

# RULES

## FOR THE CLASSIFICATION AND CONSTRUCTION OF HIGH-SPEED CRAFT

### PART XVI LIFE-SAVING APPLIANCES

ND No. 2-020101-158 -E



**St. Petersburg**

## **RULES FOR THE CLASSIFICATION AND CONSTRUCTION OF HIGH-SPEED CRAFT (PART XVI)**

---

The present version of Part XVI "Life-Saving Appliances" of the Rules for the Classification and Construction of High-Speed Craft of Russian Maritime Register of Shipping (RS, the Register) has been approved in accordance with the established approval procedure and comes into force on 1 January 2024.

The present version is based on the version dated 15 March 2023 and Rule Change Notice No. 23-26981 taking into account the amendments and additions developed immediately before publication (refer to the Revision History).

**REVISION HISTORY<sup>1</sup>**

For this version, there are no amendments to be included in the Revision History.

---

<sup>1</sup> With the exception of amendments and additions introduced by Rule Change Notices (RCN), as well as of misprints and omissions.

## **1 GENERAL AND DEFINITIONS**

**1.1** Life-saving appliances and arrangements shall enable abandonment of the craft in accordance with the requirements of 7.7, Part III "Equipment, Arrangements and Outfit" and [Section 13](#) of this Part.

**1.2** Except where otherwise provided in this Part, life-saving appliances and arrangements shall meet the requirements of Part II "Life-Saving Appliances" of the Rules for the Equipment of Sea-Going Ships.

**1.3** Definitions relating to general terminology are given in 1.1 Part I "Classification" of the present Rules and in Part II "Life-Saving Appliances" of Rules for the Equipment of Sea-Going Ships.

**1.4** For the purpose of this Part, the following definitions have been additionally adopted.

**Embarkation station** is a place from which a survival craft is boarded. An embarkation station may also serve as a muster station, provided there is sufficient room, and the muster station activities can safely take place there.

**Launching appliance or arrangement** is a means of transferring a survival craft or rescue boat from its stowed position safely to the water.

**Retrieval** is the safe recovery of survivors.

## **2 COMMUNICATIONS AND SIGNAL EQUIPMENT**

**2.1** Internal communication means and general alarm system shall meet the requirements of Part II "Life-Saving Appliances" of the Rules for the Equipment of Sea-Going Ships.

### **3 PERSONAL LIFE-SAVING APPLIANCES**

**3.1** Where passengers or crew have access to exposed decks under normal operating conditions, at least one lifebuoy on each side of the craft capable of quick release from the control station and from a position at or near where it is stowed, shall be provided with a self-igniting light and self-activating smoke signal. The positioning and securing arrangements of the self-activating smoke signal shall be such that it cannot be released or activated solely by the accelerations produced by collisions or groundings.

**3.2** At least one lifebuoy shall be provided adjacent to each normal exit from the craft and on each open deck to which passengers and crew have access, on condition at least two lifebuoys being installed.

**3.3** Lifebuoys fitted adjacent to each normal exit from the craft shall be fitted with buoyant lines of at least 30 m in length.

**3.4** Not less than half of the total number of lifebuoys shall be fitted with self-igniting lights. However, lifebuoys provided with self-igniting lights shall not be the lifebuoys provided with lifelines in accordance with the requirements of [3.3](#).

**3.5** A lifejacket shall be provided for every person on board and, in addition:

**.1** a number of jackets suitable for children equal to at least 10 per cent of the number of passengers on board shall be provided or such greater number as may be required to provide a lifejacket for each child;

**.2** every passenger craft shall carry lifejackets for not less than 5 per cent of the total number of persons on board. These lifejackets shall be stowed in conspicuous places on deck or at muster stations;

**.3** a sufficient number of lifejackets shall be carried for persons on watch and for use at remotely located survival craft and rescue boat stations;

**.4** all lifejackets shall be fitted with a light.

**3.6** Lifejackets shall be placed so as to be readily accessible and their positions shall be clearly indicated.

**3.7** An immersion suit of any appropriate size shall be provided for every person assigned to crew the rescue boat.

**3.8** An immersion suit or anti-exposure suit shall be provided for each member of the crew assigned, in the muster list, to duties in a MES party for embarking passenger into survival craft. These immersion suits or anti-exposure suits need not be required if the craft is constantly engaged on voyages in warm climates (region between 30 °N and 30 °S).

