

Dolski Rejestr Statków

RULES FOR THE CLASSIFICATION AND CONSTRUCTION OF SEA-GOING SHIPS

AMENDMENTS NO. 8/2012

to

**PART V
FIRE PROTECTION**

2008



GDAŃSK

Amendments No. 8/2012 to Part V – Fire Protection – 2008 of the Rules for the Classification and Construction of Sea-Going Ships were approved by the PRS Board on 29 December 2011 and enter into force on 1 January 2012.

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The following amendments to Part V – Fire Protection – 2008 have been introduced:

1. *Paragraph 2.3.1.5 has been added:*

2.3.1.5 To facilitate a swift and safe means of escape to the lifeboat and liferaft embarkation deck, overhead hatches fitted along the escape routes shall comply with the following requirements:

- .1** the securing devices shall be of a type which can be opened from both sides;
- .2** the maximum force needed to open the hatch cover shall not exceed 150 N; and
- .3** the use of a spring equalizing, counterbalance or other suitable device on the hinge side to reduce the force needed for opening is acceptable.

2. *Paragraph 2.6.4 has been added:*

2.6.4 For the control of the self-heating of the cargoes within the cargo holds, a separate fixed carbon dioxide fire-extinguishing system or an equivalent gas fire-extinguishing system need not be provided ¹⁾.

3. *Paragraph 2.10.6 has been amended to read:*

2.10.6 Ventilation

If adjacent spaces are not separated from cargo spaces by gastight bulkheads or decks, then they are considered as part of the enclosed cargo space and the ventilation requirements that apply to the adjacent space shall be the same as those applicable to the enclosed cargo space itself.

¹⁾ For certain individual schedules of solid bulk cargoes subject to self-heating, specified in Appendix 1 of the *IMSBC Code*, such as: FISHMEAL (FISHSCRAP) STABILIZED UN 2216, SEED CAKE, containing vegetable oil UN 1386 and SEED CAKE UN 2217, the following ventilation requirement applies: if the temperature of the cargo exceeds 55°C and continues to increase, this self-heating of the cargo shall be regarded as an emergency condition in which ventilation to the cargo space shall be stopped and the fixed carbon dioxide or an equivalent inert gas fire-extinguishing system required for the protection of the cargo space shall be used to control the self-heating of the cargo. Fixed gas fire-extinguishing systems or inert gas systems installed on board to protect spaces other than cargo spaces cannot be used for this purpose.

4. Paragraphs **2.10.6.6** and **2.10.6.7** have been added:

2.10.6.6 Where continuous ventilation is required, this does not prohibit ventilators from being fitted with a means of closure required for fire protection purposes, provided the minimum height to the ventilator opening is in accordance with the *International Convention on Load Lines (ICLL)*, Reg. 19.3, as required for openings not fitted with means of closure¹⁾.

2.10.6.7 Where the *IMSBC Code* requires two fans per hold, a common ventilation system with two fans connected is acceptable.

5. Paragraphs **3.2.4.1.4** to **3.2.4.1.6** have been added:

3.2.4.1.4 Where suction or discharge piping penetrating machinery spaces are insulated to A-60 Class standard, it is not necessary to insulate sea-chests, sea inlet valves and distance pieces to A-60 Class standard. The method for insulating pipes to A-60 Class standard is that they shall be covered/protected in a practical manner by insulation material which is approved as a part of A-60 Class divisions in accordance with the *FTP Code*.

3.2.4.1.5 Where the sea inlet valve is in the machinery space, the valve should not be a fail – close type. Where the sea inlet valve is in the machinery space and is not a fail-open type, measures shall be taken so that the valve can be opened in the event of fire, e.g. control piping, actuating devices and/or electric cables with fire-resistant protection equivalent to A-60 Class standard.

3.2.4.1.6 Where the main fire pumps are provided in compartments outside machinery spaces and the emergency fire pump suction piping penetrates such compartments, the piping shall comply with the requirements specified in 3.2.4.1.2 and 3.2.4.1.4.

6. Paragraphs **3.2.4.3.3** to **3.2.4.3.8** have been added:

3.2.4.3.3 It shall be indicated, in classification documentation, that the emergency fire pump suction inlet is fully submerged under all conditions of list, trim, roll and pitch likely to be encountered in service.

