

IMO SUB-COMMITTEE ON CARRIAGE OF CARGOES AND CONTAINERS (CCC) 14 – 23 SEPTEMBER 2022

The IMO Sub-Committee on Carriage of Cargoes and Containers held its 8th session, a hybrid one (CCC 8), at IMO HQ from Wednesday 14 through Friday 23 September 2022 under the Chairmanship of Mrs Maryanne Adams (Marshall Islands) and her Vice Chair, Mr David Anderson (Australia), both of whom were re-elected for 2023. InterManager participated in the meeting on-line and the session was attended by delegations from Member States, Associate Members of IMO and observers from inter-governmental and non-governmental organisations in consultative status.

Three Working Groups (WG), and two Drafting Groups (DG) were formed and chaired as follows:

- WG1 Development of technical provisions for safety of ships using alternative fuels, Mr. Christian Allgeier (Germany).
- WG2 Amendments to the IGF Code and review of the IGC Code, Mr. Eric Linsner (Marshall Islands).
- WG3 Development of measures regarding the detection and mandatory reporting of containers lost at sea, Mr. David Anderson (Australia).
- DG1 Amendments to the Grain Code, Dr. Susumu Ota (Japan).
- DG2 Amendments to the IMDG Code, Mr. Steven Webb (Australia).

ADDRESS BY THE SECRETARY-GENERAL OF IMO. The Secretary-General welcomed delegates to the eighth session of the CCC Sub-Committee and expressed heartfelt condolences to the members of the Royal Family following the recent death of Her Majesty, Queen Elizabeth II, following which a minute's silence was held in the Queen's memory.

Mr. Lim also expressed his sadness to the family of Mr. Christian Breinholt of Denmark, the former Chair of MSC and an important contributor to the work of the Organisation, who had also had recently passed away.

Moving on, he reminded delegates that CCC 8 would be the very first meeting to be held in person since the outbreak of the COVID-19 pandemic in March 2020 and would also be the first meeting to be supplemented by hybrid capabilities for a trial period of one year.

He stated that "New technologies for greener shipping", the World Maritime theme for 2022 will be superseded by next year's "MARPOL at 50 – Our commitment goes on", highlighting CCC's work concerning the development of technical provisions for alternative low-flashpoint fuels.

Moving to items on the agenda at this session, he spoke of considering matters related to the development of safety provisions to support the decarbonisation goal. He also urged finalisation of the interim guidelines for the safety of ships using LPG as fuel, taking into account the existing provisions of the IGF Code whilst also encouraging progress on development of technical provisions for the use of hydrogen, ammonia and low-flashpoint oil fuel. Staying with the subject of Codes, he expressed awareness with regard to the large number of amendments proposed for consideration in reviewing the IGC Code, but expressed confidence that they would all be considered thoroughly.

The S-G revealed that the Sub-Committee and the Editorial and Technical Group (E&T), will this year finalise the latest amendments to the International Maritime Solid Bulk Cargoes (IMSBC) Code, for submission to MSC 107 for adoption and which will later form a consolidated version of the whole IMSBC Code.

With regard to packaged dangerous goods, the outcome of the Correspondence Group on review of Maritime Special Provisions will be considered. Also, instructions to the E&T Group will be provided in order to initiate the next set of draft amendments to the International Maritime Dangerous Goods (IMDG) Code for the next two-year revision cycle.

Rounding off his tour d'horizon, Mr Lim emphasised the importance of moving forward with work regarding the detection and reporting of containers lost at sea and urged the development of appropriate measures to enhance their location, tracking and recovery as they pose a serious hazard to navigation and safety at sea in general.

In response, on behalf of the Sub-Committee, the Chair also expressed condolences to the 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.

DECISIONS OF OTHER IMO BODIES.

General. The Sub-Committee noted the outcomes of MSC 104 and 105, MEPC 77 and 78, C/ES.34 and A32 relevant to the work of the Sub-Committee, as reported in documents CCC 8/2 and CCC 8/2/1 (Secretariat). The outcome of the eighth session of III 8 (Implementation of IMO Instruments), in relation to the lessons learned and preventative measures identified from accidents involving entering enclosed spaces aboard, was considered under agenda item 8.

