



IMO CCC 8 and E&T 37 Meeting Summary

October 5, 2022

The 8th meeting of the IMO’s sub-committee on carriage of cargoes and containers (CCC 8) was held 14 to 23 September 2022 as a hybrid meeting, i.e. online and in-person at IMO Headquarters in London. This CCC 8 report includes the relevant outcome of the 37th session technical and editorial group (E&T 37) held 26-30 September 2022.

Liberia participated in the plenary and the following groups during CCC 8:

Group	Subject
WG 1	Development of technical provisions for the safety of ships using alternative fuels (agenda items 3, 10, 13, and 14);
WG 2	The IGF Code and review of the IGC Code (agenda items 3, 4, 10 and 12)
WG 3	Development of measures regarding the detection and mandatory reporting of containers lost at sea (agenda item 11);
DG 1	Amendments to the International Code for the Safe Carriage of Grain in Bulk (Resolution MSC.23(59)) to introduce a new class of loading conditions for special compartments

Liberia also participated in the E&T 37 meeting. The result of the E&T 37 is incorporated in the IMSBC code part of this summary.

Openings

Many delegates expressed condolences to King Charles III and other members of the Royal Family, the Government, the people of the United Kingdom of Great Britain and Northern Ireland, and the Commonwealth on the death of Her Majesty, Queen Elizabeth II. A moment of silence in memory of the Queen was observed by the Sub-Committee and many delegations also made statements to convey their condolences.

New technologies for new fuels

Following the conclusion on guidelines for methyl/ethyl alcohol as fuel (MSC.1/Circ.1621) and the guidelines for fuel cell power installations (MSC.1/Circ.1647), CCC 8 continued to work on new technologies/fuels.

LPG Fuel

CCC 8 reviewed the text prepared by the CG ([CCC 8/3](#)) and prepared the draft *interim guidelines for ships using LPG fuels* for approval by the 107th session of the Maritime Safety Committee (MSC 107) scheduled for June 2023 for

approval. Key features of the guidelines are:

- These are recommendatory guidelines
- Where the requirements are similar to the IGF code (LNG Fuel), references are made to the Code, while the guidelines focus on the unique elements associated with the LPG fuel.
- ESD protected machinery space concept was included, provided that it meets the requirements of the alternative design (SOLAS II-1/55) requirements;
- A number of provisions recommend a risk assessment to be conducted in addition to the existing IGF Code requirements;
- Due attention was paid to ventilation requirements noting LPG is heavier than air, thus can accumulate on the bottom of rooms; and
- The guidelines do not have a specific section on bunkering operation, leaving it to the industry to develop best practice guidance.

Hydrogen fuel

CCC 8 had an initial discussion and several technical issues emerged:

- These guidelines cover both compressed and liquefied hydrogen

- With regard to the scope of the work, CCC 8 agreed to make reference to the *Interim guidelines for the safety of ships using fuel cell power installations* (MSC.1/Circ.1647), where applicable

CCC 8 identified other technical details for further discussion by the correspondence group (CG).

CCC 8 also noted information that focused on the cost structure of maritime hydrogen transport for the reference of the maritime industry that has been considering alternative fuel that meets carbon emission regulation. The paper indicated that liquefied ammonia and liquefied hydrogen were disadvantageous in terms of maritime transportation costs due to calorific value and density per unit.

Ammonia fuel

The correspondence group (CG) set up by CCC 7 in September 2021 reported its work, including:

- list of safety information; and
- list of items to be considered

CCC 8 gave an initial review the draft guidelines and tasked the correspondence group to further develop the guidelines. Key features identified at CCC 8 were:

- Toxicity and corrosivity of the ammonia fuel
- The guidelines would address both safety and environmental impacts

Low flashpoint oil fuels (Agenda item 3)

The CG suggested developing interim guidelines for the use of oil fuels with a flashpoint between 52°C and 60°C. Such guidelines should cover oil-based fossil fuels, synthetic fuels, biofuels and any mixture thereof.

CCC 8 agreed with the proposal but due to the lack of time, the matter was referred to the correspondence group (CG).

