



RUSSIAN MARITIME REGISTER OF SHIPPING

CIRCULAR LETTER

No. 311-05-1976c

dated 22.08.2023

Re:

amendments to the Rules for the Classification and Construction of Sea-Going Ships, 2023, ND No. 2-020101-174-E

Item(s) of supervision:

ships under construction and technical documentation

Entry-into-force date:

01.09.2023

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

~~dated~~

Number of pages: 1 + 5

Appendices:

Appendix 1: information on amendments introduced by the Circular Letter

Appendix 2: text of amendments to Parts I "Classification" and XVII "Distinguishing Marks and Descriptive Notations in the Class Notation Specifying Structural and Operational Particulars of Ships"

Director General

Sergey A. Kulikov

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.

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 (or equipment installed on board the ships, or products/machinery installed on board the ships) contracted for construction or conversion on or after 01.09.2023, in the absence of a contract, during review and approval of the technical documentation on ships requested for review on or after 01.09.2023.
 3. Apply the provisions of the Circular Letter during review of the technical documentation on ships under construction and in service upon request of the interested parties.
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List of the amended and/or introduced paras/chapters/sections:

Part I: para 2.2.55 and Table 2.5;

Part XVII: Section 30

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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 2.2.55	New para has been introduced containing requirements for assignment of distinguishing mark RC-C, RC-A, RC-IA or RC-E	311-05-1976c of 22.08.2023	01.09.2023
2	Part I, Table 2.5	New item 2.31 has been introduced containing requirements for assignment of distinguishing mark RC-C, RC-A, RC-IA or RC-E	311-05-1976c of 22.08.2023	01.09.2023
3	Part XVII, Section 30	New Section has been introduced containing requirements for container ships and other ships of 500 gross tonnage and over designed for carriage of refrigerated containers	311-05-1976c of 22.08.2023	01.09.2023

**RULES FOR THE CLASSIFICATION AND CONSTRUCTION
OF SEA-GOING SHIPS, 2023,**

ND No. 2-020101-174-E

PART I. CLASSIFICATION

2 CLASS OF A SHIP

1 **New para 2.2.55** is introduced reading as follows:

"2.2.55 Distinguishing marks for container ships and other ships of 500 gross tonnage and over designed for carriage of refrigerated containers.

For ships with descriptive notation **Container ship** or distinguishing mark **CONT (deck)**, or **CONT (cargo hold(s) No.)**, or **CONT (deck) (cargo hold(s) No.)**, one of the following distinguishing marks may be added to the character of classification:

RC-C (Refrigerated Container, Coolant) — containers are refrigerated using the secondary refrigerant cooled by a shipboard refrigerating plant. It shall be added after the distinguishing mark **REF** or **(REF)**.

RC-A (Refrigerated Container, Air) — containers are refrigerated with air used as the secondary refrigerant cooled by a shipboard refrigerating plant, by adjusting atmosphere parameters (temperature and humidity) inside containers. It shall be added after the distinguishing mark **REF** or **(REF)**.

RC-IA (Refrigerated Container, Inerted Air) — containers are refrigerated with air used as the secondary refrigerant cooled by a shipboard refrigerating plant, by adjusting, in addition to atmosphere parameters (temperature and humidity), also atmosphere composition inside containers by means of inerting. It shall be added after the distinguishing mark **REF** or **(REF)**.

RC-E (Refrigerated Container, Energy) — containers are fitted with their own refrigerating plant fed from the shipboard electrical power plant.

Distinguishing marks **RC-C**, **RC-A**, **RC-IA** or **RC-E** may be assigned to ships under construction and ships in service."

2 **Table 2.5. New item 2.31** is introduced reading as follows:

"2.31 RC —distinguishing marks for container ships and other ships of 500 gross tonnage and over designed for carriage of refrigerated containers

Distinguishing mark	Brief description	References to additional RS requirements for the distinguishing mark
RC-C RC-A RC-IA RC-E	The distinguishing mark is assigned to ships having descriptive notation Container ship or distinguishing mark CONT (deck) , or CONT (cargo hold(s) No.) , or CONT (deck) (cargo hold(s) No.) . One of the following distinguishing marks may be added to the character of classification of such ships: RC-C (Refrigerated Container, Coolant) — containers are	Rules for the Classification and Construction of Sea-Going Ships Part I "Classification", 2.2.55 Part XVII "Distinguishing Marks and Descriptive Notations in the Class Notation Specifying Structural and Operational Particulars of Ships", Section 30

Distinguishing mark	Brief description	References to additional RS requirements for the distinguishing mark
	<p>refrigerated using the secondary refrigerant cooled by a the shipboard refrigerating plant. It shall be added after the distinguishing mark REF or (REF).</p> <p>RC-A (Refrigerated Container, Air) — containers are refrigerated with air used as the secondary refrigerant cooled by a shipboard refrigerating plant, by adjusting atmosphere parameters (temperature and humidity) inside containers. It shall be added after the distinguishing mark REF or (REF).</p> <p>RC-IA (Refrigerated Container, Inerted Air) — containers are refrigerated with air used as the secondary refrigerant cooled by a shipboard refrigerating plant, by adjusting, in addition to atmosphere parameters (temperature and humidity), also atmosphere composition inside containers by means of inerting. It shall be added after the distinguishing mark REF or (REF).</p> <p>RC-E (Refrigerated Container, Energy) — containers are fitted with their own refrigerating plant fed from the shipboard electrical power plant</p>	

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

3 **New Section 30** is introduced reading as follows:

"30 REQUIREMENTS FOR CONTAINER SHIPS AND OTHER SHIPS OF 500 GROSS TONNAGE AND OVER INTENDED FOR CARRIAGE OF REFRIGERATED CONTAINERS

30.1 GENERAL

30.1.1 Application.

30.1.1.1 The requirements of this Section apply to ships the special equipment of which ensures refrigeration of carried containers and supplement the requirements stipulated in Part VIII "Systems and Piping", Part XI "Electrical Equipment" and Part XII "Refrigerating Plants".

