

NEWS BRIEF
CCC 11



ABS



NEWS BRIEF: CCC 11

The IMO Sub-Committee on Carriage of Cargo and Containers (CCC) held its 11th session from September 8 to 12, 2025. This Brief provides an overview of the more significant issues discussed at this session, which include finalization of the draft interim guidelines for the use of ammonia cargo as fuel, finalization of draft interim guidelines on hydrogen as fuel, and a revision of the interim recommendations for the carriage of liquid hydrogen in bulk. While new regulations developed by the CCC Sub-Committee are not finalized until approved by the Maritime Safety Committee (MSC) or the Marine Environment Protection Committee (MEPC), a review of the Sub-Committee's activity can provide a forecast of future regulatory developments.

KEY DEVELOPMENTS

- Draft Interim Guidelines for Ammonia Cargo as Fuel
- Draft Interim Guidelines on Hydrogen as Fuel
- Revision of the Interim Recommendations for the Carriage of Liquid Hydrogen in Bulk
- Draft Circular on Reporting the Loss of Containers
- Revised work plan for the development of Safety Provisions for Alternative Fuels

ABS RESOURCES

- ABS Regulatory News ([link](#))
- ABS Regulatory Lessons ([link](#))
- ABS Safety in Minutes Video Series ([link](#))
- 2024 ABS Outlook – Beyond the Horizon – Carbon Neutral Fuel Pathways and Transformational Technologies ([link](#))
- ABS Requirements for Hydrogen-Fueled Vessels ([link](#))
- ABS C-LASH® Software for Non-Linear Analysis of Container Securing ([link](#))
- ABS Rules and Guides ([link](#))

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SAFETY OF SHIPS USING ALTERNATIVE FUELS

Draft Interim Guidelines for the use of Ammonia Cargo as Fuel

As part of the maritime industry's decarbonization efforts, and to progress the safety aspects of the new fuels and technologies being developed, the Sub-Committee continued the work on Development of a Safety Regulatory Framework to Support the Reduction of GHG Emissions from Ships Using New Technologies and Alternative Fuels, and to finalize the draft Interim Guidelines for the use of Ammonia Cargo as fuel.

The purpose of these Interim guidelines for use of anhydrous ammonia cargo as fuel is to provide unified and specific guidance for gas carriers as defined in SOLAS regulation VII/11.2 using ammonia cargo as fuel and complying with the IGC Code. The draft Interim guidelines are a supplement to the existing provisions of chapter 16 of the IGC Code and are applicable outside the cargo area in accordance with 16.4.1.1 of the IGC Code.

The interim guidelines are a goal-based document that provides guidance on safe and reliable operation of fuel supply systems and consumers for use of ammonia cargo as fuel. The guidelines provide for a risk assessment of the entire ammonia fuel system design and arrangements to document that the same level of safety as natural gas is achieved. More specific requirements are given for arrangements of spaces containing ammonia fuel consumers, ammonia fuel supply, fuel plant ventilation and liquid/gas detection, alarms and shutdowns, and combustion equipment.

Next steps: The Interim Guidelines for the use of Ammonia Cargo as Fuel are to be submitted to MSC 111 (May 2026) for approval.

Draft Guidelines on Hydrogen as Fuel

Continuing the work from previous sessions, the Sub-Committee finalized the *Draft Interim Guidelines for Ships using Hydrogen as Fuel*.

The outstanding chapters of the draft guidelines were completed, related to:

- a) definitions,
- b) fuel supply to consumers, power generation including propulsion and other fuel consumers,
- c) fire safety, explosion prevention,
- d) ventilation, electrical installations,
- e) control, monitoring and safety systems,
- f) manufacture, workmanship and testing,
- g) drills and emergency exercises, operation, and personnel protection

The basic philosophy of these Interim Guidelines is to provide provisions for the arrangement, installation, control and monitoring of machinery, equipment and systems using hydrogen as fuel in order to minimize the risk to the ship, persons on board and the environment. The guidelines follow the goal-based approach and have been aligned with the International Code of Safety for Ships Using Gases or Other Low-flashpoint Fuels (IGF Code).

