



# Technical Information

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To : Whom It May Concern

Subject : Summary Report on IMO Sub Committee meeting for 4<sup>th</sup> session of Carriage of Cargoes and Containers (CCC 4)

## Summary

This Technical Information summarizes the result of 4<sup>th</sup> Session of the IMO Sub Committee Carriage of Cargoes and Containers (CCC 4) that was held from the 11 to 15 September 2017, at the IMO headquarters in London.

## Information

1. The information provided in this Technical Information are the ones which have high relevance with the work of BKI or considered as an essential information for interested parties.
2. The following agenda are among those discussed during the meeting :

Agenda Number	Topic
3	Amendments to the IGF Code and development of guidelines for low-flashpoint fuels (5.2.1.2)
4	Suitability of high manganese austenitic steel for cryogenic service and development of any necessary amendments to the IGC Code and IGF Code (5.2.1.26)
5	Amendments to the IMSBC Code and supplements (5.2.3.3)
6	Amendments to the IMDG Code and supplements (5.2.3.4)
7	Unified interpretation of provisions of IMO safety, security and environment-related conventions (1.1.2.3)
8	Consideration of reports of incidents involving dangerous goods or marine pollutants in packaged form on board ships or in port areas (12.3.1.1)

3. The Agenda above are several technical issues discussed during the meeting. A brief coverage among the issues are expressed in the attached document.

More info

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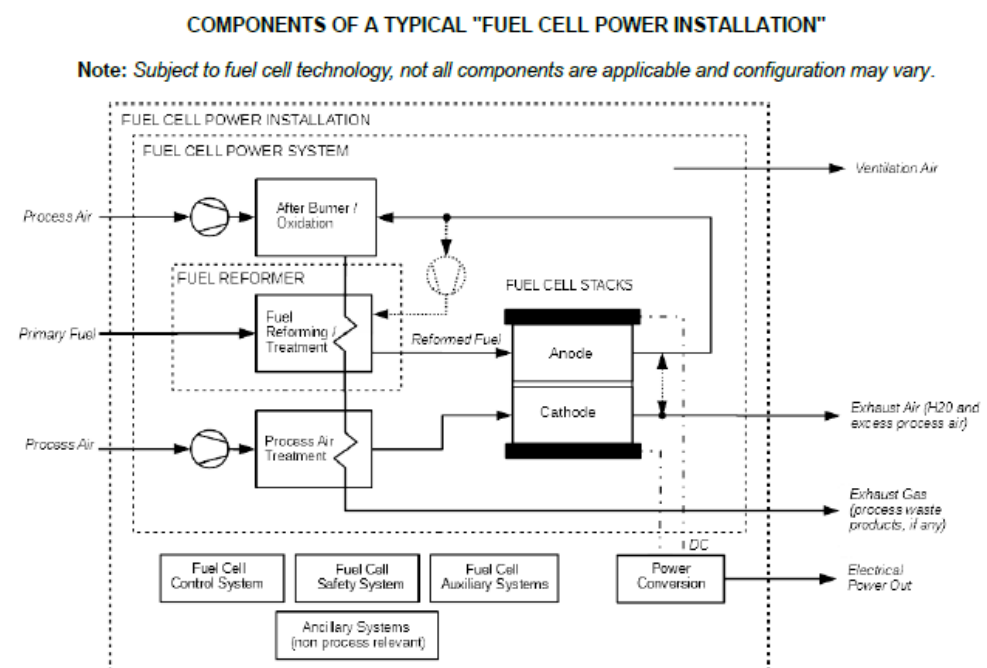
**BRIEF REPORT ON IMO MEETING OF THE SUB-COMMITTEE ON THE CARRIAGE OF CARGOES AND CONTAINERS 4TH SESSION (CCC 4)**

**A. AMENDMENTS TO THE IGF CODE AND DEVELOPMENT OF GUIDELINES FOR LOW-FLASHPOINT FUELS (AGENDA ITEM 3)**

Having regard the report of Correspondence Group Correspondence Group on Development of Technical Provisions for the Safety of Ships using Low-flashpoint Fuels, established by CCC 3, the Sub-Committee established Working Group on Amendments to the IGF Code and Development of Guidelines for Low-flashpoint Fuels (IGF Code Working Group) for further consideration.

