



# RUSSIAN MARITIME REGISTER OF SHIPPING

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**CIRCULAR LETTER**

**No. 312-11-1619c**

dated 20.08.2021

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Re:

amendments to the Rules for the Classification and Construction of Sea-Going Ships, 2021, ND No. 2-020101-138-E

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Item(s) of supervision:

ships under construction

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Entry-into-force date:

**01.10.2021**

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Cancel / amends / adds Circular Letter No.

dated

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Number of pages: 1+9

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Appendices:

Appendix 1: information on amendments introduced by the Circular Letter

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

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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 01.10.2021, in the absence of a contract, the keels of which are laid or which are at a similar stage of construction on or after 01.10.2021, as well as during review and approval of the technical documentation on ships, the delivery of which is on or after 01.10.2021. By the RHO decision, amendments introduced by the Circular Letter may apply to ships under construction as well as to ships in service.
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List of the amended and/or introduced paras/chapters/sections:

Part I: paras 1.1.1, 2.2.3.3.5, 2.2.15 and 2.2.29, Table 2.5, paras 3.2.2.20, 3.2.9.1.11 and 3.3.9.1.11

Part XVII: Chapter 7.6, paras 8.6.3, 8.8.3 and 9.1.4, Chapter 13.2 (heading), para 13.2.1, Formula (15.2.6.1), paras 20.2.1.2 and 20.3.1.3.1

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"Thesis" System No. 21-133788

**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 1.1.1	Definition "Roll-on/roll-off (ro-ro) ship" has been completely amended considering IMO resolution MSC.479(102)	312-11-1619c of 20.08.2021	01.10.2021
2	Part I, para 2.2.3.3.5	Definition "Double acting ships (DAS)" has been amended	312-11-1619c of 20.08.2021	01.10.2021
3	Part I, para 2.2.15	Para has been completely amended and supplemented by a requirement for distinguishing mark <b>SI</b> assigned to ships fitted with onboard software for stability calculations	312-11-1619c of 20.08.2021	01.10.2021
4	Part I, para 2.2.29	Scope of application of distinguishing mark <b>GFS</b> relating to gas carriers carrying liquefied methane has been specified	312-11-1619c of 20.08.2021	01.10.2021
5	Part I, Table 2.5	<p>Item 1.1 has been supplemented by a note containing requirements for the character of classification of inland navigation ships.</p> <p>Item 1.5 has been supplemented by a requirement relating to the possibility of assignment of distinguishing mark <b>GFS</b> to gas carriers carrying liquefied.</p> <p>Item 1.12 has been completely amended and supplemented by a requirement for distinguishing mark <b>SI</b> assigned to ships fitted with onboard software for stability calculations.</p> <p>In item 1.17, for descriptive notation <b>Salvage ship</b>, the references to the RS requirements have been specified.</p> <p>In item 2.2, brief description of distinguishing mark <b>DAS (ice class mark)</b> has been specified considering amendments to 2.2.3.3.5</p>	312-11-1619c of 20.08.2021	01.10.2021
6	Part I, para 3.2.2.20	Submitted documents on protective coatings of the ship have been specified	312-11-1619c of 20.08.2021	01.10.2021

