

**IMO MEPC 81
Meeting Summary**

April 11, 2024



The 81st meeting of the Marine Environment Protection Committee (MEPC 81) was held 18-22 March 2024 at the IMO Headquarters in London supplemented by hybrid (remote) participation. This report includes the outcome of the Intersessional Working Group on Reduction of GHG Emissions from Ships (ISWG-GHG 16) held 11-15 March 2024.

LISCR participated in the following group in addition to the plenary:

ID	Subject
Working Group 1	Air Pollution and Energy Efficiency
Working Group 2	GHG Emissions from Ships
Drafting Group 1	Drafting Group on Amendments to Mandatory Instruments
Technical Group 1	Technical Group on the Designation of PSSA and Special Areas
Review Group 1	Ballast Water Review Group
ISWG-GHG 16 (11-15 March)	GHG Emissions from Ships

Opening

Attacks on merchant ships in the Red Sea and the Gulf of Aden

A large number of delegations expressed concerns over the safety and welfare of seafarers, freedom of navigation, threats to the marine environment and stability of the global supply chain resulting from the attacks by Houthi rebels on commercial ships in the Red Sea and the Gulf of Aden.

Reduction of Greenhouse Gas (GHG) Emissions, Energy Efficiency and other air pollution matters

Final adoption and associated guidelines

MARPOL Annex VI

MEPC 81 adopted resolution MEPC 385(81) on Amendments to MARPOL Annex VI. These amendments consist of:

- Conditions for marine diesel engine replacing a steam system (condition for accepting tier II engines, in lieu of tier III engines) (regulation 13.2.2);
- Clarifying that in-use/onboard sampling points requirements shall not apply to gas/low-flashpoint fuels;
- Further explanation on the flashpoint given in the Bunker Delivery Note (BDN); and

- inclusion of data on transport work (voluntary data on laden distance) and enhanced level of granularity in the IMO DCS (per fuel consumer and electric supply to the ship at berth) and accessibility of the data in the IMO Ship fuel consumption database (IMO DCS).

While the expected entry into force date is 1 August 2025, it is encouraged to implement DCS reporting-related entries on 1 January 2025.

Guidelines for marine diesel engine replacing a steam system

MEPC 81 also adopted resolution MEPC.386(81) on *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*, in conjunction with the adoption of the aforementioned amendments to regulation 13.2.2 of MARPOL Annex VI on a marine diesel engine replacing a steam system.

Consequential changes to SEEMP guidelines and guidelines for the Administration following the introduction of the detailed fuel consumption data

MEPC 81 addressed, in conjunction with the adoption of the amendments to Appendix IX to MARPOL Annex VI:

- The revised Appendix IX to the MARPOL Convention requires fuel consumption for each consumer type, which will pose challenges if there is no fuel flow meter fitted to that particular consumer type. In this regard, MEPC 81 agreed with alternative methods, i.e. subtraction or estimation.
- With regard to the reporting on distance for the laden voyages, MEPC 81 did not specifically include the threshold of the amount of cargo but just refer it as "ship is loaded". However, this was not intended to include minimum cargo left onboard LNG carriers for cooling down purposes to be categorized as a loaded voyage.
- With regard to the total amount of onshore- power supplied, MEPC 81 agreed to include for ships not underway.
- With regard to the total transport work, it was included in new table 1.

Subsequently, MEPC 81 adopted:

- MEPC.388(81) on Amendments to the 2022 Guidelines for the development of a Ship Energy Efficiency Management Plan (SEEMP) (resolution MEPC.346(78)); and
- MEPC 389(81) on Amendments to the 2022 Guidelines for Administration verification of ship fuel oil consumption data and operational carbon intensity (resolution MEPC.348(78)).

GHG Mid-term measures

The 2023 IMO Strategy on Reduction of GHG Emissions from Ships (2023 IMO GHG Strategy) (resolution MEPC.377(80)) describes that the mid-term measures should be adopted in autumn 2025, following the approval of the draft text in spring 2025.

Comprehensive impact assessment (CIA)

The final decision on the choice of the mid-term measure is subject to the result of the CIA. It is expected that the task will be completed by the time the GHG Expert Workshop will be held (1st week of July 2024).

Concrete candidates

ISWG-GHG 16 focused on the following areas:

- Goal-based marine fuel standard regulating the phased reduction of the marine fuel's GHG intensity;
- Flexible compliance strategies and relevant reporting and verification requirements;
- Other GHG emissions pricing mechanisms;
- Revenue collection and distribution; and
- Assessment of the remaining work and indicative planning in accordance with the timelines set out in the Strategy.

MEPC 81:

- agreed that Mid-term measures would consist of a marine fuel standard requiring phase reduction of CO₂ meeting the trajectory set up by the 2023 IMO GHG strategy (i.e. net zero by 2050, and checkpoint in 2030 (20-30 % reduction) and 2040 (70-80% reduction));
- confirmed that economic elements will be part of the measures as per the 2023 IMO GHG Strategy;
- agreed that ISWG-GHG 17 (23-27 September 2024) would further consider this subject; and
- agreed to organize the Expert Workshop in the summer of 2024 to further develop the basket of measures, including the modelling of revenue disbursement.

MEPC 81 agreed on the *Illustration of a draft possible outline of the "IMO net-zero framework"*, which was the skeleton (index) of the possible MARPOL regulations, with the understanding that this outline could be used as a starting point for consolidating the different proposals into a possible common structure, for further development, while noting that this would not prejudice any possible future changes to it.

