



RUSSIAN MARITIME REGISTER OF SHIPPING

CIRCULAR LETTER

No. 313-08- 1036c

dated 24.08.2017

Re:

amendments to the Rules for the Classification and Construction of Sea-Going Ships, 2017, ND No. 2-020101-095-E, in connection with the RS requirements for ships fitted to modification for the use of gas fuel in compliance with the distinguishing mark GRS (Gas Ready Ship) in the class notation.

Item of technical supervision:

ships under construction

Implementation from the date of publication

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Appendices: amendments to Part XVII "Distinguishing Marks and Descriptive Notations in the Class Notation Specifying Structural and Operational Particulars of Ships" of the Rules for the Classification and Construction of Ships, 2017, ND No. 2-020101-095-E

Director General

K.G. Palnikov

Amends Rules for the Classification and Construction of Sea-Going Ships, 2017, ND No.2-020101-095-E

We hereby inform that Part XVII "Distinguishing Marks and Descriptive Notations in the Class Notation Specifying Structural and Operational Particulars of Ships"; shall be supplemented with the requirements for ships fitted to modification for the use of gas fuel in compliance with distinguishing mark **GRS** (Gas Ready Ship) in the class notation and amended as specified in the Appendix to the Circular Letter. These amendments will be introduced to the above Rules at the re-publication.

It is necessary to do the following:

1. Apply the above amendments given in this Circular Letter during the review and approval of the ship technical documentation.
2. 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.

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**RULES FOR THE CLASSIFICATION AND CONSTRUCTION OF SEA-GOING SHIPS,
2017**

ND No. 2-020101-095-E

**PART XVII. DISTINGUISHING MARKS AND DESCRIPTIVE NOTATIONS IN THE CLASS
NOTATION DEFINING STRUCTURAL AND OPERATIONAL PARTICULARS OF SHIPS**

**SECTION 9. REQUIREMENTS FOR SHIPS EQUIPPED FOR USING GASES OR LOW-
FLASHPOINT FUELS**

Para 9.2.2.1 has been supplemented reading as follows:

“Gas fuel storage tanks shall not be installed under the survival craft except for the liferafts in compliance with 4.1.1.4, Part II "Live-Saving Appliances" of the Rules for the Equipment of Sea-Going Ships.”

Para 9.5.2 shall be supplemented reading as follows:

“The bunkering station shall not be installed near the survival craft except for the liferafts required in compliance with 4.1.1.4, "Part II Live-Saving Appliances" of the Rules for the Equipment of Sea-Going Ships.”

A new section 14 shall be introduced reading as follows:

**“14 REQUIREMENTS FOR SHIPS PREPARED FOR CONVERSION FOR THE USE OF
GAS FUEL FOR COMPLIANCE WITH THE REQUIREMENTS OF THE DISTINGUISHING
MARK GRS (Gas Ready Ship)**

14.1 GENERAL PROVISIONS AND APPLICATION.

The requirements of this Section apply to ships prepared for conversion for the use of gas fuel. A distinguishing mark **GRS** (Gas Ready Ship) may be assigned to ships other than LNG gas carriers with the developed design aspects required to prepare the ship for the use of gas fuel.

Ship conversion project to be developed for assigning the ship the distinguishing mark **GRS** (Gas Ready Ship) shall be aimed at reduction of expenses while converting the ship for the use of gas fuel, minimizing of hull works, maintenance of the existing hull structures and machinery to the maximum extent.

By the date of assignment the distinguishing mark **GRS** (Gas Ready Ship), the ship shall use only liquid fuel with the flashpoint above 60°C, and the ship shall be prepared for conversion for the use of gas fuel. Where conversion is over, such ship shall meet the requirements of the International Code for Safety for Ships Using Gases or Other Low Flashpoint Fuels (IGF Code) and the requirements specified in Section 9 of this Part.

Upon completion of the ship conversion for the use of gas fuel, the ship shall be assigned the distinguishing mark **GFS** (Gas Fuelled Ship), therewith the distinguishing mark **GRS** shall be withdrawn.

14.2 DISTINGUISHING MARKS IN THE CLASS NOTATION

14.2.1. Ships prepared for the use of gas fuel in compliance with this Section shall be assigned with the distinguishing mark **GRS** (Gas Ready Ship) added to the character of classification. Minimum extent of the requirements to be complied with for assigning the distinguishing mark **GRS** are related to design only and are specified in 14.5.

14.2.2. Apart from the distinguishing mark **GRS**, additional distinguishing marks specifying the ship's readiness for conversion to use gas fuel are provided when the following additional requirements, other than those specified in 14.5, are complied with on board the ship:

GRS-D – design of ship conversion is approved by the Register and the requirements specified in 14.6 are complied with on board the ship;

GRS-H –necessary hull reinforcements have been provided during the ship construction in the areas of GFST and other additional equipment installation in the extent specified in 14.7;

GRS-T – LNG tank has been installed on board during the ship construction and the requirements specified in 14.8 are complied with;

GRS-P – gas fuel piping and other special systems are installed on the ship and the requirements specified in 14.9 are complied with;

GRS-E – gas fuel consumers installed on board the ship are dual fuel and the requirements specified in 14.10 are complied with.