Amendments to the IGF Code

CCC 8 agreed with the amendments for approval and subsequent adoption by MSC. Expected entry into force is 1 January 2026. Key features are introduced hereunder. Most of the requirements apply to new ships only (N), while the requirements for the portable equipment apply to new and existing ships (N & E):

- Clarify the height of the door sill of the airlock (5.12.1) (N);
- Clarify pressure relief system capacity (6.7.3.1.1) (N);
- Accepting a combination of the measures for designing tanks against pressure (6.9.1.1) (N);
- Correction of thickness calculation formula (7.3.2.1) (N);
- Bunkering manifold arrangements regarding details

- of Dry-Disconnect/Connect Coupling (8.4) (N);
- Clarification of redundancy of fuel supply system (9.3.1) (N);
- Ventilation of fuel pipes upon activation of emergency shut down (9.4.7 and 9.6.1) (N);
- Clarification of location of manual shut down valve (9.4.8) (N);
- Change to the design pressure fuel ducts (9.8) (N)
- Status of Fuel preparation room (11.3.1) (N);
- Portable fire-extinguisher in fuel preparation room (11.6.2) (N & E);
- Inclusion of interbarrier spaces in hazardous area zone 0 (12.5.1 and 12.5.2) (N);
- New option for level gauge (15.4.1.3) (N); and
- To add pressure relief valve setting information to the information to be exchanged between ship and bunker supplier before commencing a bunkering operation (18.4.1.1.1.1) (N & E)

Use of high-manganese austenitic steel for containment system for ammonia

The use of high-manganese austenitic steel for LNG has been addressed by MSC.1/Circ.1622 and MSC.1/Circ.1599/Rev.2 as well as draft amendments to the IGF/IGC codes, which will be adopted by MSC.106 scheduled for November 2022.

The CG on high-manganese austenitic steel presented the progress report on the suitability of high manganese austenitic steel for ammonia service.

CCC 8 decided to wait for further test results on the material for the use of ammonia.

Unified interpretation of the IGF Code

CCC 8 prepared a draft MSC Circular, for approval by MSC 107 scheduled for June 2023, on unified Interpretations which address:

- Design of fuel preparation rooms not located on open deck; and
- Flange connection of fuel pipes.

IMSBC Code

While CCC 8 addressed the matter, the technical details were considered by the 37th meeting of the Editorial and Technical Group (E&T 37) held 26-30 September for its circulation and subsequent adoption by MSC 107 in June 2023. The next amendments, 07-23, will enter into force on 1 January 2025, while the voluntary application is encouraged from 1 January 2024.

Cargo density declaration

There was a submission pointing out discrepancies between SOLAS and IMSBC Code and proposing a minor correction to the IMSBC Code to ensure that cargo density will be included in the information provided by shippers.

CCC 8 agreed with the proposal in principle, subject to further discussion by E&T 37.

Subsequently, E&T 37 reviewed the proposal and agreed to include the proposed amendments in amendments 07-23.

Spare charge of self-contained breathing apparatus

There was a proposal for amending the IMSBC Code to clarify the carriage requirement of spare charges for SCBAs (self-contained breathing apparatuses).

CCC 8 agreed that, when SOLAS regulation II-2/19.3.6.2 was introduced, the IMO should have assessed the impact on the IMSBC Code.

E&T 37 was tasked to review the proposal and report the result to CCC 9.

E&T 37 considered possible deletion of SCBA requirements from all schedules of the IMSBC Code but could not reach an agreement. The matter will be considered further at CCC 9 scheduled for September 2023.

Dynamic separation

An IMO Member State pointed out that the amendments 06-21 to the IMSBC Code (MSC.500(105)), which will enter into force on a mandatory basis on 1 December 2023, and can be applied on a voluntary basis as of 1 January 2023, introduce definitions for "dynamic separation" and "cargoes which may undergo dynamic separation" will affect various sections of the IMSBC Code, including section 7.

CCC 8 agreed with the proposal in principle, subject to further discussion by E&T 37.

Subsequently, E&T 37 incorporate the proposal, after editorial modification, into amendments 07-23.

