



RUSSIAN MARITIME REGISTER OF SHIPPING

CIRCULAR LETTER

No. 110-312-1508c

dated 17.02.2021

Re:

amendments to the Rules for the Classification and Construction of Nuclear Ships and Floating Facilities, 2018, ND No. 2-020101-112-E

Item(s) of supervision:

technical documentation on nuclear ship (floating facility)

Entry-into-force date:

15.03.2021

~~Valid till:~~

~~Validity period extended till:~~

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

~~dated~~

Number of pages:

1 + 4

Appendices:

Appendix 1: information on amendments introduced by the Circular Letter

Appendix 2: text of amendments to Part II "Classification"

Director General

Konstantin G. Palnikov

Text of CL:

We hereby inform that due to amended Section 11, Part II "Technical Documentation" of the Rules for Technical Supervision during Construction of Ships and Manufacture of Materials and Products for Ships, 2018, the Rules for the Classification and Construction of Nuclear Ships and Floating Facilities shall be amended.

It is necessary to do the following:

1. Bring the content of the Circular Letter to the notice of the RS surveyors involved in the technical supervision of nuclear ships and floating facilities under construction.
 2. Apply the provisions of the Circular Letter when performing technical supervision during construction of nuclear ships and floating facilities contracted for classification under construction on or after 15.03.2021.
 3. Apply the provisions of the Circular Letter when performing technical supervision during construction of nuclear ships and floating facilities contracted for classification under construction before 15.03.2021, as far as reasonable and practicable.
-

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

Part II: Chapter 3.4, paras 3.4.1, 3.4.2, 3.4.3, Chapter 3.5, Appendices 1 and 1.1 to Section 3

Person in charge: Igor V. Piganov

110

+7 (812) 677-06-50

"Thesis" System No. 21-6264

**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	Chapter 3.4	The heading of the Chapter has been amended	110-312-1508c of 17.02.2021	15.03.2021
2	Para 3.4.1	The reference to Appendix 1 to Part II "Technical Documentation" of the Rules for Technical Supervision during Construction of Ships and Manufacture of Materials and Products for Ships has been amended	110-312-1508c of 17.02.2021	15.03.2021
3	Paras 3.4.2 and 3.4.3	The paras have been deleted	110-312-1508c of 17.02.2021	15.03.2021
4	Chapter 3.5	New Chapter has been introduced containing requirements on availability of ship's technical documentation	110-312-1508c of 17.02.2021	15.03.2021
5	Section 3, Appendix 1	Number 1 has been assigned to the Appendix. The format and text of the Appendix have been amended regarding ship's operational documentation	110-312-1508c of 17.02.2021	15.03.2021
6	Section 3, Appendix 1.1	New Appendix has been introduced containing the list of ship's technical documentation	110-312-1508c of 17.02.2021	15.03.2021

**RULES FOR THE CLASSIFICATION AND CONSTRUCTION OF NUCLEAR SHIPS
AND FLOATING FACILITIES, 2018,**

ND No. 2-020101-112-E

PART II. CLASSIFICATION

3 TECHNICAL DOCUMENTATION

1 **Chapter 3.4.** The heading of the Chapter is replaced by the following text:

"**3.4** Ship's operational documentation."

2 **Para 3.4.1** is replaced by the following text:

"For the nuclear ship (floating facility), in addition to the documents specified in Appendix 1 to Part II "Technical Documentation" of the Rules for Technical Supervision during Construction of Ships and Manufacture of Materials and Products for Ships¹, the RS-approved operational documentation specified in Appendix 1 to this Section shall be available on board the ship (floating facility)."

3 **Paras 3.4.2** and **3.4.3** are deleted.

4 **New Chapter 3.5** is introduced reading as follows:

"**3.5** Ship's technical documentation.

For the nuclear ship (floating facility), in addition to the documents specified in Appendix 1.1 to the Rules for the Classification Surveys of Ships in Service, the documents specified in Appendix 1.1 to this Section (if applicable) shall be available on board the ship (floating facility)."

5 **Appendix** is replaced by the following text:

"*APPENDIX 1*

SHIP'S OPERATIONAL DOCUMENTATION

Table 1

No.	Document name	RS approval	Flag MA approval	Stamp	Application
1	Information on safety of the nuclear power plant and ship	+	+	Approved	Reg. VIII/7 of SOLAS-74, as amended
2	Operating Manual for the nuclear power unit	+	+	Approved	Reg. VIII/8 of SOLAS-74, as amended"

SHIP'S TECHNICAL DOCUMENTATION

1 GENERAL SHIP DOCUMENTATION:

- 1.1 instructions on containment testing during operation;
- 1.2 water- and gastight plan for the containment and shielding barrier;
- 1.3 layout of equipment located within the controlled and supervised areas;
- 1.4 layout of controlled areas.

2 HULL DOCUMENTATION:

- 2.1 structural diagram for biological shielding;
- 2.2 containment drawings;
- 2.3 protection diagram for reactor compartment.

3 DOCUMENTATION ON SHIP'S ARRANGEMENTS AND OUTFIT:

- 3.1 drawing for instrument space hatch cover;
- 3.2 drawings for cargo transportation to solid waste storage facility.

4 DOCUMENTATION ON NUCLEAR STEAM SUPPLY SYSTEM:

- 4.1 general layout of nuclear steam supply system equipment within the containment;
- 4.2 specification for nuclear steam supply system.

5 SYSTEMS' DOCUMENTATION:

- 5.1 diagrams for systems (as applicable):
 - .1 primary circuit pressure compensating, circulating and purification system;
 - .2 second circuit system;
 - .3 third and fourth circuits system;
 - .4 primary deaeration system;
 - .5 primary and third water sampling system;
 - .6 steam generator washing and storage system;
 - .7 steam generator leak detection system;
 - .8 steam generator overpressure prevention system;
 - .9 primary coolant make-up system;
 - .10 emergency cooling system;
 - .11 heating and normal cooling of nuclear steam supply system;
 - .12 condensate feeding system;
 - .13 soluble poison injection system;
 - .14 core emergency cooling system;
 - .15 liquid radioactive waste collection, storage and discharge system;
 - .16 special-purpose drainage system;
 - .17 containment drenching system;
 - .18 high-pressure gas system;
 - .19 sorbent unloading and hydraulic handling system;
 - .20 decontamination system;
 - .21 controlled area ventilation system;

- .22 pressure suit air system;
- .23 emergency pressure reduction system;
- .24 containment heat removal system;
- .25 reactor box water filling system;
- .26 containment flooding system;
- 5.2 list of scheduled checks for nuclear safety systems and equipment.

6 DOCUMENTATION ON ELECTRICAL EQUIPMENT:

- 6.1 power supply and control circuit for primary circulating pump;
- 6.2 electric drives of nuclear steam supply system auxiliary machinery;
- 6.3 functional tests of power supply system and power supply circuits of nuclear steam supply system;
- 6.4 schematic main and emergency power supply circuit for nuclear steam supply system machinery;
- 6.5 drawings for cable routing within reactor compartment;
- 6.6 main and emergency lighting layout for controlled areas.

7 DOCUMENTATION ON AUTOMATION SYSTEMS:

- 7.1 emergency parameter recorder (electric circuit diagram);
- 7.2 schematic diagram for control and monitoring system of nuclear steam supply system;
- 7.3 algorithms of nuclear steam supply system and steam-turbine unit;
- 7.4 parameters to be checked (nuclear steam supply system);
- 7.5 specifications for local control devices of nuclear steam supply system;
- 7.6 radiation monitoring system schematic diagram."