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IMO Carriage of Cargoes & Containers Tenth Session (CCC 10)

Summary Report

Summary of significant outcomes

Below is a brief overview of some of the significant outcomes from CCC 10.

Alternative fuels:

- **Interim guidelines for the safety of ships using ammonia**
These Interim Guidelines have been finalised and are expected to be approved during MSC 109 (2 - 6 December 2024). These were developed using the IGF Code as a basis and provide a base standard for the Alternative Design and Arrangements process in SOLAS Chapter II-2, regulation 55. In this way, the guidelines aim to provide an international standard for the safety of ships using ammonia as fuel (other than gas carriers using their ammonia cargo as fuel). The Guidelines follow the goal-based standards approach and include goals and functional requirements. Due mainly to timing constraints, some chapters do not contain detailed requirements demonstrating how the functional requirements should be met. As such it is recognised in the draft covering Circular that further development to the Guidelines will be required once experience in their use has been gained.
- **Early implementation of IGC Code amendments - use of ammonia cargo as fuel**
The deletion of the prohibition of use of toxic cargo as fuel from the IGC Code was agreed by MSC 108. This was necessary to allow ammonia carriers to use their cargo as fuel. The amendments are anticipated to enter into force on 1 July 2026, however, MSC 108 agreed that a voluntary early implementation provision could be considered at MSC 109. Accordingly, Flag Administrations may be able to apply these amendments as early as December this year. The relaxation on the use of toxic cargoes can be applied to new and existing ships and Flag Administrations can apply them from 1 July 2026.
- The related **guidelines on the use of ammonia cargo as fuel on ships subject to the IGC Code** will be developed by correspondence in the lead up to CCC 11 next year with a view to these being approved at MSC 111 in the Spring of 2026 ahead of the entry into force date.

Other matters:

- **CCC finalised the draft MSC resolution with amendments to the IGC Code** with a view to approval at MSC 109 and subsequent adoption at MSC 110, with the expected entry into force on 1 January 2028. These amendments are extensive and they incorporate a number of unified interpretations, the *Interim Guidelines for Use of Liquefied Petroleum Gas (LPG) Cargo as Fuel* and other new provisions into the IGC Code.
- **Amendments to resolution A.1050(27) - Revised recommendations for entering enclosed spaces aboard ships.** The draft revised recommendations have been finalised. The objective of these recommendations is to encourage the adoption of safety procedures and the development of sound practices aimed at preventing casualties to, and enhancing the safety of, personnel entering or working in enclosed spaces where there may be an oxygen-deficient, oxygen-enriched, flammable and/or toxic atmosphere. Additionally, in the event of an emergency within an enclosed space, these recommendations provide guidance for an appropriate, planned and considered response complying with ship-specific enclosed space rescue plans.

Introduction

CCC 10 took place from 16 – 20 September 2024, at the IMO in London. This briefing summarises the discussions which are significant to Lloyd's Register's (LR) work with its clients.

Decisions of other IMO bodies

Additional Information

LR's Summary Reports for [MSC 108](#), [MSC 107](#), [MEPC 81](#), [MEPC 80](#) and [Assembly 33](#)

Since CCC 9, other IMO Committees have made progress on a range of outputs associated with the work of CCC. The list below provides the associated adopted and approved outputs.

- Resolution MEPC.384(81) - *MARPOL Protocol I - Provisions concerning Reports on Incidents Involving Harmful Substances* concerning revised reporting procedures for the loss of containers with an entry into force on 1 January 2026.
- Resolution MSC.550(108) - *Amendments to SOLAS Ch.V - Safety of Navigation* regarding the loss of containers with an entry into force on 1 January 2026.
- Resolution MSC.552(108) - *Amendments to the International Code for the Safe Carriage of Grain in Bulk (Resolution MSC.23(59))* with an entry into force on 1 January 2026.
- Circular MEPC.1/Circ.909 on *Recommendations for the carriage of plastic pellets by sea in freight containers*.
- Circular MSC-MEPC.2/Circ.18 *Guidelines for the sampling of fuel oil for determination of compliance with MARPOL Annex VI and SOLAS Chapter II-2*.

