



# RUSSIAN MARITIME REGISTER OF SHIPPING

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**CIRCULAR LETTER**

**No. 313-68-1797c**

dated 18.07.2022

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Re:

amendments to the Rules for the Classification and Construction of Sea-Going Ships, 2022, ND No. 2-020101-152-E

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Item(s) of supervision:

ships under construction

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Entry-into-force date:

**01.08.2022**

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Cancel / amends / adds Circular Letter No.

dated

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Number of pages: 1 + 6

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Appendices:

Appendix 1: information on amendments introduced by the Circular Letter

Appendix 2: text of amendments to Parts VIII "Systems and Piping" and XII "Refrigerating Plants"

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Director General

Konstantin G. Palnikov

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Text of CL:

We hereby inform that the Rules for the Classification and Construction of Sea-Going Ships shall be amended as specified in the Appendices to the Circular Letter.

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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 during review and approval of the technical documentation on ships contracted for construction or conversion on or after 01.08.2022, in the absence of a contract, during review and approval of the technical documentation on ships requested for review on or after 01.08.2022.
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List of the amended and/or introduced paras/chapters/sections:

Part VIII: paras 9.12.8, 9.12.9, 9.12.10 and 21.2.2;

Part XII: paras 1.1.3 and 1.2.1, Section 3, paras 3.1.4, 3.2.5, Chapter 3.3, paras 3.3.8, 3.5.1, 3.5.3, 3.5.4, 6.2.8 and 7.2.7

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"Thesis" System No. 22-141656

**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 VIII paras 9.3.7 — 9.3.9	New paras containing requirements for cargo system have been introduced being transferred from Chapter 9.12 for optimization	313-68-1797c of 18.07.2022	01.08.2022
2	Part VIII, paras 9.12.8 — 9.12.10	Paras and references thereto have been deleted, requirements have been transferred to Chapter 9.3 for optimization	313-68-1797c of 18.07.2022	01.08.2022
3	Part VIII, para 21.2.2	Requirements for hydraulic strength tests of piping have been specified	313-68-1797c of 18.07.2022	01.08.2022
4	Part XII, para 1.1.3	New reference to specify the applicability of requirements of the Part to unclassified refrigerating plants has been introduced	313-68-1797c of 18.07.2022	01.08.2022
5	Part XII, para 1.2.1	Definition "Refrigerated/cooling spaces" has been specified; new definitions "Accommodation spaces", "Public and service spaces", "High pressure side" and "Low pressure side" have been introduced	313-68-1797c of 18.07.2022	01.08.2022
6	Part XII, Section 3	Heading of Section has been specified as to applicability of requirements to refrigerating plants	313-68-1797c of 18.07.2022	01.08.2022
7	Part XII, para 3.1.4	Requirements for the means of escape from spaces of refrigerating machinery have been specified	313-68-1797c of 18.07.2022	01.08.2022
8	Part XII, para 3.2.5	Requirements for storage of refrigerant have been specified	313-68-1797c of 18.07.2022	01.08.2022
9	Part XII, Chapter 3.3	Heading of Chapter has been specified	313-68-1797c of 18.07.2022	01.08.2022
10	Part XII, para 3.3.8	Requirements for the process equipment spaces have been specified	313-68-1797c of 18.07.2022	01.08.2022
11	Part XII, para 3.5.1	Requirements for the process equipment spaces have been specified	313-68-1797c of 18.07.2022	01.08.2022

Nos.	Amended paras/chapters/ sections	Information on amendments	Number and date of the Circular Letter	Entry-into-force date
12	Part XII, para 3.5.3	Requirements for the process equipment spaces have been specified	313-68-1797c of 18.07.2022	01.08.2022
13	Part XII, para 3.5.4	Requirements for the process equipment spaces have been specified	313-68-1797c of 18.07.2022	01.08.2022
14	Part XII, para 6.2.8	Requirements for Group II refrigerant piping have been specified	313-68-1797c of 18.07.2022	01.08.2022
15	Part XII, para 7.2.7	Requirements for the process equipment spaces have been specified	313-68-1797c of 18.07.2022	01.08.2022