Next steps: The Interim Guidelines for ships using Hydrogen as Fuel are to be submitted to MSC 111 (May 2026) for approval.

Revision of the Interim Recommendations on the Carriage of Liquid Hydrogen in Bulk

A ship carrying liquefied hydrogen in bulk should comply with the relevant sections of the IGC Code. However, the Code requires that a gas carrier should comply with the minimum requirements for the cargo listed in chapter 19. For hydrogen, these minimum requirements are found in the Annex containing the *Interim Recommendations for carriage of liquified hydrogen in bulk*.

MSC 108 had adopted resolution MSC.565(108) on *Revised Interim Recommendations for carriage of liquefied hydrogen in bulk*, but MSC 108 and MEPC 82 had agreed to keep an ongoing agenda item on the further revision of the Interim Recommendations and invited Member States and international Organizations to make submissions to CCC 11.

The Sub-Committee finalized the revision of the Interim Recommendations for carriage of liquefied hydrogen in bulk, to include the following amendments:

- a new Part D: Cargo containment systems of a membrane-type cargo tank maintaining the insulation spaces under vacuum, addressing the specific safety challenges associated with the transport of liquefied hydrogen
- Definitions for the primary insulation space and secondary insulation space
- Special requirements for membrane-type cargo containment systems with the insulation space under vacuum
- Structural integrity of components, vacuum control in the insulation space, and emergency control

Next steps: The consolidated *Revised interim recommendations for carriage of liquefied hydrogen in bulk* was prepared with the associated resolution for submittal to MSC 111 (May 2026) for adoption

Work Plan for the Development of Safety Provisions for Alternative Fuels

MSC 110 had tasked the sub-committees to develop a holistic work plan to assess the gaps and barriers, and to identify the instruments that might need to be amended in their work on the development of a safety regulatory framework to support the reduction of GHG emissions from ships using new technologies and alternative fuels. Following these instructions, the Sub-Committee prepared a work plan for the development of the safety regulatory framework under the purview of the CCC Sub-Committee.

The work plan prioritizes tasks, taking into consideration related planned, ongoing or completed work; and prioritizing removing regulatory barriers over filling gaps identified by the Working Group on GHG Safety. In particular, the work plan identified tasks as having high priority: a) Onboard Carbon Capture and Storage (OCCS), and b) further development/finalization revision of interim guidelines for safety of ships using methyl/ethyl alcohol as fuel, giving this task higher priority than to interim guidelines for safety of ships using low-flashpoint oil fuels.

taking into account the number of tasks, the Sub-Committee agreed to re-establish the Intersessional Working Group on Alternative Fuel (ISWG-AF) to hold two sessions, with work developed intersessionally by the Correspondence Group.

