



RUSSIAN MARITIME REGISTER OF SHIPPING

CIRCULAR LETTER

No. 315-07-1302c

dated 04.12.2019

Re:

amendments to the Rules for the Classification and Construction of Sea-Going Ships in connection to provision implementation of IACS Recommendation No. 160 (Nov 2018)

Item(s) of supervision:

automation equipment

Entry-into-force date:

01.01.2020

~~Valid till:~~

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~~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 Parts I "Classification" and XV "Automation"

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 at re-publication in 2020 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, interested organizations and persons in the area of the RS Branch Offices' activity.
 2. Apply the provisions of the Circular Letter to ships (or equipment installed on board the ships, or products/machinery installed on board the ships) contracted for construction on or after 01.01.2020.
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List of the amended and/or introduced paras/chapters/sections:

Part I: paras 3.2.8.1.7 and 3.3.8.13;

Part XV: paras 7.3.7, 7.10.4.8 and 7.10.7.1

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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	Part I, para 3.2.8.1.7	New para regarding technical documentation on management of local networks combining the ship's computer-based systems has been introduced considering IACS Recommendation No. 160	315-07-1302c of 04.12.2019	01.01.2020
2	Part I, para 3.3.8.13	New para regarding technical documentation on management of local networks combining the ship's computer-based systems has been introduced considering IACS Recommendation No. 160	315-07-1302c of 04.12.2019	01.01.2020
3	Part XV, para 7.3.7	New para specifying the requirements for access to the ship's computer-based systems has been introduced considering IACS Recommendation No. 160	315-07-1302c of 04.12.2019	01.01.2020
4	Part XV, para 7.10.4.8	New para regarding the requirements for status monitoring of local network hardware combining the ship's computer-based systems has been introduced considering IACS Recommendation No. 160	315-07-1302c of 04.12.2019	01.01.2020
5	Part XV, para 7.10.7.1	Amendments regarding technical documentation on management of local networks combining the ship's computer-based systems have been introduced considering IACS Recommendation No. 160	315-07-1302c of 04.12.2019	01.01.2020

RULES FOR THE CLASSIFICATION AND CONSTRUCTION OF SEA-GOING SHIPS

ND No. 2-020101-124-E

PART I. CLASSIFICATION

3 TECHNICAL DOCUMENTATION

1 **New para 3.2.8.1.7** is introduced reading as follows:

".7 vision document of integrated system architecture of ships with the distinguishing marks **AUT1-ICS, AUT2-ICS, AUT3-ICS** in the class notation (**) (refer to 7.10.7.1, Part XV "Automation");".

2 **New para 3.3.8.13** is introduced reading as follows:

".13 vision document of integrated system architecture of ships with the distinguishing marks **AUT1-ICS, AUT2-ICS, AUT3-ICS** in the class notation (**) (refer to 7.10.7.1, Part XV "Automation");".

PART XV. AUTOMATION

7 COMPUTERS AND COMPUTER-BASED SYSTEMS

3 **New para 7.3.7** is introduced reading as follows:

"7.3.7 Engineering solutions shall be provided on users' access control to computer system resources (programs, processes, etc.). These measures shall ensure specification of the users' list authorized to get access to computer system resources, and assign relevant functions (account administration, monitoring, modifications, etc.) available to a specific user.".

4 **New para 7.10.4.8** is introduced reading as follows:

"7.10.4.8 At least the following local network hardware statuses shall be monitored:
link up of each port on the network device/network topology change;
link down of each port on the network device;
power on or network hardware reset;
temperature increase of network devices in case this parameter is critical for operation, and the manufacturer has provided its necessary monitoring.".

5 **Para 7.10.7.1** is replaced by the following text:

"For approval of programmable electronic systems of categories II and III, documentation shall be submitted in compliance with 1.4.

When alternative design or arrangement is intended to be used, an engineering analysis carried out in accordance with a relevant international or national standard shall be submitted in addition (refer to 7.10.2.2).

For ships with the distinguishing marks **AUT1-ICS, AUT2-ICS, AUT3-ICS** in the class notation where computer-based systems are combined into a network forming a common integrated system, the designer shall submit a vision document of a system architecture specifying where computer-based systems and network hardware are installed, brief description of the systems interaction and, if provided, with outside ship systems and devices, as well as protection principles against malicious information attacks of an integrated system, its division

plan, if necessary, into subsystems, or other actions aimed at preventing cyber threats or failure consequences caused by such attacks. The vision document shall be supplemented with an initial review of probable vulnerabilities, as well as the failure mode and effect analysis of the integrated system with shipboard computer-based systems used for control and monitoring combined into a network. The analysis to be submitted shall include, as a minimum, the programmable electronic systems of categories II and III, as well as network hardware. A single failure concept shall be applied during the analysis, and failure spread probabilities through a network combining integrated computer-based systems shall be taken into account. Upon the integrated system analysis completion, it is necessary to draw conclusions and provide recommendations to reduce risks of failures caused by cyber threats that may lead to dangerous situations for human safety, ship safety and/or threat to the environment. The vision document and analysis shall be used and specified by the system integrator of ship computer-based systems, and the recommendations on the performed analysis shall be used by the shipowner."