Amendments to the IGF Code and development of guidelines for low-flashpoint fuels and related technologies

With the urgent need to accelerate work on low-flashpoint fuels and to rapidly develop safety provisions for alternative fuels to further promote the decarbonisation of shipping, CCC has been working on the next phase of development of *the International Code of Safety for Ships Using Gases or Other Low-Flashpoint Fuels* (IGF Code) and related Guidelines.

Draft Interim guidelines for the safety of ships using hydrogen as fuel

The draft Interim Guidelines were considered, but due to time constraints did not receive significant development during this session. Instead, they will be further progressed by correspondence with a view to finalisation at CCC 11 in September 2025.

The draft Interim Guidelines are goal-based and provide provisions for the arrangement, installation, control and monitoring of machinery, equipment and systems using hydrogen as fuel to minimise the risk to the ship, its crew and the environment.

They are non-mandatory and are intended to be read in conjunction with the IGF Code, where LR understands they will be used in the Alternative Design and Arrangements process in SOLAS Chapter II-1 regulation 55. They are intended to be applied to cargo ships of 500GT or more, or passenger ships which use non-cargo hydrogen as fuel.

For insight on using hydrogen as an alternative fuel and on how LR can support you, please click below:



Interim guidelines for ships using low-flashpoint oil fuels

In order to provide an international standard for ships using oil-based fossil fuels, synthetic fuels, or biofuels with a flashpoint between 52°C and 60°C, the IMO is developing **Draft Interim Guidelines for the safety of ships using low flashpoint oil fuels**. They are intended to be applied to cargo ships of 500GT or more, or passenger ships, which use non-cargo low flashpoint oil fuels as fuel. Noting time constraints at this session, the draft Interim Guidelines will be progressed by correspondence with a view to finalisation at CCC 12 in 2026.

For insight on using marine biofuels as an alternative fuel and on how LR can support you, please click below:



Draft Interim guidelines for ships using ammonia as fuel

The draft interim guidelines were finalised at this session and will be forwarded to MSC 109 in December for approval and publication. LR understands that the Interim Guidelines are intended to be used as a basis for the Alternative Design and Arrangements in SOLAS Chapter II-1 regulation 55 for cargo ships of 500GT or more, or passenger ships which use non-cargo ammonia as fuel.

Due to time constraints at this session the Interim Guidelines were finalised with Goals and Functional Requirements for all chapters, detailed requirements for many chapters and references to the IGF Code for

others where time did not permit detailed discussion.

LR understands that the Interim Guidelines will be further developed once experience has been gained in their use to include detailed requirements against the functional requirements in all chapters and that eventually a mandatory instrument will be developed.

For insight on using ammonia as an alternative fuel and on how LR can support you, please click below:



Technical considerations when transposing the *Interim guidelines for the safety of ships using methyl/ethyl alcohol as fuel* (MSC.1/Circ.1621) into mandatory instruments under the *IGF Code*

It was noted that the Interim Guidelines required revision before they were developed into a mandatory instrument. The work on this is expected to commence at CCC 11 in September 2025.

Their development is expected to continue until late 2025 and they could enter into force by 2028. See also [workplan table](#)

For insight on using methanol as an alternative fuel and on how LR can support you, please click below:



Amendments to the IGF Code

The following draft amendments (subject to changes) to the IGF Code have been incorporated into the work plan for the development of the IGF Code and safety provisions on alternative fuels:

Paragraph 9.6 - Regulations for fuel supply to consumers in gas-safe machinery spaces

An amendment to paragraph 9.6 of the IGF Code to provide technical requirements for gas fuel vent pipes with single-walled construction in machinery spaces, specifically:

- The vent pipe shall originate from a gas fuel piping system having a design pressure not greater than 1.0 MPa or the maximum built-up back pressure in the vent piping shall be calculated not to exceed 0.5 MPa;

- The connection to the consumer, if not connected by welding, as well as any flexible elements, shall comply with paragraph 9.6.1;
- The vent pipes shall be open-ended;
- The vent pipes shall not contain fuel gas or a gas fuel/air mixture, except for the sole purpose of safely purging, venting and bleeding the gas fuel and/or gas fuel/air mixture when isolating gas fuel to consumers; and
- The gas-safe machinery space (the spaces in which gas consumers are located) shall be permanently mechanically ventilated.

