

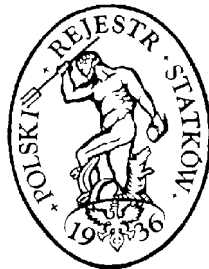
# *Polski Rejestr Statków*

## **RULES FOR THE CLASSIFICATION AND CONSTRUCTION OF SEA-GOING SHIPS**

**AMENDMENTS NO. 2/2010**

to

**PART V  
FIRE PROTECTION  
2008**



**GDAŃSK**

*Amendments No. 2/2010 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 8 February 2010 and enter into force on 11 February 2010.

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

***1. In CONTENTS, sub-chapters 6.1.22 to 6.1.25 have been added:***

- 6.1.22** Fire Protection of Exhaust Duct from Main Laundry (chemical laundry)
- 6.1.23** Requirements for Large Passenger Ships in the Context of Fire Casualties – after a Fire Casualty that does not Exceed the Casualty Threshold
- 6.1.24** Requirements for Large Passenger Ships in the Context of Fire Casualties – if the Casualty Threshold is Exceeded
- 6.1.25** Safety Centre

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

**Safety centre** – a control station (with regard to the requirements for large passenger ships ) dedicated to the management of emergency situations. Safety systems' operation, control and/or monitoring are an integral part of the safety centre.

**Safe area in the context of a fire casualty** – from the perspective of habitability, any area (with regard to the requirements for large passenger ships), which is not flooded or which is outside the main vertical zone(s) in which a fire has occurred such that it can safely accommodate all persons on board to protect them from hazards to life or health and provide them with basic services.

***3. In paragraph 2.7.2, the first sentence has been amended to read:***

Deep-fat cooking equipment installed in enclosed spaces or on open decks shall be fitted with the following:

***4. Paragraph 6.1.3.4 has been added:***

**6.1.3.4** Atriums shall be protected by fire divisions as follows:

- .1** the atrium shall be within enclosures formed of A Class divisions having the fire integrity as prescribed in Tables 6.1.4-1 and 6.1.5-1;
- .2** decks separating spaces within the atrium shall have the fire integrity as prescribed in Tables 6.1.4-2 and 6.1.5-2, depending on the adjacent spaces category.

***5. In paragraph 6.1.4.2, in category (8), the following item has been added:***

- sale shops.

***6. In paragraph 6.1.5.2, at the end of Note c) to Tables 6.1.5-1 and 6.1.5-2, the following sentence has been added:***

No fire rating is required for the partitions separating the navigation bridge and the safety centre when the latter is within the navigation bridge.

7. *In paragraph 6.1.6.10.3, in the third sentence, the following record has been deleted:*  
"public spaces".
8. *In paragraph 6.1.6.10.3, the following sentence has been added at the end:*  
Public spaces may also have direct access to stairway enclosures, except for the backstage spaces of a theatre.
9. *In paragraph 6.1.6.10.5, the following sentence has been added at the end:*  
In lieu of marking the escape routes by low location lighting system or photoluminescent strip indicators, alternative evacuation guidance system complying with the requirements specified in IMO MSC/Circ. 1167 and approved in accordance with the interim guidelines for the testing, approval and maintenance of alternative evacuation guidance systems, specified in IMO MSC/Circ. 1168, may be accepted.
10. *Paragraph 6.1.14.5 has been added:*  
**6.1.14.5** Fire detectors fitted in cabins, when activated, shall be capable of emitting, or cause to be emitted, an audible alarm within the space in which they are located.
11. *In paragraph 6.1.17.2, the first sentence has been amended to read:*  
**6.1.17.2** In ships carrying more than 36 passengers, each exhaust duct from a galley range installed in a galley (irrespective of whether or not it passes through accommodation spaces) shall comply with the requirements specified in 2.7.1 and additionally shall be provided with:
12. *Paragraph 6.1.17.3 has been renumbered 6.1.17.4.*
13. *New paragraph 6.1.17.3 has been introduced:*  
**6.1.17.3** In ships carrying more than 36 passengers, the exhaust duct from a galley range installed on open decks shall comply with the requirements specified in 6.1.17.2 when passing through accommodation spaces or spaces containing combustible materials.
14. *Sub-chapters 6.1.22 to 6.1.25 have been added:*  
**6.1.22 Fire Protection of Exhaust Duct from Main Laundry (chemical laundry)**  
In ships carrying more than 36 passengers, the exhaust duct from the main laundry shall be fitted with:  
.1 filter(s) readily removable for cleaning purposes;  
.2 automatically and remotely operated fire damper located in the lower end of the duct;  
.3 suitably located hatches for inspection and cleaning.