#### **4 EMERGENCY INSTRUCTIONS AND MANUALS**

**4.1** Clear instructions to be followed in the event of emergency shall be provided for each person on board.

**4.2** Illustrations and instructions in appropriate languages shall be posted in public spaces and be conspicuously displayed at muster stations, at other passenger spaces and near each seat to inform passengers of:

- .1** their muster station;
- .2** essential actions they must take in emergency;
- .3** the method of donning lifejacket.

**4.3** Each passenger craft shall have muster stations:

**.1** in the vicinity of, and which provide ready access for all the passengers to, the embarkation stations unless in the same location;

**.2** which have ample room for the marshalling and instruction of passengers.

**4.4** A training manual shall be provided in each crew messroom and recreation room.

## **5 OPERATING INSTRUCTIONS**

**5.1** Posters or signs shall be provided on or in the vicinity of survival craft and their launching controls and shall:

- .1** illustrate the purpose of controls and the procedures for operating the appliance and give the relevant instructions and warnings;
- .2** be easily seen under emergency lighting conditions;
- .3** use symbols in accordance with recommendations given in Appendix 2, Part II "Life-Saving Appliances" of the Rules for the Equipment of Sea-Going Ships.



## 6 STOWAGE OF SURVIVAL CRAFT

**6.1** Survival craft shall be securely stowed outside and as close as possible to passenger accommodation spaces and embarkation stations. The stowage shall be such that each survival craft can be safely launched in a simple manner and remain secured to the craft during and subsequent to the launching procedure. The length of the securing lines and the arrangements of the bousing lines shall be such as to maintain the survival craft suitably positioned for embarkation. It is permitted to use adjustable securing and/or bousing lines at exits where more than one survival craft is used. The securing arrangements for all securing and bousing lines shall be of sufficient strength to hold the survival craft in position during the evacuation process.

**6.2** Survival craft shall be stowed so as to permit release from their securing arrangements at or near to their stowage position on the craft and from a position at or near to the control station.

**6.3** So far as is practicable, survival craft shall be distributed in such a manner that there is an equal capacity on both sides of the craft.

**6.4** The launching procedure for inflatable liferafts shall, where practicable, initiate inflation. Where it is practicable to provide automatic inflation of liferafts (for example, where liferafts are associated with a MES), the arrangements shall be such that people can be evacuated within the time specified in [13.1](#).

**6.5** Survival craft shall be capable of being launched and then boarded from the designated embarkation stations in all operational conditions indicated in Part IV "Stability" and also in all conditions of flooding after receiving damage to the extent prescribed in Part V "Reserve of Buoyancy and Subdivision".

**6.6** Survival craft launching stations shall be in such positions as to ensure safe launching, having particular regard to clearance from the propeller or waterjet and steeply overhanging portions of the hull.

**6.7** During preparation and launching, the survival craft and the area of water into which it shall be launched shall be adequately illuminated by the lighting supplied from the main and emergency sources of electrical power required by Part XI "Electrical Equipment".

**6.8** Means shall be available to prevent any discharge of water on to survival craft when launched.

**6.9** Each survival craft shall be stowed:

**.1** so that neither the survival craft nor its stowage arrangements will interfere with the operation of any other survival craft or rescue boat at any other launching station;

**.2** in a state of continuous readiness;

**.3** fully equipped;

**.4** as far as practicable, in a secure and sheltered position and protected from damage by fire and explosion.

**6.10** Every liferaft shall be stowed with its painter permanently attached to the craft and with a float-free arrangement so that, as far as practicable, the liferaft floats free and, if inflatable, inflates automatically, shall the high-speed craft sink.

