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(Rev.1 1996) (Rev.2 Nov 2005) (Rev.3 Feb 2011) (Rev.4 June 2018) (Rev.5

May 2024)

Ventilation of Cargo Spaces

SOLAS Reg. II-2/19.3.4

- 3.4 Ventilation arrangement
- 3.4.1 Adequate power ventilation shall be provided in enclosed cargo spaces. The arrangement shall be such as to provide for at least six air changes per hour in the cargo space based on an empty cargo space and for removal of vapours from the upper or lower parts of the cargo space, as appropriate.
- 3.4.2 The fans shall be such as to avoid the possibility of ignition of flammable gas air mixtures. Suitable wire mesh guards shall be fitted over inlet and outlet ventilation openings.
- 3.4.3 Natural ventilation shall be provided in enclosed cargo spaces intended for the carriage of solid dangerous goods in bulk, where there is no provision for mechanical ventilation.

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
- 3.5.4 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.

Footnote:

* The IMSBC Code requires continuous ventilation for the following cargoes:

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% \leq Silicon < 30% or \geq 90% Silicon) FERROSILICON UN 1408 (30% \leq Silicon < 90%) ZINC ASHES UN 1435

Note:

- 1. Rev.3 of this UI shall be uniformly implemented by IACS Societies on or after 1 January 2012.
- 2. Rev.4 of this UI shall be uniformly implemented by IACS Societies on or after 1 January 2019.

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(cont)

3. Rev.5 of this UI shall be uniformly implemented by IACS Societies on or after 1 January 2025.

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

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 the IMSBC Code requires:

- 2 fans per hold, a common ventilation system with 2 fans connected is acceptable.
- 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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