CIRCULAR LETTER  No. 315-23-1660c  dated 12.11.2021

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

Item(s) of supervision:
electrical equipment

Entry-into-force date:
01.01.2022

Cancels / amends / adds Circular Letter No.

Number of pages: 1+3

Appendices:
Appendix 1: information on amendments introduced by the Circular Letter
Appendix 2: text of amendments to Section 10 of Part IV "Technical Supervision during Manufacture of Products"

Director General  Konstantin G. Palnikov

Text of CL:
We hereby inform that in connection with entry into force of IACS unified requirement (UR) U13 (Rev.3 Dec 2020) 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

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 01.01.2022.

List of the amended and/or introduced paras/chapters/sections:
Part IV: Para 10.4.6.1.1, Para 10.5.5.1.1, Table 10.7.1.1 and Para 10.7.1.10

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"Thesis" System No.  21-252068
## Information on amendments introduced by the Circular Letter
(for inclusion in the Revision History to the RS Publication)

<table>
<thead>
<tr>
<th>Nos.</th>
<th>Amended paras/chapters/sections</th>
<th>Information on amendments</th>
<th>Number and date of the Circular Letter</th>
<th>Entry-into-force date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Para 10.4.6.1.1</td>
<td>Title of the IEC standard 60034-1 has been corrected</td>
<td>315-23-1660c of 12.11.2021</td>
<td>01.01.2022</td>
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<tr>
<td>2</td>
<td>Пункт 10.5.5.1.1</td>
<td>Titles of the IEC standards 60034-5 and I 60529 have been corrected</td>
<td>315-23-1660c of 12.11.2021</td>
<td>01.01.2022</td>
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<td>3</td>
<td>Таблица 10.7.1.1</td>
<td>In footnote &quot;3&quot; of the Table Title of the IEC standard 60034-1 has been corrected</td>
<td>315-23-1660c of 12.11.2021</td>
<td>01.01.2022</td>
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<td>4</td>
<td>Para 10.7.1.10</td>
<td>Title of the IEC standard 60034-1 has been corrected</td>
<td>315-23-1660c of 12.11.2021</td>
<td>01.01.2022</td>
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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

10 ELECTRICAL EQUIPMENT

1 Para 10.4.6.1.1 The first paragraph is replaced by the following text:

"10.4.6.1.1 The insulation of electrical machine windings in compliance with IEC standard 60034-1:2017 shall withstand without breakdown or damage the test voltage of which the root-mean square values are specified in Table 10.4.6.1.1.".

2 Para 10.5.5.1.1 is replaced by the following text:

"10.5.5.1.1 These tests apply to products with voltage up to 1000 V.
Testing the degree of protection for voltage over 1000 V shall be in compliance with IEC standard 60529:2013.
Testing the protection degree of rotation electrical machines shall be in compliance with IEC standard 60034-5:2000+AMD:2006.".

3 Table 10.7.1.1 is replaced by the following:

<table>
<thead>
<tr>
<th>Electrical machines</th>
<th>Technical inspection and checks</th>
<th>Measurement of Insulation resistance</th>
<th>Tests for conformity with operational conditions</th>
<th>Heat test</th>
<th>Short-time overcurrent test</th>
<th>Short-time overtorque overload test</th>
<th>Check of commutator machines switching</th>
<th>Stalling test</th>
<th>Overload test</th>
<th>Test for electric and thermal strength at short-circuit current</th>
<th>Test for permissible levels of industrial radio interference voltages</th>
<th>Check of operability at load loss and increase</th>
<th>Check of operability with load variation from idling to rated load</th>
<th>Other tests and checks</th>
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<tbody>
<tr>
<td>A.c.synchronous generators</td>
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Symbols:
*" + " = test (check) is needed;
*"+" = test (check) performance depends on the particular machine;
*" - " = test (check) is not needed.

1 Exciters of synchronous machines may be tested in combination with these machines.
2 The stalling test is applied only to propulsion motors, motors for a direct drive of the rudder and steering gear, and also to motors driving anchor and mooring machinery.
3 Tests are carried out in compliance with standard IEC 60034-1:2017 (para13).
Para 10.7.1.10. The first paragraph is replaced by the following text:

"10.7.1.10 The test for immunity to shock short-circuit current shall be carried out in compliance with standard IEC 60034-1:2017 (para 9.9) under the following conditions:‘’."