CCC 4

The Sub-Committee on Carriage of Cargoes and Containers (CCC), chaired by Mr. H. Xie (China), held its fourth session from 11 to 15 September 2017.

CCC 4 agreed on:

• Draft amendments and corrections to part A-1 IGF code

- Sub-factor fv;

- Loading limit for liquefied gas fuel tanks;

- Different protection requirements and design features for gas pipes and pipes for cryogenic liquefied gas;

- Explosion relief valves for new ships;

- Separation of fuel preparation rooms and type C tanks from high fire risk rooms.

• Draft unified interpretations

- IGF Code part A-1, 6.8.2 – Storage tanks loading limits higher than calculated using the reference temperature;

- IGF Code part A-1, 11.3.2 – Class division for space boundaries facing fuel tanks on open deck;

- IGF Code part A-1, 11.3.3 – Other rooms with high fire risk;

- IGF Code, 15.3.2 - Level indicator in the bilge well of tank connection spaces of independent liquefied gas storage tanks;

- IGF Code, 15.4.2.3 - Testing of high level alarms;

- IGC code, 13.3.5 - Testing of high level alarms.

• A list of technical discussion points for assessing the suitability of high manganese austenitic steel for cryogenic service, and to further developing information required to address these topics and draft acceptance criteria;

• Draft CCC.1 circular on safety awareness for the transport of ammonium nitrate based fertilizer (non-hazardous);

• Draft test procedure for determining the TML for bauxite cargoes, with a view to inclusion in the draft amendments (05-19) in appendix 2 to the IMSBC Code;

• Draft Individual schedule for Bauxite of Group A and of Group C;

• Draft revised CCC.1 circular on Carriage of Bauxite, which may liquefy to raise awareness on the potential risks posed by moisture in the carriage of bauxite.

CCC 4 agreed on draft amendments for submission to MSC 99 with a view to approval and subsequent adoption.

CCC 4 endorsed the draft unified interpretations of provisions 6.8.2 and 11.3.3 of the IGF Code for inclusion as part of the draft MSC circular on unified interpretations of the IGF Code.

Having noted that the ability of a fuel tank to satisfy the holding time requirement in 6.9.1.1, which is evaluated under normal operating conditions has to be met irrespective of the application of 6.8.2 and should not be used as a factor when allowing a higher loading limit, CCC 4 endorsed the following UI :

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 gives a lower value than 95%.

The intent of the proposal of draft unified interpretation was to exempt the provision of A-60 class divisions for boundaries of service spaces, control stations, accommodation spaces, escape routes and machinery spaces facing fuel tanks on open deck when the fuel tank and its tank connections are completely enclosed in A-0 class divisions.

CCC 4 estimated that the waiver intended by the draft unified interpretation should be addressed by means of amendments to the IGF Code.

In considering how the phrase "other rooms with high fire risk" in 11.3.3 should be interpreted, CCC 4 aligned the spaces listed in the proposed draft unified interpretation with the categories listed in SOLAS regulation II-2/9.

CCC 4 has recommended to MSC 99 to invite ISO to consider developing a standard for methyl/ethyl alcohol, a standard for methyl/ethyl alcohol fuel couplings.

At a broader level, CCC 4 was of the view that the toxic properties of methyl alcohol need to be further considered and noted the information provided by French delegates about a recent study on the use of methyl/ethyl alcohols as fuel in confined enclosed spaces, which indicates that the toxicity thresholds applicable to human health are very speedily attained. In this regard, the French delegates informed CCC 4 of its intention to submit the results of the aforementioned study to a future session.

CCC 4 in Plenary noted safety records from the operation of ships is indispensable for achieving a complete evaluation of the suitability of high manganese austenitic steel for cryogenic service and for ensuring an appropriate safety level. It is hard to evaluate the stress corrosion and fatigue fracture disposition of a material without trials and operation of actual ships for a certain period of time, since such aspects are largely dependent on the operational environment at sea (exposure to sea salt, random and complex forces, metocean environment).

