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AMENDMENTS TO THE IMSBC CODE AND SUPPLEMENTS

Alignment of the IMSBC Code with SOLAS on declaration of solid bulk density

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(P & I Clubs) and INTERCARGO

SUMMARY

Executive summary: This document proposes a minor correction of the IMSBC Code in order to reflect an existing requirement for shippers to declare a technical aspect of cargoes which is in force through SOLAS regulation XII/10 (solid bulk cargo density declaration)

*Strategic direction, 7
if applicable:*

Output: 7.13

Action to be taken: Paragraph 10

Related documents: None

Introduction

1 The co-sponsors of this document have identified a lack of incorporation of SOLAS regulation XII/10, which is in force, requiring shippers to declare a technical aspect of cargoes (solid bulk cargo density), into the IMSBC Code. This is a regulatory gap which the co-sponsors propose to correct.

Background

2 SOLAS regulation XII/10.1 provides the following:

Prior to loading bulk cargo on bulk carriers of 150 m in length and upwards, the shipper shall declare the density of the cargo, in addition to providing the cargo information required by regulation VI/2.

3 SOLAS regulation VI/2.2.2, which is covered by the above reference, points to section 4 of the IMSBC Code for cargo information that the shipper is required to declare.

Therefore, read altogether, SOLAS requires the shipper to declare the cargo information specified in section 4 of the IMSBC Code and, in addition, the bulk density of the cargo when the bulk carrier is 150 m in length and upwards. In certain cases, bulk density also needs to be verified by an accredited testing organization as required in regulation XII/10.2 of SOLAS.

Need for correction

4 Indeed, provision 4.2.2 of the IMSBC Code provides a list of cargo information that shall be included in the shipper's declaration prior to loading. However, the IMSBC Code does not include bulk density in this section, as required by SOLAS regulation XII/10.1 (when applicable). Bulk density is also not included in the form for cargo information for solid bulk cargoes (found in the same section). This omission is understood as an oversight, since it contrasts with the fact that a definition for bulk density was included in the IMSBC Code (see section 1.7 of the Code) from its first adoption as a mandatory instrument via resolution MSC.268(85). It also contrasts with the fact that bulk density is included as a required technical aspect (under the table of "Characteristics") in the individual schedules of solid bulk cargoes (see appendix 1 of the Code) and provision 1.3.3 of the Code (format of the application that competent authorities need to use in order to incorporate solid bulk cargoes into appendix 1).

5 The above is a regulatory gap which places the IMSBC Code in misalignment with SOLAS and prevents the former from being a comprehensive tool for shippers.* As a result, shippers who rely on the IMSBC Code often omit bulk density from the cargo declaration, contrary to specific and mandatory requirement by SOLAS regulation XII/10.1. As mentioned above, in certain cases, this also means that bulk density is not verified by an accredited testing organization as required in SOLAS regulation XII/10.2.

6 As a consequence, deficiencies are identified during port State control for lack of compliance with SOLAS, leading to operational disruption both for the shipper and carrier prior to loading. These deficiencies cannot be rectified by calculation of the bulk density (expressed in kg/m³) reversely through the stowage factor (expressed in m³/ton), since declaration of bulk density by the shipper is a strict matter of compliance with SOLAS. Even if rectification were possible, verification would still be required in certain cases as mentioned above.

Proposal

7 To align the IMSBC Code with SOLAS, specifically regulation XII/10 thereof, and enhance the Code's user-friendliness, the co-sponsors propose to:

- .1 incorporate "bulk density" both in the list of cargo information of provision 4.2.2, and in the form for cargo information for solid bulk cargoes of provision 4.2.3 of the IMSBC Code, with an appropriate annotation regarding application and verification criteria set by SOLAS regulation XII/10;
- .2 replicate SOLAS regulations XII/1, XII/2, XII/6 and XII/10 in provision 1.6 of the Code (Conventions) which currently reproduces only the relevant parts of SOLAS dealing with the carriage of solid bulk cargoes and the carriage of dangerous goods in solid form in bulk; and

* This indeed seems to have been the intention of the drafters of the Code who considered incorporating parts of Conventions into provision 1.6 of the IMSBC Code for "ease of use", as seen, e.g. in document DSC 11/4 (report of the Working Group at DSC 10), paragraph 21, and document DSC 11/5 (report of the Correspondence Group - Part 2), paragraph 3.