Subsequently, E&T 37 also agreed draft revisions of MSC.1/Circ.1453/Rev.1 on *Guidelines for the submission of information and completion of the format for the properties of cargoes not listed in the International Maritime Solid Bulk Cargoes (IMSBC) Code and their conditions of carriage* and MSC.1/Circ.1454/Rev.1 on *Guidelines for developing and approving procedures for sampling, testing and controlling the moisture content for solid bulk cargoes which may liquefy or undergo dynamic separation*, which will be forwarded to MSC 107 for approval.

Substance identification number for solid bulk cargoes

While CCC 8 had been considering an ID number scheme for solid bulk cargoes, it also noted the possible implications of introducing a substance identification numbering scheme on IT systems worldwide, administrative burden and consequences for the structure of the IMSBC Code.

The matter was tasked to E&T 37.

E&T 37 noted that further consideration was needed as to how to assign the number, for example, currently, a schedule contained more than one cargo, needs for maintaining the current alphabetical order etc. In addition, the group noted a potential impact on various IT systems.

E&T 37 could not conclude this issue and invited members to submit a proposal to CCC 9.

New individual schedules

CCC 8 agreed on the following cargoes in principles and tasked E&T 37 to finalize them:

- Celestine
- Crushed granodiorite
- fish meal
- Ground granulated blast furnace slag powder
- Magnesite fines

CCC 8 undertook an initial discussion on the following cargoes, which was further reviewed by E&T 37 for further discussion:

- iron ore pellets
- Coal
- Charcoal and application of UN N.4 test result
- Chemical gypsum powder
- Contaminated soil

E&T 37 incorporated the following cargoes in amendments 07-23. The rest will be further discussed at CCC 9:

- Celestine concentrate ("Celestine" will be a separate schedule for further discussion at CCC 9);
- Crushed granodiorite fines (limit the cargo up to 22mm);
- Fish meal (replace the existing individual schedule for "FISH MEAL (FISH SCRAP), STABILIZED UN 2216 Anti-oxidant treated" with the draft new individual schedule for "FISH MEAL (FISH SCRAP), STABILIZED Anti-oxidant treated");
- Ground granulated blast furnace slag powder;
- Magnesite fines; and
- Superphosphate (to re-insert as this was removed by the previous amendments by an error).

Fixed fire-fighting equipment

E&T 37 developed some consequential amendments to MSC.1/Circ.1395/Rev.5 on the *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* for submission to MSC 107 for approval.

Enclosed space entry

Revision of the Revised recommendations for entering enclosed spaces aboard ships (resolution A.1050(27))

An Industry observer explained why the "cargo compressor room" should not be considered an "enclosed space" in the context of resolution A.1050(27).

A Member State considered that if the cargo compressor room was deleted from the list of examples of the enclosed spaces in paragraph 2.1 of resolution A.1050(27), it would lead to the absence of safeguard.

Another submission by the Industry observers pointed out that, while these spaces should not be considered as enclosed spaces on Gas Carrying Ships as they are covered by the IGC Code, not all ships with cargo compressor rooms were covered by the IGC Code.

CCC 8 did not support removing the gas compressor room from the list of enclosed spaces or proposed alternatives to this session due to various safety concerns. CCC 8 noting that a new work programme proposal on the comprehensive revision of *the Revised recommendations for entering enclosed spaces aboard ships* (resolution A.1050(27)), agreed to keep the submission in abeyance.

Grain Code

MSC 101 had approved a new output for the Sub-Committee on Carriage of Cargoes and Containers with a view to amending the International Code for the Safe Carriage of Grain in Bulk (resolution MSC.23(59)) in order to introduce a new class of loading conditions for "specially suitable compartment, partly filled in way of the hatch opening, with ends untrimmed" and specify the requirements under which grain may be safely carried in such compartments.

CCC 8 agreed to the draft amendments to the Grain Code for approval by MSC 107 and adoption.

Container matters

Container inspection programme

The IMO Secretariat provided a consolidated report on the results of container inspection programmes carried

out in 2021.

CCC 8 noted that, out of the 64,283 CTUs inspected, 3797 CTUs were found to have deficiencies, which means that 5.91% of the CTUs inspected had deficiencies. With regard to the type of deficiencies, placarding and marking of CTUs, securing/stowage inside the unit, marking and labelling of packages, documentation and serious structural deficiencies were the main deficiencies found.