Ongoing military conflict between the Russian Federation and Ukraine; and the Black Sea Grain Initiative. The Sub-Committee noted a statement made by the delegation of Ukraine, pointing out the impact of the ongoing Russian Federation's invasion on the global food crisis and reporting the results of implementing the Initiative on the Safe Transportation of Grain and Foodstuffs from Ukrainian Ports (Black Sea Grain Initiative, BSG), which was launched on 22 July 2022. In particular, the delegation confirmed Ukraine's determination to ensure effective implementation of the BSG initiative;

expressed its appreciation to the IMO Secretariat for its significant contribution to the preparation of the Agreement; and, emphasised that the successful implementation of the BSG Initiative is being overshadowed by the ongoing theft of Ukrainian agricultural products by the Russian occupying forces on the territory of Ukraine, as well as attacks on port infrastructure used within the framework of the Initiative.

In this regard, the Secretary-General provided an update on IMO's active role in the Initiative, in particular expressing gratitude to all parties that are contributing to its successful operation, which he had observed first-hand during his recent visit to the port of Odesa.

The delegation of the Russian Federation made a statement, commenting on the statement made by the delegation of Ukraine and on other matters raised during the discussion.

The delegations of Australia, The Bahamas, France (supported by Belgium, Croatia, Denmark, Estonia, Finland, Germany, Greece, Ireland, Italy, Netherlands, Norway, Poland, Portugal, Spain, Sweden and the European Commission), Canada, Japan, Turkey, United Kingdom and United States also made statements expressing their solidarity with Ukraine. The majority of delegations emphasized that Russia and its unprovoked war against Ukraine was in contravention of the Charter of the United Nations and the purposes of IMO, as set forth in Article 1 of the Convention. They observed that Russia alone bore full responsibility for the increasingly grave consequences of its war, including the need for a negotiated Black Sea Grain Initiative to allow Ukraine to export its grain from its ports. Many delegations once again called on the Russian Federation to immediately withdraw its forces from Ukraine, including its territorial waters.

AMENDMENTS TO THE IGF CODE AND DEVELOPMENT OF GUIDELINES FOR LOW-FLASHPOINT FUELS.

Background. It was recalled that CCC 7 had re-established the Correspondence Group (CG) on development of Technical Provisions for the Safety of Ships using Low-flashpoint Fuels, to continue the work on the draft interim guidelines on safety of ships using LPG fuels and the consideration of low-flashpoint oil fuels.

Report of the Correspondence Group. The Sub-Committee considered the report of the CG on Development of the Interim Guidelines for Hydrogen, Low-flashpoint Oil Fuels and Amendments to the IGF Code (CCC 8/3), noting that the second part of the report on collecting information for using ammonia as fuel was submitted under a different agenda item, CCC 8/13.

Report of the WG on Development of Technical Provisions for safety of ships using alternative fuels. Following discussion in plenary, and having considered the report by the Working Group, the Sub-Committee approved it in general and:

- Invited interested Member States and international organizations to develop guidance for LPG bunkering to assist crews, bunker suppliers and ports in delivering LPG fuel to ships;

- Agreed to the draft Interim Guidelines for the safety of ships using LPG fuels as prepared by the Group and the associated draft MSC circular, for submission to MSC 107;
- Noted the discussion of the Group on the development of draft amendments to resolution MSC.420(97) and agreed to invite interested Member States and international organizations to contact the delegation of Japan with a view to jointly work informally on a submission to CCC 9 containing a draft revised version of resolution MSC.420(97);
- Noted the discussion on developing Interim guidelines for the safety of ships using hydrogen as fuel, in particular their scope, the concept of no leakage and on permitting emergency shut-down (ESD) protected machinery space;
- Noted the discussion of the Group on the development of guidelines for the safety of ships using ammonia as fuel, in particular the issues to be considered for amendment, addition or removal from the requirements of the IGF Code for ammonia-fuelled ships;
- Noted the discussion of the Group on the development of interim guidelines for the use of oil fuels with a flashpoint between 52°C and 60°C;
- Agreed to invite interested Member States and international organizations to liaise with IACS in submitting a new output proposal for a holistic approach at Committee level for the development of safety requirements at the needed pace to support the achievement of the Organisation's decarbonisation goal;
- Agreed to expand the scope and amend the title of the existing output 2.3 to read "Amendments to the IGF Code and development of guidelines for alternative fuels and related technologies", so as to accommodate for alternative fuels not considered as having a low flashpoint;
- Agreed to invite the TC Committee to consider measures to support worldwide implementation of IMO instruments related to safe decarbonisation, including the safety provisions for alternative fuels and related technologies;
- Agreed that output 2.3 should remain open for any future part A-1 IGF Code amendments, not limited to those currently considered by the Sub-Committee, so as to address upcoming urgent needs for the safety of LNG fuels in a timely fashion;
- Endorsed the updated work plan with the proposed new title, following the output title change proposed earlier;
- Agreed to re-establish the Correspondence Group on Development of Technical Provisions for Safety of Ships using Alternative Fuels, with the terms of reference prepared by the Group, and to take action, as appropriate; and,
- Noted the Group's opinion that the matter of LPG cargo as fuel can be considered by correspondence and agreed to the draft instruction (ToR) prepared by the Group to the CG in order to progress the work intersessionally.

