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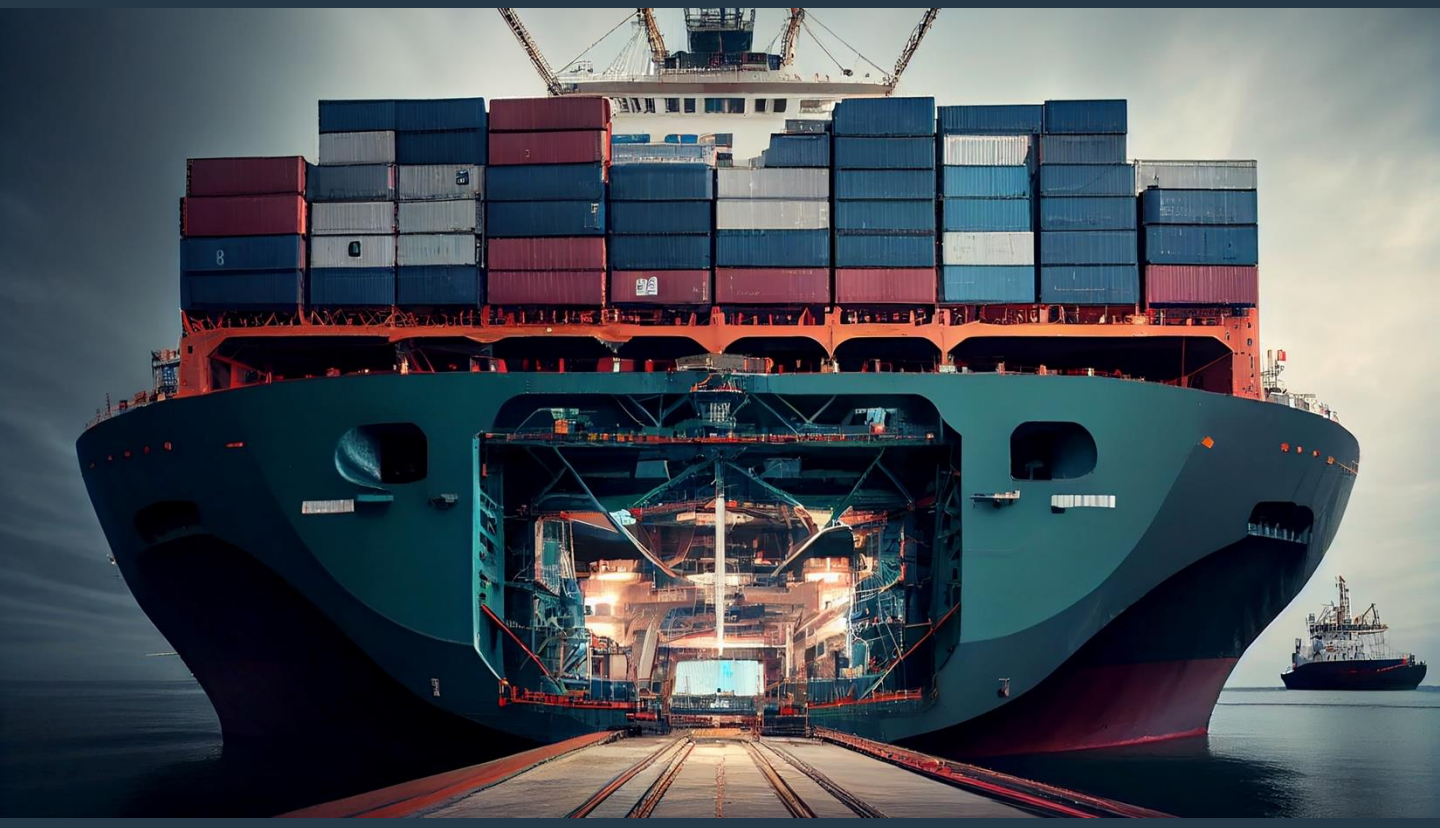
# IMO UPDATE:
# MARINE ENVIRONMENT PROTECTION COMMITTEE – MEPC 83



**The 83rd session of the IMO's Marine Environment Protection Committee (MEPC 83), which met in person at IMO Headquarters in London (with remote participation enabled), was held from 7TH to 11th April 2025**