Nos.	Amended paras/chapters/sections	Information on amendments	Number and date of the Circular Letter	Entry-into-force date
7	Part I, para 3.2.9.1.11	Requirements regarding the need to submit the calculation of steam pipes for thermal expansion have been specified	312-11-1619c of 20.08.2021	01.10.2021
8	Part I, para 3.3.9.1.11	Requirements regarding the need to submit the calculation of steam pipes for thermal expansion have been specified	312-11-1619c of 20.08.2021	01.10.2021
9	Part XVII, Chapter 7.6	Requirements for availability of necessary propulsion starting energy to restore the propulsion from black out/dead ship condition have been specified. Requirement for two auxiliary boilers has been replaced by recommendation	312-11-1619c of 20.08.2021	01.10.2021
10	Part XVII, para 8.6.3	Requirements for fire integrity of bulkheads of independent engine rooms and main switchboard sections have been introduced	312-11-1619c of 20.08.2021	01.10.2021
11	Part XVII, para 8.8.3	Requirements for fire integrity of bulkheads of independent engine rooms and main switchboard sections have been introduced	312-11-1619c of 20.08.2021	01.10.2021
12	Part XVII, para 9.1.4	Para has been supplemented with document "Inspection/survey plan for the liquefied gas fuel containment system" and specified regarding stamps put on documents	312-11-1619c of 20.08.2021	01.10.2021
13	Part XVII, Chapter 13.2	Heading of Chapter has been specified	312-11-1619c of 20.08.2021	01.10.2021
14	Part XVII, para 13.2.1	Requirements have been specified regarding possibility to assign descriptive notation <b>Salvage ship</b>	312-11-1619c of 20.08.2021	01.10.2021
15	Part XVII, Formula (15.2.6.1)	Formula has been specified based on experience of its application	312-11-1619c of 20.08.2021	01.10.2021
16	Part XVII, para 20.2.1.2	Requirements for documentation on means of access to structures have been specified		
17	Part XVII, para 20.3.1.3.1	Requirements for means of access to structures have been specified	312-11-1619c of 20.08.2021	01.10.2021

## **RULES FOR THE CLASSIFICATION AND CONSTRUCTION OF SEA-GOING SHIPS, 2021,**

**ND No. 2-020101-138-E**

### **PART I. CLASSIFICATION**

#### **1 GENERAL**

1 **Para 1.1.1.** Definition "Roll-on/roll-off ship" is replaced by the following text:

"Roll-on/roll-off (ro-ro) ship is a ship which has one or more decks either closed or open and cargo spaces intended for loading and unloading the cargo by roll-on/roll-off (ro-ro cargo spaces), subdivided in any way and extending to either a substantial length or the entire length of the ship, spaces in which motor vehicles with fuel in their tanks for their own propulsion, and/or goods packaged (in tare or in bulk, on rail or road cars, vehicles (including road or rail tanks), trailers, containers, pallets, demountable tanks or similar enlarged units, or other tanks) are normally loaded and unloaded in a horizontal direction.

Note. At transportation of road vehicles it is also recommended to follow the provisions of IMO resolution MSC.479(102) "Revised Guidelines for Securing Arrangements for the Transport of Road Vehicles on Ro-Ro Ships".

#### **2 CLASS OF A SHIP**

2 **Para 2.2.3.3.5** is replaced by the following text:

"**2.2.3.3.5** Double acting ships (DAS) are ice navigation ships fitted with active means of the ship's steering (refer to 1.2 Part VII "Machinery Installations") and designed for both bow-first operation and stern-first operation in ice condition.

If double acting ships comply at least with the requirements of Section 19, Part XVII "Distinguishing Marks and Descriptive Notations in the Class Notation Specifying Structural and Operational Particulars of Ships", the distinguishing mark **DAS** (**ice class mark**) may be added to the character of classification, where the RS ice class is indicated in brackets according to 2.2.3.3.1 or 2.2.3.3.4 in case of stern-first operation.

When the RS ice class in case of stern-first operation differs from that in case of bow-first operation, the appropriate limitation is introduced to the RS ice class assigned according to 2.2.3.3.1 or 2.2.3.3.4, for example: **Arc4 (hull at  $d \leq 11$  m; ahead) DAS (Arc6 hull at  $d \leq 11$  m) Arc6 (machinery)**."

3 **Para 2.2.15** is replaced by the following text:

**"2.2.15 Distinguishing mark for ships fitted with a loading instrument/onboard software for stability calculations.**

**2.2.15.1** If a ship is equipped with a loading instrument complying with the requirements of 1.4.9.4 of Part II "Hull" of these Rules and 12.3 of Part II "Technical Documentation" of the Rules for Technical Supervision during Construction of Ships and Manufacture of Materials and Products for Ships, the distinguishing mark **LI** is added to the character of classification.

