Cargo piping insulation

Interpretation of paragraph 5.12.3.1 of the IMO International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (Resolution MSC.5(48) as amended by Resolution MSC.370(93)) IGC Code

Paragraph 5.12.3.1 reads:

Cargo piping systems shall be provided with a thermal insulation system as required to minimize heat leak into the cargo during transfer operations and to protect personnel from direct contact with cold surfaces.

Interpretation

The phrase ‘a thermal insulation system as required to minimize heat leak into the cargo during transfer operations’ means that properties of the piping insulation are to be taken into consideration when calculating the heat balance of the containment system and capacity of the pressure/temperature control system, that the properties of the thermal insulation for cargo piping systems shall take into consideration the overall heat calculation undertaken for the tank containment system and the capacity of the proposed pressure/temperature control system (e.g., refrigeration plants) adopted on each ship in accordance with the requirements of chapter 7 of the Code.

The phrase ‘cargo piping systems shall be provided with a thermal insulation system as required ... to protect personnel from direct contact with cold surfaces’ means that surfaces of cargo piping systems with which personnel is likely to contact under normal conditions shall be protected by a thermal insulation, with the exception for the below examples:

“Surfaces of cargo piping systems with which personnel is likely to contact under normal conditions” do not include areas such as:

- surfaces of cargo piping systems which are protected by physical screening measures to prevent such direct contact;
- surfaces of manual valves, having extended spindles that protect the operator from the cargo temperature;
- bellows;
- surfaces of cargo piping systems whose design temperature (to be determined from inner fluid temperature) is above minus 10 °C.

Note:

1. The original version of this Unified Interpretation is to be uniformly implemented by IACS Societies on ships constructed on or after was withdrawn prior to coming into force on 1 July 2019.

2. Rev. 1 of this Unified Interpretation is to be uniformly implemented by IACS Societies on ships constructed on or after 1 July 2020.