

Polski Rejestr Statków

RULES FOR THE CLASSIFICATION AND CONSTRUCTION OF SEA-GOING SHIPS

AMENDMENTS NO. 3/2010

to

**PART V
FIRE PROTECTION**

2008



GDAŃSK

Amendments No. 3/2010 to Part V – Fire Protection – 2008, of the Rules for the Classification and Construction of Sea-going Ships, were approved by PRS S.A. Executive Board on 1 September 2010 and enter into force on 15 September 2010.

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

1. *In sub-chapter 1.2, the following definitions have been added:*

Heated surfaces – surfaces with a high temperature source on the other side.

High temperature surfaces – surfaces with temperatures above 220 °C.

Hot surfaces – surfaces with a temperature of less than 220 °C including steam systems with a pressure of less than 2.3 MPa, thermal oil systems, exhaust gas piping and oil fired boilers and exhaust gas boilers.

Potential ignition sources – sources having enough energy to cause ignition. These include high temperature surfaces, sparks or flames from inefficient flanges or joints, electrical discharges caused from electrostatic atmospheres, or electrical contactor faults. Sources of these are for example exhaust gas piping of internal combustion engines, leakages from boiler furnace joints and electrical equipment within oil treatment rooms.

2. *In paragraph 1.3.5, sub-paragraph .27 has been added:*

.27 fixed dry chemical powder fire-extinguishing systems used in gas tankers.

3. *In paragraph 2.2.5.2, the first sentence has been amended to read:*

2.2.5.2 Penetrations of any piping, ventilation ducts and cables through A Class divisions are subject to testing in accordance with the requirements specified in the *FTP Code*, Annex I, Part 3.

4. *In paragraph 3.2.4.2.1, the second passage has been amended to read:*

When the pump is delivering the quantity of water required above, the pressure at any hydrant shall not be less than that specified in sub-chapter 3.2.1. In ships of gross tonnage 500 and above engaged on international voyages, the pressure shall not be less than 0.27 MPa.

5. *Paragraph 3.2.4.2.2 has been amended to read:*

3.2.4.2.2 Where a fixed water-based fire-extinguishing system installed for the protection of the machinery space of category A, required in 2.5.1.1, is **supplied** by the emergency fire pump, then the emergency fire pump capacity shall be adequate to supply the fixed fire-extinguishing system at the required pressure plus two jets of water. The capacity of the two jets shall in any case be calculated at not less than 25 m³/h, at the assumption that both jets are supplied by nozzles of the maximum diameter*.

* When selecting the biggest nozzle size available onboard, the nozzles located in the space containing fire pumps need not be taken into account.

It is assumed, that the capacity of single jet at the hydrant pressure of 0.27 MPa is 16 m³/h – for the nozzle diameter 16 mm, and 23.5 m³/h – for the nozzle diameter 19 mm.

6. Paragraphs 3.3.8.2 and 3.3.8.3 have been amended to read:

3.3.8.2 Type approval tests of equivalent high-pressure sprinkler systems performed in accordance with the guidelines specified in IMO resolution A.800(19), remain valid until 1 July 2015.

3.3.8.3 Existing equivalent high-pressure sprinkler systems, approved and installed in accordance with the guidelines specified in IMO resolution A.800(19) are permitted to remain in service as long as they are serviceable based on the survey results.

7. Paragraph 3.4.7.1 has been amended to read:

3.4.7.1 The flow rate of the water-spraying system shall be at least 5 l/min per square metre of the heated surfaces.

8. Paragraph 3.5.1.2 has been amended to read:

3.5.1.2 Foam concentrates are subject to type tests in accordance with guidelines specified in IMO circulars: MSC.1/Circ.1312 – for low-expansion foam, MSC/798 – for medium-expansion foam and MSC/Circ.670 – for high-expansion foam.

For the definitions of foam – see sub-chapter 1.2.

Type tests of foam concentrates for low-expansion foam performed in accordance with the guidelines specified in IMO circular MSC/Circ.582/Corr.1 remain valid until 1 July 2012.

9. At the end of paragraph 3.7.1.5, the following passage has been added:

Concentration of LOEL and NOEL shall be calculated in accordance with the guidelines specified in the Annex to IMO circular MSC.1/Circ.1316.

10. At the end of paragraph 3.7.2.6, the following passage has been added:

Type approvals tests of equivalent gas fire-extinguishing systems performed in accordance with the guidelines specified in the Annex to IMO circular MSC/Circ.848 remain valid until 1 July 2012.

11. Paragraph 3.8.1.5 has been added:

3.8.1.5 Fixed dry chemical powder system for the protection of gas tankers shall be designed, constructed and tested in accordance with the guidelines specified in the Annex to IMO circular MSC.1/Circ.1315.

