

GC10 Reliquefaction plant of motor-driven LNG-carriers

(1988)
(Rev.1
Dec 2018)

Interpretation of the second sentence of paragraph 7.2.1 of the IMO International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (MSC.5(48)) as amended by resolutions MSC.17(58), MSC.30(61), MSC.32(63), MSC.59(67), MSC.103(73), MSC.177(79) and MSC.220(82)

The second sentence of paragraph 7.2.1 reads as follows:

Unless an alternative means of controlling the cargo pressure/temperature is provided to the satisfaction of the Administration, a stand-by unit (or units) affording space capacity at least equal to the largest required single unit should be provided

Interpretation

1 Mechanical refrigeration fitted as the primary system for cargo pressure control

1.1 Section 7.2 is based on the assumption that paragraph 7.1.1 is being complied with by using means defined in sub-paragraph 7.1.1.1. That is to say, a mechanical refrigeration system is fitted as the primary means of maintaining the cargo tank pressure below MARVS.

1.2 Section 7.2 should apply to refrigeration systems when fitted on LNG carriers, ie standby capacity will be required as detailed in 7.2.1. A stand-by LNG/refrigerant heat exchanger need not be provided and the fitted LNG/refrigerant heat exchanger will not be required to have 25% excess capacity over that for normal requirements¹. Other heat exchangers utilizing water cooling should have a stand-by or have at least 25% excess capacity.

1.3 Paragraph 7.2.1 states that unless an alternative means of controlling the cargo pressure/temperature is provided to the satisfaction of the Administration, a stand-by unit (or units) affording spare capacity at least equal to the largest required single unit should be fitted.

For the purpose of complying with the above, a suitable alternative means of pressure/temperature control would be:

1.3.1 Auxiliary boiler(s) capable of burning the boil-off vapours and disposing of the generated steam or an alternative waste heat system acceptable to the Society. Consideration will be given to systems burning only part of the boil-off vapour if it can be shown that MARVS will not be reached within a period of 21 days.

¹. The reason for this relaxation is that corrosion and fouling problems are not expected in LNG/refrigerant heat exchangers.

Note:

1. Rev.1 of this Unified Interpretation is to be uniformly implemented by IACS Societies on ships constructed on or after 1 January 1988 but before 1 July 2016.

GC10

(cont)

1.3.2 Controlled venting of cargo vapours as specified in paragraph 7.1.1.5 if permitted by the Administrations concerned.

2 Mechanical refrigeration fitted as secondary system for cargo pressure control

Where a refrigeration plant is fitted as a means of disposing of excess energy as detailed in the 2nd sentence of paragraph 7.1.1.2, no stand-by unit will be required for the refrigeration plant.

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