Fuel Gas Vent Pipes Located within Gas-Safe Machinery Spaces

Object of Amendment

Guidance for the Survey and Construction of Steel Ships Part GF

Reason for Amendment

The International Code of Safety for Ships Using Gases or Other Low-Flashpoint Fuels (IGF Code) and the associated amendment to the SOLAS convention that made compliance with the code mandatory were adopted at the 95th session of the IMO Maritime Safety Committee (MSC95) held in June 2015. The Society has already incorporated the IGF Code into Part GF of the Rules for the Survey and Construction of Steel Ships.

Although 9.6.1 of the IGF Code specifies that fuel pipes in gas safe machinery spaces are to be located in double-walled structures, it is not clear whether this includes gas fuel vent pipes used for purging, venting and bleeding gas fuel systems. Considering that the use of single-wall vent pipes has been widely accepted since the code entered into force, IACS reviewed requirements to protect the above machinery spaces from the risk of gas fuel leakage from such vent pipes. As a result of this review, IACS adopted Unified Interpretation (UI) GF22 to specify vent pipes may be of a single-wall construction under certain conditions, such as being connected by welded joints and having open ends.

Accordingly, relevant requirements are amended based on UI GF22.

Outline of the Amendment

Specifies requirements for single-walled gas fuel vent pipes located in gas safe machinery spaces.

Effective Date and Application

This draft amendment applies to ships for which the date of contract for construction is on or after 1 July 2026.

ID:DD25-31

Amended-Original Requirements Comparison Table (Fuel Gas Vent Pipes Located within Gas-Safe Machinery Spaces)

Amended	Original	Remarks
GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS	**GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS**	
Part GF SHIPS USING LOW-FLASHPOINT FUELS	**Part GF SHIPS USING LOW-FLASHPOINT FUELS**	
GF9 FUEL SUPPLY TO CONSUMERS	**GF9 FUEL SUPPLY TO CONSUMERS**	
GF9.6 Fuel Supply to Consumers in Gas-safe Machinery Spaces	**GF9.6 Fuel Supply to Consumers in Gas-safe Machinery Spaces**	
GF9.6.1 Fuel Piping **1** In cases where double wall piping with vacuum used as secondary enclosure is adopted as “other solutions” specified in **9.6.1(3), Part GF of the Rules**, appropriate means capable of detecting loss of vacuum are to be provided, in addition to applying **2.2.1-37, Part GF of the Rules**.	**GF9.6.1 Fuel Piping** In cases where double wall piping with vacuum used as secondary enclosure is adopted as “other solutions” specified in **9.6.1(3), Part GF of the Rules**, appropriate means capable of detecting loss of vacuum are to be provided, in addition to applying **2.2.1-37, Part GF of the Rules**.	
2 Gas fuel vent pipes (i.e. pipes arranged for purpose of purging, venting, or bleeding fuel gas lines) which are of single-walled construction and are located within gas-safe machinery spaces may be accepted, provided that at minimum the following conditions are satisfied: (1) These pipes originate from a gas fuel piping system having a design pressure not greater than 1 *MPa*, or the maximum built-up back pressure in the vent pipes is calculated does not exceed 0.5 *MPa*; (2) These pipes are of fully welded construction. The connection to the consumer (if not connected by	(Newly added)	IACS UI GF22

Amended-Original Requirements Comparison Table (Fuel Gas Vent Pipes Located within Gas-Safe Machinery Spaces)

Amended	Original	Remarks
welding) as well as any flexible elements are to comply with **9.6.1, Part GF of the Rules**; (3) These pipes are open ended; (4) These pipes do not contain fuel gas or a gas fuel/air mixture, except for the sole purpose of safely purging, venting or bleeding the gas fuel or gas fuel/air mixture when isolating gas fuel to consumers; and (5) The gas-safe machinery space (the spaces in which gas consumers are located) is permanently mechanically ventilated. **3** In addition to **-2** above, vent pipes of internal combustion engines should be of double-walled construction unless single-walled construction is justified in the safety concept of the engine specified in **1.4-16, Annex 1.1.3-3, Part GF of the Rules**.	(Newly added)	IACS UI GF22

EFFECTIVE DATE AND APPLICATION

1. The effective date of the amendments is 1 July 2026.
2. Notwithstanding the amendments, the current requirements apply to ships for which the date of contract for construction* is before the effective date.

* “contract for construction” is defined in the latest version of IACS Procedural Requirement (PR) No.29.

IACS PR No.29 (Rev.0, July 2009)

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.
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:
   (1) such alterations do not affect matters related to classification, or
   (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.
   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.
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

<table>
<tr><th>Amended</th><th>Original</th><th>Remarks</th></tr>
<tr><td colspan="2">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.
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.

Note:
This Procedural Requirement applies from 1 July 2009.</td><td></td></tr>
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