**6.11** Rescue boats shall be stowed:

**.1** in a state of continuous readiness for launching in not more than 5 min;

**.2** in a position suitable for launching and recovery;

**.3** so that neither the rescue boat nor its stowage arrangements will interfere with the operation of survival craft at any other launching station.

**6.12** Rescue boats and survival craft shall be secured and fastened to the deck so that they at least withstand the loads likely to arise due to a defined horizontal collision load for the actual craft and the vertical design load at the stowage position.

## 7 SURVIVAL CRAFT AND RESCUE BOATS EMBARKATION AND RECOVERY ARRANGEMENTS

**7.1** Embarkation stations shall be readily accessible from accommodation and work spaces. If the designated muster stations are other than passenger spaces, muster stations shall be readily accessible from passenger spaces, and embarkation stations shall be readily accessible from muster stations.

**7.2** Evacuation routes, exits and embarkation points shall comply with the requirements of 7.7, Part III "Equipment, Arrangements and Outfit".

**7.3** Alleyways, stairways and exits giving access to muster and embarkation stations shall be adequately illuminated by lighting supplied from the main and emergency sources of electrical power required by Part XI "Electrical Equipment".

**7.4** Where davit-launched survival craft are not fitted, MES or equivalent means of evacuation shall be provided in order to avoid persons entering the water when boarding the survival craft. Such MES or equivalent means of evacuation shall be designed so as to enable persons to board survival craft in all operational conditions indicated in Part IV "Stability" and also in all conditions of flooding after receiving damage to the extent prescribed by Part V "Reserve of Buoyancy and Subdivision".

**7.5** A system where persons board liferafts directly may be permitted. In such case, survival craft and rescue boat embarkation arrangements shall be effective within the environmental conditions in which the craft is permitted to operate and in all undamaged and prescribed damage conditions of trim and heel, where the freeboard between the intended embarkation position and the waterline is not more than 1,5 m.

**7.6** Where MES is provided for embarkation into survival craft on a category B craft, an alternative means of evacuating passengers and crew into survival craft on the same side of the craft in conditions up to and including the worst intended conditions shall be provided for use if the MES is lost or rendered unserviceable in the event of damage of the longitudinal extent specified in 4.3.1.1, Part V "Reserve of Buoyancy and Subdivision".

**7.7** Rescue boat embarkation arrangements shall be such that the rescue boat can be boarded and launched directly from the stowed position and recovered rapidly when loaded with its full complement of persons and equipment.

**7.8** Launching systems for rescue boats on category B craft may be based on power supply from the craft's power supply under the following conditions:

**.1** the davit or crane shall be supplied with power from 2 sources in each independent engine room;

**.2** the davits or crane shall comply with the required launching, lowering and hoisting speeds when using only one power source; and

**.3** the davit or crane is not required to be activated from a position within the rescue boat.

**7.9** On multihull craft with a small  $HL_1$  angle of heel and trim, the design angles required in paragraph 6.20.1.1, Part II "Life-Saving Appliances" of the Rules for the Equipment of Sea-Going Ships, may be changed from 20°/10° to the maximum angles calculated in accordance with 13.3.2 of Part IV "Stability" and 4.7 of Part V "Reserve of Buoyancy and Subdivision" of the present Rules, including heeling lever  $HL_2$ ,  $HTL$ ,  $HL_3$  or  $HL_4$ .

**7.10** Rescue boat davits or cranes may be designed for launching and recovering the boat with 3 persons only on the condition that an additional boarding arrangement is available on each side complying with [7.5](#).