30.1.1.2 For ships with descriptive notation **Container ship** or distinguishing mark **CONT (deck)**, or **CONT (cargo hold(s) No.)**, or **CONT (deck) (cargo hold(s) No.)** in the class notation, one of the following distinguishing marks may be added to the character of classification:

RC-C (Refrigerated Container, Coolant) — containers are refrigerated using the secondary refrigerant cooled by a shipboard refrigerating plant. It shall be added after the distinguishing mark **REF** or **(REF)**;

RC-A (Refrigerated Container, Air) — containers are refrigerated with air used as the secondary refrigerant cooled by a shipboard refrigerating plant, by adjusting atmosphere parameters (temperature and humidity) inside containers. It shall be added after the distinguishing mark **REF** or **(REF)**;

RC-IA (Refrigerated Container, Inerted Air) — containers are refrigerated with air used as the secondary refrigerant cooled by a shipboard refrigerating plant, by adjusting, in addition to atmosphere parameters (temperature and humidity), also atmosphere composition inside containers by means of inerting. It shall be added after the distinguishing mark **REF** or **(REF)**;

RC-E (Refrigerated Container, Energy) — containers are fitted with their own refrigerating plant fed from the shipboard electrical power plant.

30.1.1.3 Distinguishing marks **RC-C**, **RC-A**, **RC-IA** or **RC-E** may be assigned to ships under construction and ships in service.

30.1.2 Technical documentation.

30.1.2.1 In order to assign distinguishing marks **RC-C**, **RC-A**, **RC-IA** or **RC-E**, the following technical documentation shall be submitted to the Register for review (A — stamped as "Approved"):

No.	Description of documentation	Stamp	TD	DD	PAD	Remarks
.1	Circuit diagrams of refrigerant systems	A	•	•	•	
.2	Diagrams of ventilation systems and system for supply of cooled air to the containers with indication of arrangement of fire dampers, closures of ventilation ducts and openings in cargo holds	A	•	•	•	

Letter abbreviations:

TD — Technical design;

PAD — Plan approval documentation;

DD — Detailed (design) documentation

30.2 TECHNICAL REQUIREMENTS FOR ASSIGNMENT OF DISTINGUISHING MARK RC-C, RC-A, RC-IA OR RC-E

30.2.1 General technical requirements.

30.2.1.1 Under seagoing conditions, the rating of the shipboard electrical power plant shall be sufficient to supply the cargo refrigeration equipment, when one of auxiliary generating sets is out of action.

30.2.2 Technical requirements for assigning distinguishing mark RC-C.

30.2.2.1 A non-flammable and non-toxic liquid shall be used as a secondary refrigerant.

30.2.2.2 For each container at least one temperature sensor installed at the secondary refrigerant outlet shall be provided. One temperature sensor shall be located at the common secondary refrigerant supply pipeline.

30.2.2.3 Flexible connections shall be used for connecting container cooling systems with the ship secondary refrigerant system.

30.2.2.4 A secondary refrigerant leak detector (level sensor) shall be provided in each cargo hold. A level sensor shall be installed in the expansion tank of the secondary refrigerant system.

30.2.3 Technical requirements for assigning distinguishing mark RC-A.

30.2.3.1 Ducts for discharge and suction of refrigerated air shall be suitably insulated; they shall be air-tight in order to avoid an increase in the cold demand and an decrease in the temperature of air in the holds. The insulating materials and linings used for the ducts shall comply with the requirements in 1.4.5 of Part VIII "Systems and Piping".

30.2.3.2 Ducts for entry of fresh air and exhaust of stale air which serve a group of containers shall be arranged so that they can be segregated from the ducts serving other groups in order to avoid contamination by odour of the remains of the cargo in case of damage of cargo in one of the containers.

Ducts for exhaust of stale air may be led to the weather deck or may form a closed circulation circuit.

30.2.3.3 At least two temperature sensors shall be provided for each container. One shall be arranged at the air supply, the other at the air outlet. The latter may, however, be common to several containers if the arrangements are such that the same air temperature is ensured at all the air supply outlets. In this case, the sensor shall be located at the air cooler exhaust in the air stream common to all these outlets.

30.2.3.4 In case when a refrigerant plant is used for air cooling, it shall comply with the requirements of Part XII "Refrigerating Plants" in the scope required for classed plants.

30.2.4 Technical requirements for assigning distinguishing mark RC-IA.

30.2.4.1 Where the atmosphere composition control in containers is provided (by means of inerting), the system shall meet all the requirements of 30.2.3 and shall be mandatorily of closed loop type. The cargo hold shall be equipped with oxygen content monitoring sensors to detect leaks. In this case, independent mechanical ventilation of cargo holds shall be provided in addition to air supply to the containers.

30.2.5 Technical requirements for assigning distinguishing mark RC-E.

30.2.4.1 The electrical power for the refrigerating plants in containers carried shall be provided from a separate feeder circuit from the main switchboard."