

This document informs the Sub-Committee on revision 5 of IACS UI SC 89 on SOLAS regulation II-2/19.3.4 and the IMSBC Code cargo space ventilation requirements with the inclusion of a new cargo type in accordance with the amendments to the IMSBC Code.

Introduction

The document presents the IACS unified interpretation concerning regulations in SOLAS chapter II-2 & the IMSBC code regarding certain types of cargo that need continuous ventilation and regulations that mentioned ventilation must follow.

SOLAS Chapter II-2/ regulation 19.3.4

Regulations 19.3.4.1 to 19.3.4.3 set forth requirements regarding ventilation arrangements for enclosed cargo spaces as to provide adequate exchange of air in order to prevent the ignition of fire caused by vapors of the carried cargo.

It is also mandatory to provide natural ventilation for enclosed cargo spaces intended to carry solid dangerous cargo in bulk.

Definitions, Refer to the IMSBC Code, Sec. 1 & 3

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

Continuous ventilation means ventilation that is operating at all times.

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In this regards to the safety of personnel and the vessel, as set out in regulation 3.4.5, 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.

The following cargos need continuous ventilation throughout the voyage:

- ALUMINIUM FERROSILICON POWDER UN 1395
- ALUMINIUM SILICON POWDER, UNCOATED UN 1398
- ALUMINIUM SMELTING / REMELTING BY- PRODUCTS, PROCESSED
- ALUMINIUM SMELTING BY-PRODUCTS or ALUMINIUM REMELTING BY-PRODUCTS UN 3170
- FERROPHOSPHORUS (including BRIQUETTES)
- FERROSILICON (25% ≤ Silicon < 30% or ≥ 90% Silicon)
- FERROSILICON UN 1408 (30% ≤ Silicon < 90%)
- ZINC ASHES UN 1435



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

IMO resolution MSC.539 (107) introduced DIRECT REDUCED IRON (D) (By-product fines with moisture content of at least 2%) (DRI (D)) in the IMSBC Code, appendix 1, "Individual schedules of solid bulk cargoes". **Resolution MSC.539 (107) will be applicable from 1 January 2025.**

For the ventilation of **“DIRECT REDUCED IRON (D) (By-product fines with moisture content of at least 2%)”**, the code states that 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) and that 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 owing to rough seas).



Interpretation

If adjacent spaces are not separated from cargo spaces by gastight bulkheads or decks then they are considered as part of the enclosed cargo space and the ventilation requirements shall apply to the adjacent space as for the enclosed cargo space itself.

- Where IMSBC code requires two fans per hold, a common ventilation system with two fans connected is acceptable; and
- Where the code requires continuous ventilation or ventilation at all times, this does not prohibit ventilators from being fitted with a means of closure as required for fire protection purposes under SOLAS II-2/5.2.1.1 provided the minimum height to the ventilator opening is to be in accordance with ICLL/19.3 (4.5 m for Position 1 and 2.3 m for Position 2).



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