RUSSIAN MARITIME REGISTER OF SHIPPING

CIRCULAR LETTER **No. 312-11-1090c** 18.01.2018

Re:

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 Sea-Going Ships, 2018, ND No. 2-020101-104E by requirements to indoor climate in living and working spaces

Item of supervision:

Ships under construction and in service

Implementation	from the date of publication
Valid: till	-
Validity period extended till	-
~~Cancels / amends / adds circular letter No.~~	
Number of pages:	1 + 3
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 Sea-Going Ships, 2018, ND No. 2-020101-104E
Director General	Konstantin G. Palnikov
Amends	Rules for the Classification and Construction of Sea-Going Ships, 2018, ND No. 2-020101-104E

We hereby inform that new Section 17 has been introduced to Part XVII "Distinguishing Marks and Descriptive Notations in the Class Notation Specifying Structural and Operational Particulars of Ships" related to the additional voluntary requirements for indoor climate in ship's spaces.

It is necessary to do the following:

1. Familiarize surveyors of the RS Branch offices and interested organizations in the area of the RS Branch Offices' activity with the content of the Circular letter.
2. Apply the above requirements in the RS practical activity.

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Appendix to Circular Letter
№ 312-11-1090 dated 18.02.2018

RULES FOR THE CLASSIFICATION AND CONSTRUCTION OF SEA-GOING SHIPS, 2018, ND No. 2-020101-104-E

Part I. CLASSIFICATION

2.2. CLASS NOTATION OF A SHIP

The Chapter shall be supplemented with new para **2.2.39** reading as follows:

"**2.2.39. Indoor hygiene and sanitary conditions**

Ships complying with the indoor climate requirements specified in Section 17 of Part XVII "Distinguishing Marks and Descriptive Notations in the Class Notation Specifying Structural and Operational Particulars of Ships" are assigned the distinguishing mark **COMF(C)** added to the character of classification.".

Paras **2.2.39** and **2.2.40** shall be renumbered as paras **2.2.40** and **2.2.41** accordingly.

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

New Section 17 shall be introduced reading as follows:

"17 INDOOR HYGIENE AND SANITARY CONDITIONS

17.1 INDOOR CLIMATE

17.1.1 General.

Ships complying with the indoor climate requirements of this Chapter may be assigned the distinguishing mark **COMF(C)** added to the character of classification.

17.1.2 Definitions.

Air supply quantity means total amount of supplied air to any given space, which may consist of a percentage re-circulated return air in addition to the fresh air supply quantity.

Air velocity means measured mean absolute velocity of air mass in motion.

Fresh air supply quantity means quantity of fresh/outside air per person supplied to a space, expressed in l/s or m^3/h.

Indoor climate means indoor ambient temperature, temperature gradient, air velocity, humidity and carbon dioxide concentration used as parameters for indoor climate.

Relative humidity means ratio of the partial pressure of water vapor in air to the equilibrium pressure of saturated vapors at a specified temperature.

Vertical gradient means vertical air temperature difference.

17.1.3 Documentation.

In addition to documentation specified in Section 3, Part I "Classification" the following documentation shall be submitted (A – for approval, FI – for information):

.1 heat balance calculation (FI);

.2 program of mooring and sea trials (A);

.3 measurement report (FI).

17.1.4 Requirements for on board climate.

17.1.4.1 Measurements.

.1 for ships with less than 100 cabins and the accommodation restricted to a separate section in the aft-ship, midship or in the fore-ship a full set of measurements applicable to climate parameters shall be taken in the following minimum number of cabins (n = number of cabins):

for $n < 10$ – measurements in all cabins;
for $10 \leq n \leq 40$ – measurements in at least 10 cabins;
for $n \geq 41$ – measurements in at least 25 % of all cabins.

The cabins to be measured shall be evenly distributed amongst the cabins on each deck or in each respective fire zone.

.2 for ships with more than 100 cabins distributed over a major portion of the ship, e.g. passenger ships, a full set of measurements shall be taken in at least 10 % of the cabins in each fire zone containing cabins on each deck. The cabins to be measured shall be evenly distributed amongst the cabins on each deck or in each respective fire zone;

.3 climate parameters shall be measured in a representative number of public spaces on board. The measuring positions shall be selected such as to give a representative description of the climate in the public spaces on board the ship.

17.1.4.2 Air temperature.

.1 band width between 20°C to 24°C at outside temperature ≤ 15 °C and between 24 °C to 28 °C at outside temperature ≥ 40 °C shall be provided;

.2 air temperature in a designated space shall be measured at the geometrical centre of the location. For larger spaces the temperature shall be measured in a representative number of positions in the occupancy zone;

.3 individual space temperature control is required.

17.1.4.3 Relative humidity.

.1 Heating, Ventilation and Air Conditioning (HVAC) system shall provide and maintain a relative humidity within a range from at least 20 % to 60 % maximum;

.2 air relative humidity value is determined based on documentation and shall not be generally verified through measurements.

17.1.4.4 Enclosed space vertical gradient.

.1 vertical gradient shall be maintained within 3 °C;

.2 vertical temperature difference in all designated spaces shall be measured in the geometric centre of the occupancy zone at the following distances above the floor: 0,2 m, 1,0 m and 1,8 m. For larger spaces, measurements shall be taken in representative positions.

17.1.4.5 Air velocity.

.1 mean air velocities shall not exceed 0.35 m/s at the measurement position in the space;

.2 mean air velocity shall be measured at the geometric centre of the space. However, the surveyor may request alterations of the measurement position based on survey results. Typical alteration may be to carry out the measurement at the most commonly occupied position in the space in question.

17.1.4.6 Air exchange rate.

.1 air exchange rate for cabins, public spaces, wheelhouse and control stations shall be at least 6 complete air changes per hour.

17.1.5 Requirements for HVAC system.

17.1.5.1 General.

.1 individual space temperature control is required;

.2 in case of system failure, a controlled climate in cabins, hospitals and messrooms shall be restored after maximum 12 h. If different failures, not related to each other, occur simultaneously, the required restoring time shall be increased by 12 h;

.3 minimum level of ventilation in hospitals and machinery control rooms shall be provided during a system failure by means of separate forced ventilation. Regulation of the fans shall be located in the respective spaces. This ventilation shall maintain the temperature below 35 °C and above 15 °C;

.4 it shall be possible to examine, clean or replace air ducts, central air handling units, air filters, dust collectors, heat exchangers, re-heaters and air terminals at regular work intervals.".