# MEPC 83 Highlights

- Tackling climate change – Mid-term measures to reduce GHG emissions from international shipping approved
- Review of the short-term GHG reduction measures – Phase 1 completed
- Report on the annual carbon intensity and energy efficiency of the fleet
- Onboard Carbon Capture and Storage (OCCS) and other energy efficiency matters
- Addressing marine plastic litter – Action Plan approved
- North-East Atlantic Ocean Emissions Control Area approved and Particularly Sensitive Sea Areas off Peru agreed in principle
- Review of the Ballast Water Management Convention - ongoing
- Air pollution prevention – various developments
- Amendments to NOx Technical Code adopted
- Pollution prevention and response – actions taken
- Reports from other Sub-Committees approved
- New outputs approved - including development of a legally binding instrument on biofouling as well as assessment of the implementation of the Hong Kong Ship Recycling Convention and development of amendments and clarifications as appropriate.

# Tackling climate change - Mid-term measures to reduce GHG emissions approved

The Committee finalized and approved the draft legal text for the "IMO Net-Zero Framework", to be included as a new chapter in Annex VI to the International Convention for the Prevention of Pollution from Ships (MARPOL). The draft amendments to MARPOL Annex VI were circulated to Member States immediately after the meeting, with a view to adoption at an extra-ordinary session of MEPC in October 2025. (See Circular Letter: CL No.5005 - Draft Revised MARPOL Annex VI)

The IMO Net-Zero Framework includes a set of "mid-term measures" aimed at reducing greenhouse gas emissions from international shipping, in line with the reduction targets set out in the 2023 IMO GHG Strategy. These measures consist of:

**a technical element**: a goal-based marine fuel standard designed to gradually lower the GHG intensity of marine fuels; and

**an economic element**: a pricing mechanism for maritime GHG emissions.

Following adoption, the measures are expected to enter into force 16 months later, under the "tacit acceptance" procedure, in accordance with the amendment provisions in MARPOL.

**Food security**

The Committee agreed that in the period between the adoption of the IMO Net-Zero Framework and its entry into force, further assessment (qualitative and quantitative, as appropriate) of the potential impacts of an increase in maritime transport costs on food security resulting from the adopted framework should be conducted. The Committee agreed to keep the potential impact on food security under continuous review.

# Review of the short-term measure to reduce GHG emissions – Phase 1 completed

The Committee finalized Phase 1 of the review of IMO's short-term GHG reduction measures, which were adopted in 2021 and entered into force in 2022. Key elements of the short-term measures include: Energy Efficiency Existing Ship Index (EEXI), enhanced Ship Energy Efficiency Management Plan (SEEMP), and Carbon Intensity Indicator (CII) rating scheme. The measures aim to improve ship energy efficiency and reduce carbon intensity by at least 40% by 2030 compared to 2008.

The review of the effectiveness of the short-term measures began in July 2023 (MEPC 80). Under Phase 1, the Committee gathered data from Member States about their experience implementing the short-term measures, analysed this data and identified a list of challenges and/or gaps. At MEPC 83, the Committee took the following actions:

**Carbon intensity (CII) reduction factors for 2027-2030 – amendments adopted**

The Committee adopted amendments to the 2021 Guidelines on the operational carbon intensity reduction factors relative to reference lines (CII reduction factors guidelines, G3). These Guidelines outline the methods for determining the annual operational carbon intensity reduction factors and their values from 2023 to 2030 (indicating how much carbon intensity need to be reduced by ships over this period to meet targets), as referred to in Regulation 28 of MARPOL Annex VI. The amendments include newly defined CII reduction factors for 2027 to 2030.

**Access to the IMO Data Collection System for ship fuel consumption – amendments approved**

The Committee approved draft amendments to Regulation 27 of MARPOL Annex VI to make the IMO's data collection system (IMO DCS) on ship fuel consumption more accessible to the public. The IMO DCS requires ships to record and report their fuel oil consumption, which is then used to calculate ships' operational carbon intensity (CII). The amendments will ensure that all reported data in the IMO DCS are accessible to Parties to Annex VI, in a non-anonymized form. An anonymized database (i.e., identification of a specific ship will not be possible) will be made accessible to public users.