**7.11** A safety knife shall be provided at each MES embarkation station.

## **8 LINE-THROWING APPLIANCE**

**8.1** A line-throwing appliance complying with the requirements of 6.21, Part II "Life-Saving Appliances" of the Rules for the Equipment of Sea-Going Ships, shall be provided.

## **9 OPERATIONAL READINESS, MAINTENANCE**

### **9.1 Operational readiness.**

Before the craft leaves the port and at all times during the voyage, all life-saving appliances shall be in working order and ready for immediate use.

### **9.2 Maintenance.**

**9.2.1** Instructions for on-board maintenance of life-saving appliances shall be provided and maintenance shall be carried out accordingly.

**9.2.2** The Register may accept, instead of the instructions required by [9.2.1](#), a planned programme for on-board maintenance of life-saving appliances.

### **9.3 Maintenance of falls.**

**9.3.1** Falls used in launching shall be inspected periodically with special regards for areas passing through sheaves and be renewed when necessary due to deterioration of the falls or at intervals of not more than five years, whichever is the earlier.

### **9.4 Spare parts and repair equipment**

Spare parts and repair equipment shall be provided for life-saving appliances and their components which are subject to excessive wear or consumption and need to be replaced regularly.

### **9.5 Marking of stowage locations.**

Containers, brackets, racks and other similar stowage locations for life-saving equipment shall be marked with symbols in accordance with the recommendations given in Appendix 2 to Part II "Life-Saving Appliances" of the Rules for the Equipment of Sea-Going Ships, indicating the device stowed in that location for that purpose. If more than one device is stowed in that location, the number of devices shall be indicated.

## 10 SURVIVAL CRAFT AND RESCUE BOATS

**10.1** All craft shall carry:

**.1** survival craft with sufficient capacity as will accommodate not less than 100 % of the total number of persons the craft is certified to carry, subject to a minimum of two such survival craft being carried;

**.2** in addition, survival craft with sufficient aggregate capacity to accommodate not less than 10 per cent of the total number of persons the craft is certified to carry;

**.3** in the event any one survival craft being lost or rendered unserviceable, sufficient survival craft to accommodate the total number of persons the craft is certified to carry;

**.4** at least one rescue boat for retrieving persons from the water, but not less than one such boat on each side when the craft is certified to carry more than 450 passengers;

**.5** notwithstanding the provisions of [10.1.4](#), the craft shall carry sufficient number of rescue boats to ensure that, in providing for abandonment by the total number of persons the craft is certified to carry:

**.5.1** not more than nine liferafts provided in accordance with [10.1.1](#) are marshalled by each rescue boat; or

**.5.2** not more than 12 of the liferafts provided in accordance with [10.1.1](#) are marshalled by each rescue boat, if the Register is confirmed that the rescue boats are capable to tofoil a pair of such lifeboats simultaneously;

**.5.3** the craft may be evacuated within the time specified in [Section 13](#);

**.6** craft not engaged in international voyages proceeding for a distance of not more than 20 miles from the coast during the voyage, if the sheltered nature and conditions of voyage are such that the installation of a rescue boat is unreasonable and impractical; and craft of less than 30 m in length regardless of the conditions of the voyage and area of navigation, may be waived from requirement to have a rescue boat, provided that the craft meet the following conditions:

**.6.1** the craft is arranged to allow a helpless person to be recovered from the water in recumbent or near to recumbent position;

**.6.2** recovery of the helpless person can be observed from the navigating bridge; and

**.6.3** the craft is sufficiently manoeuvrable to close and recover persons in the worst intended conditions.

**10.2** It is permitted to use the open reversible inflatable liferafts complying with the requirements of [Section 12](#), on category A craft instead of liferafts complying with requirements in 6.9 or 6.10, Part II "Life-Saving Appliances" of the Rules for the Equipment of Sea-Going Ships, in case the craft is engaged in voyages of the sheltered nature under suitable climatic conditions (region between 30 °N and 30 °S).