## RULES FOR THE CLASSIFICATION AND CONSTRUCTION OF SEA-GOING SHIPS, 2022,

### ND No. 2-020101-152-E

#### PART VIII. SYSTEMS AND PIPING

##### 9 SYSTEMS SPECIAL FOR CARRIAGE OF CARGOES IN BULK

1 **New paras 9.3.7 — 9.3.9** are introduced reading as follows:

**9.3.7** The stripping pipelines shall be fitted with valves or other shut-off devices for isolating each tank not being stripped at that particular time. The stripping system shall be capable of removing oil at a rate of 1,25 of the total throughput of all tank washing machines to operate simultaneously. Where the stripping system is provided with stripping pumps, the equipment for monitoring their operation shall include either a flow indicator, or a stroke counter or a revolution counter, as appropriate, depending on the pump type, as well as pressure gauges at the inlet and discharge connections or equivalent. Where eductors are provided, the monitoring equipment shall include pressure gauges at the driving liquid intake and discharge, as well as at the intake pipeline. All such monitoring equipment shall have remote read-out facilities in the cargo control room or in some other place easily accessible to the personnel in charge of crude oil washing operations.

**9.3.8** Provision shall be made to drain all cargo pumps and pipelines by means of the stripping system to cargo or slop tanks or to reception facilities. To discharge all cargo pipelines and pumps to reception facilities, a special small diameter pipeline shall be provided connected outboard of the ship's manifold valves as shown in Fig. 9.3.8. The cross-sectional area of the small diameter pipeline shall not exceed 10 % of the cross-sectional area of the cargo main.

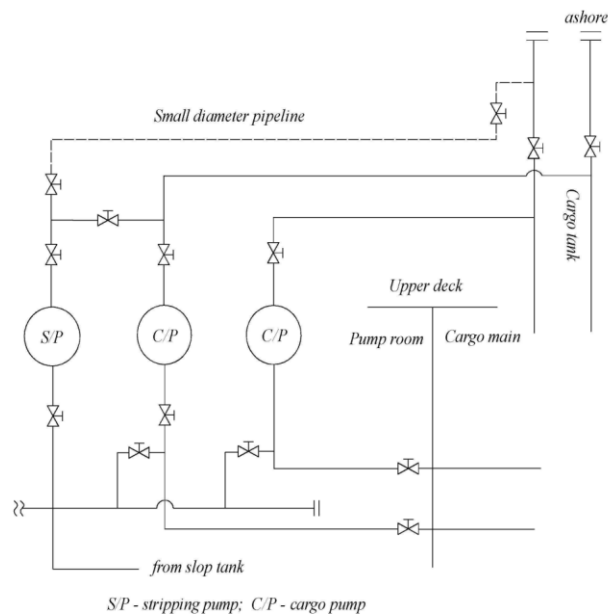


Fig. 9.3.8

Connection of the small diameter pipeline to the ship's manifold valve

**9.3.9** In oil tankers having in each tank individual cargo pumps with an independent piping system and an installation with a submerged cargo pump providing for a system to remove oil residues, the special small diameter pipeline may not be fitted if the total quantity

of oil in tank after stripping and oil in pipes between the ship's manifold and tank is less than 0,00085 of the cargo tank capacity."

2 **Paras 9.12.8 — 9.12.10 and references thereto** are deleted.

## 21 TESTS

3 **Para 21.2.2** is replaced by the following text:

"**21.2.2** Pressure testing of small bore pipes (less than 15 mm) of any class may be omitted depending on the application of these pipes.

When the piping is exposed to hydraulic strength tests on board, it is allowed not to perform preliminary strength tests, provided that visual examination of all connections is possible.

