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## SHIP SYSTEMS AND EQUIPMENT

### Revision of the Guidelines for the maintenance and inspections of fixed carbon dioxide fire-extinguishing systems (MSC.1/Circ.1318)

Submitted by the United Kingdom and IACS

#### SUMMARY

*Executive summary:* This document proposes a revision of *Guidelines for the maintenance and inspections of fixed carbon dioxide fire-extinguishing systems* (MSC.1/Circ.1318) to align with the *Revised guidelines for the maintenance and inspection of fire protection systems and appliances* (MSC.1/Circ.1432, as amended), particularly with respect to the internal inspection of all control valves of CO<sub>2</sub> bottles at a 5-year service

*Strategic direction,  
if applicable:* 6

*Output:* 6.17

*Action to be taken:* Paragraph 10

*Related documents:* SSE 7/21 (annex 18); MSC 102/19 (paragraph 2.17) and MSC 102/24 (paragraph 19.23)

#### Background

1 MSC 101, following the consideration of document MSC 101/21/5 (United Kingdom), proposing amendments to the *Guidelines for the maintenance and inspections of fixed carbon dioxide fire-extinguishing systems* (MSC.1/Circ.1318) to clarify the hydrostatic testing regime for high-pressure CO<sub>2</sub> cylinders, had instructed the SSE Sub-Committee to revise the Guidelines accordingly.

2 SSE 7 duly reviewed the Guidelines and made amendments to address the issue identified in document MSC 101/21/5 with the view to approval by MSC 102.

3 However, due to insufficient time available at MSC 102 to consider the draft amendments to MSC.1/Circ.1318, the Committee agreed to defer the approval of the draft amendments to MSC 103 (MSC 102/24, paragraph 19.23).

4 The co-sponsors have reviewed the draft amendments to MSC.1/Circ.1318 prepared by SSE 7 and identified inconsistencies between MSC.1/Circ.1432 and the draft revised MSC.1/Circ.1318. It is considered that those inconsistencies, if left unattended, would lead to confusion in the industry.

### Discussion

5 The co-sponsors consider that the implementation of the requirement that alternative CO<sub>2</sub> cylinders should be supplied to ensure the capacity described in the FSS Code when cylinders are removed for testing, has room for reconsideration. For example, when the ship is in repair, in lay-up or in dry-dock and some or all of CO<sub>2</sub> cylinders are delivered to shore for such hydrostatic testing, the application of the requirements in paragraph 2.2.1 of chapter 5 of the FSS Code should be exempted.

6 Therefore, the draft amendments to paragraph 6.1.2 of the Guidelines agreed by SSE 7 and contained in the annex to annex 18 of document SSE 7/21 need to be further amended, as follows:\*

"...Before the 20-year anniversary and every 10-year anniversary thereafter, all ~~remaining cylinders bottles~~ should be subjected to a hydrostatic test. ...When cylinders are removed for testing the cylinders should be replaced such that the quantity of fire-extinguishing medium continues to satisfy the requirements of 2.2.1 of chapter 5 of the FSS Code, ~~subject to SOLAS regulation II-2/14.2~~; and"

7 Additionally, the co-sponsors consider that MSC.1/Circ.1318 should be better aligned with MSC.1/Circ.1432. Paragraph 9.1 of MSC.1/Circ.1432 requires internal inspection of all control valves (same as in the superseded MSC/Circ.850), as follows:

"9 Five-year service

At least once every 5 years, the following inspections should be carried out for the specified equipment.

9.1 Fixed gas fire-extinguishing systems

Perform internal inspection of all control valves."

8 However, MSC.1/Circ.1318 does not require such internal inspection of all control valves. To provide more clarification and for ensuring the harmonized implementation of the maintenance requirements of similar fire-fighting appliances, the co-sponsors would like to propose to repeat such requirements under a new section 7 in MSC.1/Circ.1318, as follows:

"7 Five-year service

At least once every 5 years, internal inspection of all control valves should be performed."

9 The co-sponsors consider that an appropriate amendment would also be needed to the example service charts contained in appendix to MSC.1/Circ.1318.

### Action requested of the Committee

10 The Committee is invited to consider the above and, in particular the proposals in paragraphs 6, 8 and 9, and take action, as appropriate.

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\* Here and throughout the documents, tracked changes are indicated using "strikeout" for deleted text and "grey shading" to highlight all modifications and new insertions, including deleted text.