CCC 4 considered that high manganese austenitic steel should not be incorporated into the IGC and IGF Codes until trial constructions and operation of ships with tanks made of the new material are carried out.

Therefore, instead of amendments to the IGC and IGF Codes, interim guidelines for the application of high manganese austenitic steel in cryogenic services would be preferable at a first stage.

CCC 4 established a WG on the Suitability of High Manganese Austenitic Steel for Cryogenic Service.

Following converging discussions in Plenary, CCC 4 endorsed the WG's proposal that consideration of the suitability of high manganese austenitic steel for cryogenic service should be limited to steel plates only.

WG noted that chapter 6 of the IGC Code was developed to address particular materials used for construction of cargo containment and piping systems at the time of the development of the IGC Code (1983) and, therefore, it would be not appropriate to use the test requirements set out in this chapter as a basis for assessing of the suitability of new materials.

WG prepared the following list of technical discussion points for assessing the suitability of high manganese austenitic steel for cryogenic service, and further developed information required to address these topics and draft acceptance criteria.

CCC 4 decided to re-establish the CG under the coordination of the Republic of Korea.

Bearing in mind BV’s report on MSC 98, it should be recalled that last meeting of the Committee has agreed on the following issues:

- Resolution MSC.426(98) – amendments to the international maritime solid bulk cargoes (IMSBC), providing amendment which should be deemed to be accepted on 1 July 2018 and enter into force on 1 January 2019;

- MSC.1/Circ.1395/Rev.3 - Lists of solid bulk cargoes for which a fixed gas fire-extinguishing system may be exempted or for which a fixed gas fire-extinguishing system is ineffective (consequential amendment to MSC.1/Circ.1395/Rev.2, in relation to the draft amendments to the IMSBC Code (MSC.426(98)).

CCC 4 had for its consideration a proposal of amendments to the existing schedule for ammonium nitrate based fertilizer (non-hazardous), according which ammonium nitrate based fertilizers (non-hazardous) do not propagate combustion, are not flammable solids, are not self-heating and do not show self-sustaining decomposition behavior.

The proposed amendments were not supported and CCC 4, considering the reduction of hazard statements, carriage requirements and emergency procedures, are downgrading the way to handle such cargo. CCC 4 estimated that the reclassification from Group C to Group B was for the time being out of sight.

CCC 4 also noted the existing individual schedule for ammonium nitrate based fertilizer (non-hazardous) covers a wide range of different fertilizers. Dividing the existing individual schedule for ammonium nitrate based fertilizer (non-hazardous) into two schedules, i.e. for group B and group C, could be a way to consider.

CCC 4 approved the draft CCC.1 circular on carriage of ammonium nitrate based fertilizer (non-hazardous)

The circular describes the safety principles for this cargo are as follows:

- avoidance of storage of combustible substances near fertilizers;

- avoidance of storage of incompatible substances near fertilizers;

- avoidance of cross contamination with remains of previous cargoes;

- avoidance of cross contamination of next cargo with fertilizer;

- avoidance of sources of heat likely to affect the fertilizer;

- avoidance of application of heat to any section which may have trapped/confined fertilizer.

CCC 4 agreed, in principle with a view to inclusion in the draft amendments (05-19) to the IMSBC Code to the draft Individual schedule for:

- MHB seed cake cargoes;

- Group C seed cake cargoes.

CCC 4 considered that a uniform classification approach is necessary for cargoes with similar properties and that in the long term, the criteria for classification of MHB(OH) cargoes should be developed. For instance, the absence of guidance for determining whether a cargo is cohesive or non-cohesive is open to broad interpretation and may result in catastrophic consequences, consequential amendments to appendix 3 to the Code may be required.

CCC 4 invited interested Member States and international organizations to submit more information to E&T 29. However, WG on IMSBC estimated that the draft amendments to section 9 of the IMSBC Code should not be further developed at this stage.

CCC 4 agreed, in principle, to the draft amendments to following individual schedules Seed cake:

- UN 1386 (b), seed cake containing vegetable oil;

- UN 2217, seed cake with not more than 1.5% oil and not more than 11% moisture.