In substantiated cases the hydraulic strength tests of pipes may be replaced by 100 % non-destructive testing of welded joints, unless otherwise specified in other parts of the Rules."

## PART XII. REFRIGERATING PLANTS

### 1 GENERAL

4 **Para 1.1.3** is replaced by the following text:

"**1.1.3** Unclassed refrigerating plants shall comply with the requirements of this Part, set forth in 1.3.2.1, 1.3.2.2, 1.3.2.5 (only for heat exchangers and vessels subject to a pressure of a refrigerant), 1.3.2.6 (only for refrigerant systems), 1.3.2.7 (only for the protection system), 1.3.4.2 (only for systems working under a pressure of a refrigerant), 1.3.4.3, 1.3.4.5, 1.3.4.7 (only for protection systems), 1.3.4.8, 2.1.2, 2.2.1, 2.2.2, 2.2.3, 2.2.5, 3.1.1, 3.1.3 — 3.1.8, 3.2.1 — 3.2.5, 3.3.4, 3.3.8, 3.3.10, 3.4, 3.5, 4.1.2, 4.1.5, 5.1.1, 5.1.2, 5.1.4, 5.1.5, 5.2.1, 6.1.1, 6.1.2, 6.2.1 (only for refrigerant piping), 6.2.2, 6.2.3, 6.2.5 — 6.2.8, 7.1.2, 7.2.2, 7.2.3, 7.2.4.2, 7.2.7, 8.2.3, 8.2.4, 11.1.2 (only for equipment working under a pressure of a refrigerant), 2.5, 3.3.12, 11.1.3, 11.1.6, 11.2.2, 11.2.4 and 11.2.6."

5 **Para 1.2.1.** Definition "Accommodation spaces" is introduced before the definition "Refrigerating machinery space" reading as follows:

"**Accommodation spaces**, for the purpose of this Part, are cabins for the crew, passengers and specialized personnel, medical and operating rooms, public spaces (cinema halls, lounges, messrooms, dining rooms, libraries, gyms and reading halls, nurseries, offices, pantries, shops), sanitary spaces (toilets, washrooms, shower-rooms, bathrooms, lockers, saunas, indoor swimming pools, etc.)."

Definition "Refrigerated spaces" is replaced by the following text:

"**Refrigerated spaces** are spaces provided with equipment capable of maintaining the reduced temperatures and intended for the carriage of refrigerated and frozen cargoes or ship's stores."

After the definition "Refrigerated spaces" new definitions "Service spaces", "High pressure side" and "Low pressure side" are introduced reading as follows:

"**Service spaces**, for the purpose of this Part, are control stations, galleys, dish washing places, procuring spaces, pantries, ironing spaces, laundry rooms, sewing workshops and cobbler's shops and other similar spaces.

**High pressure side** is a part of the refrigerating plant working under the refrigerant delivery pressure.

Low pressure side is a part of the refrigerating plant working under the refrigerant suction pressure."

6           **Section 3.** Heading of Section is replaced by the following text:

**"3 SPACES FOR REFRIGERATING PLANTS AND REFRIGERATED SPACES".**

7           **Para 3.1.4** is replaced by the following text:

**"3.1.4** The means of escape from spaces of refrigerating machinery working with Group II refrigerants shall not lead in accommodation, public and service spaces or spaces in communication therewith. One of the means of escape shall lead to the open deck.

The supply and exhaust ventilation shall be provided in air locks, corridors and casings, whereto the escape routes pass through from the refrigerating machinery spaces. The doors of the specified spaces shall be hermetic and self-closing, forced air supply being obligatory. The starting arrangements of the ventilation shall be available both inside and outside the refrigerating machinery space, placed in immediate proximity to the exit."