Paragraph 11.5 - Regulations for water spray system

An addition concerning the nozzle spacing of a water spray system for fuel storage tanks in chapter 11 of part A-1 of the IGF Code, specifically:

- On vertical surfaces, and for structures having not clearly defined horizontal or vertical surface, spacing of nozzles protecting lower areas may take account of anticipated rundown from higher areas.

This is similar to provisions in the IGC Code (Paragraph 11.3.2.2)

The indicative work plan for the development of the IGF Code and safety provisions on alternative fuels is highlighted in the table below.

IMO Body	Work plan	Target date
MSC 109	<ul style="list-style-type: none"> • Approve <i>Interim guidelines for the safety of ships using ammonia</i> 	2024
ISWG-AF2 CCC 11	<ul style="list-style-type: none"> • Further develop/ finalise <i>Interim guidelines for ships using hydrogen as fuel</i> • If time permits, further develop/finalise develop guidelines for low flashpoint oil fuels • If time permits, consider the revision of the <i>interim guidelines for ships using methyl/alcohol fuels</i>, with a view to developing mandatory instruments regarding methyl/ethyl alcohols • If time permits, start discussion regarding the development of mandatory instruments regarding fuel cells 	2025
MSC 111	<ul style="list-style-type: none"> • Approve interim guidelines for ships using hydrogen as fuel 	2026
CCC 12	<ul style="list-style-type: none"> • Further consider the revision of the <i>interim guidelines for ships using methyl/alcohol fuels</i>, with a view to developing mandatory instruments regarding methyl/ethyl alcohols • Further develop/finalise <i>interim guidelines for low flashpoint oil fuels</i> • If time permits, further consider the development of mandatory instruments regarding fuel cells • further consider amendments to the IGF Code regarding LNG • If time permits, consider the revision of the <i>interim guidelines on the safety of ships using ammonia as fuel</i> 	2026

CCC 13	<ul style="list-style-type: none"> • Consider the revision of the <i>interim guidelines on the safety of ships using ammonia as fuel</i> • Finalise the revision of the <i>interim guidelines for ships using methyl/alcohol fuels</i> with a view to developing mandatory instruments regarding methyl/ethyl alcohols • Consider amendments to MSC.1/Circ.1622/Rev.1 <i>Guidelines for the Acceptance of Alternative Metallic Materials for Cryogenic Service in Ships Carrying Liquefied Gases in Bulk and Ships Using Gases or Other Low-Flashpoint Fuels</i> 	2027
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Review of the IGC Code

IGC amendments

The following non-exhaustive list of amendments/clarifications to the 2014 IGC Code were considered and finalised. The amendments include a variety of issues, including:

- Application of finite element analysis to type C tanks;
- Carriage of CO₂ cargoes and the use of LPG and toxic cargoes as fuel;
- The causes, and effects of an ESD (Emergency Shut down);
- Cargo tank filling limits; and
- Ethane was added to chapter 16 as a cargo to be used as fuel.

As the list of amendments is extensive, some amendments are applicable to ships constructed on or after 1 January 2028¹ (pending approval at MSC 109) and others will apply to both new and existing ships. In general, amendments that require changes in design or construction are applicable to ships constructed on or after 1 January 2028. Amendments of an operational nature are applicable to new ships, and to existing ships under the 2014 IGC Code (Ships constructed on or after 1 July 2016). Editorial amendments that do not change the intent of the requirements are applicable to new and existing ships. Amendments are not applicable to those ships constructed before 1 July 2016, however, individual member States may take their own view.

The draft amendments are expected to enter into force on 1 January 2028, provided that they are adopted before 1 July 2026 (approval is expected at MSC 109 with subsequent adoption at MSC 110 (June 2025)).

Additionally, the draft amendments to the IGC Code incorporate the requirements of a number of unified interpretations on the IGC Code and the MSC.1/Circ.1679 *Interim Guidelines for Use of Liquefied Petroleum Gas (LPG) Cargo as Fuel*, listed below, which will remain in effect for existing ships constructed prior to the entry into force.

