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IMO Carriage of Cargoes & Containers (CCC 12)

Summary Report

Summary of significant outcomes

Below is a brief overview of some of the significant outcomes from CCC 12:

Alternative Fuels

- [Draft revision of the Interim guidelines for the safety of ships using methyl/ethyl alcohol as fuel \(MSC.1/Circ.1621\)](#)
With years of experience from the maritime industry, a revision to the Interim guidelines (MSC.1/Circ.1621) was finalised and MSC 113 (June 2027) is expected to approve it. Technical amendments are extensive with the introduction of specific requirements related to toxicity, bunkering, fire safety, operations and personnel protection.
- [Draft Interim guidelines for ships using low-flashpoint oil fuels](#)
Finalisation of new set of guidelines covering oil fuels with a flashpoint between 52°C and 60°C has been delayed by one year. A correspondence group will further develop the draft provisions and CCC 13 is expected to finalise it.
- [Draft amendments to Interim Guidelines for the safety of ships using fuel cell power installations \(MSC.1/Circ.1647\)](#)
Due to time constraints, work to amend the Interim guidelines (MSC.1/Circ.1647) will be commenced by a correspondence group and CCC 13 is expected to work towards finalisation.

GHG emission reduction technologies

- [Draft Interim guidelines for the safety of ships using carbon capture and storage systems \(OCCS\)](#)
Work on new goal-based guidelines has started with approval expected in 2029. Once finalised, the guidelines are expected to contain annexes that will include detailed provisions for specific OCCS technologies.

Other outcomes

- [Draft revision of the Revised guidelines for the preparation of the Cargo Securing Manual \(MSC.1/Circ.1353/Rev.2\)](#)
The amendments to the guidelines to allow the use of lashing software in support of the preparation of the CSM were finalised and are expected to be submitted to MSC 113 in June 2027 for approval. A proposal to include a new annex in the CSS Code with a standardised method to assess the efficiency of securing arrangements for containers on containerships, was also agreed with the target completion year of 2030.

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Introduction

CCC 12 took place 14 – 18 September 2026 at the IMO in London. This report provides a summary of the outcomes from the meeting which are significant to Lloyd's Register's (LR) work with our customers.

The IGF Code and alternative fuels

Draft amendments to the *Interim guidelines for the safety of ships using methyl/ethyl alcohol as fuel (MSC.1/Circ.1621)*

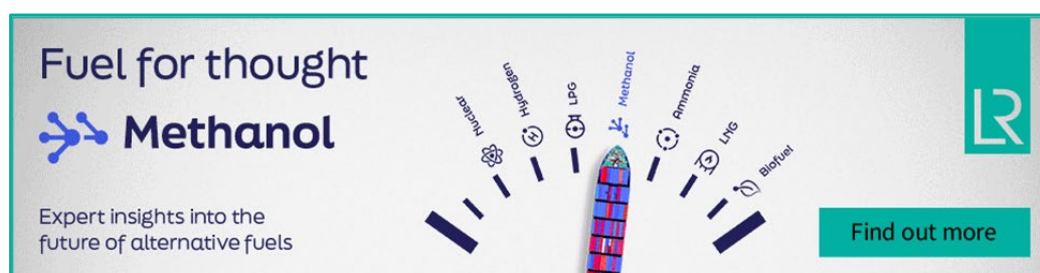
The *Interim Guidelines for the safety of ships using methyl/ethyl alcohol as fuel* were approved in 2020. Taking industry's experience into account a revision to the Interim guidelines was finalised. Notable developments include:

- Toxicity requirements for methanol (considerations to be taken during risk assessment, alarms, etc.)
- Further alignment with the IBC Code
- Provisions for cofferdams, the 600 mm minimum boundary requirement was maintained, addition of sequential sampling gas detection as an alternative to continuous sampling
- Provisions for bunkering stations, bunkering system (to be fitted with vapour return lines) and bunkering operations
- Provisions for independent fuel tanks and secondary enclosures for fuel supply systems
- Provisions for vent pipes
- Provisions for holding tanks
- Provisions for pressure and vacuum relief system
- Requirements for oxygen sensors within each space containing inert gas systems
- Provisions for materials
- Introduction of minimum normal (10 air changes per hour) and minimum emergency ventilation (30 air changes per hour)
- New chapters on personnel protection, training, drills and emergency exercises

MSC 113 (2027) is expected to approve the revised guidelines.

The Interim guidelines transposition into the IGF Code as mandatory provisions will likely happen later once further experience is gained.

