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LIMITE

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NOTE

From:	General Secretariat of the Council
To:	Delegations
No. Cion doc.:	15187/22
Subject:	Draft submission by Member States and the Commission to the 9th session of the International Maritime Organization's Sub-Committee on Ships Systems and Equipment on the compelling need to introduce ventilation requirements for partially enclosed lifeboats and liferafts

In view of the informal meeting of the members of the Shipping Working Party on 12 December 2022, delegations will find attached a Presidency compromise proposal.

Changes compared to the previous document are indicated in **bold underline** (new text) and strikethrough (deleted text).

General scrutiny reservation: all delegations.

Deadline for transmission to IMO: 23 December 2022.

SUB-COMMITTEE ON SHIP SYSTEMS AND EQUIPMENT
9th session
Agenda item 3

SSE 9/3/X XX XXXX 2022 Original: ENGLISH Pre-session public release: ⊠

NEW REQUIREMENTS FOR VENTILATION OF SURVIVAL CRAFT

Compelling need to introduce ventilation requirements for partially enclosed lifeboats and liferafts

Submitted by Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the European Commission

SUMMARY

Executive summary: This document provides arguments for the discussion of the

compelling need to introduce ventilation requirements for partially

enclosed lifeboats and liferafts

Strategic direction, 6

if applicable:

Output: 7.36

Action to be taken: Paragraph 12

Related documents: MSC 97/19/8, MSC 97/22; SSE 4/19; SSE 8/INF.4, SSE 8/INF.8,

SSE 8/20; MSC 106/WP.1/Rev.1

Background

- 1 The need for ventilation requirements for totally enclosed lifeboats was proposed by Bahamas and Japan in document MSC 97/19/8.
- The MSC Committee considered documents MSC 97/19/8 and MSC 97/INF.11 (Bahamas and Japan), and decided to broaden the scope of the work to include all survival craft. Subsequently, the Committee agreed to include the output "Develop new requirements for ventilation of survival crafts" in the 2016-2017 biennial agenda of the SSE Committee and the provisional agenda for SSE 4 (MSC 97/22, paragraph 19.22).
- The SSE Sub-Committee developed new requirements for ventilation of survival crafts over multiple sessions and intersessional correspondence groups. At SSE 8, amendments were completed for all type of survival craft as a package and were sent to MSC 106 for approval. Amendments to the LSA Code were presented in annex 1 to document SSE 8/20, and amendments to the Revised recommendation on testing of life-saving appliances (resolution MSC.81(70)) were presented in annex 2 to document SSE 8/20.

- 4 MSC 106 discussed the issue at length and different views were expressed in favour of or against the need for ventilation requirements for partially enclosed lifeboats and liferafts (see, in particular, paragraph 11.3 and the statement by IACS in paragraph 11.5 in MSC 106/WP.1/Rev.1).
- 5 Against this background, the following decisions were taken at MSC 106:
 - .1 approval of the draft amendments to the International Life-Saving Appliances (LSA) Code in relation to the ventilation requirements for totally enclosed lifeboats as a matter of priority, with a view to subsequent adoption at MSC 107 and entry into force on 1 January 2026 (MSC 106/WP.1/Rev.1, paragraph 11.4.1);
 - .2 approval, in principle, of the draft amendments to the Revised recommendation on testing of life-saving appliances (resolution MSC.81(70)) for totally enclosed lifeboats only, with a view to subsequent adoption at MSC 107 in conjunction with the adoption of the associated LSA Code amendments (MSC 106/WP.1/Rev.1, paragraph 11.6.1);
 - .3 the output on "New requirements for ventilation of survival craft" was kept on the provisional agenda for SSE 9 in order to work on the consideration of any compelling need to introduce ventilation requirements for partially enclosed lifeboats and liferafts.
- 6 The present submission addresses the latter MSC 106 decision, mentioned in the preceding paragraph, by providing arguments for the discussion of the compelling need to introduce ventilation requirements for partially enclosed lifeboats and liferafts.

Discussion

- It is obvious that human beings need sufficient air/oxygen to survive. The survival craft, being a relatively small space with a high concentration of persons, can be a critical place where the lack of sufficient ventilation can endanger people's lives. In fact, this points towards a compelling need and is already reflected in the current SOLAS legislation as indicated below.
- Paragraph 4.1.1.5.4 of the LSA Code sets out, for liferafts, that the canopy to protect the occupants from exposure shall admit sufficient air for the occupants at all times, even with the entrances closed. Paragraph 4.5.2.6 of the LSA Code sets an identical requirement for partially enclosed lifeboats. The abovementioned paragraphs of the LSA Code set out that entrances shall permit ventilation but exclude seawater, wind and cold, which could be perceived as conflicting requirements. When liferaft or partially enclosed lifeboat entrances are closed they become enclosed spaces. Over a period of time, lack of oxygen may potentially endanger the occupants' lives. Lack of oxygen in a liferaft was observed during the Search and Rescue Exercise (SARex) conducted by the University of Stavanger in September 2016¹. The SARex showed that closed entrances led to ventilation problems in the liferaft. The recent statement by IACS in MSC 106 (MSC 106/WP.1/Rev.1, paragraph 11.5) fully concurs with the latter: in adverse environmental conditions, using survival craft entrances to meet ventilation requirements could not be possible, as this might undermine the intended protection of occupants.

¹ http://hdl.handle.net/11250/2414815

- 9 Both referred paragraphs constitute ventilation requirements for liferafts and partially enclosed lifeboats. Nevertheless, the term "sufficient air" contained therein is not quantified, which could lead to inconsistent levels of ventilation achieved by different manufacturers or even between survival craft produced by the same manufacturer. This constitutes an ambiguity of the requirements for liferafts and partially enclosed lifeboats, which would benefit from being reviewed in order to maintain the effectiveness of life-saving appliances.
- The ventilation requirements approved at MSC 106 for totally enclosed lifeboats (a minimum flow rate of 5 m³/h per person) are based on an expected performance of a maximum CO₂ concentration threshold level of 5,000 ppm (long-term), as reflected e.g. in documents SSE 5/WP.3 (par. 11) and SSE 6/18 (par. 4.2).
- 11 For the sake of coherence and in order to address any compelling need, identical expected performance requirements should be considered for liferafts and partially enclosed lifeboats. The proposals contained in Annexes 1 and 2 to document SSE 8/20 were drafted accordingly and do not preclude any technical solution to achieve the expected performance. These Annexes were already agreed at the SSE Sub-Committee after several rounds of work through correspondence and working groups.

Action requested of the Sub-Committee

- 12 The Sub-Committee is invited to:
 - .1 consider any compelling needs, taking into account MSC 106 and SSE 8 and the discussion in paragraphs 6 to 10, and, where appropriate consider, amendments to the relevant instruments, and take action as appropriate.