- MSC.1/Circ.1543 - *Unified Interpretation relating to the IGC Code*
- MSC.1/Circ.1559 - *Unified Interpretations of the IGC Code*
- MSC.1/Circ.1590 - *Unified Interpretation of Paragraph 13.3.5 of the IGC Code*

¹ constructed on or after 1 January 2028 means: for which the building contract is placed on or after 1 January 2028 OR in the absence of a building contract, the keels of which are laid or which are at a similar stage of construction on or after 1 July 2028 OR the delivery of which is on or after 1 January 2032

- MSC.1/Circ.1606 - *Unified Interpretation of Paragraph 13.3.5 of the IGC Code*
- MSC.1/Circ.1617 - *Unified Interpretation relating to the IGC Code*
- MSC.1/Circ.1625 - *Unified Interpretations relating to the IGC Code*
- MSC.1/Circ.1651 - *Amendments to MSC.1/Circ.1625 on Unified Interpretations of the IGC Code*
- MSC.1/Circ.1669 - *Unified Interpretation of the IGC Code*
- MSC.1/Circ.1679 - *Interim Guidelines for Use of Liquefied Petroleum Gas (LPG) Cargo as Fuel.*

The use of ammonia cargo as fuel

Amendments to the IGC Code 2014 to permit the use of ammonia cargo as fuel were agreed at MSC 108, with adoption pending and entry into force expected 1 July 2026. In addition, a circular allowing voluntary early application of this requirement, subject to flag Administration agreement, is expected to be issued in December 2024.

The amendments remove the prohibition on toxic cargo as fuel as the prohibition of the use of ammonia cargo as fuel is unjustified for gas carriers. The amendments apply to new and existing ships certified under the 2014 Code and related guidelines are currently under development. Associated with these amendments, as a supporting document, the **draft guidelines on the use of ammonia cargo as fuel on ships subject to the IGC Code** have been further progressed and are expected to be finalised by 2025 (or 2026 at the latest, pending a decision from MSC 109). To respond to the industry's urgent need, the guidelines will provide unified specific guidance for ships using ammonia (anhydrous ammonia) cargo as fuel until such provisions are incorporated in the IGC Code.

Revision of the Interim recommendations for carriage of liquefied hydrogen in bulk

MSC 108 adopted MSC.565(108) *Revised interim recommendations for carriage of liquefied hydrogen in bulk.*

Currently the Guidelines do not cover membrane-type cargo containment systems. Therefore, a new part D to specify the safety requirements for membrane-type cargo containment systems should be investigated. Consequently some provisions of part A, will need to be revised to refer to the safety requirements for the new cargo containment systems.

Liquefied hydrogen cargo containment systems to be added in part D are a membrane-type cargo tank systems that operate where the primary insulation space and the secondary insulation spaces (optionally) is under vacuum. This system received approval in principle (AIP) from LR in 2021.

No progress has been made at this session, however, as the expected completion date for this work is 2026 and interested parties will continue to work on the amendments informally and intersessionally. CCC 11 is expected to receive their developments.

Amendments to the IMSBC Code

The IMSBC Code is regularly reviewed to take into account new requirements for existing substances or new substances.

MSC 107 adopted amendments (07-23) to the IMSBC Code by resolution MSC.539(107), in the form of a consolidated edition, which will enter into force on 1 January 2025, but Administrations may apply the amendments - in whole or in part - on a voluntary basis as from 1 January 2024.

The next set of draft amendments (08-25) are being developed and include the following:

- Amendments to existing individual schedules:
 - ALUMINIUM FERROSILICON POWDER UN 1395
 - ALUMINIUM SILICON POWDER, UNCOATED UN 1398
 - ALUMINIUM SMELTING BY-PRODUCTS or ALUMINIUM REMELTING BY-PRODUCTS UN 3170
 - CASTOR BEANS or CASTOR MEAL or CASTOR POMACE or CASTOR FLAKE UN 2969
 - FERROSILICON UN 1408 with 30% or more but less than 90% silicon (including briquettes)
 - FERROSILICON with at least 25% but less than 30% silicon, or 90% or more silicon
 - FISH MEAL (FISH SCRAP), STABILIZED Anti-oxidant treated
 - IRON ORE PELLETS
 - DIRECT REDUCED IRON (A)
 - DIRECT REDUCED IRON (B)
 - FERROUS METAL BORINGS, SHAVINGS, TURNINGS or CUTTINGS UN 2793