Please click the image below to access LR's Fuel for thought insight on Methanol:



Draft Interim guidelines for ships using low-flashpoint oil fuels

Development of a new set of Interim guidelines covering oil fuels with a flashpoint between 52°C and 60°C has commenced. Similarly to other “alternative fuels” guidelines, it is goal-based and, once published, can be used to demonstrate alternative design arrangements in accordance with SOLAS regulation II-1/55. Due to time constraints, the finalisation of these draft interim guidelines was not completed. A correspondence group will further refine the draft provisions, with finalisation at CCC 13.

Draft amendments to *Interim Guidelines for the safety of ships using fuel cell power installations* (MSC.1/Circ.1647)

The *Interim Guidelines for the safety of ships using fuel cell power installations* (MSC.1/Circ.1647) were approved in 2022. The ongoing revision aims to incorporate industry experience and lessons learned. However, due to time constraints, detailed technical review was not undertaken. The revision process will continue by correspondence. Topics identified for further discussion include:

- Reclassification of fuel cell spaces from hazardous area Zone 1 to Zone 2;
- Review of current ventilation requirements, which may be overly conservative;
- Review of the requirement for A-60 fire-protected boundaries for fuel cell spaces, which may be overly conservative;
- The need to expand the scope of the guidelines to include high-temperature fuel cells (SOFC and MCFC); and
- Consideration of the *Interim Guidelines for the Safety of Ships Using Hydrogen as Fuel* (MSC.1/Circ.1701) and any consequential amendments to MSC.1/Circ.1647 that may be necessary to maintain consistency between the two sets of provisions.

It is expected this revision will be complete by 2027 (CCC 13) with approval at MSC 114 in 2028.

Draft amendments to the IGF Code on the use of LNG as fuel

Due to time constraints, the following draft amendments were deferred to a correspondence group for further discussion and conclusion by CCC 13.

Draft amendment	Notes
New paragraph 9.6.2 bis	Introduction of specific technical requirements for vent pipes of internal combustion engines.
New paragraph 11.5.2 bis and amendments to 11.5.3	Alignment with the IGC Code on nozzles of water spray systems to take into account anticipated rundowns.
New paragraph 11.3.4 (the current one will be retained and renumbered)	New insulation requirements in supporting structures to open deck fuel tanks if above cargo tanks transporting hazardous liquids. Applicable to tankers.
Amendment to paragraph 5.7.1	The amendment specifies that fuel gas vent pipes are part of the fuel gas piping system.
Amendments to MSC.1/Circ.1670 – Unified interpretation to paragraph 9.2.2	Clarification of requirements that need to be submitted to Administrations (or ROs) when seeking approval of single common flanges used at the fuel connection to the gas consumer.
Amendments to paragraphs 5.9.2, 5.12.3, 6.5.10, 8.5.5, 13.3, 13.4.1, 13.6.3 and 13.8	General amendments to improve understanding of requirements, such as deletion of terminology with no clear definition, cross references updates and further clarifications to ambiguous provisions.

Updated work plan for the development of new guidelines for the safe use of alternative fuels under the IGF Code

To support the reduction of GHG emissions from ships through new technologies and alternative fuels, a work plan was developed. The table below summarises the agreed timelines for development.

Instrument	2025	2026	2027	2028	2029	2030
Interim guidelines for safety of ships using low-flashpoint oil fuels						
Revised interim guidelines for safety of ships using methyl/ethyl alcohol as fuel						
Revised interim guidelines for safety of ships using fuel cell power installations						
Interim guidelines for safety of ships using onboard carbon capture and storage systems						
Revised interim guidelines on the safety of ships using LPG (MSC.1/Circ.1666)						
Revised interim guidelines on the safety of ships using ammonia as fuel						

An Intersessional working group - alternative fuels (ISWG - AF 4) is expected to meet from 13 to 17 September 2027 ahead of CCC 13 (subject to IMO Council approval). It will continue work on the draft *Interim guidelines for ships using low-flashpoint oil fuels* and draft amendments to the *Interim guidelines for the safety of ships using fuel cell power installations* (MSC.1/Circ.1647).