¹⁾ According to the *IMSBC Code*, continuous ventilation is required in cargo spaces intended for the carriage of the following bulk cargoes:
ALUMINIUM FERROSILICON POWDER UN 1395;
ALUMINIUM SILICON POWDER, UNCOATED UN 1398;
ALUMINIUM SMELTING BY-PRODUCTS or ALUMINIUM REMELTING BY-PRODUCTS UN 3170;
FERROPHOSPHORUS (including BRIQUETTES);
FERROSILICON (25% ≤ Silicon ≤ 30% or ≥ 90% Silicon);
FERROSILICON UN 1408 (30% ≤ Silicon < 90%);
ZINK ASHES UN 1435.

3.2.4.3.4 Operational sea-going conditions for which roll, pitch and heave shall be applied are as follows:

- the lightest sea-going condition shall be considered, which is defined as the ballast condition which gives the shallowest draught at the position of the sea chest and emergency fire pump as given in the approved stability booklet (or preliminary stability calculation for new building);
- for the calculation of roll, pitch and heave, the table given in MSC.1/Circ.1388, shall be applied;
- the heave combined with pitch and heave combined with roll shall be considered separately.

3.2.4.3.5 The emergency fire pump suction shall be submerged at the waterlines corresponding to the two following conditions:

- .1** a static waterline drawn through the level of 2/3 immersion of the propeller at even keel (pod or thruster driven ships shall be considered separately); and
- .2** the ship in the arrival ballast condition, in accordance with the approved trim and stability booklet, without cargo and with 10% stores and fuel remaining.

For either condition, roll, pitch and heave need not be applied.

3.2.4.3.6 Restricted service ships (ships operating solely in sheltered waters) shall be subject to compliance with the still water submergence requirement specified in 3.2.4.3.5.1.

3.2.4.3.7 In all cases, the net positive suction head (NPSH) available for the pump shall be greater than that required in the present sub-chapter.

3.2.4.3.8 Upon completion of the emergency fire pump installation, a performance test confirming the pump capacity, which is to be not less than that required in 3.2.4.2.1, shall be carried out. If the emergency fire pump is the main supply of water for any fixed fire-extinguishing system provided to protect the space where the main fire pump is located, the pump shall have the capacity for this system. As far as practicable, the test shall be carried out at the draught corresponding to the lightest sea-going condition.

7. *Paragraph 3.4.1.9. has been deleted.*

8. *Paragraph 3.6.3.8 has been amended to read:*

3.6.3.8 The warning signalization shall be automatically activated, e.g. by a micro-switch that activates the signalization upon opening the release cabinet door. The signalization shall operate for the length of time needed to evacuate the space, but in no case less than 20 s before the medium is released.

9. Paragraph **3.6.4.2.2** has been amended to read:

3.6.4.2.2 Remote controls of carbon dioxide fire-extinguishing system intended for the protection of machinery spaces, cargo pump-rooms, ro-ro spaces, refrigerated spaces on container ships, spaces to which the crew have access through doors or manholes and spaces in which the crew normally work and to which they have access shall comply with the following requirements:

- .1 two separate controls shall be provided for releasing carbon dioxide into a protected space and to ensure the activation of the warning signalization¹⁾. One control shall be used for opening the valve of the piping which conveys gas into the protected space and a second control shall be used to discharge gas from its storage containers. Positive means shall be provided so that they can only be operated in that order. The positive means shall be achieved by a mechanical and/or electrical interlock that does not depend on any operational procedure to achieve the correct sequence of operation;
- .2 the two controls shall be located inside a release cabinet clearly identified for the particular space. If the cabinet containing the controls is to be locked, a key to the cabinet shall be in a break-glass-type closure conspicuously located adjacent to the cabinet²⁾.

10. Paragraph **6.3.7.3** has been deleted.

¹⁾ The two separate controls for releasing carbon dioxide into the protected space can be independent of the control activating the warning signalization, see 3.6.3.8.

²⁾ Having regard to the requirements concerning the threat of terrorist attacks on ships, other closing arrangements of the release cabinet precluding access to the cabinet by unauthorized persons while providing easy access thereto for the crew, without the search for a key, are permitted.