**a) Requirements for fuel cells**

The Sub-Committee decided that this subject to be further discussed in the Working Group. The Sub-Committee also noted that the following diagram of "fuel cell power installation" is to be used as a basis for a discussion in the Working Group.



Having noted the outcomes of the Working Group, related to the fuel cells, the Sub-Committee agreed:

1. to develop new part E of the IGF Code for Fuel Cells, which will cover safety requirements for all types of fuel cells.
2. to establish Correspondence group to further work on the development
3. that the primary fuel tanks will be covered by existing fuel-specific parts in IGF Code or, if the type of fuel is not covered, the alternative design approach will apply
4. that buffer/process tanks for reform process required to run the fuel cell, are implicit in the draft definition for "fuel reformer".

5. to reconsider definition of "fuel cell space" and request the Correspondence Group to review it.
6. that the risk assessment required in paragraphs 4.2.1 and 4.2.3 of part A of the IGF Code will be applicable to the new part E.
7. to the possibility of placing the fuel cell power systems in conventional machinery spaces until safety requirements for fuel cells space are developed.
8. that fuel purity is more related to the system's design and performance rather than a safety issue.
9. to further develop the requirements of Emergency Shutdown protected machinery space concept cannot be immediately transferred to fuel cell spaces.
10. that piping containing hydrogen should be addressed by means of alternative design as long as there are no prescriptive provisions for hydrogen containment and supply systems.
11. that all pipes containing reformed fuel for fuel cell power systems shall be not to be led through enclosed spaces outside of fuel cell spaces and as far as practicable to be fully welded.
12. that the number of connections of pipe containing reformed fuel shall be minimized
13. that fixed hydrogen detectors being capable of detecting a hydrogen leak should be provided for places where leakage of hydrogen may occur, such as valves, flanges and seals.

#### **b) Draft technical provisions for the safety of ships using methyl/ethyl alcohol as fuel**

Due to time constraints, the Sub-Committee was unable to review the report of the Correspondence Group. Thus, CCC 4 re-established the correspondence group to further develop the requirements of the safety of ships using methyl/ethyl alcohol as fuel.

#### **c) Proposed Amendments and Corrections to Part A-1 of the IGF Code**

The Sub-Committee discussed and agreed:

1. to delete word "not" in the existing text describing  $f_v$  in paragraph 5.3.4.2 of the Code. Also agreed that the modification to this text had no impact either on its formulation or on the ship design.
2. to not amend paragraph 15.8.1.3 of the IGF Code and decided to leave an existing text.
3. with the proposal to correct the numbering errors in section 6.4.16 of the IGF Code and the incorrect reference in paragraph 16.7.2.
4. to amend paragraph 6.8.2 by deleting the last two sentences in the paragraph.
5. with the proposed unified interpretation for paragraph 6.8.2, which clarify that the alternative loading limit option given under 6.8.2 is understood to be an alternative to 6.8.1 and should only be applicable when the calculated loading limit using the formulae in 6.8.1 lower than 95%.
6. to develop new paragraph under section 9.5 to differentiate between requirements for protection of gaseous fuel pipes and liquefied fuel pipes.
7. that the exhaust system shall be equipped with an explosion relief system, unless designed to accommodate the worst case of overpressure due to ignited gas leaks or justified by the safety concept of the engine. A detailed evaluation of the potential for unburnt gas in the exhaust system is to be undertaken covering the complete system from the cylinders up to the open exhaust. This detailed evaluation shall be reflected in the safety concept of the engine.
8. to further discuss, at the next session, the proposed unified interpretation regarding the protection of accommodation spaces, service spaces, control stations, escape routes and machinery spaces from radiation heat.
9. to the draft amendments to paragraph 11.3.3 proposing that the minimum distance to the A-60 boundary from the outer shell of the type C tank or the boundary of the tank connection space, if any, shall be at least 900 mm. Moreover, requirements for boundaries between fuel tanks are

agreed to be deleted and it is agreed that fuel storage hold space containing a type C tank cannot be considered as a cofferdam if located directly above machinery spaces of category A or other rooms with high fire risk.

