

Supplementary materials for October 2025

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➤ International Maritime News

I. New cargo screening solution uses AI to detect misdeclarations

Retrieved from The Editorial Team from Safety4sea, September 15, 2025, in Safety, Smart Section. <https://safety4sea.com/new-cargo-screening-solution-uses-ai-to-detect-misdeclarations/>



Source: Safety4sea.

On 15 September, the World Shipping Council (WSC) announced the launch of its [Cargo Safety Program](#), an initiative led by the industry, aiming to detect mis-declared and undeclared dangerous goods.

The Cargo Safety Program aims to detect incorrect declarations and unreported dangerous goods to prevent ship fires and protect the crew, the vessel, the customers' goods, and the marine

environment.

The program will integrate artificial intelligence (AI) techniques for cargo screening and general inspection standards, enabling the identification of declared errors and unreported high-risk goods before shipment. According to [Allianz's 2025 Safety and Shipping Report](#), the rate of ship fires has reached its highest level in over a decade. Declared errors in dangerous goods are the leading cause of ship fires. It is reported that declared errors in dangerous goods caused more than a quarter of cargo-related accidents.

According to the data from [WSC 2024](#), among the inspected transported goods, 11.39% were found to have deficiencies, which is higher than the 11% final statistics of the International Maritime Organization (IMO) in 2023. **These deficiencies include incorrect declarations and unreported dangerous goods, document errors, and improper packing**, all of which can lead to serious safety incidents, including ship fires.

Regarding this issue, Mr. Joe Kramek, the president and CEO of WSC, stated that they have witnessed too many tragic incidents where disastrous fires occurred due to incorrect cargo declarations, and even involving casualties. The "Cargo Safety Program" of WSC aims to strengthen the industry safety net by integrating shared screening technologies, common

inspection standards, and real-time feedback, thereby reducing risks.

The core of this program is a digital cargo screening tool supported by technical assistance from the National Cargo Bureau (NCB) of the United States. It scans orders in real time using keyword searches, transaction pattern recognition, and algorithms driven by AI to identify potential risks.

The carriers will review alerts, and when necessary, they will be verified through targeted physical inspections. The program also established common inspection standards for verifying goods and an incident feedback mechanism to ensure that lessons are learned from actual cases and preventive measures are strengthened.

Mr. Kramek also stated: "*The Cargo Safety Program is a powerful new layer of protection, but it does not replace the fundamental obligation shippers have to declare dangerous goods accurately. That is the starting point for safety and is required under international law...*" He added that by raising the standards of cargo inspections, we are protecting lives, safeguarding the environment, and enhancing the integrity of the global supply chain. (Here is the WSC Cargo Safety Program [fact sheet link](#))

● References

1. Allianz. Safety and Shipping Review 2025. Report in May 2025.
<https://commercial.allianz.com/news-and-insights/reports/shipping-safety.html>
2. SAFETY4SEA. New cargo screening solution uses AI to detect misdeclarations. September 15, 2025 <https://safety4sea.com/new-cargo-screening-solution-uses-ai-to-detect-misdeclarations/>
3. World Shipping Council (WSC). World Shipping Council launches industry-first Cargo Safety Program to prevent ship fires. Sep. 15, 2025.
<https://www.worldshipping.org/news/world-shipping-council-launches-industry-first-cargo-safety-program-to-prevent-ship-fires>
4. WSC. Cargo Safety Program. An industry-wide safety net, designed to detect risk early and help prevent incidents. <https://www.worldshipping.org/cargosafetyprogram>

II. UN High Seas Treaty to enter into force starting January 2026

Retrieved from The Editorial Team from Safety4sea, September 22, 2025, in the Sustainability Section. The UN High Seas Treaty will enter into force starting January 2026.

<https://safety4sea.com/un-high-seas-treaty-to-enter-into-force-starting-january-2026/>



Source: IMO.

The “High Seas Treaty” from the United Nations (UN), formally known as **the Agreement under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas beyond National Jurisdiction (BBNJ agreement)**. It has been twenty years, and it was finally adopted by UN Member States in June 2023 after nearly two decades of negotiations. See the context of the

agreement in the final [text](#).