12. In paragraph 5.1.3.4, the second sentence has been amended to read:

Foam concentrate is subject to type tests in accordance with guidelines specified in IMO circular MSC.1/Circ.1312

13. Paragraph 6.2.2.2.5 has been amended to read:

6.2.2.2.5 Where fixed pressure water-spraying systems is provided, in view of the serious loss of stability which might arise due to large quantities of water accumulating on the decks during the operation of the system, proper arrangements shall be made to drain the space, in accordance with the requirements specified in sub-chapter 6.12 of *Part VI – Machinery Installations and Refrigerating Plants*.

14. In paragraph 6.3.5.2, the text after the first dash has been amended to read:

- be fitted with temperature monitoring system for pumps in accordance with the guidelines specified in IMO circular MSC.1/Circ.1321, Part IV, Chapter 2.4;

15. In paragraph 6.3.5.2, the text after the third dash has been amended to read:

- be provided with a system for continuous monitoring of the concentration of hydrocarbon gases, in accordance with the guidelines specified in IMO circular MSC.1/Circ.1321, Part IV, Chapter 3.2;

16. In paragraph 6.3.5.2, the text after the fourth dash has been amended to read:

- be provided with bilge level monitoring devices,

17. Sub-chapter 6.3.5.5 has been added:

6.3.5.5 Control of Ignition Sources

6.3.5.5.1 Any potential ignition sources shall be effectively protected.

6.3.5.5.2 The temperature of steam and heating media used in the pump-room and cargo area should not to exceed 220 °C.

6.3.5.5.3 Glazed port lights providing illumination to the pump-rooms should be effectively protected from mechanical damage by strong covers secured from the side of the safe space.

6.3.5.5.4 Any penetration (including a movable part) of the engine room boundary or safety area passing through a pump-room bulkhead should be provided with the following:

- .1 gas tight sealing device with efficient lubricant (periodic greasing type is not permitted); and
- .2 temperature measuring device.

18. Paragraph 6.10.2.4.2 has been amended to read:

6.10.2.4.2 Where fixed pressure water-spraying systems is provided, in view of the serious loss of stability which might arise due to large quantities of water accumulating on the decks during the operation of the system, proper arrangements shall be made to drain the space, in accordance with the requirements specified in sub-chapter 6.12 of *Part VI – Machinery Installations and Refrigerating Plants*.

19. Sub-chapter 6.11.2 has been added:

6.11.2 Fixed Dry Chemical Powder System

Fixed dry chemical powder system shall comply with the requirements specified in sub-chapter 3.8.

20. Paragraph 6.12.4.3 has been amended to read:

6.12.4.3 Alcohol-resistant foam concentrate is subject to type tests in accordance with the guidelines specified in IMO circular MSC.1/Circ.1312.

Type tests performed in accordance with the guidelines specified in the IMO circular MSC/Circ.799 remain valid until 1 July 2012.

During the ship service, the foam concentrate is subject to periodical controls by authorized laboratory or approved service station (see paragraph 1.3.7), first – not more than 3 years after being supplied to the ship, and after that – at intervals not exceeding 12 months.

Protein-based alcohol-resistant foam concentrates, additionally, are subject to small-scale fire tests performed in accordance with standards: ISO 7203-3, Annex C, PN-EN 1568-4, Annex I or other standard acceptable to the Administration, and to a chemical stability test with acetone. Chemical stability test should be performed prior to delivery to the ship and annually thereafter.

21. In the Supplement – Retroactive Requirements, paragraph 2.1.1 has been amended to read:

2.1.1 In accordance with Regulation (EC) No. 1005/2009 of the European Parliament and of the Council, of 16 September 2009 on substances that deplete the ozone layer, on existing ships flying a flag of the European Union member state, halon fire-extinguishing systems containing such halons as: 1211, 1301 and 2402, considered as controlled substances listed in Annex I (group III) to this Regulation, are prohibited. Also portable fire-extinguishers containing the above mentioned halons are prohibited onboard.

If an existing ship, to which PRS class is to be assigned, carries a halon system, such a system shall be dismantled and halon shall be recovered in order to be destroyed, recycled or reclaimed by a service station approved by the Flag State Administration for conformity with the environmental protection rules. The dismantled halon system shall be replaced by carbon

dioxide fire-extinguishing systems, complying with the requirements specified in sub-chapter 3.6.4 of *Part V* of the *Rules* or equivalent gas fire-extinguishing systems, complying with the requirements specified in sub-chapter 3.7 of *Part V* of the *Rules*.

Portable fire extinguishers containing the above mentioned halons shall be replaced by other approved fire extinguishers, complying with sub-chapter 5.1 of *Part V* of the *Rules*.
