RUSSIAN MARITIME REGISTER OF SHIPPING

CIRCULAR LETTER **No. 315-06-1101c** dated 05.03.2018

Re:
amendments to Part IV "Technical Supervision during Manufacture of Products" of the Rules for Technical Supervision during Construction of Ships and Manufacture of Materials and Products for Ships, 2017, ND No.2-020101-040-E

Item(s) of technical supervision:
static converters, switchgear

Implementation:	Valid till:	Validity extended till:
from the date of publication	--	--

Cancels / amends/ supplements Circular Letter No. --- dated --

Number of pages: 1+1

Appendix(-ces):
text of amendments to Part IV "Technical Supervision during Manufacture of Products"

Director General K.G. Palnikov

Text of CL
We hereby inform that in connection with the development of the calculation procedure of short-circuit currents in ship electrical power systems with the electrical power distribution for direct current considering the results of the scientific research, Section 10, Part IV "Technical Supervision during Manufacture of Products" of the Rules for Technical Supervision during Construction of Ships and Manufacture of Materials and Products for Ships shall be amended as specified in the Appendix to the Circular Letter.
The amendments will be introduced in the Rules at their re-publication.

It is necessary to do the following:

1. Familiarize the RS surveyors with the content of the Circular Letter.
2. Bring the content of the Circular Letter to the notice of the interested organizations in the area of the RS Branch Offices' activity.
3. Apply provisions of the Circular Letter.

List of ND amended and introduced paras/chapters/sections (to specify in the List of Circular Letters (form 8.3.36)):
Part IV: paras 10.7.3.4.2, 10.7.5.5, 10.7.5.6, 10.7.5.7

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Appendix to Circular Letter

No. 315-06-1101dated 05.03 **.2018**

RULES FOR TECHNICAL SUPERVISION DURING CONSTRUCTION OF SHIPS AND MANUFACTURE OF MATERIALS AND PRODUCTS FOR SHIPS, 2017, ND No. 2-020101-040-E

Part IV. TECHNICAL SUPERVISION DURING MANUFACTURE OF PRODUCTS

10 ELECTRICAL EQUIPMENT

Para 10.7.3.4.2 shall be amended to read:

"**.2** the test at the maximum permissible short-circuit current shall be performed with the converter in practically cold state, under the normal environmental conditions and at the maximum continuously permissible value of voltage at the input of the converter which picks up the rated load, by producing the short-circuit close to output terminals, and for inverters - close to output and input terminals with amplitude and the duration of input short-circuit current entered in data sheets.".

New para 10.7.5.5 shall be introduced reading as follows:

"**10.7.5.5** The DC (direct current) distribution board tests of functioning short circuit protection and strength shall be performed, provided the following conditions are complied with:
.1 direct current switchboards mounted on a tailored test bench and fitted to the electrical power source, are connected with the power consumers, the composition of which is defined in accordance with the agreed program and test procedure. The consumers are selected by the highest predicted current contribution to the short-circuit point;
.2 direct current switchboards shall be tested by connecting through automatic circuit breaker of interpolar non-inductive jumper. The jumper direct-current resistance and switching circuit breaker are calculated and selected on the basis of the predicted severe conditions of short circuit occurrence;
.3 the maximum value of shock short-circuit current shall be reduced by 7 per cent as compared to the amplitude value of the limiting short-circuit current specified in the switchboard technical documentation.".

Existing paras 10.7.5.5 and **10.7.5.6** shall be renumbered 10.7.5.6 and 10.7.5.7, accordingly.

New paras 10.7.5.6.6 and **10.7.5.6.7** shall be introduced reading as follows:

"**.6** the switchboard and installed equipment protection gear has been activated in accordance with the algorithm preset in the test program;
.7 no failures and malfunctions have occurred in the operation of circuit-breakers, protected equipment and other distribution switchboard operating systems.".