**Workplan for Phase 2 of the review of short-term GHG reduction measures agreed**

The Committee agreed on a work plan for Phase 2 of the review of the short-term GHG reduction measures, to run from Spring 2026 to Spring 2028. Phase 2 will look at enhancing the SEEMP framework, further developing CII metrics, as well as ensuring synergies between the IMO carbon intensity/energy efficiency framework and the IMO Net-Zero Framework.

**Ship Energy Efficiency Management Plan (SEEMP) framework – amendments adopted**

The Committee adopted Amendments to the 2024 Guidelines for the development of a Ship Energy Efficiency Management Plan (SEEMP) (resolution MEPC.395(82)), to allow the possible development of other CII metrics at future MEPC sessions, as envisaged in the work plan for the review of the short-term GHG reduction measures.

# Report on the annual carbon intensity and efficiency of the fleet

The Committee noted the report by the IMO Secretariat on the carbon intensity of the international shipping fleet for the year 2023 (both demand- and supply-based), including a summary of carbon intensity developments of the fleet from 2019 to 2023.

The report showed reductions in the carbon intensity of shipping ranging from 4.8% to 9.9% (depending on the method of calculation) from 2019 to 2023, and a decrease in total fuel consumption from 213 million tonnes in 2019 to 211 million tonnes in 2023.

**Table 1: Average annual carbon intensity and percentage change compared to 2019**

| | Annual average carbon intensity and percentage change in carbon intensity compared to 2019 | | | | | | IMO DCS Fuel Consumption Report to Committee | |
|---|---|---|---|---|---|---|---|---|
| Year | AER | | cgDIST | | Estimated EEOI | | Report to Committee | Total fuel consumption (tonnes) |
| 2019 | 5.90 | 0.0% | 8.44 | 0.0% | 10.94 | 0.0% | MEPC 76/6/1 | 213 million |
| 2020 | 5.83 | -1.2% | 8.24 | -2.3% | 10.92 | -0.2% | MEPC 77/6/1 | 203 million |
| 2021 | 5.89 | -0.1% | 8.34 | -1.2% | 10.90 | -0.4% | MEPC 79/6/1 | 212 million |
| 2022 | 5.66 | -4.1% | 8.05 | -4.6% | 10.89 | -0.5% | MEPC 81/6 | 213 million |
| 2023 | 5.32 | -9.7% | 7.60 | -9.9% | 10.42 | -4.8% | MEPC 82/6/38 | 211 million |

The report also indicated that, compared to 2008 levels, the average carbon intensity of shipping in 2023 has fallen by 31.0% (calculated based on supply measurement) and by 36.5% (based on demand measurement).

## Onboard Carbon Capture and Storage (OCCS) and other energy efficiency matters

The Committee approved a work plan on the development of a regulatory framework for the use of onboard carbon capture and storage (OCCS). OCCS systems capture carbon produced by a ship before it is emitted into the air.
The Committee adopted new Guidelines for testbed and onboard measurements of methane (CH4) and/or nitrous oxide (N2O) emissions from marine diesel engines.

The Committee re-established the Correspondence Group on Measurement and Verification of Non-CO2 GHG Emissions and Onboard Carbon Capture, and tasked it with the following:

- further develop the framework for the measurement and verification of actual methane (CH4) and nitrous oxide (N2O) emission factors and fuel slippage values for marine diesel fuels;
- develop a regulatory framework for the use of onboard carbon capture and storage using the approved work plan; and
- submit a written report to MEPC 84.

## Addressing marine plastic litter from ships – Action Plan adopted

The Committee adopted the 2025 Action Plan to Address Marine Plastic Litter from Ships (2025 Action Plan) agreed by the Sub-Committee on Pollution Prevention and Response (PPR 12), and approved updated groupings of short-, mid- and long-term actions under this plan.

The 2025 Action Plan is expected to be eventually combined with the Strategy to Address Marine Plastic Litter from Ships in a single resolution at a later date, after the Strategy has been reviewed and updated by the PPR Sub-Committee.

With regard to the carriage of plastic pellets in freight containers by sea, the Committee noted that PPR 12 included a dedicated action for the development of mandatory measures to reduce the environmental risks of plastic pellets transported by sea in freight containers in the above 2025 Action Plan.