**2.2.15.2** If a ship is provided with onboard software for stability calculations complying with the requirements of 1.4.12 of Part IV "Stability" of these Rules and 12.2 of Part II "Technical Documentation" of the Rules for Technical Supervision during Construction of Ships and Manufacture of Materials and Products for Ships, the distinguishing mark **SI** is added to the character of classification."

4 **Para 2.2.29** is replaced by the following text:

**"2.2.29 Distinguishing mark for a ship equipped to use gas as fuel.**

Ships equipped for using gas as fuel in compliance with the requirements of Section 9 of Part XVII "Distinguishing Marks and Descriptive Notations in the Class Notation Specifying Structural and Operational Particulars of Ships", as well as gas carriers carrying liquefied methane, using cargo as fuel and complying with the requirements of the International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (IGC Code) and the Rules for the Classification and Construction of Ships Carrying Liquefied Gases in Bulk, are assigned the distinguishing mark **GFS** (gas fuelled ships) added to the character of classification."

5 **Table 2.5. Item 1.1** is supplemented by a note reading as follows:

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Note. For inland navigation ships, the distinguishing mark <b>IN</b> is added after the character of classification — refer to 2.2.1 — 2.2.2 of Part I "Classification" of the Rules for the Classification and Construction of Inland Navigation Ships (for European Inland Waterways).
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6 **Table 2.5. Item 1.5** is replaced by the following text:

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<b>1.5 Distinguishing mark for a ship equipped to use gas as fuel</b>		
<b>GFS</b> (Gas Fuelled Ship)	The mark is assigned if a ship is equipped for using gas as fuel, as well as to gas carriers carrying liquefied methane, using cargo as fuel and complying with the requirements of the International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (IGC Code) and the Rules for the Classification and Construction of Ships Carrying Liquefied Gases in Bulk	<b>Rules for the Classification and Construction of Sea-Going Ships</b> Part I "Classification", 2.2.29 Part IX "Machinery", 8.10.2 Part XI "Electrical Equipment", Section 14 Part XVII "Distinguishing Marks and Descriptive Notations in the Class Notation Specifying Structural and Operational Particulars of Ships", Section 9

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7 **Table 2.5. Item 1.12** is replaced by the following text:

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<b>1.12 Distinguishing mark for ships fitted with a loading instrument/ onboard software for stability calculations</b>		
<b>1.12.1 Distinguishing mark for ships fitted with a loading instrument</b>		
<b>LI</b>	A ship is fitted with a loading instrument. The distinguishing mark is mandatory for the following categories of ships of 100 m and above in length: ships with large deck openings; ships for which uneven loading, i.e. uneven distribution of cargo and/or ballast, is possible; chemical tankers and gas carriers	<b>Rules for the Classification and Construction of Sea-Going Ships</b> Part I "Classification", 2.2.15.1 Part II "Hull", 1.4.9.4 <b>Rules for Technical Supervision during Construction of Ships and Manufacture of Materials and Products for Ships</b> Part II "Technical Documentation", 12.3

"

1.12.2 Distinguishing mark for ships fitted with onboard software for stability calculations		
<b>SI</b>	A ship is fitted with onboard software for stability calculations. The distinguishing mark is mandatory for oil tankers, chemical tankers, ships carrying liquefied gases in bulk and bulk carriers of less than 150 m in length	<b>Rules for the Classification and Construction of Sea-Going Ships</b> Part I "Classification", 2.2.15.2 Part IV "Stability", 1.4.12 <b>Rules for Technical Supervision during Construction of Ships and Manufacture of Materials and Products for Ships</b> Part II "Technical Documentation", 12.2

8 **Table 2.5. In item 1.17**, the requirements for descriptive notation **Salvage ship** are replaced by the following text:

<b>Salvage ship</b>	<b>Rules for the Classification and Construction of Sea-Going Ships</b> Part I "Classification", 1.1.1 Part V "Subdivision", 1.1.1.13 Part VI "Fire Protection", Section 1, 2.1, 2.3, Sections 3 — 5 Part VII "Machinery Installations", 4.5.10 — 4.5.13 Part XVII "Distinguishing Marks and Descriptive Notations in the Class Notation Specifying Structural and Operational Particulars of Ships", 13.2.3 (except for 13.2.3.1 — 13.2.3.3, 13.2.3.12), 13.2.4, 13.2.5, 13.2.10 <b>Rules for the Equipment of Sea-Going Ships</b> Part II "Life-Saving Appliances", 5.3
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9 **Table 2.5. In item 2.2**, the requirements for distinguishing mark **DAS (ice class mark)** are replaced by the following text:

<b>DAS (ice class mark)</b>	Ice navigation ship fitted with active means of the ship's steering (refer to 1.2 Part VII "Machinery Installations") and designed for both bow-first operation and stern-first ice operation. If double acting ships comply at least with the requirements of Section 19, Part XVII "Distinguishing Marks and Descriptive Notations in the Class Notation Specifying Structural and Operational Particulars of Ships", the distinguishing mark <b>DAS (ice class mark)</b> may be added to the character of classification, where the RS ice class is indicated in brackets according to 2.2.3.3.1 or 2.2.3.3.4 in case of stern-first operation. When the RS ice class in case of stern-first operation differs from that in case of bow-first operation, the appropriate limitation is introduced to the RS ice class assigned according to 2.2.3.3.1 or 2.2.3.3.4, for example: <b>Arc4 (hull at <math>d \leq 11</math> m; ahead)</b> <b>DAS (Arc6 hull at <math>d \leq 11</math> m)</b> <b>Arc6 (machinery)</b>	<b>Rules for the Classification and Construction of Sea-Going Ships</b> Part I "Classification", 2.2.3.3.5 Part XVII "Distinguishing Marks and Descriptive Notations in the Class Notation Specifying Structural and Operational Particulars of Ships", Section 19
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### 3 TECHNICAL DOCUMENTATION

10 **Para 3.2.2.20** is replaced by the following text:

"**.20** list of internal and external surfaces of the ship with indication of applied protective coatings (specification of protective coatings) considering 6.5 of Part XIII "Materials"(\*);".

11 **Para 3.2.9.1.11** is replaced by the following text:

"**1.11** calculations of the systems: bilge, ballast, vapour emission control; ventilation of battery rooms, cargo pump rooms, enclosed spaces and holds intended for the carriage of motor and road vehicles; calculation of steam pipes for thermal expansion (\*\*);".

12 **Para 3.3.9.1.11** is replaced by the following text:

"**1.11** calculations of the systems: bilge, ballast, vapour emission control; ventilation of battery rooms, cargo pump rooms, enclosed spaces and holds intended for the carriage of motor and road vehicles; calculation of steam pipes for thermal expansion (\*\*);".

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

### 7 REQUIREMENTS FOR SHIP EQUIPMENT TO ENSURE LONG-TERM OPERATION AT LOW TEMPERATURE

13 **Chapter 7.6** is replaced by the following text:

#### "7.6 MACHINERY INSTALLATIONS

**7.6.1** The requirements for availability of necessary propulsion starting energy to restore the propulsion within 30 min of black out/dead ship condition, specified in 2.1.6 of Part VII "Machinery Installations", shall be met provided the ship is at design ambient temperature during this period.

**7.6.2** Based on their design, the machinery, shafting, boilers and other pressure vessels, as well as pipelines of systems and fittings, shall remain operative during the ship stay at design ambient temperature.

**7.6.3** Air supply to main engines shall not lead to overcooling of machinery space. Technical means shall be provided to exclude increase of mechanical load on cylinders and pistons and bearings of main engines due to the harmful effect of reduced temperatures of scavenging air.

**7.6.4** At least two auxiliary boilers are recommended to be provided onboard the ships operating at the design ambient temperature below  $-40\text{ }^{\circ}\text{C}$ ."

