



**RUSSIAN MARITIME REGISTER OF SHIPPING**  
HEAD OFFICE

**CIRCULAR LETTER**

**№ 313-08- 711c**

*LL.12.2013*

Re:

On content and application of amendments to IACS Unified Requirement (UR) G3 (Rev.5 Jan.2013) "Liquefied gas cargo and process piping"

Item of technical supervision:

Cargo system valves intended to be used at a working temperature below -- 55 °C.

Codes – 17020110MK, 17020120, 17020130MK, 17020140MK

Implementation since 01.01.2014

Valid: until ---

Validity period extended till ----

Cancels/amends/adds Circular letter № --- of ---

Number of pages: 1+2

Appendices: Amendments to Section 12, Part VI "Systems and Piping" of the Rules for the Classification and Construction of Ships Carrying Liquefied Gases in Bulk, 2012 – on 2 pages.

Technical Director – Head of Classification Directorate

  
V.I. Evenko

Amends Section 12, Part VI "Systems and Piping" of the Rules for the Classification and Construction of Ships Carrying Liquefied Gases in Bulk, 2012, ND No. 2-020101-068

We hereby inform that IACS UR G3 (Rev.5 Jan.2013) "Liquefied gas cargo and process piping" comes into force since 1 January 2014.

Amendments to IACS UR G3 (Rev.5 Jan.2013) supplemented the of requirements of paragraph 3.6.1, IACS UR G3 (Rev.4 Mar.2011) regarding type and unit production testing of cargo system valves intended to be used at a working temperature below -- 55 °C.

The requirements of IACS UR G3 (Rev.5 Jan.2013) will be introduced in Section 12, Part VI "Systems and Piping" of the Rules for the Classification and Construction of Ships Carrying Liquefied Gases in Bulk. The text of amendments is given in the Appendix to the Circular Letter.

The original text of the IACS UR G3 (Rev.5 Jan.2013) in English is posted on the RS website in Section: Normative Documents Publication and Support Department/ "List of External Normative Documents"/ 1-0206-003-E-A1.

It is necessary to do the following:

1. Apply the provisions of the Circular Letter:
  - when a request of survey of cargo system valves intended to be used at a working temperature below -- 55 °C is dated on or after or after 01 January 2014;
  - at survey of cargo system valves intended to be used at a working temperature below -- 55 °C which are installed on the ships contracted for construction on or after 1 January 2014.
2. Bring the content of the Circular Letter to the notice of the RS surveyors.

Person in charge:

Shurpyak V.K.

Dept.313

+7 (812) 312-39-85

DMS "THESIS"

No. 270822 dated 25.12.2013

Alterations (amendments) to be introduced in the Rules for the Classification and Construction of Ships Carrying Liquefied Gases in Bulk (2012)

PART VI. "SYSTEMS AND PIPING"

Para 12.1.1.1.1 shall be amended to be read:

"

**12.1.1.1.1** Each size and type of valve intended to be used at a working temperature below -- 55 °C is to be approved through design assessment and prototype testing. Prototype testing for all valves to the minimum design temperature or lower and to a pressure not lower than the maximum design pressure foreseen for the valves is to be witnessed in the presence of the surveyor to the Register. Prototype testing is to include hydrostatic test of the valve body at a pressure equal to 1,5 times the design pressure, and cryogenic testing consisting of valve operation or safety valve set pressure, and leakage verification. In addition, for all valves other than safety valves, a seat and stem leakage test at a pressure equal to 1,1 times the design pressure is to be conducted.

For valves intended to be used at a working temperature above -- 55 °C, prototype testing is not required."

Para 12.1.1.1.1 shall be amended to be read:

**12.1.1.1.2.1** All valves are to be tested at the plant of manufacturer in the presence of the surveyor to the Register. Testing is to include hydrostatic test of the valve body at a pressure equal to 1,5 times the design pressure for all valves, seat and stem leakage test at a pressure equal to 1,1 times the design pressure for all valves other than safety valves. In addition, cryogenic testing consisting of valve operation and leakage verification for a minimum of 10 per cent of each type and size of valve for all valves other than safety valves intended to be used at a working temperature below -- 55 °C. The set pressure of safety valves is to be tested at ambient temperature.

As an alternative to the above, if so requested by the relevant manufacturer, the certification of a valve may be issued subject to the following:

- .1 the valve has been approved as required by 12.1.1.1.1 for valves intended to be used at a working temperature below -- 55 °C;
- .2 the manufacturer has a recognized quality system that has been assessed and certified by the Register subject to periodic audits;
- .3 the quality control plan contains a provision to subject each valve to a hydrostatic test of the valve body at a pressure equal to 1,5 times the design pressure for all valves and seat and stem leakage test at a pressure equal to 1,1 times the design pressure for valves other than safety valves.

The set pressure of safety valves is to be tested at ambient temperature. The manufacturer is to maintain records of such tests;

.4 cryogenic testing consisting of valve operation and leakage verification for a minimum of 10 per cent of each type and size of valve for valves other than safety valves intended to be used at a working temperature below -- 55 °C in the presence of the surveyor to the Register.”.