- New individual schedules:
 - FISH MEAL (FISH SCRAP), STABILIZED, (group C)
 - PHOSPHATE ROCK FINES (uncalcined)
 - IRON ORE BRIQUETTES
 - ZINC SLAG (coarse)
 - APATITE CONCENTRATE
 - TUFF (COARSE)
 - ALUMINIUM SULPHATE GRANULAR
 - FERRIC SULPHATE GRANULAR
 - CRUSHED GRANODIORITE, COARSE
 - ASPHALT GRANULATES
 - PEA PROTEIN CONCENTRATE PELLETS

- Other amendments:
 - The segregation tables in 9.3.3 were updated.
 - A proposal for bulk cargo identification numbers (BC numbers) to be further discussed as part of the future set of IMSBC Code amendments.
 - To include the danger of a potential lack of oxygen in cargo spaces that contain the below listed substances in paragraph 3.2.3 and the individual schedule for MINERAL CONCENTRATES **or alternatively** add the same text in the sections for "Precautions" of individual schedules for the below listed substances:
 - "CHARCOAL";
 - "FISH MEAL (FISH SCRAP), STABILIZED";
 - "IRON OXIDE, SPENT or IRON SPONGE, SPENT UN 1376";
 - "SAWDUST"; and
 - "TAPIOCA" .

Discussion on which option is preferred will take place at E&T41 with the goal to advise CCC 11 (September 2025).
 - There were various editorial amendments to update references to updated circulars.

E&T 41 (September 2024) will further discuss the above and may submit an updated set of draft amendments to MSC 110 (2025) for approval. The amendments (08-25) are expected to enter into force on 1 January 2027. Flag Administrations are expected to be able to voluntarily apply them from 1 January 2026.

Draft Revised recommendations on the safe use of pesticides in ships applicable to the fumigation of cargo holds (MSC.1/Circ.1264)

The control of insect and mite pests of plant and animal products may be required to comply with phytosanitary requirements to prevent spread of pests and for commercial reasons to prevent infestation and contamination of, or damage to, cargoes of human and animal food.

The recommendations provide guidance to shipmasters on the use of pesticides (fumigants) with a view to safety of personnel. They cover pesticides used for the control of insect (mites) and rodent pests in empty and loaded cargo holds. These amendments concern the fire risks of phosphine have been referred to be discussed at E&T 41 (September 2024) and, if finalised, are expected to be approved by MSC 110 in 2025.

Amendments to the IMDG Code

This is a standard agenda item for CCC as the IMDG Code is regularly reviewed to take into account new requirements for existing substances, or add new substances. The Editorial & Technical (E&T) Group meets intersessionally to review proposed amendments to the Code and reports to CCC.

The amendments (42-24) - have been adopted at MSC 108 as MSC.556(108) alongside MSC.1/Circ.1588/Rev.3 - *Revised Emergency Response Procedures for Ships Carrying Dangerous*. These amendments will enter in force on 1 January 2026, but Flag Administrations may apply them early on a voluntary basis from 1 January 2025. Some editorial corrections were identified.

The latest set of draft amendments (**43-26**) include:

- Notation for UN 2203 changed from category E to category D.
- Thorough review of guiding principles in relation to column 17.
- Possible replacement of TP1 with TP2 in column 14 of chapter 3.2 of the Dangerous Goods List for a number of substances.
- Clarifying the provision in paragraph 4.2.1.9.2 on the maximum degree of filling in portable tanks for liquid marine pollutants.
- To clarify provisions for exclusion from class 1 and classification as desensitised explosives, three options will be considered by E&T42:
 - Option 1 Delete additional provision 3 of the packing instruction P406.
 - Option 2 Amend paragraph 2.1.1.1.1.
 - Option 3 Renumber 2.1.3.4.2 as 2.1.3.4.4 and add 2.1.3.4.2 and 2.1.3.4.3.
- To clarify the requirements in table 7.1.4.5.18 for segregation distances between radioactive material and passengers and crew.
- In order to fully align the tables in the IMSBC Code and the IMDG Code, modifications to the segregation table in 7.6.3.5.2 of the IMDG Code.

The above mentioned list of draft amendments will be considered by E&T42 with the view of providing advice to CCC 11.

Review of Transport Provisions for Vehicles

Following the fire aboard the roll-on/roll-off vehicle carrier *Höegh Xiamen*, and to address the rising hazards associated with the shipment of vehicles using alternative energy sources, work to further develop the provisions on the transport of vehicles (special provisions (SP) 961 & 962 of the IMDG Code) has been taking place since CCC 8 (September 2022).