10. to the draft unified interpretation to clarify what are “other rooms with high fire risk” in relation to the separation from spaces with fuel containment systems.
11. to the draft unified interpretation regarding level indicator required by 15.3.2., which is required for the purposes of indicating an alarm status only, while; a level switch (float switch) is an instrument example considered to meet this requirement.
12. to an editorial correction to paragraph 16.7.2 to revise reference used in the paragraph.

Any agreed amendments to the Code will be subject to approval by MSC 99 and adoption by MSC 100. Expected entry into force will be 1 January 2024.

#### **B. SUITABILITY OF HIGH MANGANESE AUSTENITIC STEEL FOR CRYOGENIC SERVICE AND DEVELOPMENT OF ANY NECESSARY AMENDMENTS TO THE IGC CODE AND IGF CODE (AGENDA ITEM 4)**

The discussion of this agenda item was guided by the report submitted by the Correspondence Group which proposed to amend the IGC and IGF Codes to include high manganese austenitic steel for cryogenic service. The Sub-Committee approved such report in general and also noted that the development of draft amendments to the IGC and IGF Codes had not been considered by the Correspondence Group due to time constraints.

Having considered the above views and having noted that the majority supported the establishment of a working group, the Sub-Committee agreed that the following items could be progressed in order of priority:

- i. compilation of a comprehensive list of technical points that should be addressed in order to evaluate the suitability of the new material and ensure transparency of the process;
- ii. identification of the information required to address the technical points; and
- iii. development of acceptance test criteria based on the information available.

Furthermore, the Plenary agreed to establish the Working Group and instructed to prepare full list of technical discussion points as well as the required information for assessing the suitability of high manganese austenitic steel for cryogenic service, and to develop the draft acceptance test criteria to be further reported to the Sub-Committee.

Following the report of the Working Group and having regard the interventions and comments made in the Plenary, the Sub-Committee approved the report in general and also endorsed the re-establishment of the Correspondence Group.

#### **C. AMENDMENTS TO THE IMSBC CODE AND SUPPLEMENTS (AGENDA ITEM 5)**

The Sub-Committee recalled that MSC 98 had adopted amendments to the IMSBC Code by resolution MSC.426(98), which is expected to enter into force on 1 January 2019. The Sub-Committee also noted that, after consideration of the submissions under this agenda item, it would provide clear advice, instruction and authorization to E&T 29, in order to prepare draft amendments to the IMSBC Code, for consideration at CCC 5.

At this session, the Plenary agreed to establish the Working Group on IMSBC matters. Following the discussion in Working Group and the comment made in the Plenary, the Sub-Committee:

- i. endorsed the draft Test procedure for determining the TML for Bauxite, with a view to inclusion in the draft amendments to the IMSBC Code;
- ii. endorsed the Group's recommendation to instruct E&T 29 to make the necessary editorial modifications to the Characteristics table of the draft new individual schedule for Bauxite of Group A, in order to harmonize the table with the amendments to the IMSBC Code;
- iii. endorsed the draft Individual schedule for Bauxite of Group A, with a view to inclusion in the draft amendments to the IMSBC Code;
- iv. endorsed the draft amendments to the individual schedule for Bauxite of Group C, with a view to inclusion in the draft amendments to the IMSBC Code;
- v. agreed, in principle, to the draft consequential amendments to appendices 2 (Laboratory test procedures, associated apparatus and standards), 4 (Index) and 5 (Bulk Cargo Shipping Names in three languages (English, Spanish and French)) to the Code regarding Bauxite cargoes, with a view to inclusion in the draft amendments to the IMSBC Code;
- vi. approved the draft revised CCC.1 circular on Carriage of Bauxite which may liquefy;
- vii. approved the draft CCC.1 circular on Carriage of AMMONIUM NITRATE BASED FERTILIZER (non-hazardous);
- viii. agreed, in principle, to the draft Individual schedule for MHB seed cake cargoes, with a view to inclusion in the draft amendments to the IMSBC Code;
- ix. agreed, in principle, to the draft Individual schedule for Group C seed cake cargoes, with a view to inclusion in the draft amendments to the IMSBC Code;
- x. endorsed the Group's decision that the draft amendments to section 9 of the IMSBC Code should not be further developed/finalized at this stage; and
- xi. agreed, in principle, to the draft amendments to individual schedules for SEED CAKE UN 1386 (b) and SEED CAKE UN 2217.

#### **D. AMENDMENTS TO THE IMDG CODE AND SUPPLEMENTS (AGENDA ITEM 6)**

The Sub-Committee recalled that MSC 96 had adopted amendments (38-16) to the IMDG Code by resolution MSC.406(96), which is expected to enter into force on 1 January 2018.

The Sub-Committee also recalled that CCC 3 had instructed the Editorial and Technical Group (E&T 27) to prepare the draft amendments (39-18) to the IMDG Code and the draft editorial corrections to amendment 38-16 to the IMDG Code.

##### **a) Draft editorial corrections to amendment 38-16 to the IMDG Code**

The Sub-Committee agreed, in principle, to the draft editorial corrections to amendment (38-16) to the IMDG Code and referred the document to E&T 28, presenting editorial corrections to the IMDG Code amendment (38-16), for consideration and finalization.

##### **b) Draft amendment 39-18 to the IMDG Code**

The Sub-Committee agreed, in principle, to draft amendment 39-18 to the IMDG Code (parts 1 and 2), as prepared by E&T 27 and agreed to refer these draft amendments to E&T 28 for finalization. Following the discussion and comments made during the Plenary, the Sub-Committee:

- i. authorized E&T 28 to finalize the draft amendments (39-18) to the IMDG Code, taking into account comments made and decisions taken by the Sub-Committee, with a view to submitting the draft amendments to MSC 99 for consideration and adoption; and to submit a written report to CCC 5.
- ii. requested the Secretary-General to circulate, in accordance with SOLAS article VIII, the draft amendments to the IMDG Code (consolidated replacement text), incorporating draft amendments as prepared by E&T 28, for consideration and subsequent adoption by MSC 99.
- iii. The Sub-Committee instructed E&T 28 to finalize editorial corrections to amendment 38-16 to the Code (resolution MSC.406(96)) and requested the Secretariat to issue such editorial corrections before 1 January 2018, the date when amendment 38-16 enters into force.
- iv. The Sub-Committee also instructed E&T 28 to prepare related recommendations and circulars for submission to MSC 99 for approval, together with the adoption of amendments to the IMDG Code.

#### **E. UNIFIED INTERPRETATION TO PROVISIONS OF IMO SAFETY, SECURITY AND ENVIRONMENT-RELATED CONVENTIONS (AGENDA ITEM 7)**

This agenda item also related to agenda item 3. There are several documents submitted in this session.

##### **a) Appropriate location of premixed engines using fuel gas mixed with air before the Turbocharger**

With regard the proposed amendment to the Unified Interpretation of paragraph 5.4.1 of the IGF Code, the Sub-Committee did not agree with the proposal. It was suggested by the Sub-Committee that such proposal to be revised and to be submitted to the next Sub-Committee meeting.

##### **b) Electrical equipment in hazardous areas**

With regard the proposed amendment to the Unified Interpretation of paragraph 12.3.2 of the IGF Code, the Sub-Committee did not agree with the proposal.

