



# RUSSIAN MARITIME REGISTER OF SHIPPING

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**CIRCULAR LETTER**

**No. 315-25-1639c**

dated 11.10.2021

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Re:

amendments to the Rules for Technical Supervision during Construction of Ships and Manufacture of Materials and Products for Ships, 2021, ND No. 2-020101-139-E

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Item(s) of supervision:

electrical equipment

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Entry-into-force date:

**01.12.2021**

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Cancel / amends / adds Circular Letter No.

dated

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Number of pages: 1+3

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Appendices:

Appendix 1: information on amendments introduced by the Circular Letter

Appendix 2: text of amendments to Section 12 of Part IV "Technical Supervision during Manufacture of Products"

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Director General

Konstantin G. Palnikov

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Text of CL:

We hereby inform that the Rules for Technical Supervision during Construction of Ships and Manufacture of Materials and Products for Ships shall be amended as specified in the Appendices to the Circular Letter.

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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 the technical documentation on products as well as when performing technical supervision during manufacture of products, when the requests for service rendering listed above are received on or after 01.12.2021.
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List of the amended and/or introduced paras/chapters/sections:

Part IV: paras 12.6.9 and 12.6.17

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**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 12.6.9	Requirements have been specified for testing equipment with devices that ensure the performance of products at low temperatures (for example: electrical heating devices)	315-25-1639c of 11.10.2021	01.12.2021
2	Para 12.6.17	Requirements have been specified for testing equipment with housings containing plastic parts	315-25-1639c of 11.10.2021	01.12.2021

**RULES FOR TECHNICAL SUPERVISION DURING CONSTRUCTION OF SHIPS  
AND MANUFACTURE OF MATERIALS AND PRODUCTS FOR SHIPS, 2021,**

**ND No. 2-020101-139-E**

**PART IV. TECHNICAL SUPERVISION DURING MANUFACTURE OF PRODUCTS**

**12 AUTOMATION EQUIPMENT**

1 **Para 12.6.9** is replaced by the following text:

**"12.6.9 Tests for cold endurance.**

The tests shall be carried out in compliance with standard IEC 60068-2-1:2007 (test A).

For the equipment where heat dissipation is not provided by its structure, the tests shall be carried out according to test Ab. For the equipment where heat dissipation is provided by its structure (availability of heating units and/or cooling system), the tests shall be carried out according to test Ad.

Test timing starts when the product to be tested reaches practically steady-state temperature at test temperature held in a cooling chamber.

Prior to the tests commencement and after their end the insulation resistance measurement of equipment shall be carried out under standard environmental conditions.

Categories of equipment according to cold endurance depending on the operating conditions are given in [Table 12.6.9](#).

Table 12.6.9

Category of equipment	Description
TL1	The equipment intended for installation in heated spaces.
TL2	The equipment installed on the open deck or in unheated spaces
TL3(DAT) <sup>1</sup>	The equipment installed on the open deck or in unheated spaces of ships with the distinguishing mark <b>WINTERIZATION (DAT)</b> in the class notation

<sup>1</sup>Instead of **DAT**, the value of design ambient temperature shall be indicated in brackets

For the equipment of category TL1 the tests shall be carried out at the following conditions:  
temperature: +5 °C ± 3 °C;  
test duration: 2 h.

For the equipment of category TL2 the tests shall be carried out at the following conditions:  
temperature: - 25 °C ± 3 °C;  
test duration: 2 h.

For the equipment of category TL3 (**DAT**) the tests shall be carried out at an operating temperature in the chamber equal to the design external temperature:  
test duration: 2 h.

The equipment shall be in inoperative condition operating during the complete testing period, except for the devices that ensure the performance of products in low temperatures (for example: electrical heating devices) and functional test shall be carried out during the last hour at the test temperature.

Upon the completion of the trials, the functional tests shall be carried out under standard environmental conditions.

The equipment shall be considered to have passed the tests, if in the process of effect it retains its parameters within the prescribed limits and remains undamaged."

2      **Para 12.6.17** is replaced by the following text:

**"12.6.17 Flame retardant tests.**

The tests shall be carried out in compliance with standards IEC 60695-11-5:2016.

Only product bodies containing non-metallic parts are subject to testing. If the enclosure is made of metal with non-metallic parts inside, a fire-endurance test is not required.

The part of the product enclosure shall be tested that most likely is liable to flame during the normal operation or at fault.

The tests shall be carried out under the following conditions:

flame applications: 5 times 15 s each;

interval between each application: 15 s or 1 time 30 s at once.

The test is performed with the equipment or housing of the equipment shall be tested.

Criteria of assessment of the test results:

the burnt-out or damaged part of the specimen by not more than 60 mm long;

no flame, no incandescence or - in the event of a flame or incandescence being present, it shall extinguish itself within 30 s of the removal of the needle flame without full combustion of the test specimen;

any dripping material shall extinguish itself in such a way as not to ignite a wrapping tissue.

The drip height is 200 mm ± 5 mm.

For the one-off products or single shipment of products, for which no CTO is required, it is allowed not to perform flame retardant tests, and the manufacturer shall confirm (submit the appropriate certificates for materials of the product or the manufacturer written statement of compliance) compliance of the product with the requirements for flame retardant.

It is allowed not to carry out flame retardant tests if documents (certificates, test reports) confirming the corresponding properties of non-metallic materials of the product body are submitted."