- .3 bring the issue to the attention of stakeholders by means of a MSC circular, pending the voluntary application of the revised IMSBC Code.

8 To facilitate the work of IMO, the co-sponsors provide draft proposed text for inclusion in the IMSBC Code in annex 1 and the draft MSC circular in annex 2.

9 The co-sponsors also note that this proposal, if agreed, will not introduce new operational or administrative requirements, since bulk density is a technical aspect of cargoes that SOLAS already requires shippers to declare. Additionally, there will be no impact on other parts of the IMSBC Code, since bulk density is already included in the definitions, individual schedules of solid bulk cargoes and the format of the application that competent authorities need to use in order to incorporate solid bulk cargoes into appendix 1, as explained in paragraph 4 above.

Action requested of the Sub-Committee

10 The Sub-Committee is invited to note the above proposal and take action, as appropriate.

ANNEX 1

DRAFT PROPOSED TEXT FOR INCLUSION IN THE IMSBC CODE

1 In provision 4.2.2 of the Code, between sub-paragraph .6 ("the stowage factor") and the existing sub-paragraph .7 ("the need for trimming and the trimming procedures, as necessary"), add a new sub-paragraph "bulk density (check application and need for verification in SOLAS regulation XII/10)" and renumber the following sub-paragraphs accordingly, as shown below (edits highlighted):

4.2.2 Cargo information shall be confirmed in writing and by appropriate shipping documents prior to loading. The cargo information shall include:

- .1 the BCSN when the cargo is listed in this Code. Secondary names may be used in addition to the BCSN;
- .2 the cargo group (A and B, A, B or C);
- .3 the IMO class of the cargo, if applicable;
- .4 the UN number preceded by letters "UN" for the cargo, if applicable;
- .5 the total quantity of the cargo offered;
- .6 the stowage factor;
- .7 bulk density (check application and need for verification in SOLAS regulation XII/10);
- .8 the need for trimming and the trimming procedures, as necessary;
- .9 the likelihood of shifting, including angle of repose, if applicable;
- .10 additional information in the form of a certificate on the moisture content of the cargo and its transportable moisture limit in the case of a concentrate or other cargo which may liquefy;
- .11 likelihood of formation of a wet base (see 7.2.3 of this Code);
- .12 toxic or flammable gases which may be generated by cargo, if applicable;
- .13 flammability, toxicity, corrosiveness and propensity to oxygen depletion of the cargo, if applicable;
- .14 self-heating properties of the cargo, and the need for trimming, if applicable;

- .15 properties on emission of flammable gases in contact with water, if applicable;
- .16 radioactive properties, if applicable;
- .17 whether or not the cargo is classified as harmful to the marine environment in accordance with appendix I of Annex V of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto, as amended; and
- .18 any other information required by national authorities.

2 In provision 4.2.3, in the form for cargo information for solid bulk cargoes, under "stowage factor" in the relevant box of the form, add "Bulk density (check application and need for verification in SOLAS regulation XII/10):", as shown below (edits highlighted).