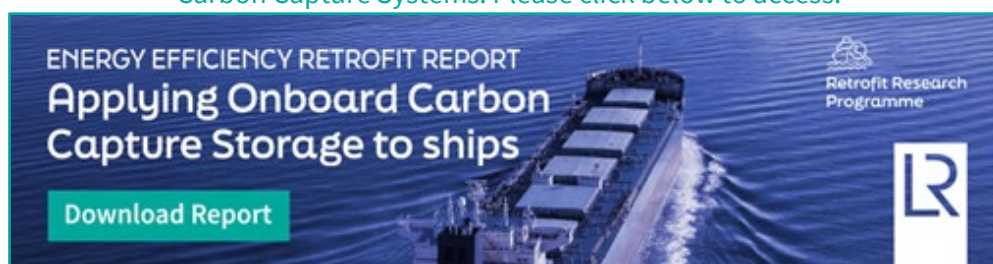
New technologies in support of reduction of GHG emissions

Draft Interim guidelines for the safety of ships using carbon capture and storage systems

The integration between Onboard Carbon Capture Systems (OCCS) and ships poses safety risks, so a new set of goal and risk-based interim guidelines has begun to be developed. As different technologies mature, annexes detailing prescriptive requirements will be added to the interim guidelines.

The main goals and functional requirements will be drafted intersessionally and prescriptive text will be developed for those proven technologies, starting with chemical absorption capture technology and potentially mineralisation, for inclusion as annexes. It is expected that the guidelines will be finalised in 2028 at CCC 14.

Lloyd's Register has just released its report on improving ships' energy efficiency by retrofitting Onboard Carbon Capture Systems. Please click below to access:



Cargo safety & transport

Draft amendments to the IMSBC Code and Supplements

The IMSBC Code is regularly reviewed to take account of new requirements for existing substances and the inclusion of new substances. Amendment 09-27 is expected to be available for voluntary application (subject to flag State agreement) from 1 January 2028 and will be expected to become mandatory from 1 January 2029.

The draft amendments outlined below, together with several new and revised cargo schedules agreed in principle, have been referred to the Editorial and Technical Group (E&T 45) for further consideration and finalisation. The resulting draft amendments are expected to be adopted by MSC 113 in June 2027.

New draft schedules:

Shipping Name	Hazard Classification*	
	Materials hazardous only in bulk (MHB)	Group
BITUMINOUS GRANULATES COARSE	N/A	C
LIME MUD	N/A	A
MULLITE (CCC 12/5)	N/A	C
KAOLINITE	N/A	C
UNTREATED INCINERATOR BOTTOM ASH (U-IBA)	WF and TX	A and B
SOIL, CONTAMINATED WITH ANY/OR A COMBINATION OF HYDROCARBONS, PFAS, ASBESTOS AND HEAVY METALS	TX	A and B
TABULAR ALUMINA	N/A	C
DIRECT SHIPPING ORE SPODUMENE	N/A	C
SEED CAKE (group C) non-hazardous	N/A	C

* Hazard Classification

Materials hazardous only in bulk (MHB)

WF - Solids that evolve flammable gas when wet

TX- Toxic Solids

Group

A - cargoes which may liquify if shipped at a moisture content exceeding their Transportable Moisture Limit (TML)

B - cargoes with a chemical hazard which could give rise to a dangerous situation on a ship

C - cargoes not classified under Group A or B

Proposal to amend section 4.2 (Provision of information) of the IMSBC Code

A proposal to amend section 4.2 *Provision of information* of the IMSBC Code seeks to address gaps and inconsistencies in the cargo information provided by shippers, particularly on subsidiary hazards, MHB hazard identification, and supporting certificates.

Matters referred to E&T 45:

It was agreed that the following matters warrant further discussion and have consequently been referred to E&T 45 for further consideration and reporting to CCC 13:

1. Draft amendments to the Bulk Cargo Identification Numbers; the draft amendments introduce unique Bulk Cargo Numbers (BC Nos.) alongside the BCSN for all listed cargoes to improve cargo identification, support electronic data exchange and reduce the risk of cargo misidentification.
2. Guidance on ventilation requirements under the IMSBC Code; The proposal clarifies that the ventilation requirements in the IMSBC Code for cargo operations, including the carriage of DRI (D), are not intended to conflict with the ventilation design requirements of SOLAS and the Load Line Convention. To address potential ambiguity, a new CCC Circular is proposed to distinguish operational ventilation requirements from design requirements, while confirming that fire-protection-related closure arrangements remain applicable when complying with IMSBC Code operational ventilation provisions.
3. New draft schedules for BITUMINOUS GRANULATES FINES, ULEXITE, DIATOMITE, POLYMETALLIC NODULES, AMORPHOUS GRAPHITE and AMORPHOUS GRAPHITE FINES.
4. Expired standards and circulars referenced in the IMSBC Code amendment 08-25 to be updated.

Draft amendments to the IMDG Code

The IMDG Code is updated on a two-year cycle. Work on Amendment 44-28 commenced at this session and is expected to be adopted by MSC 114 (2028). Proposals outlined below have been referred to E&T 46 (Spring 2027) for further consideration and the development of draft amendments. The amendment is expected to be available for voluntary use from 1 January 2029 (subject to Flag Administration agreement) and become mandatory on 1 January 2030.