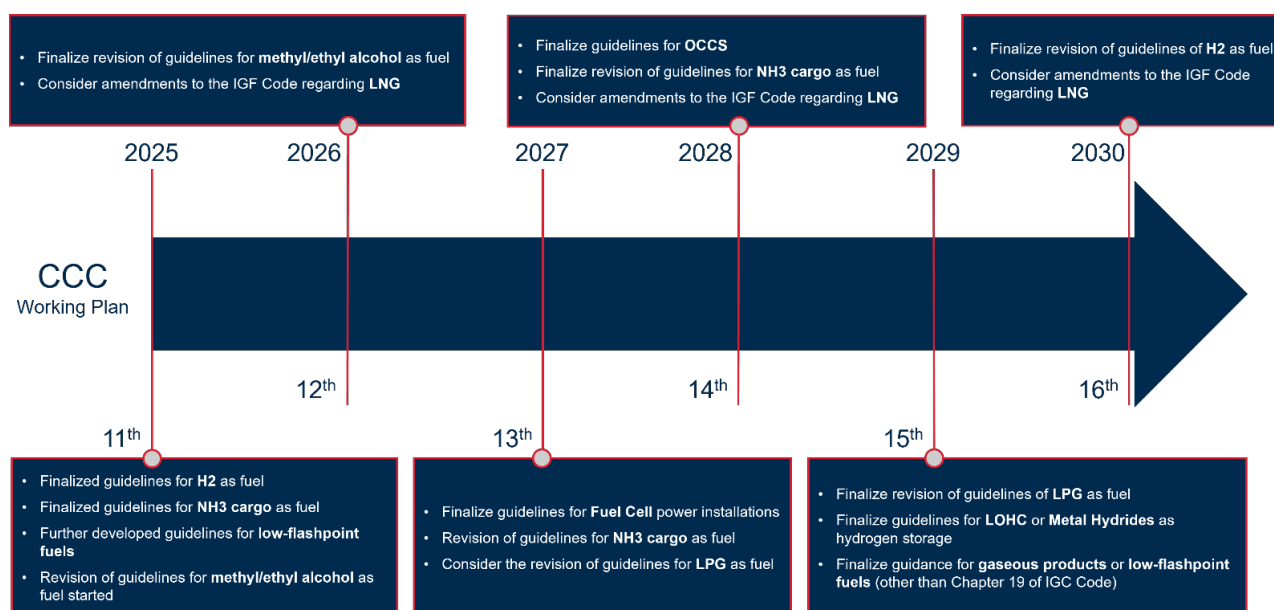


Figure 1: CCC Work Plan

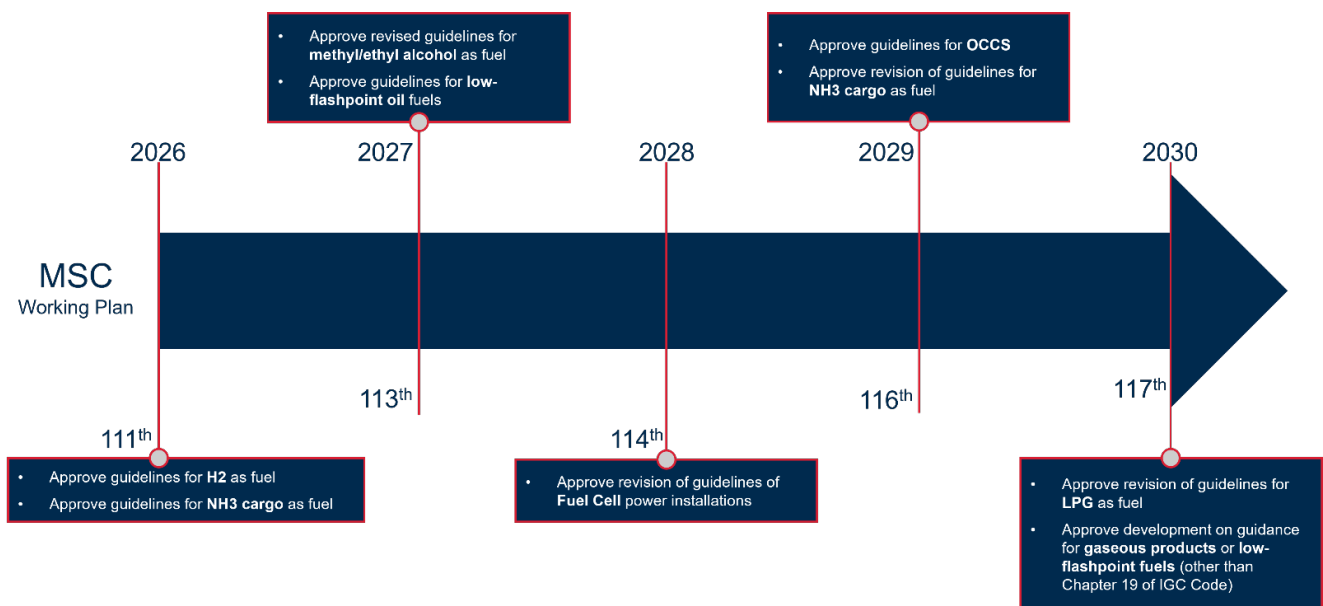


Figure 2 MSC Work Plan

AMENDMENTS TO THE IGC CODE

Amendments to and development of a new Consolidated IGC Code

MSC 110 had considered the latest draft amendments to the IGC Code, however, since additional substantial amendments were identified commenting on the draft amendments relating to fire protection, ventilation and safety of personnel, which required further technical consideration, the outstanding draft amendments were referred to the Sub-Committee for finalization.

