RUSSIAN MARITIME REGISTER OF SHIPPING

CIRCULAR LETTER **No. 315-22-1700c** dated 10.02.2022

Re:

amendments to the Rules for the Classification and Construction of Sea-Going Ships, 2022, ND No. 2-020101-152-E

Item(s) of supervision:

electrical equipment

Entry-into-force date:
01.04.2022

~~Cancels / amends / adds Circular Letter No.~~ ~~dated~~

Number of pages: 1 + 3

Appendices:

Appendix 1: information on amendments introduced by the Circular Letter

Appendix 2: text of amendments to Part XI "Electrical Equipment"

Director General Konstantin G. Palnikov

Text of CL:

We hereby inform that the Rules for the Classification and Construction of Sea-Going Ships shall be amended as specified in the Appendices to the Circular Letter.

It is necessary to do the following:

1. Bring the content of the Circular Letter to the notice of the RS surveyors, as well as interested organizations and persons in the area of the RS Branch Offices' activity.
2. Apply the provisions of the Circular Letter during review and approval of technical documentation on ships as well as equipment installed onboard the ships contracted for construction or conversion on or after 01.04.2022.

List of the amended and/or introduced paras/chapters/sections:

Part XI: paras 1.1.2, 1.3.2.5, 4.6.2.4, 4.6.2.9, 9.3.1.7, 15.3.4, 15.3.5, 16.1.1, 16.1.2 and 20.2.4

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Appendix 1 to Circular Letter
No. 315-22-1700c dated 10.02.2022

Information on amendments introduced by the Circular Letter
(for inclusion in the Revision History to the RS Publication)

Nos.	Amended paras/chapters/ sections	Information on amendments	Number and date of the Circular Letter	Entry-into-force date
1	Para 1.1.2	Para has been deleted	315-22-1700c of 10.02.2022	01.04.2022
2	Para 1.3.2.5	Requirements for types of electrical equipment subject to survey onboard the ship have been specified	315-22-1700c of 10.02.2022	01.04.2022
3	Para 4.6.2.4	Requirements for electrodynamic and thermal strength of switchboard busbars and uninsulated conductors have been specified	315-22-1700c of 10.02.2022	01.04.2022
4	Para 4.6.2.9	New para with the requirements for connections between switchboard busbars has been introduced	315-22-1700c of 10.02.2022	01.04.2022
5	Para 9.3.1.7	Requirements for consumers to be supplied by the emergency source of electrical power have been specified	315-22-1700c of 10.02.2022	01.04.2022
6	Para 15.3.4	Requirements for oil and fuel heaters have been specified	315-22-1700c of 10.02.2022	01.04.2022
7	Para 15.3.5	Requirements for oil and fuel heaters have been specified	315-22-1700c of 10.02.2022	01.04.2022
8	Para 16.1.1	Scope of application of requirements for cables has been specified	315-22-1700c of 10.02.2022	01.04.2022
9	Para 16.1.2	New para with the requirements for special purpose cables has been introduced	315-22-1700c of 10.02.2022	01.04.2022
10	Para 20.2.4	Requirements for the apparatus for emergency remote disconnection of the lighting in the refrigerating machinery room have been specified	315-22-1700c of 10.02.2022	01.04.2022

RULES FOR THE CLASSIFICATION AND CONSTRUCTION OF SEA-GOING SHIPS, 2022,

ND No. 2-020101-152-E

PART XI. ELECTRICAL EQUIPMENT

1 GENERAL

1 **Para 1.1.2** is deleted.

2 **Para 1.3.2.5** is replaced by the following text:

"**1.3.2.5** Electrical equipment of domestic services, including that specified in 1.3.2.4, as well as permanently installed equipment not supplying primary and secondary essential services, shall be subject to survey on board the ship only in respect to the following:

.1 influence exerted by the operation of this equipment on the quality of electrical power produced by the shipboard electrical power plant;

.2 selection of the types and sections of cables and wires, as well as the methods of cable installation;

.3 insulation resistance, earthing and protective devices.".

4 DISTRIBUTION OF ELECTRICAL POWER

3 **Para 4.6.2.4** is replaced by the following text:

"**4.6.2.4** Busbars and uninsulated conductors in switchboards shall have adequate electrodynamic and thermal strength during short-circuit currents occurring at relevant points in the circuit.

Such electrodynamic loads as occur in busbars and uninsulated conductors due to short circuit may be as specified in the relevant national and international standards.".

4 **New para 4.6.2.9** is introduced reading as follows:

"**4.6.2.9** Connection between switchboard busbars, arranged with a cable or flexible busbar conduit, shall be protected against a short circuit. Protection may be omitted if the length of such connection does not exceed 3 m and it is arranged with a cable or flexible busbar with double insulation of conductors.".

9 EMERGENCY ELECTRICAL INSTALLATIONS

5 **Para 9.3.1.7** is replaced by the following text:

"**.7** machinery and devices mentioned under 3.2.1.2, 3.4.7, 3.7.3.2.1 and 3.9.2, Part VI "Fire Protection";".

15 ELECTRICAL COOKING AND HEATING APPLIANCES

6 **Paras 15.3.4** and **15.3.5** are replaced by the following text:

"**15.3.4** Electric heaters for oil and fuel heating in tanks shall be equipped with devices for temperature control of the heated medium, low level indicators and manually disengaged devices for disconnection of power supply to the heaters in case of malfunction of devices for temperature control and if the upper temperature limit of the medium heated or the lowest permissible level are exceeded. An alarm system shall be provided in control posts of the heaters when means for disconnection of power supply to the heaters are activated.

15.3.5 To ensure protection against the heated medium ignition in case of malfunction of devices for temperature control the following shall be fulfilled:

.1 irrespective of device for temperature control, a means for disconnection of power supply to the heaters shall be provided that is activated at the temperature reaching the value of at least 15 °C lower than the flash point of the heated medium; or

.2 if programmable logic controller (PLC) is used in devices for temperature control of the heated medium, a means for disconnection of power supply to the heaters shall be provided that is activated in case of malfunction detected in devices for temperature control, such as: failure in temperature sensor, failure in communication line between temperature sensor and the controller, PLC power supply system failure or PLC failure.

For self-regulating heaters protection may be omitted.".

16 CABLES AND WIRES

7 **Para 16.1.1** is replaced by the following text:

"**16.1.1** The requirements of this Section do not apply to power cables designed for voltages above 1000 V.".

8 **New para 16.1.2** is introduced reading as follows:

"**16.1.2** Radio frequency, telephone cables and other special purpose cables of radio and navigational equipment are covered by the requirements of 16.8.4 — 16.8.8.".

20 REQUIREMENTS FOR ELECTRICAL EQUIPMENT OF REFRIGERATING PLANTS

9 **Para 20.2.4** is replaced by the following text:

"**20.2.4** The apparatus for emergency remote disconnection of the switchboard of the refrigerating plant working with Group II refrigerant shall simultaneously switch off the electric drives of refrigerating compressors if they are fed from the main switchboard (refer to 20.2.1), main lighting of the refrigerating machinery compartment and switch on the emergency ventilation, water screens and reserve lighting,

Additionally, near the device for emergency remote disconnection of the refrigerating plant switchboard at locations stated in 20.2.3.1 and 20.2.3.2, devices shall be installed for remote starting in any sequence of emergency ventilation, water screens, and reserve lighting, without disconnection of the refrigerating plant switchboard.

Emergency remote disconnection of the lighting is not required when safe type lighting fixtures are used in the main and emergency lighting circuits. At that, reserve lighting may not be fitted.".