

SUB-COMMITTEE ON SHIP SYSTEMS AND
EQUIPMENT
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Agenda item 17

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BIENNIAL STATUS REPORT AND PROVISIONAL AGENDA FOR SSE 12

Proposal to include the output "Development of amendments to paragraph 2.1.2.5 of Chapter 5 of the FSS Code on construction requirement for gaskets" in the provisional agenda for SSE 12

Submitted by India, the United Kingdom and IACS

SUMMARY

Executive summary: This document proposes to include the output "Development of amendments to paragraph 2.1.2.5 of chapter 5 of the FSS Code on construction requirement for gaskets" in the provisional agenda for SSE 12 and offers a proposal for consideration at that session to revise paragraph 2.1.2.5 of chapter 5 of the FSS Code to align the construction requirement for gaskets used in discharge piping inside protected spaces, with other IMO instruments.

Strategic direction, if applicable: None

Output: None

Action to be taken: Paragraph 8

Related documents: SSE 1/17/6; MSC 107/17/4 and MSC 107/20

Background

1 Document MSC 107/17/4 (Japan et al.) proposed a new output to address the inconsistency in IMO instruments with respect to application of melting point requirements for gaskets used in the fixed fire-extinguishing systems by aligning paragraph 2.1.2.5 of chapter 5 of the FSS Code with other IMO instruments.

2 MSC 107 agreed to include in its post-biennial agenda an output "Development of amendments to paragraph 2.1.2.5 of Chapter 5 of the FSS Code on construction requirement for gaskets", with one session needed to complete the item, assigning the SSE Sub-Committee as the associated organ (MSC 107/20, paragraph 17.16).

Discussion

3 As highlighted in document MSC 107/17/4, the following instruments exclude gaskets from the requirement of being constructed of materials having a melting temperature which exceeds 925°C:

- .1 paragraph 3.1.4 of chapter 6 of the FSS Code;
- .2 paragraph 11.3.6 of the IGC Code;
- .3 paragraph 3.10 of document MSC.1/Circ.1315/Rev.1 on the *Revised guidelines for the approval of fixed dry chemical powder fire-extinguishing systems for the protection of ships carrying liquified gases in bulk*; and
- .4 paragraph 3.10 of document MSC.1/Circ.1430/Rev.3 on the *Revised guidelines for the design and approval of fixed water-based fire-fighting systems for ro-ro spaces and special category spaces*.

4 As paragraph 2.1.2.5 of chapter 5 of the FSS Code does not address the above exclusion, IACS unified interpretation SC 263 provides that gaskets used in discharge piping for fixed gas fire-extinguishing systems located within protected spaces need not be constructed of materials having a melting temperature which exceeds 925°C. However, SSE 1 concluded that the issue should be addressed through an amendment to the FSS Code; and subsequently IACS deleted its unified interpretation SC 263.

5 It is also the view of the co-sponsors that the gaskets between flanges with a melting point not exceeding 925°C will maintain sufficient integrity for meeting the performance expectations for the fire-extinguishing system and, therefore, the melting point requirement need not apply to gaskets. In addition, it is considered that there is no practical difference between the various types of fire-extinguishing systems concerning the criticality of gaskets or their susceptibility to gasket failure. Finally, the leakage from a gasket that has "failed" (as a result of its melting point being exceeded) in a fixed gas fire-extinguishing system will only occur after an intentional release of the gas extinguishing system into the same space in which the failed gasket is located and does not represent any additional hazard to personnel.

Proposal

6 The co-sponsors note that the post-biennium agenda of MSC will cover years 2026 and 2027, with SSE 12 scheduled to be held in the year 2026. To initiate the work in the next biennium, it is proposed to include the output "Development of amendments to paragraph 2.1.2.5 of Chapter 5 of the FSS Code on construction requirement for gaskets" in the provisional agenda for SSE 12.

7 Once the item is included on the agenda, the below amendment (applicable to both new and existing ships) of paragraph 2.1.2.5 of chapter 5 of the FSS Code, is proposed to be considered by the Sub-Committee:^{*}

"All discharge piping, fittings and nozzles in the protected spaces (except gaskets) shall be constructed of materials having a melting temperature which exceeds 925°C. The piping and associated equipment shall be adequately supported."

Action requested of the Sub-Committee

8 The Sub-Committee is invited to consider the foregoing, the proposals in paragraphs 6 and 7; and to take action, as appropriate.

* Tracked changes are indicated using "strikeout" for deleted text and "grey shading" to highlight all modifications and new insertions, including deleted text.