

## IMO UPDATE: MARINE ENVIRONMENT PROTECTION COMMITTEE – MEPC 81



The 81ST session of the IMO's Marine Environment Protection Committee (MEPC 81) met in-person at IMO Headquarters in London (with hybrid participation) was held from 18TH to 22ND March 2024)

# MEPC 81 Highlights

- Tackling climate change - cutting GHG emissions from ships and implementing the 2023 IMO GHG Strategy - “IMO net-zero framework”, life cycle GHG intensity (LCA) guidelines
- Energy efficiency of ships – adoption of 2024 Guidelines on SEEMP, 2022 fuel consumption data and 2019-2022 carbon intensity data
- Tackling marine litter – adoption of amendments on reporting procedures for lost containers / approval of recommendations on carriage of plastic pellets by sea in freight containers
- Ballast Water Management Convention implementation - experience-building phase,

approval of operational guidelines and adoption of amendments to the BWM Convention.

- Proposals for Emission Control Areas in Canadian Arctic Waters and Norwegian Sea approved
- Implementation of the Hong Kong Convention on Ship Recycling .
- Marine diesel engine replacing a steam system – MARPOL Annex VI amendments adopted
- Underwater noise reduction - action plan endorsed

## Tackling climate change - cutting GHG emissions from ships

IMO has developed global regulations on energy efficiency for ships and continues to take concrete action to ensure that international shipping bears its fair share of responsibility in addressing climate change. MEPC 80 in July 2023 adopted the 2023 IMO Strategy on Reduction of GHG Emissions from Ships, with the goal of achieving net-zero GHG emissions by or around, i.e. close to, 2050.

MEPC 81 agreed on an illustration of a possible draft outline of an “IMO net-zero framework” for cutting greenhouse gas emissions (GHG) from international shipping.

The draft outline illustration of a possible IMO net-zero framework lists regulations under the International Convention for the Prevention of Pollution from Ships (MARPOL), which will be adopted or amended to allow for a new global fuel standard and a new global pricing mechanism for maritime GHG emissions.

These may include a proposed new Chapter 5 of MARPOL Annex VI containing regulations on the IMO net-zero framework, to include:

- a goal-based marine fuel standard regulating the phased reduction of the marine fuel's GHG intensity; and
- an economic mechanism(s) to incentivize the transition to net-zero.

The goal-based marine fuel standard and pricing mechanism are mid-term GHG reduction measures specified in the revised IMO Strategy on the Reduction of GHG Emissions from Ships, adopted in July 2023. Several different proposals of what these measures should entail are currently being considered.

The possible draft outline for the IMO net-zero framework will be used as a starting point to consolidate the different proposals into a possible common structure, to support further discussions, with the understanding that this outline would not prejudice any possible future changes to it as deliberations progress.

### Next steps on GHG emissions

In addition to progress on the legal framework, MEPC agreed on the following next steps, ahead of its next meeting (MEPC 82), scheduled for 30 September to 4 October 2024:

- Comprehensive impact assessment on the impact of the proposed mid-term GHG reduction measures on Member States to be finalized and submitted to MEPC 82;
- A two-day expert workshop (Fifth GHG Expert Workshop – GHG-EW 5) to be held to discuss the preliminary findings of the comprehensive impact assessment, covering all aspects, including the modelling of revenue disbursement. The outcome will be reported to MEPC 82;

- The Seventeenth Intersessional Working Group on Greenhouse Gas Emissions (ISWG-GHG 17) to meet to consider the outcomes of the comprehensive impact assessment, the GHG-EW5, and other submitted documents for further discussions around the development of mid-term GHG reduction measures, and report to MEPC 82; and
- ISWG-GHG 17 to develop draft terms of reference for a Fifth IMO GHG Study and consider the further development of the LCA framework.

### Revised greenhouse gas life cycle guidelines adopted

MEPC adopted revised Guidelines on life cycle GHG intensity of marine fuels (LCA Guidelines). The updated guidelines include revised calculations for default emission factors; updated appendix 4 on template for well-to-tank default emission factor submission; and new appendix 5 template for Tank-to-Wake (TtW) emission factors.

### Future work on LCA

MEPC approved terms of reference for the GESAMP Working Group on Life Cycle GHG Intensity of Marine Fuels (GESAMP-LCA WG).

The ISWG-GHG 17 will further consider the development of the Life Cycle GHG Assessment (LCA) framework.

### Measurement and verification of non-CO2 GHG emissions

Two correspondence groups have been established which will report to MEPC 83: the first group is tasked to develop a work plan on the development of a regulatory framework for the use of onboard carbon capture systems and to look into Tank-to-Wake methane and nitrous oxide emissions; the second group will look into social and economic sustainability themes and aspects of marine fuels for possible inclusion in the LCA Guidelines.

### Use of onboard carbon capture

Onboard carbon capture and storage was discussed during the Working Group on Air Pollution and Energy Efficiency. MEPC instructed a correspondence group to further consider issues related to onboard carbon and develop a work plan on the development of a regulatory framework for the use of onboard carbon capture systems with the exception of matters related to accounting of CO2 captured on board ships, and report to MEPC 83.

