

GC Secondary Barrier Testing Requirements

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(Sept 2007)

The International Code for the Construction and Equipment of Ships Carrying Liquid Gases in Bulk (IGC Code), 4.7.7 reads:

(Corr.1 Nov 2007)
(Rev.1 Oct 2013)
(Rev.2 Aug 2015)

"The secondary barrier should be capable of being periodically checked for its effectiveness, by means of a pressure/vacuum test, a visual inspection or another suitable method acceptable to the Administration. The method should be submitted to the Administration for approval."

The International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (IGC Code) as amended by MSC.370(93), entering into force on 1 January 2016, 4.6.2.4 reads:

"it is capable of being periodically checked for its effectiveness by means acceptable to the Administration or recognized organization acting on its behalf. This may be by means of a visual inspection or a pressure/vacuum test or other suitable means carried out according to a documented procedure agreed with the Administration or the recognized organization acting on its behalf;"

Interpretation

For containment systems with glued secondary barriers:

- At the time of construction, a tightness test should be carried out in accordance with approved system designers' procedures and acceptance criteria before and after initial cool down. Low differential pressures tests are not considered an acceptable test.
- If the designer's threshold values are exceeded, an investigation is to be carried out and additional testing such as thermographic or acoustic emissions testing should be carried out.
- The values recorded should be used as reference for future assessment of secondary barrier tightness.

For containment systems with welded metallic secondary barriers, a tightness test after initial cool down is not required.

Note:

1. This Unified Interpretation is to be applied by all Members and Associate to tests commenced on or after 1 July 2008.
2. Rev.1 of this Unified Interpretation is to be applied by all Members to tests commenced on or after 1 July 2014.
3. Rev.2 of this Unified Interpretation is to be applied by all Members to tests commenced on or after 1 July 2016.

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