## **11 HELICOPTER PICK-UP AREAS**

**11.1** Craft operating on voyages having duration of 2 h or more between each port of call shall be provided with a helicopter pick-up area.

## **12 OPEN REVERSIBLE LIFERAFTS**

### **12.1 General.**

All open reversible liferafts shall:

- .1 be properly constructed of materials approved by the Register;
- .2 not be damaged in stowage at the air temperature range of —18 to +65 °C;
- .3 be capable of operating at the air temperature range of —18 to +65 °C and the sea water temperature range of — 1 to +30 °C;
- .4 be rot-proof, corrosion-resistant and not to be unduly affected by seawater, oil or fungal attack;
- .5 be stable and maintain their shape when inflated and fully loaded;
- .6 be fitted with retro-reflective material, where it will assist in detection, and in accordance with the requirements of Appendix 1 to Part II "Life-Saving Appliances" of the Rules for the Equipment of Sea- Going Ships.

### **12.2 Construction.**

**12.2.1** The open reversible liferaft shall be constructed so that when it is dropped into water in its container from a height of 10 m, the liferaft and its equipment will operate satisfactorily. If the open reversible liferaft shall be stowed at a height of more than 10 m above the waterline in the lightest seagoing condition, it shall be of a type which has been satisfactorily drop-tested from at least that height.

**12.2.2** The open reversible floating liferaft shall be capable of withstanding repeated jumps on to it from a height of at least 4,5 m.

**12.2.3** The open reversible liferaft and its fittings shall be constructed as to enable it to be towed at a speed of 3 knots in calm water when loaded with its full number of persons and equipment, with the sea- anchor deployed.

**12.2.4** The open reversible liferaft when fully inflated shall be capable of being boarded from the water whichever way up it inflates.

**12.2.5** The main buoyancy chamber shall be divided into:

.1 not less than two separate compartments, each inflated through a non-return inflation valve on each compartment;

.2 buoyancy chambers shall be arranged so that in the event of one of the compartments being damaged or failing to inflate, the intact compartments shall be able to support, with positive freeboard over the open reversible liferaft's entire periphery, the number of persons which the liferaft is permitted to accommodate, each having a mass of 75 kg and seated in their normal positions.

**12.2.6** The floor of the open reversible liferaft shall be waterproof.

**12.2.7** The open reversible liferaft shall be inflated with a non-toxic gas by an inflation system complying with the requirements of 6.9, Part II "Life- Saving Appliances" of Rules for the Equipment of Sea-Going Ships. Inflation shall be completed within the period of one minute at an ambient temperature of between +18 and + 20 °C and within a period of three minutes at an ambient temperature of —18 °C. After inflation the open reversible liferaft shall maintain its form when loaded with its full number of persons and equipment.

**12.2.8** Each inflatable compartment shall be capable of withstanding a pressure equal to at least three times the working pressure and shall be prevented from reaching a pressure exceeding twice the working pressure either by means of relief valves or by a limited gas supply. Means shall be provided for fitting the topping-up pump or bellows.

**12.2.9** The surface of buoyancy tubes shall be of a non-slip material. At least 25 per cent of these tubes shall be of a highly visible colour.

**12.2.10** The number of persons which an open reversible liferaft is permitted to accommodate shall be equal to the lesser of:

.1 the greatest whole number obtained by dividing by 0,096 the volume, measured in cubic meters, of the main buoyancy tubes (which for this purpose are not to include the thwarts, if fitted) when inflated; or

.2 the greatest whole number obtained by dividing by 0,372 the inner horizontal cross-sectional area of the open reversible liferaft measured in square meters (which for this purpose may include the thwart or thwarts, if fitted) measured to the innermost edge of buoyancy tubes; or

.3 the number of persons having an average mass of 75 kg, all wearing lifejackets, that can be seated onboard of buoyancy tubes without interfering with the operation of any of the liferaft equipment.