During late September in 2025, both Morocco and Sierra Leone ratified the United Nations "High Seas Treaty," becoming the 60th and 61st and became the 60th and 61st signatories of the BBNJ agreement. Now, the agreement has received the required 60 ratifications from signatory countries and is expected to come into effect officially in January 2026.

Current UN Secretary-General, António Guterres, announced on his social media platform on September 20 that the convention has reached the approval threshold required for its entry into force. He still encouraged the other UN member states that have not yet joined to sign the treaty immediately, and called on all partners to support its prompt and full implementation. He also said, "The health of the oceans is the health of humans."

Ms. Inger Andersen, the Executive Director of the United Nations Environment Programme (UNEP), also expressed her appreciation for the United Nations reaching this milestone. She said, "Our oceans are the foundation of human existence. Today, we have taken an important step to save the oceans and to safeguard our future."

➤ What is the High Seas Convention

The United Nations Convention on the Law of the Sea primarily aims to protect the marine biodiversity in areas beyond national jurisdiction (i.e., the "high seas"), which account for approximately two-thirds of the total global ocean area.

➤ What makes the High Seas Convention important

The high seas are international waters and do not belong to any single country. They have always been difficult to regulate effectively. This area is crucial for regulating the Earth's climate, maintaining fishery resources, and safeguarding biodiversity. However, for a long time, problems such as excessive fishing, mining, pollution, and global climate change have been continuously threatening the ocean's ecology.

➤ **The core objectives of the High Seas Convention**

1. Conservation and sustainable utilization of marine biodiversity in the high seas.
2. Set up the Marine Protected Areas (MPAs): Allowing each nation to delineate and implement protected area management in international waters.
3. Regarding resource development: Ensure the fair distribution of the potential benefits from marine biological genetic resources (such as deep-sea organisms with medical or biotechnological potential).
4. Environmental Impact Assessment (EIA): This requires an assessment of the potential hazards associated with activities in the open sea.
5. Capacity Building and Marine Technology Transfer (CB&TT): Facilitating the participation of developing countries in marine research and management and sharing the outcomes.

- *The Agreement under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas beyond National Jurisdiction (BBNJ Agreement), a.k.a. "High Seas Treaty."*

The agreement was passed on June 19th, 2023. The agreement mainly covers four major topics:

- (1) The conservation and sustainable utilization of "marine genetic resources (MGRs)", including benefit-sharing.
- (2) "Marine Protected Areas" (MPAs) and other management tools based on geographical regions.
- (3) Marine Environmental Impact Assessment.
- (4) Capacity building and transfer of marine technologies.

● **References**

1. SAFETY4SEA. UN High Seas Treaty to enter into force starting January 2026. September 22, 2025. <https://safety4sea.com/new-cargo-screening-solution-uses-ai-to-detect-misdeclarations/>
2. UN General Assembly (UNGA), 2012. Resolution adopted by the General Assembly on 24 December 2011, A/RES/66/231.
3. UN General Assembly (UNGA), 2023. Agreement under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction, A/CONF.232/2023/4*.
4. 鍾蕙先，2023。聯合國海洋法公約架構下海洋生物資源永續利用與養護規範之研究，航運季刊 Vol.32 No.2. June 2023.
https://www.mq.org.tw/upload/journal/prog/1a55cab0_20241102.pdf

➤ International Maritime Organization Meeting Highlights

I. IMO Marine Environment Protection Committee, 2nd extraordinary session (MEPC/ES.2)

The CCC 11th session meeting is held from September 8th to 12th, 2025.