CCC 4 considered reports from Global Bauxite Working Group (GBWG) and from the dedicated Correspondence Group (CG).

CCC 4 agreed, in principle, with the criterion of Group A and Group C cargoes proposed by the GBWG and agreed by the CG.

Both liquefaction and dynamic separation are moisture-related mechanisms and there is a need to expand the existing definition of Group A to cover the new phenomenon of dynamic separation.

CCC 4 was on the view that the phenomenon of dynamic separation should be considered in the long term and decided to invite interested Member States and international organizations to submit proposals to the MSC, with a view to amending the IMSBC Code to address this moisture-related mechanism.

CCC 4 agreed to the draft test procedure for determining the TML for bauxite cargoes, with a view to inclusion in the draft amendments (05-19) in appendix 2 to the IMSBC Code.

With a view to inclusion in the draft amendments (05-19) to the IMSBC Code, CCC 4 agreed to the draft:

- Individual schedule for Bauxite of Group A;

- amendments to the individual schedule for Bauxite of Group C.

CCC 4 endorsed the WG'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 (05-19) to the IMSBC Code.

Having noted that the consequential amendments to appendices 4 and 5 to the Code are needed, CCC 4 agreed to the consequential amendments to:

- appendix 2 (Laboratory test procedures, associated apparatus and standards);

- appendix 4 (Index);

- appendix 5 (Bulk Cargo Shipping Names in three languages (English, Spanish and French)).

CCC 4 approved the draft revised CCC.1 circular on Carriage of Bauxite which may liquefy to raise awareness on the potential risks posed by moisture in the carriage of bauxite.

The hereinbefore draft amendments are expected to be adopted by the MSC (MSC 101, in 2019) and the date of entry into force of these draft amendments to the IMBSC Code is expected to be 1 January 2021.

CCC 4 decided to invite the member governments to take the aforementioned draft test procedure and draft individual schedules for bauxite of group A and group C into consideration at the time of:

- classification of Bauxite cargoes as Group A or Group C;

- setting the preliminary suitable conditions for the carriage of this cargo in accordance with subsection 1.3 of the Code, when the cargo is classified as Group A.

CCC 4 has referred to E&T 29 following proposals, for consideration and incorporation, as appropriate, into draft amendments 05-19 to the IMSBC code:

- Metal Sulphide Concentrates, Self-heating, UN 3190 as a Group A and B cargo;

- Brucite as a Group C cargo.

MSC.406(96) has amended (38-16) to the IMDG Code with an entry into force on 1 January 2018. CCC 4 agreed to some draft editorial corrections and referred them to E&T 28.

CCC 4 had for its consideration a proposal for a new special provision on the transportation of batteries (UN 2800) installed in cargo transport units. It agreed to forward it to UN Sub-Committee of Experts on the transport of Dangerous Goods (UNSCETDG) owing to the fact it is a multimodal issue.

Battery-vehicles are currently shipped under exemptions, in accordance with paragraph 7.9.1.2 of the IMDG Code. CCC 4 referred this topic and the related documents to E&T 28 for further consideration.

CCC 4 agreed to reinsert UN 3332 and UN 3333 in schedule S-S of the EmS Guide. It referred the proposed amendments to E&T 28. It asked the Secretariat to issue such editorial corrections before 1 January 2018, the date of entry into force of amendment 38-16.

Considering that a review of MSC.1/Circ.1216 could be beneficial, CCC 4 agreed, in principle, to draft a consolidated Revised EmS Guide and referred it to E&T 28 for finalization, with a view to approval at MSC 99 in 2018.

CCC 4 agreed to amend the segregation codes and dangerous goods list, and to adapt the segregation requirements for uranium hexafluoride, in order to reflect the additional risk of class 6.1. It instructed E&T 28 to further develop the related draft amendments for inclusion, if appropriate, in the draft amendments (39-18) to the Code.

CCC 4 requested E&T 28 to finalize the draft amendments (39-18), with a view to submitting the draft amendments to MSC 99 for consideration and adoption.