RUSSIAN MARITIME REGISTER OF SHIPPING

CIRCULAR LETTER **No. 314-30-1335c** dated 21.02.2020

Re:

amendments to the Rules for the Classification and Construction of Sea-Going Ships, 2020, ND No. 2-020201-124-E

Item(s) of supervision:

sea-going ships

Entry-into-force date: **26.03.2020** Valid till:**-** Validity period extended till: **-**

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 Part IV "Stability"

Director General Konstantin G. Palnikov

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 contracted for construction or conversion on or after 26.03.2020.

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

Part IV: para 1.1.2, Chapter 2.1, paras 2.1.4.2, 2.1.4.3, 3.4.2 and 3.11.9, Chapters 4.3 and 4.4, Appendix 1

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Appendix 1 to Circular Letter
No. 314-30-1335c dated 21.02.2020

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	Para 1.1.2	Requirements for application of Part IV to ships in service have been specified	314-30-1335c of 21.02.2020	26.03.2020
2	Chapter 2.1	Footnote in the heading has been deleted	314-30-1335c of 21.02.2020	26.03.2020
3	Para 2.1.4.2	Requirements for fishing vessels have been specified	314-30-1335c of 21.02.2020	26.03.2020
4	Para 2.1.4.3	The second paragraph has been deleted to harmonize with the requirements of 1.6.2	314-30-1335c of 21.02.2020	26.03.2020
5	Para 3.4.2	Requirements for stability of refuelling tankers, bilge water removing ships and oil recovery ships have been specified	314-30-1335c of 21.02.2020	26.03.2020
6	Para 3.11.9	Requirements for supply vessels have been specified	314-30-1335c of 21.02.2020	26.03.2020
7	Chapter 4.3	Chapter has been completely amended considering experience of technical supervision	314-30-1335c of 21.02.2020	26.03.2020
8	Chapter 4.4	Chapter has been completely amended considering experience of technical supervision	314-30-1335c of 21.02.2020	26.03.2020
9	Appendix 1, para 1.8	Requirements for Stability Booklet have been specified	314-30-1335c of 21.02.2020	26.03.2020
10	Appendix 1, para 2.1.14	Requirements for Stability Booklet have been specified	314-30-1335c of 21.02.2020	26.03.2020

RULES FOR THE CLASSIFICATION AND CONSTRUCTION OF SEA-GOING SHIPS, 2020,

ND No. 2-020201-124-E

PART IV. STABILITY

1 GENERAL

1 **Para 1.1.2** is replaced by the following text:

"**1.1.2** Unless expressly provided otherwise, the requirements of the present Part apply to ships in service as far as it is reasonable and practicable, but it is, however, compulsory for ships which undergo reconstruction, major repair, conversion and modernization if their stability is impaired as a result.".

2 GENERAL REQUIREMENTS FOR STABILITY

2 **Chapter 2.1**. Footnote 1 in the heading and the text of the footnote are deleted.

3 **Para 2.1.4.2** is replaced by the following text:

"**2.1.4.2** For fishing vessels of unrestricted area of navigation and having a length between 24 and 45 m, the wind pressure value in Formula (2.1.4.1-1) may be ascertained from Table 2.1.4.2 proceeding from the distance Z between the windage area centre and the waterline.".

4 **Para 2.1.4.3** is replaced by the following text:

"**2.1.4.3** Ships whose stability with respect to the weather criterion does not comply with the requirements for the ships of restricted area of navigation **R2**, may be allowed to operate as ships of restricted area of navigation **R3** with additional restrictions, taking into account the peculiarities of the area and the nature of service.".

3 ADDITIONAL REQUIREMENTS FOR STABILITY

5 **Para 3.4.2** is replaced by the following text:

"**3.4.2** Stability of refuelling tankers, bilge water removing ships and oil recovery ships shall be checked for additional loading condition: a ship with 75 % of cargoes and free surfaces in tanks for each kind of cargo, and 50 % of stores without liquid ballast.".

6 **Para 3.11.9** is replaced by the following text:

"**3.11.9** Supply vessels which may be engaged in towing operations as well shall comply with 3.7.".

4 REQUIREMENTS FOR THE STABILITY OF FLOATING CRANES, CRANE SHIPS, PONTOONS, DOCKS AND BERTH-CONNECTED SHIPS

7 **Chapter 4.3** is replaced by the following text:

"**4.3 FLOATING DOCKS**

4.3.1 This Chapter applies to ships with descriptive notations **Floating dock** and **Docklift ship** in the class notation.

