

SUB-COMMITTEE ON SHIP SYSTEMS AND
EQUIPMENT
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Agenda item 12

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**UNIFIED INTERPRETATION OF PROVISIONS OF IMO SAFETY, SECURITY,
AND ENVIRONMENT-RELATED CONVENTIONS**

**Interpretation of the term "forward of" in paragraphs 2.2.3.2.1, 2.2.3.2.6 and 2.2.4.2.1 of
chapter 15 of the FSS Code**

Submitted by IACS

SUMMARY

Executive summary: IACS has identified the need to clarify the term "forward of", which is used in different paragraphs of chapter 15 of the FSS Code, as amended by resolution MSC.367(93)

Strategic direction: 6

High-level action:

Output: 6.1

Action to be taken: Paragraph 8

Related documents: SSE 4/12/3/Rev.1 and SSE 4/19, paragraph 12.37

Background

1 IACS submitted document SSE 4/12/3/Rev.1 providing draft unified interpretations (UIs) of provisions relating to inert gas systems on tankers. These draft UIs were endorsed by the Sub-Committee (SSE 4/19, paragraph 12.37), approved by the Maritime Safety Committee (MSC), at its ninety-eighth session, and issued as MSC.1/Circ.1582.

2 MSC.1/Circ.1582 includes a unified interpretation of paragraph 2.2.4.1 of chapter 15 of the FSS Code clarifying, inter alia, that the operational status of the inert gas system should be based on the pressure or flow of the inert gas upstream of the non-return devices and, therefore, should also be based on the output of a sensor placed upstream. However, the UI clarifies that this should not be considered to require additional indicators and alarms other than those specified in paragraphs 2.2.4 and 2.3.2 or 2.4.2 of said chapter, as appropriate.

Discussion

3 It is noted that the term "forward of" is used in chapter 15 of the FSS Code in three instances, i.e. paragraphs 2.2.3.2.1, 2.2.3.2.6 and 2.2.4.2.1, as follows:

"2.2.3.2.1 The inert gas main may be divided into two or more branches forward of the non-return devices required by paragraph 2.2.3.1.

...

2.2.3.2.6 Arrangements shall be provided to enable the inert gas main to be connected to an external supply of inert gas. The arrangements shall consist of a 250 mm nominal pipe size bolted flange, isolated from the inert gas main by a valve and located forward of the non-return valve. The design of the flange should conform to the appropriate class in the standards adopted for the design of other external connections in the ship's cargo piping system.

...

2.2.4.2 Instrumentation shall be fitted for continuously indicating and permanently recording, when inert gas is being supplied:

.1 the pressure of the inert gas mains forward of the non-return devices; and
..."

4 Having reviewed the above specific requirements in which the term "forward of" is used, IACS has recognized the risk of misinterpretation and contradiction with the UIs approved and issued as MSC.1/Circ.1582.

5 In this regard it is the understanding of IACS that the term "forward of" in paragraphs 2.2.3.2.1 and 2.2.3.2.6 should be interpreted as "downstream", considering that normally:

- .1 the inert gas generator is located in the aft part of the ship;
- .2 the cargo tanks are located in the forward part of the ship; and
- .3 the inert gas flows from the inert gas generator to the cargo tanks.

6 However, if the same interpretation is used in relation to paragraph 2.2.4.2.1, which would then entail that the inert gas pressure/flow sensor be fitted downstream of the non-return devices, there will be a problem when considering the UI included in MSC.1/Circ.1582, which clearly states that no additional indicators other than those specified in paragraph 2.2.4 should be required. In this connection, it could be understood that two sensors should be required to be fitted, i.e. one upstream of the non-return devices, according to the UI in MSC.1/Circ.1582; and the other downstream, on the basis of the interpretation of "forward of" in paragraph 2.2.4.2.1. However, in the view of IACS, the installation of two sensors would not be technically justified.

Proposal

7 In light of the above, and recognizing the need to facilitate the global and consistent implementation of the requirements of the FSS Code, IACS proposes that the Sub-Committee develop a new UI clarifying the term "forward of" as used in chapter 15 of the FSS Code.

Thereafter, it is suggested the Sub-Committee consider the benefit of developing a longer-term solution, which would be to prepare draft amendments to the Code to replace the term "forward of" with the unambiguous wording "downstream of" and "upstream of", as appropriate.

Action requested of the Sub-Committee

8 The Sub-Committee is invited to consider the discussion in paragraphs 3 to 6 above and the proposal and suggestion in paragraph 7 above; and take action as appropriate.