Report of the WG on amendments to the IGF Code and Review of the IGC Code.

Having considered the Report of the Working Group on Amendments to the IGF Code and Review of the IGC Code relating to this item, the Sub-Committee approved it in general and in particular, noted the deliberations of the Group on additional compatibility test requirements for ammonia service and agreed that there is no additional work required to

complete the output. With regard to the suitability of high manganese Austenitic Steel for Cryogenic service, the Group agreed that there is no additional work required to complete the output. In this context, it will be considered at CCC 9 under the review of the IGC Code.

AMENDMENTS TO THE IMSBC CODE AND SUPPLEMENTS.

General. The Sub-Committee noted that MSC 105 had adopted amendments (06-21) to the IMSBC Code by resolution MSC.500(105) for entry into force on 1 December 2023, and that E&T 36 had commenced preparation of draft amendments (07-23) to the IMSBC Code, to be adopted as a consolidated version. After consideration at this session, E&T 37 will be instructed to finalise (07-23) to the Code, for circulation and subsequent adoption by MSC 107 in June 2023.

Discussion took place on a number of cargoes, most notably Crushed granodiorte, Celestine, and Ground granulated blast furnace slag powder, all of which were referred to E&T 37.

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

Liberia (et al.) proposed a minor correction to 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 XII/10 (solid bulk cargo density declaration); and also proposed bringing the issue to the attention of stakeholders by means of an MSC circular, pending the voluntary application of the amendments to the IMSBC Code. Following discussion, the matter was forwarded to E&T 37 for resolution.

The IMSBC schedules for iron ore pellets. Document CCC 8/5/8 (Brazil et al.) noted that the IMSBC Code contains ambiguously, three individual schedules, all of which can be used for shipment for iron ore pellets and following discussion, the matter was referred to E&T 37.

Proposed amendment to the individual schedule for COAL. Australia proposed an amendment to the individual schedule for COAL to clarify the classification and carriage requirements for coal returning a positive result to the N.4 self-heating test and following discussion, the Sub-Committee agreed to refer the matter to E&T 37, with a view to providing further advice to CCC 9.

Enclosed space fatalities aboard ships during the period 2000 to 2021. Document CCC 8/5/11 (IBTA) provided a summary of research identifying and analysing all reported enclosed space-related fatalities across all ship types for the period 2000 to 2021. Noting that the scope of the existing agenda item on "Revision of the Revised recommendations for entering enclosed spaces aboard ships (resolution A.1050(27))", is limited, document MSC 106/16/1 (China), proposing a new output should be taken into account. Following consideration, the Sub-Committee agreed that there were no specific actions to take under this item.

Proposals for new individual schedules. These included the following, all of which were referred to E&T 37:

- Chemical gypsum powder;
- Contaminated soil; and,
- Magnesite fines.

Having considered the above matters, E&T 37 was authorised to finalise draft amendment 07-23 to the IMSBC Code, with a view to submitting the draft consolidated edition of the IMSBC Code to MSC 107 for consideration and adoption.

AMENDMENTS TO THE IMDG CODE AND SUPPLEMENTS.