Where the appropriate requirements are complied with, a number of additional distinguishing marks, e.g. **GRS-D-H-T**, may be also assigned simultaneously in addition to the distinguishing mark **GRS**.

14.3 TERMS AND DEFINITIONS

In addition to the below mentioned, the definitions specified in Section 9 of this Part and 1.2, Part I “Classification” of the Rules for the Classification and Construction for Ships Carrying Liquefied Gases in Bulk are applicable to the requirements of this Section.

Conversion means re-equipment of a ship not initially intended for the use of gas fuel in order to comply with the requirements of the IGF Code being in force at the date of conversion.

14.4 TECHNICAL DOCUMENTATION

In addition to technical documentation specified in Section 3 “Technical Documentation”, the documentation listed in 9.1.4 for ships with the distinguishing mark **GFS** (Gas Fuelled Ship) shall be submitted to the Register.

Additionally, information related to the ship's conversion shall be submitted in the technical background or any other document indicating at least the following:

- general ship's data after conversion;

- components of systems and machinery required for the use of gas fuel to be installed during the ship's conversion;

- components of systems and machinery required for the use of gas fuel to be installed during the ship's construction;

- drawings of hull structures with necessary calculations that may be changed during the ship's conversion;

- drawings of hull structures and foundations required for machinery subject to installation during the ship's conversion,.

14.5 MINIMUM REQUIREMENTS FOR SHIPS WITH THE DISTINGUISHING MARK GRS IN THE CLASS NOTATION

- .1 conversion design shall be approved for the ship to comply with the IGF Code requirements and RS Rules for ships with the distinguishing mark **GFS**. The design shall include approval of the technical documentation for GFST;

- .2 area for installation of GFST shall be provided on board the ship according to 9.2.2. In case of an enclosed space, the design of systems to ensure explosion safety (ventilation, gas leaks control etc.) shall be provided;

- .3 GFSTs shall be taken into account in the stability calculations;

- .4 necessary calculations of hull reinforcements for GFST installation and fuel preparation shall be made;

- .5 ship engine shall permit conversion to gas fuel. Gas fuelled engine shall be type approved.

14.6 REQUIREMENTS FOR SHIPS WITH THE DISTINGUISHING MARK GRS-D IN THE CLASS NOTATION

- .1 requirements of 14.5 shall be complied with;

- .2 requirements of 9.2 shall be complied with at the extent allowing conversion without replanning of ship's spaces;

- .3 requirements of 9.7.2 shall be complied with to the extent allowing the ship's conversion without changing the fire integrity class of hull structures;

- .4 pump capacity of water fire main system shall comply with the requirements of 9.7.3 and 9.7.4;
- .5 ventilation system shall comply with the requirements of 9.8.1 - 9.8.5;
- .6 bilge system shall comply with the requirements of 9.2.5;
- .7 electrical equipment shall comply with the requirements of 9.11.

14.7 REQUIREMENTS FOR SHIPS WITH DISTINGUISHING MARK GRS-H IN THE CLASS NOTATION

- .1 requirements of 14.6 for ships with distinguishing mark **GRS-D** in the class notation shall be complied with;
- .2 necessary hull reinforcements shall be made in the areas of GFST installation and other additional equipment required for the use of gas fuel. Hull reinforcements, supports and foundations shall be calculated for the loads specified in 6.4.4 of the IGF Code.

14.8 REQUIREMENTS FOR SHIPS WITH DISTINGUISHING MARK GRS-T IN THE CLASS NOTATION

- .1 requirements of 14.7 for ships with distinguishing mark **GRS-H** in the class notation shall be complied with;
- .2 GFST complying with the requirements of 9.3 is installed on board the ship;
- .3 Filling and vent pipes from relief valves shall be installed on board the ship. Prior to conversion, the piping may be stored disassembled on board the ship.

14.9 REQUIREMENTS FOR SHIPS WITH THE DISTINGUISHING MARK GRS-P IN THE CLASS NOTATION

- .1 requirements of 14.6 for ships with distinguishing mark **GRS-D** shall be complied with;
- .2 gas fuel piping and other special systems are installed on board the ship and the requirements specified in 9.4, 9.5 and 9.8 are complied with.

14.10 REQUIREMENTS FOR SHIPS WITH THE DISTINGUISHING MARK GRS-E IN THE CLASS NOTATION

- .1 requirements of 14.6 for ships with distinguishing mark **GRS-D** in the class notation;
- .2 all gas fuel consumers shall be installed on board the ship and comply with the requirements of 9.6;
- .3 control, alarm and automation systems shall comply with the requirements of 9.10 and 9.7.6.”.