

SUB-COMMITTEE ON DANGEROUS  
GOODS, SOLID CARGOES AND  
CONTAINERS  
18th session  
Agenda item 6

DSC 18/6/28  
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**DEVELOPMENT OF AMENDMENTS TO THE IMSBC CODE AND SUPPLEMENTS,  
INCLUDING EVALUATION OF PROPERTIES OF SOLID BULK CARGOES**

**Comments on certain elements of the report of the Correspondence Group  
on the Transport of Iron Ore Fines in Bulk**

**Submitted by the International Group of P&I Associations,  
INTERCARGO, ICS and BIMCO**

**SUMMARY**

*Executive summary:* This document comments on certain elements of the report of the Correspondence Group on the Transport of Iron Ore Fines in Bulk. In particular, the co-sponsors do not believe that enough work has been undertaken on some of the key proposals to justify certain amendments to appendix 2 of the Code and some of the specific provisions in the new individual schedule for Iron Ore Fines.

*Strategic direction:* 5.2

*High-level action:* 5.2.3

*Planned output:* 5.2.3.3

*Action to be taken:* Paragraph 5

*Related documents:* DSC 18/6/13, DSC 18/6/14 and DSC 18/INF.9

**Background**

1 This document comments on documents DSC 18/6/13, DSC 18/6/14 and DSC 18/INF.9, "Report of the Correspondence Group on Transport of Iron Ore Fines in Bulk" and is submitted in accordance with the provisions of paragraph 6.12.5 of the *Guidelines on 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.4/Rev.2).

**Discussion**

2 The co-sponsors actively participated in the Correspondence Group on Transport of Iron Ore Fines in Bulk and, in the context of the research work undertaken by the Iron Ore

Technical Working Group (see paragraph 5 of document DSC 18/6/13), also instructed Imperial College London, with the assistance of the University of Strathclyde and Minton, Treharne and Davies, Singapore to evaluate and verify the research undertaken by the TWG at each stage in order to provide the correspondence group with an external and independent oversight of the TWG's research.

3 The position of the co-sponsors on the Research synopsis and recommendations of the TWG is contained in the annex to document DSC 18/INF.10.

4 The co-sponsors acknowledge that the work undertaken by the TWG has been comprehensive and thorough. The co-sponsors do however have fundamental concerns on some of the key proposals proposed by the TWG for inclusion in the amendment to appendix 2 to the IMSBC Code and a new individual Schedule for Iron Ore Fines, as follows.

***Goethite content:***

- .i The co-sponsors do not believe that sufficient evidence exists from the TWG research programme to justify the inclusion of goethite content as a means of differentiating between Group A and Group C iron ore fines cargoes;
- .ii There may be other effects, unidentified by the TWG research, such as hematite, that could influence the stability of iron ore fines and that would need further research in order to determine whether this was the case; and
- .iii Introducing this element of complexity will only serve to place an additional and unnecessary burden on ships' masters.

***Ship size:***

- .i If a cargo can liquefy then it should be classified accordingly irrespective of the size of vessel;
- .ii Differentiating based on ship size would set an unwelcome precedent for the IMSBC Code; and
- .iii This would also go beyond the boundaries of the work as directed by DSC 17, which was not to consider matters relating to vessel stability or post loading mitigation factors based on ship type.

***Particle size:***

- .i The co-sponsors refer to the proposed modified Proctor/Fagerberg test procedure for Iron Ore Fines as contained in 1.4.1.2 of annex 1 to document DSC 18/INF.12.

The issue with particle size is whether the test method being proposed is suitable for all iron ore fines (i.e. as defined by particle size proposed), and in particular those that have a lot of coarser material, but still fall within the proposed definition. The current upper limit for the Proctor/Fagerberg test as set out in existing 1.3.1 of appendix 2 to the IMSBC Code is only 5 mm, but it has been proposed that this should be increased to above 10 mm.

The co-sponsors are concerned that applying the test to > 5 mm may lead to inaccuracies and do not at present believe that enough work has been done to substantiate this position. In addition, the potential dependence of specific gravity on the method of analysis (e.g. water or helium pycnometry) may mean the method will give a variation in TML that contradicts the accuracy being proposed. The current upper limit for the Proctor/Fagerberg test of only 5 mm should be maintained until sufficient evidence is provided to justify an increase.

### ***Safety margin***

- .i The co-sponsors refer to the recommendations by the TWG in paragraph 11 of document DSC 18/6/14 and the finding that the existing Proctor/Fagerberg Test produces higher TML results compared to the Flow Table and Penetration Tests. However, the co-sponsors do not believe that enough consideration has been given to this key finding, since an amended Proctor/Fagerber test method may reduce, and in some cases may eliminate, the safety margin currently provided by the Flow Table test, which is the most commonly used of the tests prescribed in appendix 2 to the Code.

### **Action requested of the Sub-Committee**

- 5 The Sub-Committee is invited to consider the above comments and take action, as appropriate.
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