The Sub-Committee finalized the amendments identified as follows, related to:

- Gas-tightness of closing devices for new ships
- Weld design for type A and type B independent tanks, primarily constructed of plane surfaces
- Cargo Manifold Connection emergency shut-down valves
- Calculation of the maximum capacity of the emergency fire pump
- High level liquid alarm and automatic shut-off of cargo filling
- Special consideration to density and lower flammability limit (LFL) for spaces outside the cargo space containing LPG or ethane fuel systems, and double block and bleed arrangements for fuel piping
- Pressure relief systems for gas-fired internal combustion engines, and enclosure requirements for LPG gas turbines
- Alternative fuels and technology – use of cargo gases not covered by 16.1.1 (LNG) as fuel

The Sub-Committee was further invited to consider the development of the table on provisions for "Application" dates for the IGC Code in accordance with MSC.1/Circ.1500/Rev.3 when the next comprehensive review of the IGC Code is carried out.

Next steps: The draft amendments, together with the previously accepted amendments to the IGC Code are to be submitted to MSC 111 (May 2026), with a view to adoption by MSC 112 (December 2026), and are to enter into force on 1 July 2028. A consolidated text of the IGC Code is then to be prepared by the Secretariat.

AMENDMENTS TO THE IMDG CODE AND IMSBC CODE

Amendments to the IMSBC Code

Following the adoption of the latest amendments 08-25 by MSC 110 as resolution MSC.575(110), the Sub-Committee considered the report of the 41st meeting of its Editorial and Technical Group (E&T 41) which met in September 2024.

Matters related to fumigation

The Sub-Committee noted the revision of the *Recommendation on the safe use of pesticides in ships applicable to the fumigation of cargo holds* (MSC.1/Circ.1264), along with the consequential draft amendments to IMO, which had been approved at MSC 110. However, lessons learned from fumigation-related casualties were further considered, noting that it was necessary to strengthen the existing standards for fumigation, the current recommendations on gas testing were outdated, and that crew training and professional preparation should be a priority.

To address these safety concerns, the Sub-Committee agreed that a new output on the safe use of pesticides and fumigation practices in cargo holds was needed, taking into account key areas for improvement, such as continuous gas detection, enhanced risk controls during pre-loading inspections, improved crew training, and strengthened measures to address all associated risks, including fire and explosion.

Next steps: Interested Member States are invited to prepare a new output proposal for submission to MSC 111 (May 2026).

Proposals for new individual schedules

As part of the periodic review of existing or new cargoes to be considered under the IMSBC Code, new schedules for cargoes were considered as follows:

- Proposals for new schedules to be forwarded to E&T 44 for consideration and incorporation into draft amendments 09-27:
 - Bituminous Granulates Coarse
 - Bituminous Granulates Fines
 - Calcium Carbonate/Lime mud
 - Mullite
 - Kaollinite
- The following two proposals for new schedules were not agreed to be progressed at this time:
 - Untreated Incinerator Bottom Ash – additional supporting information to be provided
 - Contaminated Soil PFAS – to be forwarded to E&T 44 for providing advice to CCC 12

Next Steps: The Sub-Committee instructed E&T 44 to finalize the draft amendments (09-27) to the IMSBC Code for consideration and adoption by MSC 111 (May 2026).

Amendments to the IMDG Code

The Sub-Committee considered the report of E&T 42 (March 2025), which contains the amendment 43-26 and the draft editorial corrections to amendment 42-24 to the IMDG Code, including new entries based on amendments to the UN Recommendations on the Transport of Dangerous Goods, and amendments to Special Provisions for certain substances and cargoes.