Report of the CG on a review of maritime special provisions. The Sub-Committee recalled that CCC 7 had re-established the CG on a Review of Maritime Special Provisions. In a prolonged discussion, the following matters were discussed:

- Report of E&T 35;
- Outdated references to ISO standards;
- “Diacetyl, see” and “2-Phenylpropene, see” in the index of the IMDG Code;
- Provisions concerning transport operations in the IMDG Code;
- Output on fibre-reinforced plastics;
- Container data loggers and tracking devices;
- Amendments (41-22) to the IMDG Code;
- Amendments to the EmS Guide; and,
- Editorial amendments to MSC.1/Circ.1361 (Revised recommendations on the safe use of pesticides in ships applicable to the fumigation of cargo transport units.

Report of the CG on a Review of Maritime Special Provisions. The Sub-Committee noted the Group’s discussion on the following matters:

- Applicability of the UN N.4 test for consignments of charcoal and the related special provisions;
- Ambient temperature;
- Stowage of UN 1361;
- Stowage in accessible position;
- Special provisions for UN 1361 and 1362;
- Vanning Certificate;
- Packing provisions and documentation requirements for UN 1361;
- Finalisation of the approved amendments;
- Basic documentation requirements for goods not subject to the IMDG Code;
- Special provisions for seed cake;
- Competent authorities;
- Amendments to 5.4.4 of the IMDG Code;
- Approved amendments and outstanding issues from document CCC 7/6/2;
- Proposals related to Amendment 42-24;
- Amendment to paragraph 7.3.3.14 of the IMDG Code;
- Mixed stowage of articles and substances of compatibility groups C, D and E;
- Special provisions for the transport of vehicles;

- Proposed amendments to provision 7.6.2.8.4;
- Limited quantity provisions for UN 2956 MUSK XYLENE;
- Stowage of n.o.s. substances of class 4.3;
- Harmonisation of SP388 with the UN Model Regulations and further consequential amendments to SP961.1 and SP962.4;
- Stabilised substances;
- Proposed amendments to the shipping conditions of seed cake in the IMDG Code;
- The potential hazard of silicon slurry (kerf loss slurry from silicon ingot slicing) during maritime transport; and,
- Safety concerns arising from fire incidents on board container ships carrying dangerous goods.

Having considered the above matters, the Drafting Group on Amendments to the IMDG Code was established, and furnished with appropriate terms of reference. The Sub-Committee subsequently approved the report of the Drafting Group in general, and in particular:

- Agreed to the draft amendments to provision 5.5.4 of the IMDG Code, with a view to incorporation, as appropriate, into draft amendment 42-24 to the IMDG Code and instructed the Secretariat to inform UNTDG on the draft amendments;
- Noted the deliberations of the Group on provisions for UN 1361 and referred the draft amendments to the IMDG Code to E&T 38 for further consideration; and agreed to invite interested Member States and international organizations to submit further proposals to E&T 38;
- Noted the deliberations of the Group on special provisions for UN 1362 and endorsed the Group's opinion that the development of a new SP9xb should be considered at E&T 38, in conjunction with the discussion on documentation for 900 series maritime special provisions;
- Noted the deliberations of the Group on documentation requirements for UN 1361 and agree to refer the draft new provision 5.4.1.5.18 of the IMDG Code to E&T 38 for further consideration;
- Noted the deliberations of the Group on packing group assignment for UN 1361 and agreed to refer the matter to E&T 38 for further consideration, with a view to providing advice to CCC 9;
- Noted the deliberations of the Group regarding recognized authority (SP907) or a person recognized by the competent authority (SP926), and endorsed the Group's recommendation to reconsider this matter whilst agreeing that option 1 as shown in document CCC 8/6/1, paragraph 42 is more accurate;
- Noted the deliberations of the Group on paragraphs 40 and 41 of document CCC 8/6/1 and agreed to refer these matters to E&T 38 for further consideration;
- Noted the deliberations of the Group on possible consequences for the IMSBC Code and agreed to refer this matter to E&T 37, along with the relevant parts of documents CCC 8/6/1 and CCC 8/6/16, taking into account the discussion on UN 1361;
- Established the Correspondence Group on the Review of Transport Provisions for Vehicles with the terms of reference as prepared by the Group; and,

- Noted the deliberations of the Group on special provision 964 of the IMDG Code and referred the draft new special provision 964 to E&T 38 for further consideration.

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.

Background. MSC 101 agreed to include, in the 2020-2021 biennial agenda, an output on “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”, with a target completion year of 2020, subsequently postponed to CCC 7 and then to CCC 8 due to the COVID-19 pandemic.

