</sup>	X	X <sup>g.1</sup>	-	-	X <sup>g.1</sup>
(hh) Natural ventilation	X	X	X	X	X	X	X
(j) & (k) Personnel protection	X	X	X	X	X	X	X
(m) Insulation of boundaries	X	X	X	X <sup>g</sup>	-	-	X <sup>j</sup>

Notes (Table 2)

- f** The hazards of substances in this class which may be carried in bulk are such that special consideration must be given by the Secretary of State to the construction and equipment of the ship involved in addition to meeting the requirements enumerated in this table.
- g** Only applicable to Seedcake containing solvent extractions, to Ammonium nitrate and to Ammonium nitrate fertilizers.
- h** Only applicable to Ammonium nitrate and to Ammonium nitrate fertilizers. However, a degree of protection in accordance with standards contained in the International Electrotechnical Commission, publication 79 - Electrical Apparatus for Explosive Gas Atmospheres, is sufficient.
- i** Only suitable wire mesh guards are required.
- j** The requirements of the Code of Safe Practice for Solid Bulk Cargoes adopted by resolution A.434(XI), as amended, are sufficient.

**EXISTING TABLE 3 IN MSN 1669 SHALL BE REPLACED BY THE FOLLOWING:**  
**TABLE 3 - APPLICATION OF THE REQUIREMENTS TO DIFFERENT CLASSES OF DANGEROUS GOODS EXCEPT SOLID DANGEROUS GOODS IN BULK**

Class of Dangerous Goods →	1.1-1.6	1.4S	2.1	2.2	2.3	3.1 3.2	3.3	4.1	4.2	4.3	5.1	5.2	6.1 liquid	6.1 liquid ≤23°C	6.1 liquid >23°C ≤61°C	6.1 solid	8 liquid	8 liquid ≤23°C	8 liquid >23°C ≤61°C	8 solid	9
Paragraph 3 ↓																					
(a) Immediate availability of water supplies	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
(b) Quantity of water	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-
(c) Water cooling	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(d) Cargo space flooding	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(e) Electrical equipment	X	-	X	-	-	X	-	-	-	-	-	-	-	X	-	-	-	X	-	-	-
(f) Fire detection	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X	X	X	-
(g) Power ventilation	-	-	X	-	X	X	-	X <sup>k</sup>	X <sup>k</sup>	X	X <sup>k</sup>	-	-	X	X	X <sup>k</sup>	-	X	X	-	X <sup>k</sup>
(h) Fans	-	-	X	-	-	X	-	-	-	-	-	-	-	X	X	-	-	X	X	-	-
(i) Bilge pumping	-	-	-	-	-	X	-	-	-	-	-	-	X	X	X	-	-	X	-	-	-
(j) & (k) Personnel protection	-	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X <sup>n</sup>
(l) Fire extinguishers	-	-	-	-	-	X	X	X	X	X	X	-	-	X	X	-	-	X	X	-	-
(m) Insulation of boundaries	X <sup>l</sup>	-	X	X	X	X	X	X	X	X	X <sup>m</sup>	-	-	X	X	-	-	X	X	-	-
(n) Water spray	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Notes (Table 3)

**k** When “mechanically-ventilated spaces” are required by the International Maritime Dangerous Goods Code, as amended.

**l** Stow 3 m horizontally away from the machinery space boundaries in all cases.

**m** Refer to the International Maritime Dangerous Goods Code.

**n** As appropriate to the goods being carried.

