

SUB-COMMITTEE ON CARRIAGE OF
CARGOES AND CONTAINERS
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Agenda item 9

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

**IACS unified interpretation of requirements for the cargo space ventilation, as
contained in SOLAS regulation II-2/5.2.1.1 and in the IMSBC Code (IACS UI SC 308)**

Submitted by IACS

SUMMARY

Executive summary: This document contains the new IACS UI SC 308 of the requirements for the cargo space ventilation, as contained in SOLAS regulation II-2/5.2.1.1 and in the IMSBC Code, applicable when carrying the new cargo type DIRECT REDUCED IRON (D), in accordance with the amendments to the IMSBC Code (resolution MSC.539(107)).

*Strategic direction, 7
if applicable:*

Output: 7.1

Action to be taken: Paragraph 10

Related documents: CCC 10/INF.3 and CCC 11/5

Background

1 Resolution MSC.539(107) introduced DIRECT REDUCED IRON (D) (By-product fines with moisture content of at least 2%) (DRI (D)) in appendix 1 of "Individual schedules of solid bulk cargoes" in the IMSBC Code. It entered into force on 1 January 2025.

2 IACS adopted UI SC 89/Rev.5 to provide the necessary clarity for DRI (D) in relation to the application of SOLAS regulation II-2/5.2.1.1 and the ventilation requirements of the IMSBC Code (CCC 10/INF.3 (IACS)). CCC 10 referred that document to E&T 41. During the discussion at E&T 41, concerns were raised that the document could be misinterpreted as classifying DRI (D) as dangerous goods and, therefore, requiring continuous ventilation.

3 Based on the received comments, IACS decided to review UI SC 89/Rev.5, which resulted in its withdrawal and the restoration of the previous UI SC 89/Rev.4. In addition, IACS decided to develop a new unified interpretation addressing the ventilation of DRI (D).

Discussion

4 For the cargo DIRECT REDUCED IRON (D), the IMSBC Code (appendix 1) requires that mechanical surface ventilation shall be available at all times and be provided in each cargo hold to avoid accumulation of explosive gases, i.e. to keep the hydrogen concentration below the lower explosive limit.

5 IACS notes that regulation 19(3) in annex 1 of the International Convention on Load Lines (ILLC) specifies that "ventilators in position 1 the coamings of which extend to more than 4.5 m above the deck, and in position 2 the coamings of which extend to more than 2.3 m above the deck, need not be fitted with closing arrangements".

6 It should be further noted that neither the ventilation requirements in the IMSBC Code nor the exemption for the installation of closing arrangements in regulation 19(3) in annex 1 of ILLC limit the application of SOLAS regulation II-2/5.2.1.1, i.e. all ventilation inlets and outlets must be fitted with a means of closure to limit the fire growth potential.

7 To provide the necessary clarity, IACS has adopted its unified interpretation UI SC 308 which clarifies that the required availability of mechanical ventilation for DRI (D) does not prohibit ventilators being fitted with the means of closure, as required for the fire protection purposes. UI SC 308 is provided in the annex of this document.

Safeguards

8 In accordance with paragraph 4.44 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.6), the following safeguards were assessed as follows:

- .1 Uls should not amend mandatory requirements in conventions and associated instruments:

UI SC 308 does not amend the IMSBC Code or SOLAS regulation II-2/5.2.1.1. It brings forward the fact that the requirements of the IMSBC Code are not exempted from the requirements in SOLAS regulation II-2/5.2.1.1. Regulation 19(3) in annex 1 of the ILLC only concerns the requirement or exemption for weathertight closing arrangements.

- .2 Uls should not go beyond the interpretation of mandatory requirements:

UI SC 308 does not go beyond an interpretation as it merely states the fact that there is no contradiction between SOLAS and the IMSBC Code. SOLAS regulation II-2/5.2 aims to limit the fire growth potential in every space of the ship by providing closing devices for the main inlets and outlets, which is relevant for all ventilation openings. The IMSBC Code addresses the transport of cargoes under normal operational conditions. Regulation 19(3) in annex 1 of the ILLC only concerns weathertight closing arrangements and not SOLAS regulation II-2/5.2.1.1.

- .3 Uls should not contradict the mandatory requirements:

Similar to MSC.1/Circ.1434, UI SC 308 does not contradict the mandatory requirements. It emphasizes that both requirements are applicable and regulation 19(3) in annex 1 of the ILLC concerns other closing arrangements.

Proposal

9 The Sub-Committee is invited to note that the new IACS unified interpretation UI SC 308 will be uniformly implemented by IACS members on or after 1 January 2027 unless provided with the written instruction to apply a different interpretation by the Administration on whose behalf they are authorized to act as a recognized organization.

Action requested of the Sub-Committee

10 The Sub-Committee is invited to note the foregoing and the IACS UI SC 308 presented in the annex of this document.

ANNEX

IACS UNIFIED INTERPRETATION SC 308 OF SOLAS REGULATION II-2/5.2.1.1 AND THE IMSBC CODE REGARDING VENTILATION SYSTEMS OF CARGO SPACES

SOLAS regulation II-2/5.2.1.1

"2.1 Closing appliances and stopping devices of ventilation

2.1.1 The main inlets and outlets of all ventilation systems shall be capable of being closed from outside the spaces being ventilated. The means of closing shall be easily accessible as well as prominently and permanently marked and shall indicate whether the shut-off is open or closed."

IMSBC Code, Section 1 General provisions

"1.7 Definitions

Ventilation means exchange of air from outside to inside a cargo space.

.1 Continuous Ventilation means ventilation that is operating at all times."

IMSBC Code, Section 3 Safety of personnel and ship

"3.5 Ventilation

3.5.2 If maintaining ventilation would endanger the ship or the cargo, it may be interrupted unless this would produce a risk of explosion.

3.5.3 When continuous ventilation is required by the schedule for the cargo in this Code or by the cargo information provided by the shipper, ventilation shall be maintained while the cargo is on board, unless a situation develops where ventilation would endanger the ship.

3.5.4 Ventilation openings shall be provided in holds intended for the carriage of cargoes that require continuous ventilation. Such openings shall comply with the requirements of the Load Line Convention as amended for openings not fitted with means of closure."

IMSBC Code, appendix 1, Individual schedules of solid bulk cargoes

DIRECT REDUCED IRON (D) (By-product fines with moisture content of at least 2%)

Ventilation

During the voyage, mechanical surface ventilation shall be provided in each cargo hold carrying this cargo, in order to keep the hydrogen concentration less than 1% by volume (25% LEL).

Mechanical surface ventilation shall be available at all times, either by compliance with the Load Line Convention, annex 1, regulation 19(3), or by adopting measures to avoid a situation whereby the cargo hold mechanical ventilation system could not be used due to rough seas, such measures to be in keeping with good seamanlike practice as for similar cargoes emitting intermittent combustible gases and advice from weather routing service providers.

Interpretation

Where the IMSBC Code requires "mechanical surface ventilation shall be available at all times ... by compliance with the Load Line Convention, annex 1, regulation 19(3)", that does not preclude ventilators from being fitted with a means of closure, as required for the fire protection purposes under SOLAS regulation II-2/5.2.1.1.