The main laundry shall be provided with remote control arrangements for shutting off the exhaust duct fans and supply fans from within the space and for operating the fire damper, referred to in sub-paragraph .2.

## **6.1.23 Requirements for Large Passenger Ships in the Context of Fire Casualties – after a Fire Casualty that does not Exceed the Casualty Threshold**

### **6.1.23.1 Application**

**6.1.23.1.1** The requirements of sub-chapter 6.1.23 apply to passenger ships constructed on or after 1 July 2010 having the length  $L^1$  of 120 m or more or having three or more main vertical zones.

**6.1.23.1.2** Sub-chapter 6.1.23 specifies design criteria for a ship's safe return to a port of refuge under its own propulsion after a fire casualty that does not exceed the casualty threshold specified in 6.1.23.2 and provides also functional requirements and performance standards for safe areas.

### **6.1.23.2 Fire Casualty Threshold**

The casualty threshold, in the context of a fire, includes:

- .1** loss of a space of origin up to the nearest A Class boundaries, which are a part of the space of origin, if the space of origin is protected by a fixed fire-extinguishing system; or
- .2** loss of the space of origin and adjacent spaces up to the nearest A Class boundaries, which are not part of the space of origin.

### **6.1.23.3 Safe Return to Port of Refuge**

When fire damage does not exceed the casualty threshold specified in 6.1.23.2, the ship shall be capable of returning to a port of refuge while providing safe area(s) as defined in sub-chapter 1.2. To be deemed capable of returning to port of refuge, the following systems/arrangements shall remain operational in the remaining part of the ship not affected by fire:

- .1** propulsion;
- .2** steering systems and steering-control systems;
- .3** navigational systems;
- .4** systems for filling, transfer and service of fuel oil;
- .5** systems of internal communication between the navigation bridge, machinery spaces, safety centre, fire-fighting and damage control teams, as well as communication systems required for passenger and crew notification and mustering;
- .6** means of external communication;
- .7** water fire main system;
- .8** fixed fire-extinguishing systems;

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<sup>1)</sup> See the definitions of the ship's length ( $L$ ) given in *Part II – Hull*.

- .9 fire detection and fire alarm system;
- .10 bilge and ballast systems;
- .11 power-operated watertight and semi-watertight doors;
- .12 systems intended to support safe areas, specified in 6.1.23.4.1.2;
- .13 flooding detection systems;
- .14 other systems determined to be vital to damage control efforts.

The ship's systems/arrangements required to remain operational shall comply with the requirements specified in Annex 1 to IMO MSC.1/Circ 1214.

#### **6.1.23.4 Safe Area(s)**

##### **6.1.23.4.1 Functional Requirements**

- .1 the safe area(s) shall generally be internal space(s). However, the use of an external space as a safe area may be allowed in ships operating in restricted area of navigation and in relevant expected environmental conditions;
- .2 the safe area(s) shall provide all ship occupants (passengers and crew) with the basic services to ensure that their health is maintained. These basic services include:
  - .1 sanitation;
  - .2 water;
  - .3 food;
  - .4 alternate space for medical care;
  - .5 shelter from the weather;
  - .6 means of preventing heat stress and hypothermia;
  - .7 light; and
  - .8 ventilation;
- .3 ventilation system shall reduce the risk that smoke and hot gases could affect the use of the safe area(s); and
- .4 means of access to life-saving appliances shall be provided from each area identified or used as a safe area, taking into account that a main vertical zone may not be available for internal transit.