Tracking device and report of lost containers

CCC 8 addressed reporting of lost containers and tracking devices as given in the following submissions:

- Reporting procedure; and
- Technical solutions.

CCC 8 also noted the information submitted on the number of containers lost at sea, which estimated that there were on average a total of 1,629 containers lost at sea each year, which is a significant increase (18%) to the average annual loss for the 12-year period ending in 2019.

CCC 8 developed draft amendments to the SOLAS Convention on mandatory reporting of lost containers. The text differentiates cases of "lost (from own ships)" and "sighting (lost from other ships)" regarding the stakeholder involved. CCC 8 also developed amendments to the MARPOL convention to avoid duplicated reporting.

CCC 8 agreed not to embark on tracking devices at this stage.

IMDG Code

MSC 105 adopted amendments to the IMDG Code (41-22) by resolution MSC.501(105), which is envisaged to enter into force on 1 January 2024 and can be applied on a voluntary basis from 1 January 2023.

CCC 8 initiated the next amendments (42-24) for further discussion at E&T 38, to be convened in the spring of 2023, with a view to adoption at MSC 108 in 2024.

Container data loggers and tracking devices

CCC 8 considered the proposed criteria for devices in use or intended for use during transport, such as data loggers, sensors and cargo trackers that contain dangerous goods that are attached to or placed in packages, overpacks, containers, cargo transport units or load compartments.

The proposal was included in draft amendments 42-24 to the IMDG Code.

Cargo transport units

A Member State proposed to amend paragraph 7.3.3.14 of the IMDG Code to change the CTU code as footnoted (non-mandatory) reference.

CCC 8 agreed to the proposal, in principle, and decided to refer the document to E&T 38 for consideration and incorporation, as appropriate, in draft amendments 42-24 to the IMDG Code.

Transport of vehicles with lithium batteries

A Member State proposed to replace special provisions 961 and 962 with a new special provision in response to recent fire incidents of vehicle carriers. The paper addresses concern over the second-hand lithium Iron battery vehicle.

Many delegates expressed concerns over the proposal, including practicability and administrative burdens, as well as the work that was tasked to the other IMO Sub-Committee on Ro-Ros fire safety. The matter was tasked to the CG.

Another Member State submitted a document on an amendment to SP388 to harmonize the provision with the UN Model Regulations, as well as other consequential amendments to SP961.1 and SP962.4, closing a regulatory gap in the IMDG Code, as the testing requirements for lithium batteries in provision 2.9.4 currently apply only to hybrid electric vehicles loaded in the cargo spaces of a ro-ro ship, but not to other hybrid electric vehicles to which SP961.2 through SP961.4 apply.

CCC 8 agreed to the proposal, in principle, and decided to refer the document to E&T 38 scheduled for spring 2023, for inclusion in amendments 42-24 to the IMDG Code.

Stabilized substances

A group of Member States and Industry observers, including Liberia, jointly proposed to amend the IMDG Code to address identified deficiencies regarding special transport conditions and operational controls in order to ensure safe transport cargoes that require inhibitors. The paper pointed out:

- the need to include the anticipated duration of the effectiveness of inhibitors in the shipping information
- to address temperature influenced by other cargoes

CCC 8 did not agree with the proposal because:

- Monomer polymerization and stability is far too complex a process to be reduced to one simple temperature value;
- the proposal to require the inclusion of "the anticipated duration of the effectiveness of inhibitors" in the transport document is unnecessary, as the IMDG Code already requires the shipper to certify each shipment to be in "accordance with the applicable regulations", including SP386.

- the proposal has multimodal implications, and therefore it should be considered at UNTDG first

CCC 8 agreed to refer this matter to E&T 38 for further consideration, with a view to providing further advice to CCC 9.

Other cargoes

The following was agreed by CCC 8 for incorporation into amendments 42-24:

- arrangements for emergency access to ammonium nitrate
- Limited quantity provisions for UN 2956 MUSK

IGC Code

CCC 8 agreed to develop a comprehensive revision of the IGC code aiming at 1 January 2028 for entry into force.

