

MARITIME SAFETY COMMITTEE  
100th session  
Agenda item 9

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## SHIP SYSTEMS AND EQUIPMENT

### Draft amendments to the LSA Code regarding the ventilation of totally enclosed lifeboats

Submitted by ICS, BIMCO, IFSMA, INTERCARGO, INTERMANAGER, IPTA and ITF

#### SUMMARY

*Executive summary:* This document comments on paragraph 4.10 of the report to the Maritime Safety Committee (SSE 5/17), regarding the draft amendments to the LSA Code on the ventilation of totally enclosed lifeboats

*Strategic direction, if applicable:* Other work

*Output:* OW 47

*Action to be taken:* Paragraph 8

*Related documents:* MSC 97/19/8, MSC 97/22; SSE 4/14, SSE 4/14/1, SSE 4/19; SSE 5/4, SSE 5/4/1, SSE 5/WP.3 (annex 1) and SSE 5/17 (paragraph 4.10)

#### Introduction

1 This document is submitted in accordance with paragraph 6.12.5 of the *Organization and method of work of the Maritime Safety Committee and the Marine Environment Protection Committee and their subsidiary bodies* (MSC-MEPC.1/Circ.5/Rev.1), and provides comments on paragraph 4.10 of document SSE 5/17, regarding the draft amendments to the LSA Code on the ventilation of totally enclosed lifeboats.

#### Background

2 The Sub-Committee on Ship Systems and Equipment (SSE), at its fourth session, re-established the LSA Correspondence Group and instructed it to gather and review data on the microclimate inside totally enclosed lifeboats from research or academic documents and, based on this review, to identify the possible criteria on which the new ventilation requirements for totally enclosed lifeboats should be based, considering humidity, temperature, threshold levels of O<sub>2</sub> and CO<sub>2</sub>, ventilation rates and air changes. Based on the above,

the Correspondence Group recommended the criteria to be used for the draft amendments to the LSA Code on the ventilation requirements for totally enclosed lifeboats and the draft amendments to the *Revised recommendation on testing of life-saving appliances* (resolution MSC.81(70)). The Correspondence Group submitted its report to SSE 5 (SSE 5/4), including the draft amendments to the LSA Code.

3 SSE 5, having noted the following views:

- .1 the CO<sub>2</sub> concentration was the determining parameter for ventilation requirements and should not exceed 5,000 ppm, which required a ventilation rate of at least 5 m<sup>3</sup>/h per person;
- .2 in order to ensure the ventilation power, sufficient fuel should be provided to allow for 24 h of ventilation and, at the same time, run the fully loaded lifeboat at 6 knots for a period of not less than 24 h; and
- .3 the new ventilation requirements should apply to all new-built totally enclosed lifeboats installed on board a ship after the entry-into-force date of the amendments,

agreed to the draft amendments to the LSA Code, as set out in annex 1 to the report of the LSA Working Group (SSE 5/WP.3) for eventual submission to the Committee for approval once the related amendments to the LSA Code regarding ventilation on survival craft other than totally enclosed lifeboats were finalized.

## Discussion

4 Having considered the outcome of SSE 5 and the associated amendments to the LSA Code, the co-sponsors have the following comments regarding the practical implementation of the agreed rates:

- .1 The value agreed in terms of the ventilation rate of 5 m<sup>3</sup>/hr per person was arrived at after discussion and it is understood that manufacturers had indicated their satisfaction at the outcome. However, because of the variations in the design of lifeboats, further in-depth discussion and/or engagement with industry as to how it is achievable would be appreciated.
- .2 No Formal Safety Assessment (FSA) has been undertaken in order to arrive at the correct values and how they should be managed.
- .3 Powered or passive ventilation would be required to meet any ventilation rate and, if powered, the power requirement and method by which it is provided would need to be established. Co-sponsors would appreciate a clarification on what is envisaged for each.
- .4 The impact on the weight of the survival craft should be considered.
- .5 The space requirement needed for a ventilation system and its associated power requirement should be carefully considered.
- .6 The method by which temperature maintenance/control within the survival craft will be managed when ventilating should be considered, particularly in polar waters, to avoid conflict between the ventilation rate requirements and the maintenance of an internal temperature between 10°C and 20°C.

- .7 The location of the inlet and exhaust vents, in conjunction with the seating arrangement, the impact on those seated close to the vents, and the safeguards against internal leaks from exhaust systems should be carefully considered.
- .8 The footprint size of a ventilation system providing 5m<sup>3</sup>/hr per person for different lifeboat capacities should be considered.

5 The above comments relate to the practicalities and the feasibility of ventilation of lifeboats, and whether the desired ventilation rate is achievable. It is recommended that further engagement with manufacturers should be undertaken as part of the decision process.

6 The co-sponsors are of the opinion that the LSA Working Group was not provided with sufficiently detailed instructions by the Sub-Committee with respect to the ventilation of totally enclosed lifeboats (SSE 5/17, paragraph 4.8).

### **Proposal**

7 Based on the above, it is proposed that the Committee undertake a more detailed and in-depth discussion, including whether an FSA should be undertaken before a final decision is reached on the ventilation requirements of totally enclosed lifeboats and subsequently other survival crafts.

### **Action requested of the Committee**

8 The Committee is invited to consider the information provided and take action, as appropriate.

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