Next steps: E&T 43 is to finalize the draft amendments 43-26 to the IMDG Code, with a view to submitting the draft amendments to MSC 111 (May 2026) for adoption.

Furthermore, the following topics as per the E&T 42 report were considered:

- Table 7.1.4.5.18 of the IMDG Code - amendments to clarify the requirements for segregation distances between radioactive material and passengers and crew
- Diesel Fuel - inconsistency in multimodal transport of diesel fuel, and whether it should follow the strictest classification standard across the whole route when part of a multimodal transport chain
- Container/vehicle packing certificate - certification for the filling of portable tanks and road tank vehicles
- EMS Guide - draft consequential amendments to the *Revised Emergency Response Procedures for Ships Carrying Dangerous Goods (EmS) Guide*, emanating from draft amendment 43-26
- Control temperature of flammable liquids having a flashpoint less than 23°C - proposal for indicating the control temperature in a non-explosion proof refrigerating system in the transport document
- Review of the effectiveness of SOLAS regulation VII/3 (carriage of dangerous goods) – based numerous findings related to the lack of effective implementation of SOLAS regulation VII/3 and provisions of the IMDG Code identified during IMSAS audits
- Safe transport of vehicles - state-of-charge (SOC) limits for electric vehicle (EV) batteries, prohibition of the charging of EVs on board the ship, inclusion of hybrid-powered vehicles and small electric vehicles (e.g. hoverboards and e-scooters)

The above topics were agreed to be forwarded to E&T 43 for further consideration.

OTHER DEVELOPMENTS

Draft Circular on Reporting on the Loss of Containers

Due to the repeated occurrence of container losses and the danger they pose to shipping, the Marine Safety Committee 108 adopted amendments to SOLAS Chapter V which require reporting of freight containers lost at sea or observed adrift at sea by the shipmaster to the ships in the vicinity, the nearest coastal state and to report the loss of containers to the flag state.

SOLAS regulation V/31 also requires that the flag State reports incidents of lost containers to the IMO, and Member States are to submit their reports using an online template while the IMO develops an electronic reporting solution through the GISIS platform.

The draft circular provides a reporting template in the event of loss of containers as per SOLAS regulations V/31 and 32. Furthermore, a template for the reporting of the observation of freight container(s) drifting at sea is provided. Member States and international organizations are invited to consider the templates and to submit proposals in this respect to the next session of the MSC.

Development of measures to prevent the loss of containers at sea and revision of MSC.1/Circ.1353/Rev.2, and development of performance standards and guidelines for lashing software

Taking the work of the Correspondence Group (CG), the Sub-Committee progressed further the revision of MSC.1/Circ.1353/rev.2 and the annex on the performance standards for lashing software. In the deliberations, the Sub-Committee considered whether lashing software should replace the Cargo Securing Manual and whether it should be made mandatory.

The Sub-Committee agreed that while lashing software would provide automated real-time assessment of container securing, it should complement, rather than replace, the CSM, similar to how loading instruments supplement stability booklets. Furthermore, it was agreed that making lashing software compulsory was not



supported at this stage due to high cost, operational challenges, and insufficient evidence of safety benefits, especially for smaller or older vessels, and that lashing software could only become mandatory through an amendment to SOLAS.

When considering the revision of the Revised Guidelines for the Preparation of the Cargo Securing Manual (MSC.1/Circ.1353/rev.2), the Sub-Committee agreed that the text on lashing software should only be introduced in the new annex on the performance standards for lashing software, with MSC.1/Circ.1353/Rev.2 containing solely a reference to this annex. The annex on performance standards for lashing software will apply to new containerships after approval by MSC of the revised circular.

Next steps: Owing to time constraints, the Sub-Committee was unable to complete the task and agreed to recommend re-establishing the Correspondence Group to finalize the revision of MSC.1/Circ.1353/Rev.2.