Having regard the comments in the Plenary, the Sub-Committee invited the proposed and other interested Member States to develop a more detailed proposal with regard to the selection of electrical equipment in hazardous areas on gas-fuelled ships, with a view to submission at a future session of the Sub-Committee.

##### **c) Definitions of the terms "each dry-docking", "high-level alarms" and "first occasion of full loading" in the IGF and IGC Codes**

IACS has provide a copy of Unified Interpretation GC GC18 regarding the terms "each dry-docking", "high-level alarms" and "first occasion of full loading" in paragraph 13.3 of the IGC Code, as amended by resolution MSC.370(93), and informing the Sub-Committee that item 1 of the interpretation in UI GC18 will be applied by IACS Members on or after 1 January 2018. Unless provided with written instructions to apply a different interpretation by the Administration, items 2 and 3 of the interpretation in UI GC18 will be applied by IACS Members on or after 1 July 2018.

Following the lengthy discussion in the Plenary, the Sub-committee agreed to the draft MSC circular on Unified Interpretation of paragraph 13.3.5 of the IGC Code (as amended by resolution MSC.370(93)), for submission to MSC 99 with a view to approval.

In the context of the IGF Code, the Sub-Committee agreed to a modification to the text provided in paragraph 1 of UI GF1 in order to accurately reflect the provisions on the dry-docking of passenger ships in section 5.10 of the Survey Guidelines under the HSSC.

Subsequently, the Sub-Committee also agreed to the draft unified interpretation of the expression "each dry-docking" in paragraph 15.4.2.3 of the IGF Code and the draft revised MSC circular on Unified Interpretations of the IGF Code, for submission to MSC 99 with a view to approval.

The Sub-Committee agreed to invite MSC 99, subject to the draft unified interpretations of paragraphs 13.3.5 of the IGC Code and 15.4.2.3 of the IGF Code being approved by the Sub-Committee, to task III 5 with considering consequential updates to the Survey Guidelines under the HSSC.

## **F. CONSIDERATION OF REPORTS OF INCIDENTS INVOLVING DANGEROUS GOODS OR MARINE POLLUTANTS IN PACKAGED FORM ON BOARD SHIPS OR IN PORT AREAS (AGENDA ITEM 8)**

### **a) Inspection programmes for cargo transport units carrying dangerous goods**

In relation with the comments expressed in the Plenary, the Sub-Committee noted the information provided by the delegation of the United Kingdom, regarding plans to make the CTU inspection regime in the United Kingdom even more robust as well as the intention of the United Kingdom to submit a document in this regard to CCC 5.

With regard to the proposal to amend relevant instruments, such as MSC.1/Circ.1442, the Sub-Committee agreed that Member States and international organizations interested in pursuing such an approach could submit a proposal for a new output to the Maritime Safety Committee in accordance with MSC-MEPC.1/Circ.5.

Concerning the results of container inspection programmes and its concern about the high rate of deficiencies and the lack of adherence to the provisions of the IMDG Code, the Sub-Committee invited Member States to continue submitting such reports and urged Member States which have not yet carried out container inspection programmes to do so and to submit the relevant information to the Organization in accordance with MSC.1/Circ.1442 (as amended by MSC.1/Circ.1521).

### **b) Uploading future reports to GISIS**

The Sub-Committee noted the recommendation by the Secretariat that the development of such a functionality was indeed feasible and that the electronic version of the form in annex 2 to MSC.1/Circ.1442 and the generation of consolidated reports was being tested on the GISIS development server. The Sub-Committee also noted that testing was expected to be completed by the end of 2017 and that Member States would be notified of the general availability of the functionality, together with a short user guide, via a Circular Letter early in 2018.

Also, the Sub-Committee encouraged Member States to submit the results of the 2017 inspection programmes via GISIS, subject to the aforementioned functionality being available well before the first submission deadline for CCC 5.