1. About MEPC¹

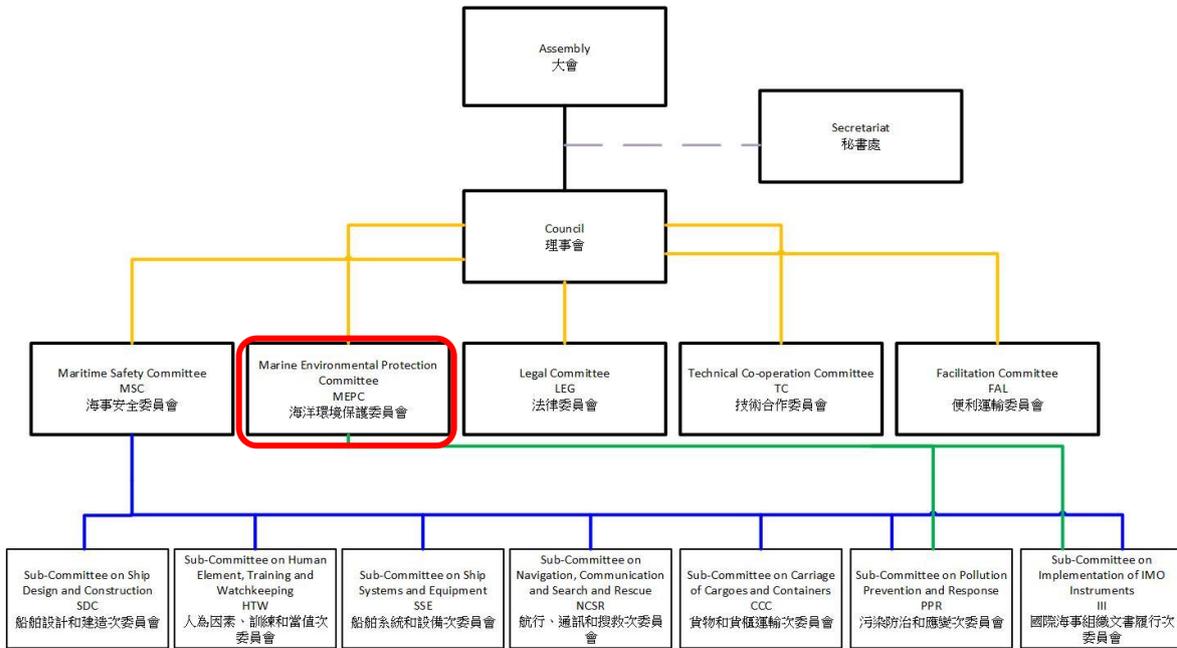


Figure 1 Organization Structure of IMO (MEPC)

The Marine Environment Protection Committee (MEPC) mainly deals with environmental issues within the purview of the IMO, including the control and prevention of ship-source pollution covered by the International Convention for the Prevention of Pollution from Ship (MARPOL convention), including oil, chemicals carried in bulk, sewage, garbage, and emissions from ships, including air pollutants and greenhouse gas emissions. Other matters covered include ballast water management, anti-fouling systems, ship recycling, pollution preparedness and response, and identifying special areas, particularly sensitive sea areas (PSSA).²

¹ IMO, Marine Environment Protection Committee (MEPC), <https://www.imo.org/en/mediacentre/meetingsummaries/pages/mepc-default.aspx>

²: A Particularly Sensitive Sea Area (PSSA) is referred to as an area that has been generally recognized as an ecological, socio-economic, or scientific reason and which may be vulnerable to damage by international maritime activities, needs special protection through action by the IMO. The criteria for determining PSSAs and the criteria for the designation of special areas are not mutually exclusive. In many cases, a PSSA may be identified within a Special Area and vice versa

According to Rule 3 of the Rules of Procedure of the MEPC: “The Committee shall meet at least once a year in regular session and more frequently with the approval of the Council. The Committee may meet in an extraordinary session upon a request made in writing to the Secretary-General by at least 20 of its respective Members....” The extraordinary mainly work towards consensus on the IMO Net Zero Framework (IMO NZF).

2. MEPC/ES.2 Highlights

- (1) The MARPOL Annex VI draft amendments were reviewed to incorporate the relevant provisions of the IMO's net-zero framework (global fuel standards and GHG emission pricing mechanism), which was approved by MEPC 83. However, no consensus was reached, and the resolution was adjourned for one year, with the discussion expected to resume in October 2026.
- (2) Approved by the principal to establish a subsidiary body under MEPC, the ‘Sub-Committee on Reduction of GHG Emissions from Ships’ to deal with related technical and policy issues for the Net-Zero framework.