**12.3 Open reversible liferaft fittings.**

**12.3.1** Lifelines shall be securely becketed around the inside and outside of the open reversible liferaft.

**12.3.2** The open reversible liferaft shall be fitted with an efficient painter of a length suitable for automatic inflation on reaching the water. For open reversible liferafts accommodating more than 30 persons an additional bowing-in line shall be fitted.

**12.3.3** The breaking strength of the painter system, including its means of attachment to the open reversible liferaft, except the weak link required by 6.8.6.2, Part II "Life-Saving Appliances" of the Rules for the Equipment of Sea-Going Ships, shall be:

.1 7,5 kN for open reversible liferafts accommodating up to 8 persons;

.2 10,0 kN for open reversible liferafts accommodating 9 to 30 persons;

.3 15,0 kN for open reversible liferafts accommodating more than 30 persons.

**12.3.4** The open reversible liferaft shall be fitted with at least the following number of inflated ramps to assist boarding from the sea, whichever way up the raft inflates:

.1 one boarding ramp for open reversible liferafts accommodating up to 30 persons; or

.2 two boarding ramps for open reversible liferafts accommodating more than 30 persons; such boarding ramps shall be 180° apart.

**12.3.5** The open reversible liferaft shall be fitted with water pockets complying with the following requirements:

.1 the cross-sectional area of the pockets shall be in the shape of isosceles triangle with the base of the triangle attached to buoyancy tubes of the open reversible liferaft;

.2 the design shall be such that the pockets fill to approximately 60 per cent of capacity within 15 to 25 s of deployment;

.3 the pockets attached to each buoyancy tube shall normally have a total capacity of between 125 and 150 l for inflatable open reversible liferafts accommodating up to and including 10 persons;

.4 pockets to be fitted to each buoyancy tube on liferafts certified to carry more than 10 persons shall have, as far as practicable, a total capacity of 12 N litres, where N is the number of persons carried;

.5 each pocket on a buoyancy tube shall be attached so that when the pocket is in the deployed position it is attached along the full length of its upper edges to, or close to, the lowest part of the lower buoyancy tube;

.6 the pockets shall be distributed symmetrically round the circumference of the liferaft with sufficient separation between each pocket to enable air to escape readily.

**12.3.6** At least one manually controlled lamp complying with the requirements of 6.8.3.3, Part II "Life-Saving Appliances" of the Rules for the Equipment of Sea-Going Ships, shall be fitted on the upper and lower surfaces of buoyancy tubes.

**12.3.7** Suitable automatic drain arrangements shall be provided on each side of the floor of the liferaft in the following manner:

.1 one for open reversible liferafts accommodating up to 30 persons; or

.2 two for open reversible liferafts accommodating more than 30 persons.



**12.3.8** The equipment of every open reversible liferaft shall consist of:

- .1 one buoyant rescue quito, attached to of buoyant line not less than 30 m length with a breaking strength of at least 1 kN;
- .2 two safety knives of the non-folding type, having a buoyant handle, shall be attached to open reversible liferaft by light lines. They shall be stowed in pockets so that, irrespective of the way in which the open reversible liferaft inflates, one will be readily available on the top surface of the upper buoyancy tube in a suitable position to enable the painter to be readily cut;
- .3 one buoyant bailer;
- .4 two sponges;
- .5 one sea-anchor permanently attached to the open reversible liferaft in such a way as to be readily deployable when the open reversible liferaft inflates. The position of the sea-anchor shall be clearly marked on both buoyancy tubes;
- .6 two buoyant paddles;
- .7 one first-aid outfit in a waterproof container capable of being closed tightly after use;
- .8 one whistle or equivalent sound signal;
- .9 two hand flares;
- .10 one waterproof electric torch suitable for Morse signalling together with one spare set of batteries and one spare bulb in a waterproof container;
- .11 one repair outfit for repairing punctures in buoyancy compartments;
- .12 one topping-up pump or bellows.