## North-East Atlantic Ocean Emissions Control Area approved and Particularly Sensitive Sea Areas off Peru agreed in principle

The Committee approved a proposal to designate the North-East Atlantic Ocean as an Emissions Control Area for Sulphur oxide emissions (SOX), particulate matter (PM) and nitrogen oxide emissions (NOX). The associated draft amendments to MARPOL Annex VI will be submitted to the extraordinary MEPC session in October 2025, with a view to adoption as part of the revised MARPOL Annex VI.

The Committee agreed in principle to the designation of the "Reserva Nacional Dorsal de Nasca" (Nasca Ridge National Reserve) and the "Reserva Nacional Mar Tropical de Grau" (Grau Tropical Sea National Reserve) as Particularly Sensitive Sea Areas (PSSAs). The Committee invited Peru to further develop the proposed associated protective measures and submit them to MEPC for consideration and approval at MEPC 84.

## Addressing harmful aquatic organisms in ballast water – BWM Convention review ongoing

The Committee continued its ongoing review of the Ballast Water Management (BWM) Convention, including stocktaking of the progress made and consideration of the way forward with regard to the overall plan for completion of the review, with some high-level decisions needed to facilitate the achievement of the review targets.

The Committee re-established the Correspondence Group on Review of the BWM Convention to finalize draft amendments to mandatory provisions of the Convention (regulations and appendices in the Annex to the Convention, and BWMS Code) for submission to MEPC 84 for approval, with a view to adoption by MEPC 85.

The revision of existing and development of new guidelines are expected to be completed ahead of the amendments' entry into force.

## Air pollution prevention – various developments

### Exhaust Gas Cleaning Systems (scrubbers)

The Committee noted an update from the Sub-Committee on Pollution Prevention and Response (PPR) on regulating the discharge from EGCS or "scrubbers". Interested Member States and international organizations were invited to submit new proposals on regulatory measures addressing the matter to PPR 13 in early 2026.
The Committee requested the re-establishment of the GESAMP Task Team on EGCS to develop a standard methodology for the development of data sets and calculation of emission factors for use in the environmental risk assessment of the discharge water from EGCS, with a view to reporting its findings to PPR 13.

### Black carbon emissions

The Committee noted the ongoing work on the concept of "polar fuels" (fuels that are most suitable for use in the Arctic to minimize environmental impact) and extended the target completion year for this output to 2027, to allow additional time to further develop the concept.

### Nitrogen Oxide (NOx) emissions

The Committee adopted the 2025 Guidelines on Selective Catalytic Reduction (SCR) Systems. SCR systems are active emission control technology systems used to reduce NOx emissions.

## Amendments to NOx Technical Code

The Committee adopted amendments to the NOx Technical Code 2008 related to the following:

- use of multiple engine operational profiles for a marine diesel engine, including clarifying engine test cycles (expected entry into force 1 March 2027)
- certification of an engine subject to substantial modification or being certified to a tier to which the engine had not been certified at the time of its installation (expected entry into force 1 September 2026).

The amendments will allow ships to optimize fuel consumption based on their operational profile, thus improving energy efficiency, while ensuring compliance with NOx emission requirements.

## Pollution prevention and response

The Committee considered and approved the report of the Sub-Committee on Pollution Prevention and Response (PPR12) and took the following actions:

- approved Interim guidance on the carriage of blends of biofuels and MARPOL Annex I cargoes by conventional bunker ships;
- approved Guidance on in-water cleaning of ships' biofouling; and
- adopted amendments to the 2023 Guidelines for the development of the Inventory of Hazardous Materials, clarifying the relevant threshold in respect to cybutryne when samples are taken directly from the hull or from wet paint containers. The inventory is a key requirement under the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships.

