CIRCULAR LETTER  No. 312-11-1473c dated 26.11.2020

Re: amendments to the Rules for the Classification and Construction of Sea-Going Ships in connection with implementation of IACS Unified Requirement (UR) I2 (Rev.4 Dec 2019)

Item(s) of supervision: ships under construction

Entry-into-force date: 01.01.2021
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 XVII "Distinguishing Marks and Descriptive Notations in the Class Notation Specifying Structural and Operational Particulars of Ships"

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 at re-publication in 2021 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 01.01.2021, in the absence of a contract, the keels of which are laid or which are at a similar stage of construction on or after 01.01.2021, as well as during review and approval of the technical documentation on ships, the delivery of which is on or after 01.01.2021.

List of the amended and/or introduced paras/chapters/sections:
Part XVII: paras 1.2.1, 1.2.1.2, 1.2.1.3, Figure 1.2.2.1, paras 1.2.2.4, 1.2.2.7, 1.2.3.2.1.1, 1.2.3.2.1.2, 1.2.3.2.2, Table 1.2.12.2, para 1.2.13.2.1, Figures 1.2.13.2.1-1, 1.2.13.2.1-2, paras 1.2.13.3.1, 1.2.13.4.1

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"Thesis" System No. 20-250516
### Information on amendments introduced by the Circular Letter  
(for inclusion in the Revision History to the RS Publication)

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1 REQUIREMENTS FOR POLAR CLASS SHIPS

1 Para 1.2.1 is replaced by the following text:

"1.2.1 Application and definitions.".

2 New paras 1.2.1.2 and 1.2.1.3 are introduced reading as follows:

"1.2.1.2 The length $L_{UI}$ is the distance, in m, measured horizontally from the fore side of the stem at the intersection with the UIWL to the after side of the rudder post, or the centre of the rudder stock if there is no rudder post. $L_{UI}$ shall not to be less than 96 %, and need not be greater than 97 %, of the extreme length of the UIWL measured horizontally from the fore side of the stem.

1.2.1.3 The ship displacement $D_{UI}$ is the displacement, in kt, of the ship corresponding to the UIWL. Where multiple waterlines are used for determining the UIWL, the displacement shall be determined from the waterline corresponding to the greatest displacement.".

3 Figure 1.2.2.1 is replaced by the following one:

![Diagram of hull area extents](image)
4 Para 1.2.2.4 is replaced by the following text:

"1.2.2.4 Fig. 1.2.2.1 notwithstanding, the aft boundary of the bow region need not be more than 0.45L_UI aft of the fore side of the stem at the intersection with the UIWL.".

5 Para 1.2.2.7 is replaced by the following text:

"1.2.2.7 If the ship is assigned the ice class mark icebreaker, the forward boundary of the stern region shall be at least 0.04L_UI forward of the section where the parallel ship side at the UIWL ends.".

6 Para 1.2.3.2.1.1. Definitions for L, x and D in the explication to the Formulae are replaced by the following text:

"L_UI — ship length, in m, as defined in 1.2.1.2;

x — distance, in m, from the fore side of the stem at the intersection with the UIWL to station under consideration;

D_UI — ship displacement, in kt, as defined in 1.2.1.3, but not less than 5 kt;".

7 Formulae 1.2.3.2.1-1 — 1.2.3.2.1-5 are renumbered 1.2.3.2.1-1 — 1.2.3.2.1-5 accordingly.

8 Formula (1.2.3.2.1.1-1) (former 1.2.3.2.1-1). Dependencies for determination of f_{a_{L_1}} and f_{a_{L_2}} are replaced by the following Formulae:

"f_{a_{L_1}} = \left(0.097 - 0.68 \cdot \left(\frac{x}{L_{UI}} - 0.15\right)\right)^2 \cdot \alpha_i / \left(\beta_i'\right)^{0.5};
f_{a_{L_2}} = 1.2 \cdot C_F / \left(\sin(\beta_i') \cdot C_F \cdot D_{UI}^{0.64}\right),".

9 Formula (1.2.3.2.1.1-2) (former 1.2.3.2.1-2) is replaced by the following one:

"force F, in MN:
F_l = f_{a_{i}} \cdot C_F \cdot D_{UI}^{0.64},".

10 Para 1.2.3.2.1.2. The definition for D in the explication to Formulae is replaced by the following text:

"D_{UI} — ship displacement, in kt, as defined in 1.2.1.3, but not less than 5 kt;".

11 Formula (1.2.3.2.1.2-2) is replaced by the following one:

"force F, in MN:
F_l = f_{a_{i}} \cdot C_F \cdot D_{UI}^{0.47},".

12 Para 1.2.3.2.2. The definitions for DF and D in the explication to Formulae are replaced by the following text:

"DF — ship displacement factor:
DF = D_{UI}^{0.64} \text{ if } D_{UI} \leq C_{DIS};
DF = C_{DIS}^{0.64} + 0.10 \left(D_{UI} - C_{DIS}\right) \text{ if } D_{UI} > C_{DIS};

D_{UI} — ship displacement, in kt, as defined in 1.2.1.3, but not less than 10 kt;".

13 Table 1.2.12.2. The symbol L is replaced by L_UI.

14 Para 1.2.13.2.1. The definitions for F_{IB,1}, C, B, L_B, D and A_{wp} in the explication to Formulae are replaced by the following text:

"F_{IB,1} = 0.534 \cdot K_l^{0.15} \cdot \sin^{0.2}(\gamma_{stem}) \cdot (D_{UI} \cdot K_h)^{0.5} \cdot C_F;".
\[ C = \frac{1}{2 \cdot (L_B / B_{UI})^{eb}}; \]

- \( B_{UI} \) — moulded breadth corresponding to the UIWL;
- \( L_B \) — bow length used in the equation \( y = B_{UI} / 2 \cdot (x / L_B)^{eb} \), in m (refer to Figs. 1.2.13.2.1-1 and 1.2.13.2.1-2);
- \( D_{UI} \) — ship displacement, in kt, as defined in 1.2.1.3, not to be taken less than 10 kt;
- \( A_{wp} \) — waterline area corresponding to the UIWL.

15 **Para 1.2.13.2.1.** The following text is deleted in the explication to Formulae:

"Where applicable, draught dependent quantities shall be determined at the waterline corresponding to the loading condition under consideration."

16 **Figure 1.2.13.2.1-1** is replaced by the following one:

![Spoon bow and Wedge bow](image)

![Fig. 1.2.13.2.1-1](image) Bow shape definition.

17 **Figure 1.2.13.2.1-2** is replaced by the following one:

![Illustration of \( e_b \) effect on the bow shape for \( B_{UI} = 20 \) and \( L_B = 16 \)](image)

18 **Paras 1.2.13.3.1 and 1.2.13.4.1.** The symbol \( L \) is replaced by \( L_{UI} \).