**12.3.9** The equipment specified in [12.3.8](#) is designated as "HSC Pack".

**12.3.10** Where necessary, the equipment shall be stowed in a container which, if it is not an integral part of, or permanently attached to, the open reversible liferaft, shall be stowed and secured to the open reversible liferaft and be capable of floating in water for at least 30 min without damage to its contents. Irrespective of whether the equipment container is an integral part of, or permanently attached to, the open reversible liferaft, the equipment shall be readily accessible irrespective of which way up the open reversible liferaft inflates. The line which secures the equipment container to the open reversible liferaft shall have a breaking strength of 2 kN or a breaking strength of 3:1 based on the mass of the complete equipment pack, whichever is the greater.

**12.4 Containers for open reversible inflatable liferafts.**

**12.4.1** Open reversible liferafts shall be packed in a container that is:

- .1 constructed so as to withstand conditions encountered at sea;
- .2 of sufficient inherent buoyancy, when packed with the liferaft and its equipment, to pull the painter from within and to operate the inflation mechanism shall the craft sink;
- .3 as far as practicable, watertight, except for drain holes in the container bottom.

**12.4.2** The container shall be marked with:

- .1 manufacturer's name or trademark;
- .2 serial number;
- .3 the number of persons permitted to be carried; .4 "non-SOLAS" reversible;
- .5 type of emergency pack enclosed;
- .6 date when last serviced;
- .7 length of painter;
- .8 maximum permitted height of stowage above waterline (depending on drop-test height);
- .9 launching instructions.

**12.5 Marking of open reversible liferafts.**

Open reversible liferafts shall be marked with: .1 manufacturer's name or trademark;

- .2 serial number;
- .3 date of manufacture (month and year);

.4 name and place of service station where it was last surveyed;

.5 number of persons permitted to be carried on top of each buoyancy tube, in characters not less than 100 mm height and of colour contrasting with the colour of the tube.

**12.6 Instructions and information.**

Instructions and information required for inclusion in the craft training manual and in instructions for on-board maintenance shall be in a form suitable for inclusion in such training manual and instructions for on-board maintenance. Instructions and information shall be in a clear and concise form and shall include, as appropriate, the following:

.1 general description of the open reversible liferaft and its equipment;

.2 installation arrangements;

.3 operational instructions, including the use of associated survival equipment;

.4 servicing requirements.

**12.7 Testing of open reversible inflatable liferafts.**

**12.7.1** When testing open reversible inflatable liferaft in accordance with the recommendations of Part 1 of Resolution MSC.81(70):

.1 tests prescribed by 5.5, 5.12, 5.16, 5.17.2, 5.17.10 to 5.17.12, 5.18 and 5.20 may be omitted;

.2 the part of tests prescribed by 5.8 regarding closing arrangement may be omitted;

.3 the temperature -30 °C in the tests prescribed by 5.17.3 and 5.17.5 may be substituted with -18 °C; and

A drop height of 18 m in the tests prescribed by [5.1.2](#) may be substituted with 10 m.

**12.7.2** Omissions and substitutions, as described above, shall be reflected in the type approval certificate of the liferaft.

### 13 EVACUATION TIME

**13.1** Provisions for evacuation shall be designed so that the craft can be evacuated under controlled conditions in a time of one third of the structural fire protection time (SFP) provided in Part VI "Fire Protection" for areas of major fire hazard after subtracting a period of 7 min for initial detection and extinguishing action.

$$T = \frac{(SFP)-7}{3} \quad (13.1)$$

where T = evacuation time, in min;  
SFP = structural fire protection time, in min.

**13.2** Evacuation procedure, including a critical path analysis, shall be developed for the information of the Register in connection with the approval of fire insulation plans and for assisting owners and shipbuilders in planning the evacuation demonstration required in [13.3](#).