FORM FOR CARGO INFORMATION FOR SOLID BULK CARGOES

BCSN	
Shipper	Transport document number
Consignee	Carrier
Name/means of transport Port/place of departure	Instructions or other matters
Port/place of destination	
General description of the cargo (Type of material/particle size)	Gross mass (kg/tonnes)
Specifications of bulk cargo, if applicable: Stowage factor: Bulk density (check application and need for verification in SOLAS regulation XII/10): Angle of repose, if applicable: Trimming procedures: Chemical properties if potential hazard*: * e.g. class & UN No. and/or MHB hazard(s)	
Group of the cargo Group A and B* Group A* Group B Group C * For cargoes which may liquefy (group A and group A and B cargoes)	Transportable moisture limit Moisture content at shipment

BCSN	
Classification relating to MARPOL Annex V harmful to the marine environment not harmful to the marine environment	Additional certificate(s)* Certificate of moisture content and transportable moisture limit Weathering certificate Exemption certificate Other (specify) *If required
Relevant special properties of the cargo (e.g. highly soluble in water)	
DECLARATION I hereby declare that the consignment is fully and accurately described and that the given test results and other specifications are correct to the best of my knowledge and belief and can be considered as representative for the cargo to be loaded.	Name/status, company/organization of signatory Place and date Signature on behalf of shipper

3 In provision 1.6 of the Code, redraft the chapeau as shown below (edits highlighted):

1.6 Conventions

Parts A and B of chapter VI, ~~and~~ part A-1 of chapter VII ~~and~~ chapter XII of the SOLAS Convention, as amended, deal with the carriage of solid bulk cargoes, ~~and~~ the carriage of dangerous goods in solid form in bulk, ~~and~~ additional safety measures for bulk carriers, respectively, and only the relevant parts are reproduced below. This extract incorporates amendments that entered into force on 1 January 2011.

4 Add regulations 1, 2, 6 and 10 of chapter XII of the SOLAS Convention before the closing brackets at the bottom of provision 1.6 of the Code, as replicated below (no highlights are added as the entire text is pasted directly from SOLAS):

Chapter XII

Additional Safety Measures for Bulk Carriers

Regulation 1

Definitions

For the purpose of this chapter:

1 *Bulk carrier* means a ship which is intended primarily to carry dry cargo in bulk, including such types as ore carriers and combination carriers.¹

¹ Refer to:

- .1 For ships constructed before 1 July 2006, resolution 6, Interpretation of the definition of "bulk carrier", as given in chapter IX of SOLAS 1974, as amended in 1994, adopted by the 1997 SOLAS Conference.
- .2 The Interpretation of the provisions of SOLAS chapter XII on Additional safety measures for bulk carriers (resolution MSC.79(70)).
- .3 The application provisions of annex 1 to the Interpretation of the provisions of SOLAS chapter XII on Additional safety measures for bulk carriers (resolution MSC.89(71)).

2 *Bulk carrier of single-side skin construction* means a bulk carrier as defined in paragraph 1, in which:

- .1 any part of a cargo hold is bounded by the side shell; or
- .2 where one or more cargo holds are bounded by a double-side skin, the width of which is less than 760 mm in bulk carriers constructed before 1 January 2000 and less than 1,000 mm in bulk carriers constructed on or after 1 January 2000 but before 1 July 2006, the distance being measured perpendicularly to the side shell.

Such ships include combination carriers in which any part of a cargo hold is bounded by the side shell.

3 *Bulk carrier of double-side skin construction* means a bulk carrier as defined in paragraph 1, in which all cargo holds are bounded by a double-side skin, other than as defined in paragraph 2.2.

4 *Double-side skin* means a configuration where each ship side is constructed by the side shell and a longitudinal bulkhead connecting the double bottom and the deck. Hopper side tanks and top-side tanks may, where fitted, be integral parts of the double-side skin configuration.

5 *Length* of a bulk carrier means the length as defined in the International Convention on Load Lines in force.

6 *Solid bulk cargo* means any material, other than liquid or gas, consisting of a combination of particles, granules or any larger pieces of material, generally uniform in composition, which is loaded directly into the cargo spaces of a ship without any intermediate form of containment.