### 8 REQUIREMENTS FOR PROPULSION PLANT REDUNDANCY

14 **Para 8.6.3** is replaced by the following text:

"**8.6.3** The bulkhead separating the engine rooms indicated in 8.6.2 shall be watertight bulkhead of "A-60" class fire integrity according to 2.7.1.2 of Part II "Hull".

When the engine rooms are separated by cofferdams, tanks or other compartments, the bulkheads shall be at least of "A-0" class fire integrity but not lower than required for the adjacent spaces and compartments in Section 2 of Part VI "Fire Protection".

When independent engine rooms and the sections of main switchboard are located above the damage waterline as defined in 1.2.1 of Part V "Subdivision", it is allowed to divide the rooms with a longitudinal bulkhead of "A-60" class fire integrity."

15 **Para 8.8.3** is replaced by the following text:

**8.8.3** The longitudinal bulkhead separating the engine rooms indicated in 8.8.2 shall be watertight bulkhead of "A-60" class fire integrity according to 2.7.1.2 of Part II "Hull".

When the machinery rooms are separated by the cofferdams, tanks or other compartments, the bulkheads shall be at least of "A-0" class fire integrity but not lower than required for the adjacent spaces and compartments in Section 2 of Part VI "Fire Protection".

When independent engine rooms and the sections of main switchboard are located above the damage waterline as defined in 1.2.1 of Part V "Subdivision", it is allowed to divide the rooms with a longitudinal bulkhead of "A-60" class fire integrity."

## 9 REQUIREMENTS FOR SHIPS EQUIPPED FOR USING GASES OR LOW-FLASHPOINT FUELS

16 **Para 9.1.4** is replaced by the following text:

**9.1.4** In addition to the technical documentation specified in Section 3 of Part I "Classification", the following technical data and ship documents confirming fulfillment of the Rules shall be submitted to the Register (A — for approval; AG — for agreement, FI — for information taking into account 8.2 of Part II "Technical Documentation" of the Rules for Technical Supervision during Construction of Ships and Manufacture of Materials and Products for Ships):

- .1 drawings of fuel tanks arrangement with their distances from side plating and the bottom specified (A);
- .2 drawings of supports and other structures to ensure fastening and limiting shifting of fuel tanks (A);
- .3 calculations of heat emission from the flame which may occur during the fire affecting gas fuel tanks and other equipment and spaces related to gas fuel (AG);
- .4 drawings and diagrams of systems and piping for gas fuel specifying such assemblies as compensators, flange joints, stop and control valves and fittings, drawings of quick-closing arrangements of the gas fuel system, diagrams of gas fuel preparation, heating and pressure control (A), calculations of stresses in piping containing gas fuel at a temperature below – 110 °C (AG);
- .5 drawings of safety and vacuum safety valves of fuel storage tanks (A);
- .6 drawings and descriptions of all systems and arrangements for the measurement of fuel amount and characteristics, and for gas detection (A);
- .7 diagrams of gas fuel pressure and temperature control and regulating systems (A);
- .8 drawings (A) and calculations of bilge and ballast systems in gas-hazardous spaces (AG);
- .9 diagrams (A) and calculations of gas-dangerous spaces ventilation (AG);
- .10 diagrams (A) and calculations of gas-freeing system (AG);
- .11 circuit diagrams of electric drives and control systems for fuel preparation plants, ventilation of hazardous spaces and airlocks (A);
- .12 circuit diagrams of electric measurement and alarm systems for equipment related to the use of gas fuel (A);
- .13 general arrangement drawings of electrical equipment related to the use of gas fuel (A);
- .14 drawings of cable laying in hazardous spaces and areas (A);
- .15 drawings of earthing for electrical equipment, cables, piping located in gas-dangerous spaces (A);
- .16 technical background of electrical equipment fitness (AG);
- .17 ship general arrangement drawings specifying the layout of the following:  
gas fuel storage tanks and any openings in them; spaces for fuel storage and preparation and any openings to them; doors, hatches and any other openings into hazardous spaces and areas; venting pipes and air inlet and outlet locations of a ventilation system of hazardous spaces and areas; doors, scuttles, companions, ventilation duct outlets locations and other openings in spaces adjacent to hazardous area (A, AG or FI, as applicable);
- .18 data on the properties of gas fuel intended for the use on board the ship (FI);
- .19 analysis of risks related to the use and storage of gas fuel and possible consequences of its leakages according to IACS Recommendations No. 146<sup>1</sup>. The analysis shall consider the risks