##### **6.1.23.4.2 Alternate Space for Medical Care**

Alternate space for medical care shall comply with the requirements specified in IMO MSC/Circ. 1129.

#### **6.1.24 Requirements for Large Passenger Ships in the Context of Fire Casualties – if the Casualty Threshold is Exceeded**

##### **6.1.24.1 Application**

**6.1.24.1.1** The requirements of sub-chapter 6.1.24 apply to passenger ships constructed on or after 1 July 2010 having the length  $L^1$  of 120 m or more or having three or more main vertical zones.

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<sup>1)</sup> See the definitions of the ship's length ( $L$ ) given in *Part II – Hull*.

**6.1.24.1.2** Sub-chapter 6.1.24 provides basic criteria for systems required to remain operational for supporting the orderly evacuation and abandonment of a ship if the casualty threshold, as defined in 6.1.23.2, is exceeded.

### **6.1.24.2 Requirements for Systems that shall Remain Operational if the Casualty Threshold is Exceeded**

**6.1.24.2.1** In the case when one main vertical zone is unserviceable due to fire, the following systems shall be so arranged and segregated as to remain operational:

- .1 water fire main system;
- .2 internal communication systems (in support of fire-fighting teams, for passenger and crew notification and mustering);
- .3 means of external communication;
- .4 bilge systems for removal of fire-fighting water;
- .5 lighting along escape routes, at assembly stations and at embarkation stations of life-saving appliances; and
- .6 the systems of marking escape routes or alternative evacuation guidance systems.

The ship's systems required to remain operational shall comply with the requirements specified in Annex 2 to IMO MSC.1/Circ. 1214.

**6.1.24.2.2** The above systems shall be capable of operation for at least 3h (from the moment the casualty threshold has been exceeded) on the assumption of no damage outside the unserviceable main vertical zone. These systems are not required to remain operational within the unserviceable main vertical zone.

**6.1.24.2.3** Cables and piping for the systems, referred to in 6.1.24.2.1, passing through the unserviceable main vertical zone shall be run within a trunk constructed to A-60 standard. An equivalent degree of protection for the above-mentioned cables and piping may be allowed subject to agreement with PRS.

## **6.1.25 Safety Centre**

### **6.1.25.1 Application**

**6.1.25.1.1** Every passenger ship constructed on or after 1 July 2010 shall have on board a safety centre complying with the requirements of the present sub-chapter.

**6.1.25.1.2** Sub-chapter 6.1.25 specifies basic criteria for establishing safety centre.

### **6.1.25.2 Requirements for Safety Centre**

**6.1.25.2.1** The safety centre shall either be a part of the navigation bridge or be located in a separate space adjacent to and having direct access to the navigation bridge so that the management of emergencies can be performed without distracting watch officers from their navigational duties.

**6.1.25.2.2** The layout and ergonomic design of the safety centre shall take into account the guidelines developed by IMO.

**6.1.25.2.3** Means of communication between the safety centre, the central control station, the navigation bridge, the engine control room, the storage rooms (stations) for fire fire-extinguishing systems and fire equipment lockers shall be provided.

**6.1.25.2.4** The full functionality (operation, control, monitoring or any combination thereof, as required) of the safety systems shall be available from the safety centre:

- .1 all power ventilation systems;
  - .2 fire doors;
  - .3 general alarm system;
  - .4 public address system;
  - .5 electrically powered escape routes low location lighting systems or evacuation guidance systems;
  - .6 watertight and semi-watertight doors;
  - .7 indicators (open-closed) for shell doors, loading doors and other closing appliances;
  - .8 water leakage of inner/outer bow doors, stern doors and any other shell doors;
  - .9 television surveillance system;
  - .10 fire detection and fire alarm system;
  - .11 fixed local fire-extinguishing systems;
  - .12 automatic sprinkler systems and equivalent systems;
  - .13 water-based fire-extinguishing systems for machinery spaces;
  - .14 alarm to summon the crew;
  - .15 atrium smoke distraction systems;
  - .16 flooding detection systems;
  - .17 fire pumps and emergency fire pumps.
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