4.3.2 Stability of floating docks shall be checked for the following loading conditions:

.1 floating dock when supporting a ship;

.2 floating dock during submersion and emersion.

4.3.3 Stability of a floating dock when supporting a ship.

4.3.3.1 Stability shall be checked of fully emersed dock with a supported ship under conditions of maximum lifting capacity and moment of sail of the dock — ship system without icing.

4.3.3.2 Stability is considered to be adequate provided:

.1 angle of heel under action of heeling moment due to wind pressure according to 4.3.3.4 or 4.3.3.5 in case of gust action does not exceed the permissible heeling angle for dock cranes in non-operating condition or 4°, whichever is less;

.2 angle of heel under action of heeling moment due to wind pressure according to 4.3.4.4 in case of gust action does not exceed the angle at which safe operation of cranes is ensured;

.3 angle of trim with trimming moment due to crane weight with maximum load for the most unfavourable service case of their arrangement does not exceed the angle at which efficient operation of cranes is ensured or the angle of pontoon deck immersion, whichever is less.

4.3.3.3 The heeling moment due to wind pressure in case of gust action shall be determined by the formula

$$M_v = 2\frac{p_v A_v z_v}{1000} \qquad (4.3.3.3)$$

where p_v = wind pressure, Pa, calculated in compliance with the requirements of this Chapter;
A_v = windage area, m^2, calculated in compliance with 1.4.6;
z_v = windage lever, m, calculated in compliance with 1.4.6.3.

4.3.3.4 Wind pressure is assumed to be 1700 Pa.

4.3.3.5 Wind pressure may be taken from Table 4.3.3.5-1 depending upon the prescribed geographical area of the floating dock operation according to Fig. 4.3.3.5.

To account for the increase of wind pressure with regard to the elevation of some top zones of windage area in the dock — ship system above the actual waterline the wind pressure values from Table 4.3.3.5-1 are multiplied by the relevant zone coefficients from Table 4.3.3.5-2.

In this case, the values of p_v, A_v and z_v are determined for each zone separately, the sum of their products for all height zones comprising windage area of the dock — ship system is included in Formula (4.3.3.3).

Table 4.3.3.5-1

Wind pressure for top zone of 0 — 10 m above the actual waterline p_v, in Pa

Geographical area of floating dock service (refer to Fig. 4.3.3.5)	2	3	4	5	6	7
Pressure p_v, in Pa	460	590	730	910	1100	1300

Table 4.3.3.5-2

Zone coefficient n_i

Height above the waterline (zone boundary), in m	n_i	Height above the waterline (zone boundary), in m	n_i
Below 10	1,0	50 — 60	1,75
10 — 20	1,25	60 — 70	1,84
20 — 30	1,4	70 — 80	1,94
30 — 40	1,55	80 — 90	2,02
40 — 50	1,69	90 — 100	2,1