3. MEPC/ES.2 Agenda

Table 1 MEPC/ES.2 Agenda

Item No.	Agenda
1	Adoption of the agenda
2	Consideration and adoption of amendments to mandatory instruments
3	Reduction of GHG emissions from ships
4	Any other business
5	Consideration of the report of the Committee

(Source: IMO/ MEPC ES.2/1/1)

4. MEPC/ES.2 Meeting Summaries³

MEPC 2nd extraordinary session (ES.2) was held on 14 to 17 October 2025 (hybrid with online meeting). The Chairman of the meeting is Dr. Harry Conway from Liberia, and the Vice Chairman, Mr. Hanqiang Tan from Singapore. The meeting was mainly focused on issues related to the IMO Net-Zero Framework.

From this session, there were two sub-groups established:

³ IMO, Marine Environment Protection Committee, 2nd extraordinary session (MEPC/ES.2), 14 to 17 October 2025. <https://www.imo.org/en/mediacentre/meetingsummaries/pages/mepc-es-2.aspx>

- A working group (WG 1) will mainly be dealing with the Reduction of GHG emissions from ships (Agenda Item 3)
- A drafting group (DG 1) will mainly be dealing with the IMO Net-Zero amendments to mandatory instruments (Agenda Item 2)

Group type	Main work
Working Group 1 (WG 1)	Dealing with the issues on the Reduction of GHG emissions from ships (Agenda Item 3)
Draft Group (DG)	Dealing with the issues on the amendments to mandatory instruments (Agenda Item 2)

Key outcomes of the meeting are as follows:

(1) Consideration and adoption of amendments to mandatory instruments.

The amendment supports the implementation of the IMO Net-Zero Framework to accelerate the progress of the regulatory documents for global maritime decarbonization. The consolidated version of which was approved at both MEPC 82 and MEPC 83, including the following issues:

- ①. Mid-term GHG reduction measures;
- ②. Addition of the North-East Atlantic Ocean as NO_x, So_x, PM Emission Control Areas (ECAs);
- ③. Revised the NO_x regulations for marine diesel engines.
- ④. Consider the accessibility to the IMO Fuel Consumption Reporting (IMO DCS) database.

The main topic of discussion at the meeting was the "Mid-term Measures for GHG Emission Reduction". However, there were still significant differences among the delegations of various countries regarding whether to adopt such amendments, and ultimately, no consensus was reached. The key points of contention included:

- ①. the acceptance procedure (tacit vs. explicit);
- ②. whether the inclusion of a clause recognizing the IMO Net-Zero Framework as the sole global mid-term measure for international shipping.

Furthermore, several delegations expressed concerns over the potential impact of this measure on the shipping industry, particularly regarding the increase in costs, administrative burdens, and the possible financial pressure it might impose on some countries. After the discussion reached a deadlock, a representative proposed to postpone the review of the relevant issues for one year. After a vote, the majority of member states agreed to the proposal. Thus, the adoption discussions of all the MARPOL Convention Annex VI amendments were postponed for one year.

(2) Reduction of GHG emissions from ships

The 20th session of the Intersessional Meeting of the Working Group on Reduction of GHG Emissions from Ships (ISWG-GHG) was held from October 20th to 24th, 2025. The meeting will discuss the following matters⁴:

①. Development of new and/or revision of existing guidelines, provisions, guidance, and other documents, as appropriate, for supporting the uniform and effective implementation of the IMO Net-Zero Framework

- 1.1 Developing fuel certification guidelines;
- 1.2 Define the definition and/or Reward Mechanism for the implementation of the IMO Net-Zero Framework –Zero or Net Zero (ZNZs) definitions;
- 1.3 IMO Net-Zero Fund⁵;
- 1.4 Developing the Fuel GHG Fuel Intensity (GFI) and its underlying mechanism;
- 1.5 Considerations for the development of the GFI Registry.

②. Further consideration of the development of the IMO Life Cycle GHG Assessment (LCA) Framework;

③. Finalization of the draft terms of reference for the Fifth IMO GHG Study.