Unified Interpretation on 2nd Barrier Testing

The Sub-Committee agreed on the draft Unified Interpretation (UI) concerning secondary barrier testing and effectiveness assessment for membrane containment systems on gas carriers, as defined in the IGC Code and the 1983 IGC Code, in paragraphs 4.1.5 and 4.2.2, respectively.

The five agreed interpretations clarify the following key expressions:

1. “Any envisaged leakage of liquid cargo” should be interpreted as a leakage, which may have resulted from a failure of the primary barrier resulting in filling of the inter-barrier space with liquid until a static equilibrium state is reached between the tank space and the inter-barrier space.
2. “Capable of being periodically checked” specifies that the effectiveness of the secondary barrier should be checked at the initial survey during the time of construction, and no less than at each renewal survey when the Certificate of Fitness is due to be renewed. For containment systems with glued secondary barriers, tightness test is required at the time of construction, whereas for the systems with welded metallic secondary barriers, such test should not be required.
3. “Full secondary liquid-tight barrier” / “complete secondary barrier” should be interpreted as a secondary barrier forming a liquid-tight secondary containment capable of containing any envisaged leakage from the tank through its primary barrier.
4. “Effectiveness” refers to the ability of the secondary barrier to prevent passage of liquid cargo in ways and quantities likely to cause unsafe cold spots to the ship structure. The effectiveness of the secondary barrier should be verified by an approved method described in the inspection / survey plan, such as tightness test, thermographic, acoustic emissions testing or any other equivalent method suitable for the specific cargo containment system design.
5. “Other suitable means” / “another suitable method” indicates that any alternative approach should be specified within the approved inspection and survey plan.

Next steps: The UI of the IGC Code and the 1983 IGC Code related to secondary barrier testing is to be submitted as an MSC circular to MSC 111 (May 2026) for approval.

Unified Interpretation on the IGF Code Gas Vent

The Sub-Committee noted IACS UI GF 22 on paragraph 9.6.1 of the IGF Code regarding gas fuel vent pipes of single-walled construction in machinery spaces. Paragraph 9.6.1 of part A-1 of the IGF Code, as amended by resolution MSC.551(108), prescribes that fuel piping in gas-safe machinery spaces shall be enclosed within double piping or duct. However, given the widespread acceptance of single-walled venting piping by engine manufacturers, IACS adopted UI GF 22 to establish minimum requirements ensuring the safe distribution of fuel to the consumers.

Accordingly, gas fuel vent pipes, i.e. pipes arranged for the purpose of purging, venting, or bleeding fuel gas lines, may be single-walled within gas-safe machinery spaces, provided that they meet specified conditions. These include: design pressure limits, fully welded construction (with any non-welded connections complying with IGF



Code provisions), open-ended arrangement, use solely for purging/venting/bleeding, and installation in permanently ventilated machinery spaces. For internal combustion engines, vent piping shall be of double-walled construction unless justified otherwise in the engine safety concept.

This UI will be uniformly implemented by IACS Societies for ships contracted for construction on or after 1 July 2026 and will be applied subject to the Flag State's own requirements.

Unified Interpretation on CO₂ fire protection for methyl/ethyl fuels

The Sub-Committee noted IACS UI GF 21 of paragraph 11.7.1 of the Interim Guidelines for the safety of ships using methyl/ethyl alcohol as fuel (MSC.1/Circ.1621), concerning the fixed fire-extinguishing system required in machinery spaces and fuel preparation spaces where methyl/ethyl alcohol-fueled engines or fuel pumps are installed. The Guidelines require that the extinguishing medium be suitable for methyl/ethyl alcohol fires, without specifying a particular medium.

IACS concluded that CO₂ may be considered suitable for extinguishing methyl/ethyl alcohol fires, taking into account several scientific sources. IACS adopted UI GF 21 defining the minimum quantity of CO₂ to be carried to sufficiently supply equal to the 50% of the gross volume of the largest space protected, including the machinery space casing.

This UI is to be uniformly implemented by IACS Societies on ships contracted for construction on or after 1 January 2026, to which the Administration has requested the application of MSC.1/Circ.1621.

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