To date the following have been developed and agreed:

1. Initial draft of new definitions to be used when SP961 and SP962 are applied (new, used, in-use, damaged, prototype vehicles)
2. Criteria to apply to Electric Vehicles (EV) and Hybrid Electric Vehicles (HEV)
3. Initial draft amendments to SP961
4. Initial draft amendments to SP962

To continue the work, CCC agreed that interested parties should focus on providing a list of submissions to CCC 11 (September 2025) covering:

- Non-consumer vehicles
- Packaged vehicles
- Charging EVs and Hybrids while underway
- Special provision for RO-PAX vessels
- State of charge
- State of health (battery)
- Fuel Flashpoint
- Fuel Quantity
- Provisions for hybrid
- Inspections
- Damage from the weather (seawater versus freshwater)
- General damage
- Refrigerated vehicles
- Prototype components/vehicles

Mitigating the risks and consequences of cargo fires on containerships

In order to mitigate the risks and consequences of cargo fires on containerships, the following aspects of the IMDG Code were considered:

1. Misdeclaration of cargoes;
2. Stowage requirements; and
3. Test methods for self-heating cargoes.

Consideration should not only focus on how to prevent a fire but also how to contain a fire. More work is needed and CCC 11 (September 2025) will consider further developments.

Revision of the Revised guidelines for the preparation of the Cargo Securing Manual (MSC.1/Circ.1353/Rev.2) to include a harmonized performance standard for lashing software to permit lashing software as a supplement to the Cargo Securing Manual (CSM)

SOLAS regulation VI/5.6 reads, “All cargoes, other than solid and liquid bulk cargoes, cargo units and cargo transport units shall be loaded, stowed and secured throughout the voyage in accordance with the Cargo Securing Manual approved by the Administration” and that the CSM should be drawn up in accordance with the recommendations contained in the *Revised guidelines for the preparation of the Cargo Securing Manual* contained in MSC.1/Circ.1353/Rev.2.

To provide a more accurate assessment of the requirements for voyages, CCC 10 progressed the work to allow loading software to be used by crews as a supplement to the approved stowage and securing plans. In support, performance standards and guidelines for the lashing software are also being developed based on IACS UR C6 - *Requirements for Lashing Software* and are expected to be finalised by 2026.

A correspondence group will further discuss the amendments to MSC.1/Circ.1353/Rev.2 - Revised guidelines for the preparation of the Cargo Securing Manual and further develop the draft Performance Standards and guidelines for lashing software (e.g. standardisation, compatibility, harmonisation of calculation methods, etc.).

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

Due to the continued loss of life resulting from personnel entering enclosed spaces (cargo and bilge spaces, pipe tunnels, pump-rooms, fuel tanks, cofferdams, duct keels, ballast tanks and similar) mostly caused by oxygen-depletion, oxygen-enrichment, toxicity or flammability of the atmosphere, the IMO has been working on a revision to *Recommendations for entering enclosed spaces aboard ships* to help shipowners, ship operators, seafarers, port and terminal operators and port workers to minimise such accidents.

The *Recommendations for entering enclosed spaces aboard ships* support SOLAS regulation III/19.3.6 which requires enclosed space entry and rescue drills, SOLAS regulation XI-1/7 which requires ships to carry atmosphere testing instrument(s) for enclosed spaces, and SOLAS chapter IX and the ISM Code which requires management of the safe operation of ships.

Notable draft changes are:

1. Various improvement on what could cause a hazardous atmosphere
2. Amendments to definitions
3. The shipper should provide all relevant hazard information to the shipping company
4. Competent person and responsible person training recommendations
5. Specific requirements on enclosed space entry training and drills from SOLAS regulation III/19.3.6