7 *Bulk carrier bulkhead and double bottom strength standards* means "Standards for the evaluation of scantlings of the transverse watertight vertically corrugated bulkhead between the two foremost cargo holds and for the evaluation of allowable hold loading of the foremost cargo hold" adopted by resolution 4 of the Conference of Contracting Governments to the International Convention for the Safety of Life at Sea, 1974 on 27 November 1997, as may be amended by the Organization, provided that such amendments are adopted, brought into force and take effect in accordance with the provisions of article VIII of the present Convention concerning the amendment procedures applicable to the annex other than chapter I.

8 *Bulk carriers constructed* means bulk carriers the keels of which are laid or which are at a similar stage of construction.

9 *A similar stage of construction* means the stage at which:

- .1 construction identifiable with a specific ship begins; and
- .2 assembly of that ship has commenced comprising at least 50 tonnes or 1% of the estimated mass of all structural material, whichever is less.

10 *Breadth* (B) of a bulk carrier means the breadth as defined in the International Convention on Load Lines in force.

Regulation 2

Application

Bulk carriers shall comply with the requirements of this chapter in addition to the applicable requirements of other chapters.

Regulation 6

Structural and Other Requirements for Bulk Carriers

1 Bulk carriers of 150 m in length and upwards of single-side skin construction, carrying solid bulk cargoes having a density of 1,780 kg/m³ and above, constructed before 1 July 1999, shall comply with the following requirements in accordance with the implementation schedule specified in regulation 3:

- .1 The transverse watertight bulkhead between the two foremost cargo holds and the double bottom of the foremost cargo hold shall have sufficient strength to withstand flooding of the foremost cargo hold, taking also into account dynamic effects resulting from the presence of water in the hold, in compliance with the bulk carrier bulkhead and double bottom strength standards. For the purpose of this regulation, the bulk carrier bulkhead and double bottom strength standards shall be treated as mandatory.
- .2 In considering the need for, and the extent of, strengthening of the transverse watertight bulkhead or double bottom to meet the requirements of 1.1, the following restrictions may be taken into account:
 - .1 restrictions on the distribution of the total cargo weight between the cargo holds; and
 - .2 restrictions on the maximum deadweight.
- .3 For bulk carriers using either of, or both, the restrictions given in 1.2.1 and 1.2.2 above for the purpose of fulfilling the requirements of 1.1, these restrictions shall be complied with whenever solid bulk cargoes having a density of 1,780 kg/m³ and above are carried.

2 Bulk carriers of 150 m in length and upwards constructed on or after 1 July 2006, in all areas with double-side skin construction shall comply with the following requirements:

- .1 Primary stiffening structures of the double-side skin shall not be placed inside the cargo hold space.
- .2 Subject to the provisions below, the distance between the outer shell and the inner shell at any transverse section shall not be less than 1,000 mm measured perpendicular to the side shell. The

double-side skin construction shall be such as to allow access for inspection as provided in regulation II-1/3-6 and the Technical Provisions referring thereto.

- .1 The clearances below need not be maintained in way of cross ties, upper and lower end brackets of transverse framing or end brackets of longitudinal framing.
- .2 The minimum width of the clear passage through the double-side skin space in way of obstructions such as piping or vertical ladders shall not be less than 600 mm.
- .3 Where the inner and/or outer skins are transversely framed, the minimum clearance between the inner surfaces of the frames shall not be less than 600 mm.
- .4 Where the inner and outer skins are longitudinally framed, the minimum clearance between the inner surfaces of the frames shall not be less than 800 mm. Outside the parallel part of the cargo hold length, this clearance may be reduced where necessitated by the structural configuration, but, in no case, shall be less than 600 mm.
- .5 The minimum clearance referred to above shall be the shortest distance measured between assumed lines connecting the inner surfaces of the frames on the inner and outer skins.

3 The double-side skin spaces, with the exception of top-side wing tanks, if fitted, shall not be used for the carriage of cargo.