Establishment of a Drafting Group. A Drafting Group on Amendments to the Grain Code was established, and following the Group’s work and associated report, the Sub-Committee approved the report in general, and in particular:

- Agreed to the draft amendments to the Grain Code, with a view for submission to MSC 107 for approval; and,
- Agreed to the check/monitoring sheet for the draft amendments to the Grain Code.

REVISION OF THE REVISED RECOMMENDATIONS FOR ENTERING ENCLOSED SPACES ABOARD SHIPS (RESOLUTION A.1050(27)).

Background. The Sub-Committee recalled that MSC 101 had agreed to include, in the 2020-2021 biennial agenda of the Sub-Committee and the provisional agenda of CCC 7, an output on "Revision of the Revised recommendations for entering enclosed spaces aboard ships (resolution A.1050 (27))", with a target completion date of 2020. The Sub-Committee also recalled that MSC 102 had adjusted the target completion year to 2021 due to the postponement of CCC 7 but due to the COVID-19 pandemic, this agenda item was postponed again to CCC 8.

Proposed amendments in relation to the term “cargo compressor room”. The Sub-Committee had for its consideration the following documents:

- CCC 8/8 (SIGTTO), proposing to delete the term "cargo compressor room" from the list of examples in paragraph 2.1 of resolution A.1050(27), in particular, that while not an "enclosed space" there are risks associated with entry into the cargo compressor room; these risks are well understood and mitigated through application of the IGC Code;
- CCC 8/8/1 (China), commenting on why "cargo compressor room" should not be deleted and proposing to simplify the procedures for entering the cargo compressor room; and,
- CCC 8/8/2 (INTERMANAGER, et al.), commenting on document CCC 8/8 and proposing recommendations relating to the cargo compressor room and revision to resolution A.1050(27), featuring unintended consequences and providing high level information gathered on matters relating to enclosed space events.

In the ensuing discussions, the Sub-Committee noted the following views:

- The cargo compressor room should continue to be considered as an enclosed space for safety reasons, and therefore it should not be deleted from the definition of enclosed space in paragraph 2.1 of resolution A.1050(27);
- The removal of cargo compressor rooms from the list of examples could lead the reader to not consider making an assessment for these spaces, which would result in the absence of safety safeguard measures such as supervision, communication and rescue for personnel entering the cargo compressor room;
- Taking into account the number of incidents and enclosed space-related fatalities, cargo compressor rooms should not be removed from the list of examples and a cautious approach should be taken;
- A space designed or required to only be entered during normal cargo handling operations cannot be considered to be a space designed for continuous worker occupancy;
- Paragraphs 12.1.1 and 17.21.6 of the IGC Code classify the cargo compressor rooms as an enclosed space and the proposal in document CCC 8/8/2 cannot be supported;
- Safe unrestricted access for personnel wearing protective clothing and breathing apparatus is not the same as a room having unlimited (unrestricted) openings for entry and exit; mechanical ventilation being required to run continuously in a space indicates that the space has inadequate ventilation;
- Due consideration should be given to risks beyond normal cargo handling operations, such as in cases of cargo leakage and mechanical ventilation failure, and concerns should be noted over the risks and hazards to seafarers entering "cargo compressor rooms" on non-IGC Code ships; and,
- An assessment of whether the recommendations in resolution A.1050(27) should be followed needs to be based on the definition of an enclosed space, not the list of examples.

Following discussion, the Sub-Committee noted that there was not sufficient support for deletion of the term "cargo compressor rooms" as proposed in document CCC 8/8, while there was also no consensus on the alternative approach proposed in document CCC 8/8/2 (InterManager et al.). In this context and having also noted that MSC 106 has received a proposal for a new output on "Revision of resolution A.1050(27)" (document MSC 106/16/1 (China)), the Sub-Committee agreed that no specific actions needed to be taken by this session under this agenda item and that the agenda item should be kept in abeyance, pending the decision from the Maritime Safety Committee on the proposed new output. In addition, the Sub-Committee noted that documents CCC 8/8, CCC 8/8/1 and CCC 8/8/2, together with document CCC 8/5/11, may be further considered at a future session, if the new output is agreed by the Committee.