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<sup>1</sup> Refer to Supplement to rules and guidelines of Russian Maritime Register of Shipping "IACS Procedural Requirements, Unified Requirements, Unified Interpretations and Recommendations" (published in electronic format as a separate edition).



of damage of hull structural members and failure of any equipment after accident related to the use of gas fuel. The results of risk analysis shall be taken into account in the operating manual (AG);

.20 regarding the LNG tanks, the technical documentation shall be submitted in the extent required for approval of a cargo tank for carrying LNG in compliance with the requirements of the IGF Code (A, AG or FI, as applicable);

Regarding the CNG tanks, the technical documentation shall be submitted in the extent required for approval of a cargo tank for carrying CNG on board the gas carrier in compliance with the Rules for the Classification and Construction of CNG Gas Carriers (A, AG or FI, as applicable).

When the standard cylinders are used, the calculation of permissible pressure shall be submitted (AG);

.21 Inspection/survey plan for the liquefied gas fuel containment system (A).".

### 13 REQUIREMENTS FOR OFFSHORE SERVICE VESSELS

17 **Chapter 13.2** is renamed reading as follows:

#### "13.2 STANDBY VESSELS AND SALVAGE SHIPS".

18 **Para 13.2.1** is replaced by the following text:

##### "13.2.1 General.

For ships intended to carry out rescue and standby services in offshore areas of hydrocarbon production and complying with the requirements of this Chapter, the descriptive notation **Standby vessel** may be added to the character of classification (refer also to applicable requirements specified in Table 2.5 of Part I "Classification").

For ships intended to carry out rescue services and complying as a minimum with the requirements of 13.2.3 (except for 13.2.3.1 — 13.2.3.3, 13.2.3.12), 13.2.4, 13.2.5, 13.2.10, the descriptive notation **Salvage ship** may be added to the character of classification (refer also to applicable requirements specified in Table 2.5 of Part I "Classification").".

### 15 REQUIREMENTS FOR SHIPS NOT ALWAYS AFLOAT BUT SAFELY AGROUND (NAABSA SHIPS)

19 **Formula (15.2.6.1)** is replaced by the following one:

$$"p_i = 10d_N(1 + 0,8/(A_i)^{1/2}), \quad (15.2.6.1)".$$

### 20 REQUIREMENTS FOR SHIPS FITTED FOR LONG-TERM OPERATION WITHOUT DRY-DOCKING AND DESIGNED IN SUCH A WAY AS TO PROVIDE THE POSSIBILITY OF IN-WATER SURVEY

20 **Para 20.2.1.2** is replaced by the following text:

".2 description of means of access to structures from inside and outside (may be drawn up in the form of a manual on means of access), including description of procedures (with the use of divers and other technical means) for installation and securing of temporary blanks required for maintenance and survey of bottom and side valves, closing devices or other structures under water providing free access (FI);".

21 **Para 20.3.1.3.1** is replaced by the following text:

"20.3.1.3.1 Ship spaces shall be designed in such a way as to provide the possibility of performing periodical examinations of the shell plating from inside (i.e. internal examinations). Protective coating shall be applied onto the ship spaces. Effectiveness and service period of the protective coating shall be determined by the shipowner and agreed with the manufacturer.

Means of access shall be provided in such spaces, enabling a throughout examination of the shell plating from inside. Openings in hull structures (floors, longitudinal girders, bulkheads, etc.) shall ensure free passage for RS surveyor in all directions during surveys."