

# Safety Measures for Cargo Tanks of Tankers

## Object of Amendment

Guidance for the Survey and Construction of Steel Ships Part R

## Reason for Amendment

SOLAS regulation II-2/11.6.1 specifies that venting arrangements (i.e. a primary means) are required to ensure that cargo tank pressures do not exceed design parameters during cargo loading, unloading, ballasting and de-ballasting. In addition, SOLAS regulation II-2/11.6.3 specifies that a redundant venting arrangement (i.e. a secondary means) is to be provided in the case of failure of the primary venting arrangement. The associated IACS Unified Interpretation (UI) SC140 has been already incorporated into the Rules.

Since amendments made to SOLAS regulations II-2/4.5.3.2.2 and 11.6.3.2 in 2017 require secondary means of ventilation be capable of preventing over-pressure or under-pressure in the event of damage to, or the inadvertent closing of, the means of isolation in cases where the same venting arrangements are used for multiple cargo tanks, the Society amended the Rules accordingly at the time.

The above meant that the supplying of inert gas by inert gas systems equipped with PV breakers as the primary means of ventilation and then using the associated PV breakers as secondary means of ventilation allowed by IACS UI SC140 was no longer permitted. On the other hand, IACS UI SC140, which had not been reviewed for a long time, was recently revised for the sake of making consistency with the SOLAS regulation and then approved at the IMO. Accordingly, relevant requirements in the Rules are amended based on the revised UI.

## Outline of Amendment

Delete the requirement in the Guidance for the Survey and Construction of Steel Ships Part R relevant to operations supplying inert gas in conjunction with PV breakers because such operations are already not permitted in accordance with amendments made to SOLAS in 2017.

## Effective Date and Application

This amendment applies to ships for which the date of the contract for construction is on or after 1 July 2025.

ID: DX24-20

Amended-Original Requirements Comparison Table (Safety Measures for Cargo Tanks of Tankers)

Amended	Original	Remarks
<p align="center"><b>GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p align="center"><b>Part R FIRE PROTECTION, DETECTION AND EXTINCTION</b></p> <p align="center"><b>R11 STRUCTURAL INTEGRITY</b></p> <p><b>R11.6 Protection of Cargo Tank Structure against Pressure or Vacuum</b></p> <p><b>R11.6.3 Safety Measures in Cargo Tanks</b>  <b>3</b> “A secondary means of allowing full flow relief of vapour, air or inert gas mixtures” specified in <b>11.6.3-2, Part R of the Rules</b> is to comply with the following requirements:                      ((1) and (2) are omitted.)                      (Deleted)</p>	<p align="center"><b>GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p align="center"><b>Part R FIRE PROTECTION, DETECTION AND EXTINCTION</b></p> <p align="center"><b>R11 STRUCTURAL INTEGRITY</b></p> <p><b>R11.6 Protection of Cargo Tank Structure against Pressure or Vacuum</b></p> <p><b>R11.6.3 Safety Measures in Cargo Tanks</b>  <b>3</b> “A secondary means of allowing full flow relief of vapour, air or inert gas mixtures” specified in <b>11.6.3-2, Part R of the Rules</b> is to comply with the following requirements:                      ((1) and (2) are omitted.)                      (3) <u>For tankers which are equipped with inert gas systems complying with the requirements specified in 4.5, 11.6 and Chapter 35, Part R of the Rules, which carry out unloading operation under the conditions that the masthead isolation valve for free flow type is closed and inert gas is supplied into cargo tanks, the secondary means may be arranged taking into account that the operation supplying inert gas serves as the primary under-pressure protection as specified in 11.6.1(2), Part R of the Rules.</u></p>	<p>Deletion of paragraph 3 of IACS UI SC140 Rev.3</p>

## Amended-Original Requirements Comparison Table (Safety Measures for Cargo Tanks of Tankers)

Amended	Original	Remarks
<b>EFFECTIVE DATE AND APPLICATION</b>		
<p>1. The effective date of the amendments is 1 July 2025.</p> <p>2. Notwithstanding the amendments to the Amendments, the current requirements apply to ships for which the date of contract for construction* is before 1 July 2025.</p> <p>* “contract for construction” is defined in the latest version of IACS Procedural Requirement (PR) No.29.</p> <p style="text-align: center;">IACS PR No.29 (Rev.0, July 2009)</p> <p>1. The date of “contract for construction” of a vessel is the date on which the contract to build the vessel is signed between the prospective owner and the shipbuilder. This date and the construction numbers (i.e. hull numbers) of all the vessels included in the contract are to be declared to the classification society by the party applying for the assignment of class to a newbuilding.</p> <p>2. The date of “contract for construction” of a series of vessels, including specified optional vessels for which the option is ultimately exercised, is the date on which the contract to build the series is signed between the prospective owner and the shipbuilder. For the purpose of this Procedural Requirement, vessels built under a single contract for construction are considered a “series of vessels” if they are built to the same approved plans for classification purposes. However, vessels within a series may have design alterations from the original design provided:</p> <p style="margin-left: 20px;">(1) such alterations do not affect matters related to classification, or</p> <p style="margin-left: 20px;">(2) If the alterations are subject to classification requirements, these alterations are to comply with the classification requirements in effect on the date on which the alterations are contracted between the prospective owner and the shipbuilder or, in the absence of the alteration contract, comply with the classification requirements in effect on the date on which the alterations are submitted to the Society for approval.</p> <p>The optional vessels will be considered part of the same series of vessels if the option is exercised not later than 1 year after the contract to build the series was signed.</p> <p>3. If a contract for construction is later amended to include additional vessels or additional options, the date of “contract for construction” for such vessels is the date on which the amendment to the contract, is signed between the prospective owner and the shipbuilder. The amendment to the contract is to be considered as a “new contract” to which 1. and 2. above apply.</p> <p>4. If a contract for construction is amended to change the ship type, the date of “contract for construction” of this modified vessel, or vessels, is the date on which revised contract or new contract is signed between the Owner, or Owners, and the shipbuilder.</p> <p>Note: This Procedural Requirement applies from 1 July 2009.</p>		