Of note, there was quite a lot of support from NGOs and Member States for the proposal in CCC 8/8/2 that the term "cargo compressor room" be retained for the reasons stated, suitably suffixed by "with the exception of gas carriers that are covered by the IGC Code" thus achieving the aims of SIGGTO and others while retaining the protection for non-IGC

Code vessels. However, given that there have been no minor revisions to Resolution A.1050(27), we will now await the decision of MSC 106 during the week commencing 31 October 2022, whether or not to embark on a more comprehensive review of A.1050, in line with our strategy for a really fresh, major look at this increasingly ineffective resolution.

Lessons learned and preventive measures identified from accidents involving entering enclosed spaces aboard ships. The Sub-Committee noted that III 8 had invited CCC 8 to consider document III 8/4/5 (China) on Lessons learned and preventive measures identified from accidents involving entering enclosed spaces aboard in relation to the existing output "Revision of the Revised recommendations for entering enclosed spaces aboard ships". In view of the decisions made above, the Sub-Committee agreed to further consider document III 8/4/5 at CCC 9.

CONSIDERATION OF REPORTS OF INCIDENTS INVOLVING DANGEROUS GOODS OR MARINE POLLUTANTS IN PACKAGED FORM ON BOARD SHIPS OR IN PORT AREAS.

Inspection programmes for cargo transport units carrying dangerous goods. The Sub-Committee noted document CCC 8/INF.2 (Secretariat), containing the consolidated results of container inspection programmes, submitted by Chile, Finland, the Republic of Korea and the United States, through GISIS.

The Sub-Committee was informed 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 culprits.

The Sub-Committee expressed its appreciation to those Member States that have submitted the results of container inspection programmes and urged Member States who have not yet carried them out, to submit the relevant information to the Organization in accordance with MSC.1/Circ.1649.

REVIEW OF THE IGC CODE.

Proposals related to amendments to the IGC Code. The Sub-Committee had for its consideration, a total of eleven submissions. Following discussion, and taking into account the views expressed, the Working Group on Amendments to the IGF Code and Review of the IGC Code, established under an earlier agenda item, was instructed to fully consider the wide range of documents submitted.

Drafting of the safety requirements for use of LPG cargo as fuel. The Sub-Committee considered documents CCC 8/10/5 and CCC 8/INF.11 (Republic of Korea & United Arab Emirates) proposing a draft of the safety requirements for using LPG cargo as fuel in relation to the IGC Code. Following discussion, it was agreed to hold a decision in abeyance for a future session, with a view to possibly progressing development by a correspondence group intersessionally.

Report of the Working Group. The Sub-Committee approved, in general, the report of the Working Group relating to this item, and in particular:

- Agreed to the draft amendments to the IGF Code with a view to approval by MSC 107;
- Endorsed the Group's recommendation to prepare the issuance of an MSC circular for the early implementation of the draft amendments to paragraphs 4.2.2 and 8.4.1 to 8.4.3 of the IGF Code, subject to the adoption by MSC 108;
- Noted that draft amendments to the IGC Code proposed at this session could not be finalised and, therefore, they will be held in abeyance pending the preparation of the new consolidated text of the IGF Code;
- Agreed, in principle, to the draft amendments to the IGC Code for further development at CCC 9;
- Agreed to the draft MSC circular on unified interpretation on requirements for fuel preparation rooms, not located on an open deck, of the IGF Code, with a view to approval by MSC 107;
- Agreed to the draft MSC circular on unified interpretation on bunkering manifold arrangements fitted on LNG bunkering ships of the IGC Code, with a view to approval by MSC 107;
- Noted the action taken by the Group regarding VOC Condensate in the IGC Code and the related draft CCC circular on carriage conditions for VOC Condensate, prepared by the Group as an interim measure, for approval by the Sub-Committee and subsequent endorsement by MSC 107;
- Noted the Group's deliberations regarding the matter of a cargo tank becoming liquid full and endorsed the Group's recommendation to invite interested member States and international organizations to submit further proposals to CCC 9;
- Noted the Group's discussion on the preparation of the associated check/monitoring sheet for the amendments to the IGF Code and agreed to instruct the Correspondence Group to work on the sheet when developing the revised text of the IGC Code; and,
- Agreed to the Group's recommendation to re-establish the Correspondence Group on Amendments to the IGF Code and Review of the IGC Code, with its corresponding draft terms of reference prepared by the Group.

