

GC 13 Examination before and after the first loaded voyage

(Jan 2008)
(Rev.1
Mar 2016)
(Rev.2
May 2019)

Interpretation of paragraphs 4.10.14 and 4.10.16 of the International Code for the Construction and Equipment of Ships Carrying Liquid Gases in Bulk (IGC Code), 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)

- paragraph 4.10.14 states:

"The overall performance of the cargo containment system should be verified for compliance with the design parameters during the initial cool-down, loading and discharging of the cargo. Records of the performance of the components and equipment essential to verify the design parameters should be maintained and be available to the Administration."

- paragraph 4.10.16 states:

"The hull should be inspected for cold spots following the first loaded voyage."

and,

Interpretation of paragraphs 4.20.3.5 and 4.20.3.7 of the International Code for the Construction and Equipment of Ships Carrying Liquid Gases in Bulk (IGC Code), as amended by Res. MSC.370(93),

- paragraph 4.20.3.5 states:

The overall performance of the cargo containment system shall be verified for compliance with the design parameters during the first full loading and discharging of the cargo, in accordance with the survey procedure and requirements in 1.4 and the requirements of the Administration or recognized organization acting on its behalf. Records of the performance of the components and equipment essential to verify the design parameters, shall be maintained and be available to the Administration.

Note:

1. This Unified Interpretation is to be applied by all Members and Associates to ships whose keels are laid, or which are at a similar stage of construction, on or after the 1 July 2008.
2. Rev.1 is to be applied by IACS Members to ships whose keels are laid, or which are at a similar stage of construction, on or after 1 July 2016.
3. Rev.2 is to be applied by IACS Members to ships whose keels are laid, or which are at a similar stage of construction, on or after 1 July 2020.

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- paragraph 4.20.3.7 states:

The cargo containment system shall be inspected for cold spots during, or immediately following, the first loaded voyage. Inspection of the integrity of thermal insulation surfaces that cannot be visually checked shall be carried out in accordance with recognized standards.

The above paragraphs shall be interpreted as follows:

Application

This UI applies to all vessels carrying liquefied natural gases (LNG) in bulk which have satisfactorily completed gas trials.

Certification

The following initial certificates shall be “conditionally” issued at delivery subject to satisfactory completion of the first cargo loading and unloading survey requirements below in the presence of a Surveyor:

1. Classification Certificate
2. Short Term Certificate of Fitness for the Carriage of Liquefied Gases in Bulk

Note: The conditions may either be stated on the Classification Certificate or issued as a condition of class in the vessel’s Record.

Survey Requirements**• First Loading (considered to be full loading):**

1. Priority to be given to latter stages of loading (approximately last 6 hours).
2. Review cargo logs and alarm reports.
3. Witness satisfactory operation of the following:
 - Gas detection system.
 - Cargo control and monitoring systems such as level gauging equipment, temperature sensors, pressure gauges, cargo pumps and compressors, proper control of cargo heat exchangers, if operating, etc.
 - Nitrogen generating plant or inert gas generator, if operating.
 - Nitrogen pressure control system for insulation, interbarrier, and annular spaces, as applicable.
 - Cofferdam heating system, if in operation.
 - Reliquefaction plant, if fitted.
 - Equipment fitted for the burning of cargo vapors such as boilers, engines, gas combustion units, etc., if operating.
4. Examination of on-deck cargo piping systems including expansion and supporting arrangements.
5. Witness topping off process for cargo tanks including high level alarms activated during normal loading.

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6. Advise master to carry out cold spot examination of the hull and external insulation during transit voyage to unloading port.
- **First Unloading:**
 1. Priority to be given to the commencement of unloading (approximately first 4 - 6 hours).
 2. Witness emergency shutdown system testing prior to commencement of unloading.
 3. Review cargo logs and alarm reports.
 4. Witness satisfactory operation of the following:
 - Gas detection system.
 - Cargo control and monitoring systems such as level gauging equipment, temperature sensors, pressure gauges, cargo pumps and compressors, proper control of cargo heat exchangers, if operating, etc.
 - Nitrogen generating plant or inert gas generator, if operating.
 - Nitrogen pressure control system for insulation, interbarrier, and annular spaces, as applicable.
 - On membrane vessels, verify that the readings of the cofferdam and inner hull temperature sensors are not below the allowable temperature for the selected grade of steel. Review previous readings.
 - Cofferdam heating system, if in operation.
 - Reliquefaction plant and review of records from previous voyage.
 - Equipment fitted for the burning of cargo vapors such as boilers, engines, gas combustion units, etc., if operating.
 5. Examination of on-deck cargo piping systems including expansion and supporting arrangements.
 6. Obtain written statement from the Master that the cold spot examination was carried out during the transit voyage and found satisfactory. Where possible, the surveyor should examine selected spaces.

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