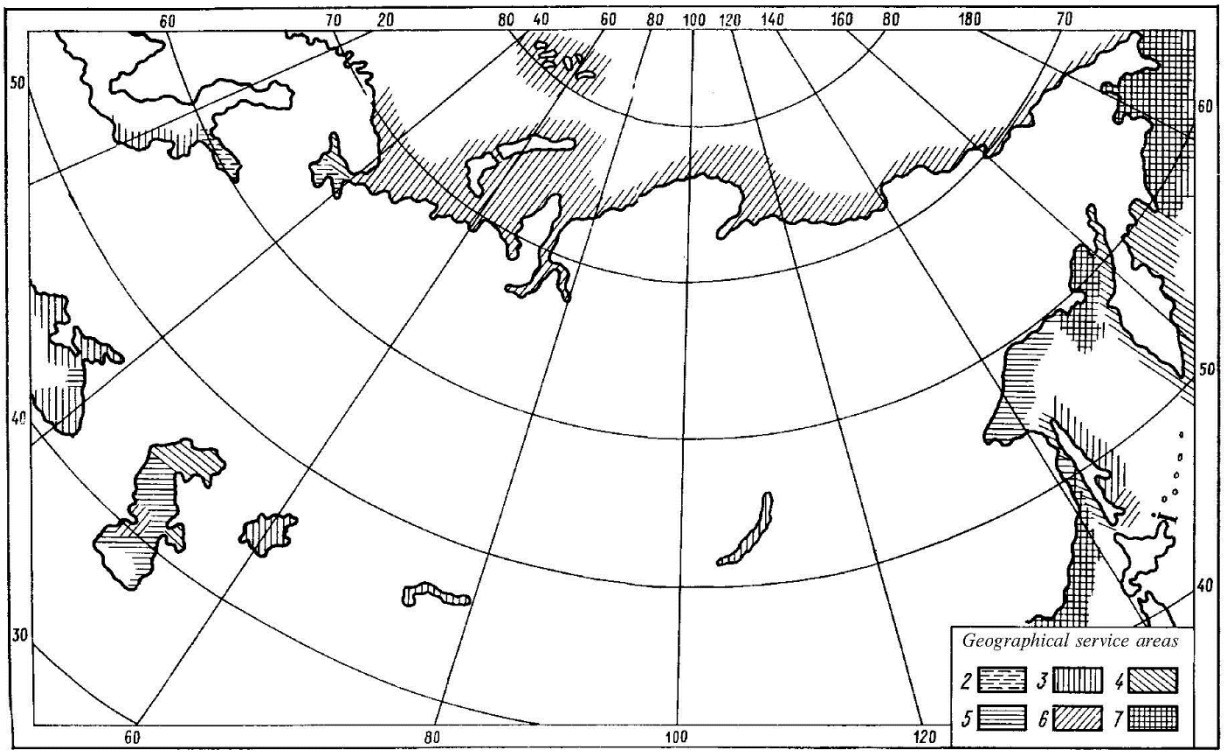

Fig.4.3.3.5

4.3.3.6 With geographical service area of the floating dock prescribed, the wind pressure may be taken for this particular area.

4.3.3.7 With several geographical service areas of the floating dock prescribed, maximum wind pressure for these areas shall be taken.

4.3.4 Stability of a floating dock during submersion or emersion.

4.3.4.1 Stability of a floating dock shall be checked in the process of submersion or emersion for the most unfavourable case, as regards stability, of the supported ship displacement, moment of windage area of the dock — ship system and dock ballasting with the cranes not in operation, without icing.

4.3.4.2 Stability is considered to be adequate if the angle of heel under action of heeling moment due to wind pressure in case of gust action does not exceed the permissible heeling angle for dock cranes in non-operating condition or 4º, whichever is less.

4.3.4.3 The angle of heel of the floating dock shall be determined in conformity with 4.3.3.3.

4.3.4.4 Specific wind pressure is assumed to be 400 Pa.".

8 **Chapter 4.4** is replaced by the following text:

"**4.4 BERTH-CONNECTED SHIPS**

4.4.1 This Chapter applies to ships with descriptive notations **Berth-connected ship** in the class notation.

4.4.2 The stability of a berth-connected ship is considered sufficient provided:

.1 the metacentric height complies with the requirements of 2.3 with due regard for the distribution of passengers among decks likely to occur in service;

.2 the angle of heel under action of heeling moment as determined by Formula (4.3.3.3) with due regard for the provisions of 4.3.3.4 — 4.3.3.7 (for the case of a berth-connected ship) does not exceed the permissible value.

4.4.3 Under dynamically applied wind heeling moment, the ship stability is checked for the most unfavourable loading conditions as regards stability.

4.4.4 As the permissible heel, the angle is assumed at which the freeboard deck or fender edge immerses or the middle of the bilge comes out from water or 10º, whichever is less.".

APPENDIX 1

INSTRUCTIONS ON DRAWING UP THE STABILITY BOOKLET

1 GENERAL

9 **Para 1.8** is replaced by the following text:

"**1.8** The Stability Booklet shall be drawn up in the working language of the crew. The Stability Booklet of ships flying the flag of the Russian Federation shall be drawn up in the Russian language if the shipowner's documents do not state another crew working language. The Stability Booklet of ships engaged on international voyages shall be translated into English.".

2 PARTICULARS OF SHIP

10 **Para 2.1.14** is replaced by the following text:

"**.14** inclining test data, on which the Booklet is based (light-ship displacement and centre of gravity coordinates for light-ship condition), place and date of the inclining test with the reference to the Inclining Test Report singed by the RS representative and stamped with the RS surveyor's seal or endorsed by another organization.

If the data for the light-ship condition have been assumed based on the results of the light-weight check taking into consideration the results of the inclining test performed on a series-built ship, the data on the ship light-weight check and on the inclining test performed on a series-built ship, including the name and serial number of this ship shall be stated in the Booklet. The data shall contain reference to the Light-Weight Check Report and the Inclining Test Report singed by the RS representative and stamped with the RS surveyor's seal or endorsed by another organization;".