4 In bulk carriers of 150 m in length and upwards, carrying solid bulk cargoes having a density of 1,000 kg/m³ and above, constructed on or after 1 July 2006:

- .1 the structure of cargo holds shall be such that all contemplated cargoes can be loaded and discharged by standard loading/discharge equipment and procedures without damage which may compromise the safety of the structure;
- .2 effective continuity between the side shell structure and the rest of the hull structure shall be assured; and
- .3 the structure of cargo areas shall be such that single failure of one stiffening structural member will not lead to immediate consequential failure of other structural items potentially leading to the collapse of the entire stiffened panels.

Regulation 10

Solid Bulk Cargo Density Declaration

1 Prior to loading bulk cargo on bulk carriers of 150 m in length and upwards, the shipper shall declare the density of the cargo, in addition to providing the cargo information required by regulation VI/2.

2 For bulk carriers to which regulation 6 applies, unless such bulk carriers comply with all relevant requirements of this chapter applicable to the carriage of solid bulk cargoes having a density of 1,780 kg/m³ and above, any cargo declared to have a density within the range 1,250 kg/m³ to 1,780 kg/m³ shall have its density verified by an accredited testing organization.²

² In verifying the density of solid bulk cargoes, reference should be made to the *Uniform method of measurement of the density of bulk cargoes* (MSC/Circ.908).

ANNEX 2

DRAFT MSC CIRCULAR

THE REVISED FORM FOR CARGO INFORMATION FOR SOLID BULK CARGOES

1 The Maritime Safety Committee, at its [106th session (2 to 11 November 2022)][107th session (31 May to 9 June 2023)], in reviewing the outcome of the 8th session of the Sub-Committee on Carriage of Cargoes and Containers (CCC 8), recognized the urgent need to resolve the discrepancy between the International Maritime Solid Bulk Cargoes (IMSBC) Code and regulation XII/10 of the International Convention for the Safety of Life at Sea (SOLAS) 1974, as amended, on the omission of bulk density information in the form for cargo information for solid bulk cargoes, and approved the revised form for cargo information for solid bulk cargoes, pending formal entry into force of the amendments to the IMSBC Code, as given in the annex to this circular.

2 Member Governments are invited to bring the revised form to the attention of all concerned, taking into account the voluntary application date of 1 January [2026] for amendment 08-25 of the IMSBC Code, pending its envisaged mandatory entry-into-force date of [1 January 2027], and in particular to:

- .1 encourage shippers to use cargo information in accordance with the revised form; and
- .2 request port State control officers to note the situation, and use discretion when the ship does not have the required cargo density information until the amendments to the IMSBC Code enter into force.

ANNEX

**FORM FOR CARGO INFORMATION
FOR SOLID BULK CARGOES**

BCSN	
Shipper	Transport document number
Consignee	Carrier
Name/means of transport Port/place of departure	Instructions or other matters
Port/place of destination	
General description of the cargo (Type of material/particle size)	Gross mass (kg/tonnes)
Specifications of bulk cargo, if applicable: Stowage factor: Bulk density (check application and need for verification in SOLAS regulation XII/10): Angle of repose, if applicable: Trimming procedures: Chemical properties if potential hazard*: * e.g. class & UN No. and/or MHB hazard(s)	
Group of the cargo Group A and B* Group A* Group B Group C * For cargoes which may liquefy (group A and group A and B cargoes)	Transportable moisture limit Moisture content at shipment
Classification relating to MARPOL Annex V harmful to the marine environment not harmful to the marine environment	Additional certificate(s)* Certificate of moisture content and transportable moisture limit Weathering certificate Exemption certificate Other (specify) *If required
Relevant special properties of the cargo (e.g. highly soluble in water)	
DECLARATION I hereby declare that the consignment is fully and accurately described and that the given test results and other specifications are correct to the best of my knowledge and belief and can be considered as representative for the cargo to be loaded.	Name/status, company/organization of signatory Place and date Signature on behalf of shipper