DEVELOPMENT OF MEASURES REGARDING THE DETECTION AND MANDATORY REPORTING OF CONTAINERS LOST AT SEA THAT MAY ENHANCE THE POSITIONING, TRACKING AND RECOVERY OF SUCH CONTAINERS.

Background. It was recalled that MSC 103 agreed to include an output in its post-biennial agenda on this item, assigning CCC as the coordinating organ, in association with the NCSR Sub-Committee.

Estimate of containers lost at sea and standardised procedure for reporting. A total of six submissions were considered, the most interesting being that from WSC, document CCC 8/11, providing updated information from 2020 and 2021 on their estimate of containers lost at sea, in particular, the winter of 2020-2021 which saw an unusually high number of incidents. Consequently, when reviewing the results of the 14-year period

(2008-2021) surveyed, it was estimated that there were on average a total of 1,629 containers lost at sea each year, which is a significant increase (18%) on the average annual loss for the 12-year period ending in 2019. Notwithstanding this increase, containers lost overboard represent less than one thousandth of 1% (0.001%) of the roughly 241 million packed and empty containers currently shipped each year. In discussion, many views were expressed, a selection of which are as follows:

- Mandatory reporting of the loss of containers through a standardised procedure by draft amendments to SOLAS chapter V should be supported;
- Reported information from further updating and installing a shipboard system to detect containers lost overboard should be encouraged, such as mechanical, electronic and/or visual aids for detection of the fall of containers from ships in real time;
- Ships that have lost containers at sea should report such incidents to the nearest coastal State as well as their own flag States, and subsequently for the flag State to submit a report to IMO via GISIS;
- The proposed amendments to regulations 31 (Danger message) and 32 (Information required in danger messages) should be further considered in the Working Group;
- Documents CCC 7/14/2 and CCC 8/11, containing information on several safety improvement initiatives, e.g. amendments to the SOLAS Convention requiring verified gross mass (VGM) of a packed container and MARIN Top Tier Study, should be further considered in the Working Group;
- The Legal Committee should also be invited by the Maritime Safety Committee to take appropriate actions on the Wreck Removal Convention (WRC) regarding the loss of containers at sea;
- Careful technical and legal consideration should be carried out by the Working Group, in particular on the SOLAS regulation I/21 and XI-1/6 with regard to marine casualty;
- Measures to prevent containers lost at sea and the possible impact of tracking devices on ships' communication systems should also be taken into account; and,
- Documents CCC 8/INF.7 and CCC 8/INF.9 should be further considered in the Working Group.

Having considered the report of the Working Group on Development of Measures Regarding the Detection and Mandatory Reporting of Containers Lost at Sea, the Sub-Committee approved it in general, and in particular:

- Noted the discussion on draft amendments to SOLAS and MARPOL with respect to mandatory reporting of lost/observed freight container(s);
- Concurred with the understanding of the Group that the draft amendments to SOLAS and MARPOL are not intended to lead to double reporting of the lost freight container(s) with harmful substances nor would they cause any conflict with the existing requirements in MARPOL;
- Invited interested Member States and international organizations to submit relevant proposals to update resolution A.851(20), in light of the agreed draft amendments,

- together with reflection of other amendments to SOLAS and MARPOL since the resolution was adopted;
- Endorsed the draft amendments to SOLAS chapter V, together with the check/monitoring sheet and records for regulatory development prepared by the Group, with a view to approval by MSC 107 and subsequent adoption by MSC 108;
 - Endorsed the draft amendments to article V of protocol I of the MARPOL Convention, with a view to concurrent adoption by MEPC;
 - Agreed to invite the NCSR Sub-Committee to note the completion of the draft amendments to SOLAS chapter V;
 - Endorsed the Group's views that the draft amendments should enter into force on 1 January 2026, provided that the amendments are adopted before 1 July 2024 in accordance with the ad hoc midterm amendment cycle agreed by MSC 104;
 - Concurred with the Group's view that the Secretariat should make timely preparations for developing a new GISIS module to facilitate the flag States' reporting requirements before the amendments enter into force, subject to the Committee's adoption;
 - Noted the Group's consideration on technical possibilities regarding the detection of lost freight container(s); and,
 - Noted the Group's consideration on the TopTier Project and invited interested Member States and international organisations to consider actively becoming involved in the project and to benefit from the information provided.