6. How the company should manage additional risks involved during simultaneous operations (SIMOPS) and that single person entry into an enclosed space should not be permitted
7. A recommendation that the enclosed space contingency plan, based on enclosed space register and risk assessment, is reviewed after each drill
8. Both crew and shore-based personnel should fully understand the nature of the hazards that may be present
9. The validity of the Enclosed Space Entry Permit should be specified based on the risk assessment but never longer than 8 hours
10. Entry doors or access hatches leading to enclosed spaces do not need to be secured against entry if the spaces have been risk assessed, atmospherically tested as required and declared safe for entry
11. Addition of specific levels of gas thresholds
12. Where ship or shore personnel are working in more than one cargo space at the same time, the rescue equipment should be positioned at a designated central location. In the event of an emergency in any one space, all personnel working in other spaces should be instructed to stop work immediately and exit the space
13. Additional training requirements
14. A suggestion to avoid entry in enclosed spaces outside normal working hours or in evenings/night time.
15. Updates to Chapter 7 – Testing the Atmosphere
16. Updates to Chapter 8 – Precautions during entry
17. Extensive updates to Chapter 10 - Hazards related to specific types of ships or cargo

The draft Revision of the *Revised recommendations for entering enclosed spaces aboard ships* (resolution A.1050(27)) was finalised and will be sent to MSC 110 for adoption.

Consideration of reports of incidents involving dangerous goods or marine pollutants in packaged form on board ships or in port areas

No papers were submitted at this session.

Unified interpretations of provisions of IMO safety, security, and environment-related conventions

No new unified interpretations were agreed at CCC 10.

Development of measures to prevent the loss of containers at sea

In 2023, out of 250 million packed and empty containers currently shipped per year, carrying cargo valued at more than \$7 trillion, 221 were lost at sea. One-third of the containers lost at sea in 2023 were subsequently recovered.

During 2023, most carriers saw no or single digit container losses.

The rolling average of losses for the last three years was 1,061 containers per year (2021-2023).

CCC began the work to address the loss of containers at sea. The target completion date for the output is set to be at CCC 11 (September 2025). CCC 10 initiated the discussion to develop a work plan which will be continued by a correspondence group.

Although some work is clearly needed to address container loss, there are already several related initiatives:

1. Mandatory carriage of electronic inclinometers (Entering into force on 1 January 2026) (amendments to SOLAS chapter V)
2. Detection and mandatory reporting of containers lost at sea (Expected to enter into force on 1 January 2026) (amendments to SOLAS chapter V)
3. Detection and tracking of containers lost at sea
4. Containership stability (experience gathering phase)

As well as new initiatives:

1. Lashing software to supplement container stowage and securing plan
2. BoxTech Technical Characteristics Database
3. Top Tier Joint Industry Project (JIP)
4. Inspection programmes
5. Revision of MSC.1/Circ.1497 - CTU Code
6. ISO for lashing and corner fittings etc. (Currently ISO 23577:2021)

BoxTech Update

BoxTech was launched to provide a single industry platform for container technical information, including maximum gross mass, maximum stacking weights, and container tare weights needed for method 2 declarations of verified gross mass (VGM), required under SOLAS from 1 July 2016. BoxTech has now been loaded by approximately 40% of the global fleet and is queried over 135,000 times per day. Potential improvements would be:

7. Container age
8. Stacking strength
9. Shipper owned containers (SOCs), if identified, could be planned for higher in the stack
10. Long term, full digital twin solution

Approved Continuous Examination Program (ACEP) update

Most of the world's containers operate under the Approved Continuous Examination Program (ACEP) regime. Verifying the correct application of ACEP requirements is one step Administrations can take to help ensure containers are maintained in accordance with the Convention for Safe Containers (CSC) requirements.

It has been observed that there is a concerning lack of auditing of ACEPs.

The global ACEP database was launched in 2013 to provide a central publication platform to support the new CSC requirement that Administrations publish and audit ACEPs.

A new global ACEP database platform was launched in December 2023 with the following notable updates and improvements:

1. ACEP audit diary
2. Email reminders
3. Audit history
4. Streamlined processes which leads to reduced workload
5. Provide crews with more ad-hoc information.
6. Ensure that the final stowage (or BAPLIE) plan adequately represents the stowage of containers on the ship
7. Improve containers' and lashing gear structure conditions
8. Reinforce the requirements related to ACEP programmes

Any other business

Draft editorial corrections to mandatory and related instruments

Proposed editorial corrections to Annexes 1 and 2 of Circular MSC.1/Circ.1266 - *Carriage of Dangerous Goods*, will be discussed at E&T 41 and be expected to be approved at MSC 110. These editorial amendments update the previous title from: *Code of Safe Practice for Solid Bulk Cargoes (BC) Code to International Maritime Solid Bulk Cargoes (IMSBC) Code*.

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