The meeting reached some preliminary consensus as follows:

⁴ Referring to the IMO meeting document MEPC/ES.2/3

⁵ ZNZ refers to the 'zero or near-zero' fuel, technology, or energy sources. Generally, the GHG Fuel Intensity (GFI) of ZNZ does not exceed 19.0 gCO₂eq/MJ. Compared to the current average of 93.3 gCO₂eq/MJ, the reduction rate is 80%. Ships using ZNZ may be eligible for financial rewards from the IMO Net Zero Fund.

- ①. Setting a working plan for developing the draft guidelines for mid-term emission measurements;
- ②. Approved by the principal to establish a subsidiary body under MEPC, the ‘Sub-Committee on Reduction of GHG Emissions from Ships’ to deal with related technical and policy issues for the Net-Zero framework, which will mainly discuss the issues as shown in Table 2.

Table 2: Subject issues the Sub-Committee on Reducing GHG Emissions from Ships is scheduled to discuss.

No.	The subject for discussion
2.1	Further development for the IMO Net-Zero Framework, as well as the revision of the current guidelines and procedures related to its implementation.
2.2	Further development of measures for reducing GHG emissions in international shipping
2.3	The development of techniques and operational measures to enhance the IMO energy efficiency of international shipping
2.4	Review of the 2023 IMO GHG Strategy and development of the future IMO GHG Strategy
2.5	Assess the impact of GHG emission reduction measures on various countries.
2.6	Further development of the LCA framework.
2.7	Development of a regulatory framework for Onboard Carbon Capture and Storage (OCCS) and the measurement and verification of non-CO2 GHG emissions.
2.8	Further assessment of the potential impacts of an increase in maritime transport costs on ‘food security’
2.9	Carrying out the IMO GHG future studies
2.10	The support actions relate to capacity-building and technology transfer to reduce GHG emissions in international shipping.

5. Recommendations for MEPC/ES.2

It is suggested that the authority should review our domestic laws related to the newly added sections or provisions of the MARPOL Annex VI, including ship inspection regulations, port operation norms, inspection issuance procedures, and the management system for ships of our nationality, and make corresponding revisions for the assessment.

Though the new regulations are not yet confirmed, they are still under discussion. However, relevant materials, such as fuel certification, the GFI reports, and vessel information for the GFI Registry, may be required once approved. It is recommended to assess whether the current system for recording, transmitting, and managing MARPOL ship inspection data can support lifecycle GHG assessment (LCA) data, fuel supply chain certificates, and real-time monitoring. The necessity of establishing information interfaces, data standards, and auditing mechanisms should be evaluated.

Suppose GFI's requirements lead to an increase in the demand for low-carbon/zero-carbon fuels. In that case, there may be an infrastructure shortage for fuel refueling and supply (such as biofuels, methanol, ammonia, hydrogen, etc.) at ports in the future. It is recommended that the construction plans and safety regulations for refueling equipment, supply, storage, transportation, etc., should be jointly discussed with authorities that manage the issue of energy and ports (such as the Ministry of Economic Affairs and the Taiwan International Ports Corp. Ltd.).

MEPC/ES.2 had decided to establish a new sub-committee, Sub-Committee on Reduction of GHG Emissions from Ships, which will mainly deal with issues related to greenhouse gas emissions from ships and the Net-Zero framework. It is recommended to keep an eye on the further developments of the greenhouse gas fuel intensity (GFI) regulations to prepare for the revision of the MARPOL convention, and to find other solutions or design a better mechanism for our shipping industry to avoid being undermined.

6. Next Meeting Schedule

MEPC 84 is scheduled from April 27th to May 1st in 2026.

7. References

- American Bureau of Shipping (ABS), News Brief: MEPC ES.2. https://absinfo.eagle.org/acton/ct/16130/s-1154-2510:0/Bct/q-039a/l-0393:3d82d/ct5_0/1/lu?sid=TV2%3AT0ok3NRBi

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- Det Norske Veritas (DNV), IMO's MEPC extraordinary session – the Net-Zero Framework in focus. <https://www.dnv.com/events/imo-mepc-extraordinary-session-nzf/>
- IMO, Marine Environment Protection Committee, 2nd extraordinary session (MEPC/ES.2), 14 to 17 October 2025. <https://www.imo.org/en/mediacentre/meetingsummaries/pages/mepc-es-2.aspx>
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