UNIFIED INTERPRETATIONS OF PROVISIONS OF IMO SAFETY, SECURITY AND ENVIRONMENT-RELATED CONVENTIONS.

General. This is a continuous item on the Sub-Committee's biennial agenda in order to develop appropriate IMO interpretations which were discussed as follows:

- Amendments to MSC.1/Circ.1558 resulting in IACS being invited to take note of comments made and to submit a revised proposal;
- Draft unified interpretation of the IGC Code in relation to the conduct of verifications and examinations required during the first full loading and unloading of the cargo, following which the Secretariat was invited to prepare a draft MSC circular;
- Draft UI on requirements for fuel preparation rooms not located on an open deck, after which the Working Group on amendments to the IGF Code and Review of the IGC Code were tasked to advise the Sub-Committee on how best to proceed;
- Proposed UI of bunkering manifold arrangements fitted on LNG bunkering ships, which was also passed to the IGF/IGC Working Group for advice;
- Lashing software as a supplement to container stowage and securing plan, which proposal was adjudged to be beyond the remit of a UI and for which proposals were invited for a new output on the matter; and,
- Draft MSC circulars on UIs of the IGC and IGF Codes were agreed.

ANY OTHER BUSINESS.

Holistic approach on the human element. Having recalled that MSC 105 had invited all relevant IMO bodies to assess their respective involvement in the human element within their remit and report back to the Committee with a view to devising an outline for a holistic approach on the human element, taking into account resource and budgetary implications within the Organization (MSC 105/20, paragraph 16.3), the Sub-Committee invited interested Member States and international organizations to submit relevant proposals, as appropriate, with a view to further consider this instruction at CCC 9.

BoxTech Technical Characteristics Database. The Sub-Committee noted with appreciation the information contained in documents CCC 8/17 and CCC 7/14 (BIC), providing an update on BIC's progress in deploying the BoxTech Global Container Database, which was launched by BIC to provide a single industry platform for container technical information, including container tare weights needed for method 2 declarations of verified gross mass (VGM) required under SOLAS since 1 July 2016.

ACEP information. The Sub-Committee considered documents CCC 8/17/1 and CCC 7/14/1 (BIC), providing updated reports on the activity of the Global ACEP Database since CCC 6, in particular that a total of 88 ACEP programmes have now been entered in the database. In this context, the Sub-Committee expressed its appreciation to BIC for its continued commitment to maintaining and running the Global ACEP Database and urged CSC 1974 Contracting Parties to make their ACEP information publicly available.

Global Integrated Shipping Information System (GISIS) Database on contact points. The Sub-Committee considered document CCC 8/17/3 (Secretariat), providing information on the launch of a new GISIS Module on contact points for the IMDG and IMSBC Codes and the CSC Convention. In this context, the Sub-Committee noted that the Secretariat had developed a new database in the Contacts Point Module of GISIS to collect information and updates regarding the management of Contact points information related to the IMDG and IMSBC Codes and the CSC Convention, aimed at providing Member States with more comprehensive and up-to-date information.

Cost structure of maritime hydrogen transport. The Sub-Committee noted with appreciation the information contained in document CCC 8/INF.17 (Republic of Korea), providing information on the cost structure of maritime hydrogen transport for the reference of the maritime industry that has been considering alternative fuel that meet carbon emission regulations. The analysis indicates the loading port price reflecting the cost of sea transportation of liquefied ammonia and liquefied hydrogen based on the price at the LNG unloading port, and shows that liquefied ammonia and liquefied hydrogen are disadvantageous in terms of maritime transportation cost due to calorific value and density per unit.

Group of Experts on the Code of Practice for Packing of Cargo Transport Units. The Sub-Committee noted with appreciation the information contained in document CCC 8/INF.19 (UNECE Secretariat), providing information on the work being carried out by an informal group of experts, further to the request of the UNECE Working Party on

Intermodal Transport and Logistics, which was convened to consider possible amendments to the 2014 edition of the CTU Code.

DATE OF NEXT MEETING.

The next meeting of the Sub-Committee on Carriage of Cargoes and Containers (CCC 9) has been tentatively scheduled from 20 through 29 September 2023.

End

Captain Paddy McKnight