## Reports of other Sub-Committees

The Committee, having approved the reports of the Sub-Committees on Carriage of Cargoes and Containers (CCC 10) and Implementation of IMO Instruments (III 10), and considered action requested of it by the Sub-Committee on Ship Design and Construction (SDC 11), took the following specific actions:

- **Casualty analysis reports and derived statistics**

The Committee, concurring with the decision of MSC 109, endorsed the issuance of III.3/Circ.13 on Casualty analysis and statistics – observations on the quality of investigation reports.
With regard to the outcome of the analysis of six Consolidated Audit Summary Reports (CASRs) containing lessons learned from 82 audits conducted under the IMO Member State Audit Scheme (IMSAS) between 2016 and 2022, the Committee concurred with the decisions of MSC 109 to:

- Endorse the outcome of the analysis regarding the five main areas of recurrent findings and observations identified;
- Endorse the outcome of the analysis regarding the most recurrent references recorded, which identified a lack of effective implementation of mandatory IMO instruments;
- Concur with the four main areas of root causes, indicating reasons for the shortfall in the effective implementation and enforcement of mandatory IMO instruments and the audit standard, including specific issues/difficulties under each area.

- **Draft Code on Alerts and Indicators, 2025**

The Committee approved, subject to a concurrent decision by MSC 110, the draft Code on Alerts and Indicators, 2025, and the associated draft Assembly resolution, developed by SDC 11, for subsequent adoption by the IMO Assembly at its next session (A 34).

The draft 2025Code provides updated general design guidance and promotes uniformity for alerts and indicators required by the International Convention for the Safety of Life at Sea (1974 SOLAS Convention). It reflects updated instruments and new developments in the industry since the 2009 Code on Alerts and Indicators was adopted by resolution A.1021(26).

## New outputs approved, including development of a legally binding instrument on biofouling as well as assessment of the implementation of the Hong Kong Convention and development of amendments and clarifications as appropriate

The Committee approved the following proposals for new outputs:

- Development of a legally binding framework for the control and management of ships' biofouling to minimize the transfer of invasive aquatic species;
- Assessment of the implementation of the Hong Kong Convention through an experience building phase and development of clarifications and amendments to the Convention;
- Review and amendment of the NOX Technical Code 2008 to provide a means for certification of engines that operate on non-carbon-containing fuel or mixtures of carbon-containing and non-carbon-containing fuels; and
- Development of guidelines for the management of ammonia effluent generated by ships using ammonia as fuel.

# Circulars adopted by MEPC 83

| Resolutions /Circulars | Topic |
|---|---|
| **MEPC.1/Circ.916** | Methodology for submission, scientific review and recommendation of proposed default emission factors by GESAMP-LCA WG |
| **MEPC.1/Circ.917** | Interim guidance on the carriage of blends of biofuels and MARPOL ANNEX I cargoes by conventional bunker ships |
| **MEPC.1/Circ.918** | Guidance on in-water cleaning of ships' biofouling |
| **MEPC.1/Circ.919** | Rules of procedure of the Marine Environment Protection Committee |
| **MEPC.2/Circ.30/Rev.1** | Provisional categorization of liquid substances in accordance with MARPOL ANNEX II and the IBC CODE |

# Amendments adopted to mandatory instruments and Codes and Other MEPC resolutions adopted by MEPC 83.

| Resolutions /Reference | Topic |
|---|---|
| **Resolution MEPC.397(83)** | Amendments to the NOx technical code 2008 (use of multiple engine operational profiles for a marine diesel engine, including clarifying engine test cycles) |
| **Resolution MEPC.398(83)** | Amendments to the NOx technical code 2008 (certification of an engine subject to substantial modification or being certified to a tier to which the engine was not certified at the time of its installation) |
| **Resolution MEPC.399(83)** | 2025 guidelines on Selective Catalytic Reduction (SCR) Systems |
| **Resolution MEPC.400(83)** | Amendments to the 2021 guidelines on the operational carbon intensity reduction factors relative to reference lines (CII reduction factors guidelines, G3) (resolution MEPC.338(76)) |
| **Resolution MEPC.401(83)** | Amendments to the 2024 guidelines for the development of a ship energy efficiency management plan (SEEMP) (Resolution MEPC.395(82)) |
| **Resolution MEPC.402(83)** | Guidelines for test-bed and onboard measurements of methane (CH4) and/or nitrous oxide (N2O) emissions from marine diesel engines |
| **Resolution MEPC.403(83)** | Amendments to the 2022 guidelines on survey and certification of the energy efficiency design index (EEDI) |
| **Resolution MEPC.404(83)** | 2025 action plan to address marine plastic litter from ships |
| **Resolution MEPC.405(83)** | Amendments to the 2023 guidelines for the development of the inventory of hazardous materials (Resolution MEPC.379(80)) |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