8           **Para 3.2.5** is replaced by the following text:

**"3.2.5** Storage of refrigerant in fixed receivers is permitted on condition that the receivers and spaces they are arranged to comply with the requirements stated in 3.1.5, 3.1.7, 5.1.1, 5.1.2, 5.1.4, 6.2.5 and 6.2.6. Receivers may be located in spaces of refrigerating machinery. Provision shall be made for Group II refrigerant removal from the service piping of each receiver after complete filling of the system or periodical replenishing.

Service piping of receivers designed for refrigerant storage shall not to pass through accommodation and service spaces."

9           **Chapter 3.3.** Heading of the Chapter is replaced by the following text:

**"3.3 REFRIGERATED SPACES".**

10          **Para 3.3.8** is replaced by the following text:

**"3.3.8** Where cooling arrangements (batteries or air coolers) containing a refrigerant are used in cargo spaces, an independent ventilation system shall be provided for these spaces capable to ensure the following capacity, relative to the volume of the empty space:

.1 two air changes per hour, where a Group I refrigerant is used;

.2 three air changes per hour, where a Group II refrigerant is used.

The above ventilation system may not be provided if loading and unloading is performed at full opening of covers of cargo spaces and it may be combined with the system referred to in 3.3.5 and 10.1.8, if any.

For spaces where cooling arrangements located on high pressure side of Group II refrigerant are used, the requirements of 3.5.4 for two exits shall be met."

11          **Para 3.5.1** is replaced by the following text:

**"3.5.1** If the arrangement of machinery, apparatus and vessels containing refrigerant in spaces other than the refrigerating machinery spaces and refrigerated spaces is provided, such spaces shall be considered process equipment spaces."

12          **Para 3.5.3** is replaced by the following text:

**"3.5.3** Spaces containing the process equipment shall have an independent ventilation system, providing, as a minimum, ten air changes per hour. For spaces with process equipment containing cooling arrangements located at the high pressure side, requirements of 3.1.7 regarding the emergency ventilation equipment shall be additionally met."

13 **Para 3.5.4** is replaced by the following text:

**"3.5.4** In spaces containing the process equipment containing Group II refrigerants there shall be two exits, as it is specified in 3.1.3 and 3.1.4.

When using equipment located at the high pressure side with Group II refrigerant, the exits shall be fitted with arrangements capable of producing water screens. The cut-in device of the screens shall be placed from the outside of the space in immediate proximity to the exit."

## **6 VALVES AND PIPING**

14 **Para 6.2.8** is replaced by the following text:

**"6.2.8** Group II refrigerant piping shall neither pass through accommodation and service spaces nor through corridors communicating therewith. Group I refrigerant piping shall not pass through accommodation spaces."

## **7 INDICATING AND MEASURING INSTRUMENTS. CONTROL, PROTECTION, REGULATION AND ALARM**

15 **Para 7.2.7** is replaced by the following text:

**"7.2.7** Each space with equipment containing refrigerant shall be fitted with gas detection panel and refrigerant leakage alarm that comes into action in the following cases:

for Group I refrigerants (freons):

where the concentration of refrigerant in the working zone air is above the maximum allowable sanitary standard (3000 mg/m<sup>3</sup>);

for Group I refrigerants (carbon dioxide):

where the concentration of the refrigerant in the working zone is above the maximum allowable sanitary standard (9200 mg/m<sup>3</sup>);

for Group II refrigerants (ammonia):

where the concentration of refrigerant in the working zone air is above the maximum allowable sanitary standards (20 mg/m<sup>3</sup>);

where the maximum allowable concentration of refrigerant (60 mg/m<sup>3</sup>) in the space protected increases threefold. In this case, provision shall be made for automatic switching on the emergency ventilation, except for the refrigerated spaces;

where the concentration of 500 mg/m<sup>3</sup> is attained. In this case access to the space without individual protection outfit shall be prohibited.

Warning audible and visible alarms shall be mounted in the spaces protected and before entrance to these spaces. Warning signals shall be duplicated at the position where continuous watch is kept."