Proposed amendments to paragraph 5.4.1.4.3.8 of the IMDG Code for sodium ion batteries under SP376 or SP377

While packages containing sodium-ion batteries transported under SP376 or SP377 must be marked with phrases such as "DAMAGED/DEFECTIVE", "SODIUM ION BATTERIES FOR DISPOSAL" or "SODIUM ION BATTERIES FOR RECYCLING", paragraph 5.4.1.4.3.8 of the IMDG Code does not currently require these descriptions to be reflected in the dangerous goods description on the transport document. The proposed amendments seek to close this gap and ensure that transport documents clearly indicate the condition or intended disposition of sodium-ion batteries, thereby providing essential hazard information to personnel involved in transport.

Proposed amendment to SP188 – exemption for batteries in containerised transport

A potential safety gap has been identified in SP188, which exempts small lithium and sodium batteries from most dangerous goods' requirements. While individual battery packages may present a relatively low risk, large quantities can be consolidated within a single cargo transport unit (CTU) without dangerous goods documentation, placarding, or carrier awareness, resulting in a significant hidden fire hazard during transport. Proposals for draft amendments are invited to be sent to E&T 46 on this matter.

Proposed amendments to paragraph 7.3.7.2 of the IMDG Code clarify the inherent hazards of self-reactive substances and organic peroxides

The IMDG Code currently places an explosion hazard provision for self-reactive substances and organic peroxides within the temperature-control requirements, which could be misinterpreted as applying only to

temperature-controlled cargoes. The proposed amendments seek to amend 7.3.7.2 of the IMDG Code, aligning it with the UN Model Regulations, so that the explosion hazard requirement clearly applies to all self-reactive substances, organic peroxides and polymerising substances loaded in closed cargo transport units.

Revision of the IMO/ILO/UNECE Code of Practice for Packing of Cargo Transport Units (CTU Code)

The CTU Code, jointly developed by the IMO, ILO and UNECE, provides internationally recognised guidance on the safe packing, handling and transport of cargo in cargo transport units (CTUs), including freight containers, road vehicles and rail wagons. Although non-mandatory, it is widely regarded as the global benchmark for cargo packing and transport practices.

Recognising the significant evolution of regulatory requirements, technologies and industry practices since its publication in 2014, CCC 12 agreed to the comprehensive revision of the Code prepared by a joint group of experts. A draft MSC circular containing the revised Code will be prepared for submission to MSC 112 in December 2026 for approval. CCC 12 also agreed to establish a permanent Technical Body to oversee the Code's future maintenance and updating.

Cargo securing

Draft amendment to the *Revised guidelines for the preparation of the Cargo Securing Manual (MSC.1/Circ.1353/Rev.2)*

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 (CSM) 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.

However, existing guidelines do not provide harmonised standards for lashing software despite increasing use of onboard lashing software on containerships. As a result, different software solutions may use differing methodologies, assumptions and outputs, potentially leading to inconsistencies in assessing container securing arrangements. To address this, CCC 12 now has finalised the draft amendments to the MSC.1/Circ.1353/Rev.2 to include a draft interim performance standard for lashing software as a dedicated Appendix, thereby permitting the use of lashing software as a supplement to the Cargo Securing Manual. The draft performance standards establish harmonised requirements relating to software functionality, operational manuals, human-machine interface, calculation methods, tolerances, approval, testing, surveys, data exchange and integration with external systems.

Application provisions: The revised guidelines are expected to apply to container ships as follows:

- **Keel laid date, or at a similar stage of construction, on or after 1 July 2027:** the revised Guidelines, including the new appendix containing performance standards for lashing software, are to be applied;
- **Keel laid date, or at similar stage of construction, on or after 01 January 2015 but before 1 July 2027:** the revised Guidelines apply in full, except for the new appendix on lashing software performance standards;

- **Keel laid date, or at similar stage of construction, before 01 January 2015:** only chapters 1 to 4 of the revised Guidelines apply;
- **Voluntary application:** Administrations are encouraged to apply the entire revised Guidelines, including the appendix, to any container ship regardless of keel laid or construction date. However, the Cargo Securing Manual would have to be re-approved in its entirety by the Administration.

The draft Revised guidelines are expected to be approved by MSC 113 in June 2027.

Furthermore, CCC 12 agreed to a proposal to include a new annex in the CSS Code with a standardised method to assess the efficiency of securing arrangements for containers on containerships, with the target completion year of 2030. The proposal will be submitted to MSC 113 for further consideration.

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