Use of high manganese austenitic steel

Regarding the IGC code, the work is incorporated into the comprehensive revision of the IGC Code. On the IGF code, see New technologies for new fuels. CCC 8 decided to wait for further test results of the material for the use of ammonia.

VOC condensate

A Member State provided the background and details of a new product, "VOC Condensate", for inclusion in chapter 19 of the IGC Code.

CCC 8 agreed to address VOC condensate in the next comprehensive revision of the IGC Code. Meanwhile, CCC 8 approved a CCC circular as an interim measure.

Piping testing

There was a submission pointing out that paragraph 5.13.2 in the revised Code requires a leak test and strength test for all piping. However, the co-sponsors were of the opinion that testing for some pipes did not contribute to additional safety, e.g., open-ended piping (ventilating pipe), a spray line inside cargo tanks etc.

CCC 8 agreed to include the proposal in the next set of the IGC code revision.

Interpretations

CCC 8 prepared the draft MSC circular for approval by MSC 107, which addressed the following:

- **First full loading:** Unified interpretation on paragraphs 4.20.3.5, 4.20.3.6, 4.20.3.7, 5.13.2.5 and 13.3.5 in relation to verifications and examinations required during the first full loading and unloading of the cargo; and

- **LNG bunkering ships:** Clarifying their cargo transfer arrangements in addition to the traditional cargo manifolds, such as transfer loading arms, bunkering booms and transfer hose reels, installed at different locations around the ship.

Carriage of hydrogen as cargo

While a small-scale pioneering ship was built for operation between Australia and Japan (two 1,250 m³ type C tanks), it is time to scale up the size.

The existing IGC Code and *the Interim recommendations for carriage of liquefied hydrogen in bulk* (MSC.420 (97)) applied to the pilot ship.

Two Member States jointly proposed to establish the correspondence group to address:

While CCC 8 agreed to develop technology neutral guidelines, due to time constraints, CCC 8 was unable to address the paper nor unable to accommodate the proposal in the TOR of the CG. Japan would work with interested parties and submit a paper to CCC 9.

CSS Code

There was a question on the acceptance of lashing software as a supplement to the stowage and securing plan included in the approved Cargo Securing Manual (CSM), in order to evaluate actual loading conditions, and proposes a draft unified interpretation for endorsement of IMO.

CCC 8 considered that harmonized standard for approval was needed thus this went beyond a simple interpretation, and invited Members to submit a new output proposal to MSC.

Black Sea Grain Initiative

The IMO Secretary-General provided an update on IMO's active role in the Black Sea Grain Initiative, in particular its engagements in the Joint Coordination Centre.

Any Other Business

The following were noted

- Update on the BoxTech global container database;
- Report on activities related to the Global Approved Continuous Examination Programmes (ACEP) Database;
- Hazard Assessment of Ores and Concentrates for Marine Transport Guidance 2021;
- UN/OECD seminar in follow-up to the 2020 Beirut port explosion;
- Industry guidelines for warehouses storing, handling and consolidating dangerous goods; and
- informal pre-work to the Group of Experts on the Code of Practice for Packing of Cargo Transport Units

FURTHER INFORMATION

For further information please contact: imo@liscr.com

Provisional list of draft resolutions and circulars

- draft Interim Guidelines for the safety of ships using LPG fuels
- the draft amendments to the IGF Code
- the draft MSC circular on unified interpretation on requirements for fuel preparation rooms not located on an open deck of the IGF Code
- draft MSC circulars on unified interpretations of the IGC and IGF Codes
- draft MSC circular on unified interpretation on bunkering manifold arrangements fitted on LNG bunkering ships of the IGC
- draft CCC circular on carriage conditions for VOC Condensate
- the draft amendments to the Grain Code
- the draft amendments to SOLAS chapter V, regulation 31
- the draft amendments to article V of protocol I of the MARPOL Convention
- draft amendments (07-23) to the IMSBC Code
- draft amendments to provision 5.5.4 of the IMDG Code, with a view to incorporation, as appropriate, into draft amendment 42-24