Evacuation procedure shall include:

- .1 emergency announcement made by the Master;
- .2 contact with the base port;
- .3 donning of lifejackets;
- .4 manning of survival craft and emergency stations;
- .5 shutting down of machinery and oil fuel supply lines;
- .6 order to evacuate;
- .7 deployment of survival craft and marine escape systems and rescue boats;
- .8 bousing in of survival craft;
- .9 supervision of passengers;
- .10 orderly evacuation of passengers under supervision;
- .11 crew checking that all passengers have left the craft;
- .12 evacuation of the craft;
- .13 releasing survival craft from the craft;
- .14 marshalling of survival craft by the rescue boat, where provided.

**13.3** Achievement of the required evacuation time (as ascertained in accordance with [13.1](#)) shall be verified by a practical demonstration conducted under controlled conditions in the presence of the Register representatives, and for passenger craft shall be fully documented and verified by the Register.

**13.4** Evacuation demonstrations shall be carried out with due regard to the problems of mass movement or panic acceleration likely to arise in emergency situation when rapid evacuation is necessary. Evacuation demonstrations shall be dry shod with the survival craft initially in their stowed positions and shall be conducted as follows:

- .1 evacuation time on category A craft shall be the time elapsed from the moment the first abandon craft announcement is given, with any passengers distributed in a normal voyage configuration, until the last person has embarked in a survival craft, and shall include the time for passengers and crew to don lifejackets;
- .2 evacuation time on category B craft and cargo craft shall be the time elapsed from the moment the order to abandon the craft is given, until the last person has embarked in a survival craft. Passengers and crew may be wearing lifejackets and prepared for evacuation, and they may be distributed among muster stations;
- .3 for all craft evacuation time shall include the time necessary to launch, inflate and secure the survival craft alongside ready for embarkation.

**13.5** Evacuation time shall be verified by an evacuation demonstration which shall be performed using the survival craft and exits on one side, for which the critical path analysis indicates the greatest evacuation time with the passengers and crew allocated to them.

**13.6** On craft where a half trial is impracticable, the Register may consider a partial evacuation trial using a route which the critical path analysis shows to be the most critical.

**13.7** Demonstration shall be carried out in controlled conditions in compliance with the evacuation plan in the following manner:

**.1** demonstration shall commence with the craft afloat in harbour, in reasonably calm conditions with all machinery and equipment operating in the normal seagoing condition;

**.2** all exits and doors inside the craft shall be in the same position as they are under normal seagoing condition;

**.3** safety belts, if required, shall be fastened;

**.4** evacuation routes for all passengers and crew shall be such that no person need enter the water during the evacuation.

**13.8** For passenger craft a number of persons with normal health, height and weight shall be used in the demonstration, and shall consist of different sexes and ages so far as it is practicable and reasonable.

**13.9** Persons, other than the crew selected for the demonstration, shall not have been specifically drilled for such a demonstration.

**13.10** Emergency evacuation demonstration shall be carried out for all new designs of HSC and for other craft where evacuation arrangements differ substantially from those previously tested.

**13.11** The specific evacuation procedure during the craft initial demonstration on which certification is based shall be included in the craft operating manual together with the other evacuation procedures specified in [13.2](#). During the demonstration, video recordings shall be made, both inside and outside the craft, which shall form an integral part of the training manual.

## **14 NOISE LEVELS**

**14.1** The noise level in public spaces and accommodation shall be kept as low as possible to enable the public address system to be heard, and shall not in general exceed 75 dB(A).

**14.2** The maximum noise level in the operating compartment shall not in general exceed 65 dB(A) to facilitate communication within the compartment and external radiocommunications.

Russian Maritime Register of Shipping

**Rules for the Classification and Construction of High-Speed Craft**  
**Part XVI**  
**Life-saving appliances**

FAI "Russian Maritime Register of Shipping"  
8, Dvortsovaya Naberezhnaya,  
191186, St. Petersburg,  
Russian Federation  
[www.rs-class.org/en/](http://www.rs-class.org/en/)