## Energy Efficiency

MEPC approved the report on the fuel oil consumption data submitted to the IMO Ship Fuel Oil Consumption Database (reporting year: 2022). Data was reported by almost 29,000 ships, an increase of over 800 ships compared to 2021. These ships reported the use of 213 million tonnes of fuel, which is just slightly higher than in 2021 (212 million tonnes in 2021).

The report on annual carbon intensity and efficiency of the existing fleet (reporting years: 2019, 2020, 2021 and 2022) was noted. It provides information on progress towards the at least 40% carbon intensity improvement target to be achieved by 2030, on the basis of both demand-based and supply-based measurement metrics.

MEPC:

- Adopted updated 2024 Guidelines for the development of a Ship Energy Efficiency Management Plan (SEEMP).

- Adopted updated 2024 Guidelines for Administration verification of ship fuel oil consumption data and operational carbon intensity.
- Adopted updated 2024 Guidelines on the shaft/engine power limitation system to comply with the EEXI requirements and use of a power reserve.
- Approved the Procedure for reporting to the Organization of uses of a power reserve.
- Approved unified interpretations to regulations 2.2.15 and 2.2.18 of MARPOL Annex VI for dissemination in the amended consolidated Unified interpretations to MARPOL Annex VI as MEPC.1/Circ.795/Rev.9

MEPC approved the draft MSC-MEPC circular on Guidelines for the sampling of fuel oil for determination of compliance with MARPOL Annex VI and SOLAS chapter II-2, subject to concurrent approval by the Maritime Safety Committee; and referred the draft circular, as amended, to MSC 108 (15 to 24 May 2024), for consideration as an urgent matter, with a view to approval.

MEPC endorsed the updated work plan, developed by the Sub-Committee on Carriage of Cargoes and Containers (CCC), for the development of guidelines concerning new alternative fuels, including the development of guidelines for hydrogen and ammonia as fuels, low flash-point fuels and mandatory instruments for methyl/ethyl alcohols.

## Tackling marine litter – reporting procedures for lost containers/carriage of plastic pellets by sea

### Mandatory reporting of lost containers

MEPC adopted amendments to MARPOL Protocol I, referencing a procedure for reporting lost freight containers. Containers lost overboard can be a serious hazard to navigation and safety at sea as well as to the marine environment.

The amendments to article V of Protocol I of the MARPOL Convention (Provisions concerning reports on incidents involving harmful substances) would add a new paragraph to say that "In case of the loss of freight container(s), the report required by article II (1) (b) shall be made in accordance with the provisions of SOLAS regulations V/31 and V/32." The amendments are expected to enter into force on 1 January 2026.

Related draft SOLAS chapter V amendments are set to be adopted by the Maritime Safety Committee (MSC 108), in May 2024, and will require the master of every ship involved in the loss of freight container(s) to communicate the particulars of such an incident to ships in the vicinity, to the nearest coastal State and to the flag State.

### Recommendations for the carriage of plastic pellets by sea in freight containers

MEPC approved Recommendations for the carriage of plastic pellets by sea in freight containers, agreed by the Sub-Committee on Pollution Prevention and Response (PPR 11). The recommendations address packaging; transport information; and stowage of plastic pellets.

## Ballast water management – implementation and Convention review

The International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004 (BWM Convention), entered into force on 8 September 2017 and since then the focus is on its effective implementation.

At its previous session (MEPC 80), the Committee approved the Convention Review Plan (CRP) under the experience-building phase associated with the BWM Convention, including the list of priority issues to be considered in the Convention review stage.

This is guiding the ongoing comprehensive review of the BWM Convention and the MEPC is now proceeding to the corresponding development of a package of amendments to the Convention.

In this connection, MEPC endorsed the list of the Convention's provisions and associated instruments for revision and/or development, to guide the further work of the Correspondence Group on Review of the BWM Convention, which was re-established with the task of preparing draft text for amendments and for new provisions and/or instruments.

With regard to urgent operational matters requiring to be addressed prior to the completion of the Convention review, MEPC:

- adopted an MEPC resolution on Interim guidance on the application of the BWM Convention to ships operating in challenging water quality conditions;
- approved Guidance for the temporary storage of treated sewage and/or grey water in ballast water tanks; and
- invited interested Member States and international organizations to work

intersessionally with the broadest possible participation and submit further concrete proposals to the next session with a view to finalization of guidance on modifications to ballast water management systems with existing type approval.

### BWM Convention amendments

MEPC 81 adopted amendments to regulations A-1 and B-2 of the BWM Convention concerning the use of electronic record books. The amendments are expected to enter into force on 1 October 2025.

## Proposals for Emission Control Areas approved

MEPC approved two proposals for the designation of Emission Control Areas (ECAs):

- Proposed ECA in Canadian Arctic Waters, for Nitrogen Oxides, Sulphur Oxides and Particulate Matter; and
- Proposed ECA in the Norwegian Sea for Nitrogen Oxide and Sulphur Oxides which includes a "three dates criterion" consisting of building contract, keel laid and delivery date as part of the keel-laying date requirement in the proposed amendment to MARPOL Annex VI.

The draft amendments to MARPOL Annex VI to establish the ECAs will be forwarded to MEPC 82 for adoption. The earliest entry-into-force date of the amendments would be 1 March 2026 (16 months from adoption) \*.

The earliest entry-into-force date of the amendments would be 1 March 2026 (16 months from adoption) \*.

\* These amendments to establish the ECAs then come into effect from 1 March 2027. Under MARPOL Annex VI, Regulation 14 Sulphur oxides (SOx) and particulate matter, paragraph 7: "During the first 12 months immediately following entry into force of an amendment designating a specific emission control area under paragraph 3 of this regulation, ships operating in that emission control area are exempt from the requirements ..."

## Implementation of the Hong Kong Convention

The Marine Environment Protection Committee (MEPC) approved reporting formats and discussed future developments of a GISIS module to facilitate electronic reporting in line with the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships (Hong Kong Convention), which is set to take effect on June 26, 2025. This Convention aims to ensure that ships, when recycled at the end of their operational life, do not pose risks to human health, safety, or the environment.

Article 12 of the Hong Kong Convention mandates each Party to report information to the International Maritime Organization (IMO) on various aspects of ship recycling, including facilities, competent authorities, and lists of ships

issued with an International Ready for Recycling Certificate or recycled within their jurisdiction.

MEPC also discussed potential overlaps between the Hong Kong Convention and the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal. MEPC requested strengthened cooperation between the IMO and the Basel Convention Secretariat to ensure clear and robust implementation of the Hong Kong Convention. The IMO Secretariat was tasked with developing draft guidance on this matter in consultation with the Basel Convention Secretariat. MEPC invited Member States to contribute further proposals on the interplay between the two conventions regarding ship recycling.

# Marine diesel engine replacing a steam system – MARPOL Annex VI amendments

MEPC adopted amendments to regulation 13.2.2 of MARPOL Annex VI on a marine diesel engine replacing a steam system. The amendments are expected to enter into force on 1 August 2025.

Capacity building to address marine plastic litter from ships

MEPC adopted 2024 Guidelines as required by regulation 13.2.2 of MARPOL Annex VI in respect of non-identical replacement engines not required to meet the Tier III limit.

## Underwater noise reduction

MEPC endorsed a draft Action plan for the reduction of underwater noise from commercial shipping, developed by the Sub-Committee on Ship Design and Construction (SDC 10) and

included a new item on “Reduction of underwater radiated noise from commercial shipping” on its agenda for MEPC 82.

## LIST OF RESOLUTIONS/CIRCULARS (PROVISIONAL)

Resolutions /Circulars	Topic
MEPC.383(81)	Amendments to the BWM Convention concerning the use of the Ballast Water Record Book
MEPC.384(81)	Amendments to Article V of Protocol I of MARPOL for the reporting procedures of lost containers
MEPC.385(81)	Amendments to MARPOL Annex VI on: <ul style="list-style-type: none"> <li>• low-flashpoint fuels and other fuel oil-related issues</li> <li>• Marine diesel engine replacing a steam system</li> <li>• accessibility of the data in the IMO Ship Fuel Consumption Database (IMO DCS)</li> <li>• inclusion of data on transport work and enhanced level of granularity in the IMO DCS</li> </ul>
MEPC.387(81)	Interim Guidance on the application of the BWM Convention to ships operating in challenging water quality conditions
MEPC.386(81)	2024 Guidelines as required by regulation 13.2.2 of MARPOL Annex VI in respect of non-identical replacement engines not required to meet the Tier III limit
MEPC.388(81)	Amendments to the 2022 Guidelines for the development of a Ship Energy Efficiency Management Plan (SEEMP)
MEPC.389(81)	Amendments to the 2022 Guidelines for Administration verification of ship fuel oil consumption data and operational carbon intensity (resolution MEPC.348(78))
MEPC.390(81)	Amendments to the 2021 Guidelines on the Shaft/Engine Power Limitation System to comply with the EEXI Requirements and Use of a Power Reserve (resolution MEPC.335(76)), as amended by resolution MEPC.375(80)
MEPC.391(81)	2024 Guidelines on Life cycle GHG intensity of marine fuels (2024 LCA Guidelines)
BWM.2/Circ.82	Guidance For the Temporary Storage Of Treated Sewage And/or Grey Water In Ballast Water tank.
MEPC.1/Circ.908	Draft Procedure For Reporting To The Organization Uses Of a Power Reserve
MEPC.1/Circ.909	Recommendations For The Carriage Of Plastic Pellets By Sea In Freight Containers
MEPC.1/Circ.910	Formats For Mandatory Reports Under Article 12 Of The Hong Kong Convention

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For INTLREG Services contact us at [services@intlreg.org](mailto:services@intlreg.org)

4770 Biscayne Boulevard 800

Miami, Florida 33137, USA