The work scope includes:

- Chapter 1 – General;
- Chapter 2 – Survey, certification and means of control;
- Chapter 4 – Regulations on the carbon intensity of international shipping, including SEEMP (regulation 26) and DCS (regulation 27);
- New Chapter 5 (re-numbering existing Chapter 5 as Chapter 6), which consists of:
 - A goal-based marine fuel standard regulating the phased reduction of marine fuel's GHG intensity;
 - Economic mechanism(s) to incentivize the transition to net-zero;
 - Review of the chapter; and
- Appendix (BDN, DCS and Statement of Compliance (SOC)).

LCA Guidelines

2024 LCA guidelines

Following the report of the correspondence group (CG), ISWG-GHG 16 prepared the final text of 2024 LCA guidelines for adoption by MEPC 81, which was adopted by resolution MSC.391(81) on *2024 Guidelines on life cycle GHG intensity of marine fuels (2024 LCA Guidelines)*.

The revised guidelines addressed sustainability criteria and other pending issues that were not fully addressed by the 2023 guidelines, including:

- The quantification of parameters for biofuel production;

- Evaluation of carbon GHG intensity of electricity (onshore power supply to ships); and
- The tank-to-wake methodologies for actual/onboard emission factors.

Further work

MEPC 81 also agreed to establish the United Nations Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP) Expert Group on LCA guidelines and instructed the IMO Secretariat accordingly. The work includes, among others, to address onboard carbon capture system (OCCS) in the LCA guidelines, default emission value.

In parallel, the CG was also taken to address other social and economic sustainability themes for reporting MEPC 83.

Tank to Wake (TtW) emissions

The 2023 IMO GHG strategy includes not only CO₂ but methane (CH₄) and nitrous oxide (N₂O) emissions. Subsequently, MEPC 81 considered a framework for the measurement and verification of tank-to-wake emissions of CH₄, N₂O and other GHGs along with associated engine certification issues in the context of the further development of the LCA Guidelines. MEPC 81 tasked the CG to consider the issue.

Carbon capture

Following the discussion during ISWG-GHG 16, MEPC 81 continued to work on the regulatory framework, associated safety issues for the use of the technology, technology readiness, ship-shore boundary issues and overall net GHG reduction balance. MEPC 81 also addressed the need to reflect on EEDI, EEXI and CII, certification on the captured carbon, similar to the BND. MEPC 81 tasked these details to the CG.

EEDI and EEXI

EEXI - Shaft power limitation

MEPC 81 adopted resolution MEPC.390(81) which introduces the following amendments to *the 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)):

- If the alarm system is used, engine power should be reduced to the limited output within 5 minutes;
- To allow pre-emptive un-limitation of the engine power limitation when such limitation may endanger the navigation; and
- To provide additional information on the pilot card, wheelhouse poster and the manoeuvring booklet.

UI on EEDI phase

A submission proposed modifications to MEPC.1/Circ.795/Rev.8 to explicitly specify the applicable required EEDI of each Phase for the five ship categories: LNG carrier, cruise passenger ship, ro-ro passenger ship, ro-ro cargo ship (vehicle carrier) and ro-ro cargo ship, delivered on or after 1 September 2019. MEPC 81 included these details in the *Unified interpretations to MARPOL Annex VI (editorial – VI)* and approved as MEPC.1/Circ.795/Rev.9.

Definition of heavy load carrier

MEPC 81 agreed that the following ships are to be included as heavy-load carrier, which was also included in MEPC.1/Circ.795/Rev.9:

- Heavy load deck carriers (ships which do not feature a cargo hold and carry project cargo on a flat deck; not fitted with cargo coamings/chutes/tippers);
- Semi-submersible project cargo carriers;
- Semi-submersible heavy load deck carriers (including dock lift ships);
- Heavy lift multi-purpose ships;
- Premium project carriers; and
- Project cargo carriers.

DCS and Carbon Intensity Indicator (CII)

LNG Carrier

MEPC 81 agreed that all LNG carriers currently categorized as gas carriers should be recategorized as LNG carriers for the purpose of DCS reporting and CII.

Implementation and review of the short-term GHG measure

The short-term measures adopted by MEPC 76, i.e. EEXI, CII and associated guidelines started from 1 January 2023. However, there are still various pending issues to be resolved.

Current status of CII

Liberia and the co-sponsors proposed a draft MEPC resolution that clarifies the interim nature of the CII rating system. While there was support for the proposal, a caution was raised as the resolution may pose a negative impact on improving ships' operation efficiency and will work against regulation 28.10 of MARPOL Annex VI, which encourages Administrations, port authorities and other stakeholders, as appropriate, to provide incentives to ships rated as A or B.

MEPC 81 concluded that there was insufficient support for adopting the draft resolution. However, MEPC 81 noted the concerns expressed in the proposal and agreed that these concerns should be addressed during the CII review process.

Discrepancy in the CII calculations

A submission raised a discrepancy in the definition of "capacity" for CII calculations between *the 2022 Guidelines on operational carbon intensity indicators and the calculation methods (CII Guidelines, G1)* and *the 2022 Interim Guidelines on correction factors and voyage adjustments for CII calculations (CII Guidelines, G5)*, causing unintended consequences for the CII ratings of individual ships and proposes a correction to the definition of "capacity" in the G5 Guidelines.

MEPC 81 agreed to correct the G5 guidelines and instructed the IMO Secretariat accordingly, i.e. the capacity is the DW of the ship as per G1 guidelines, not the corrected capacity used for the CII Reference Lines Guidelines (G2).

NOx control

There were submissions stating that the air quality in relation to the pollution by NOx was not improved as anticipated by the introduction of the emission control area. The paper argued various shortcomings of the current regulation, including application criteria (keel laying only), low load operation (so that Selective Catalytic Reduction (SCR) could not run properly) etc.

MEPC 81 noted concerns expressed and invited interested Member States and international organizations to continue conducting research on the matter and to consider submitting proposals for a new output on the review of the effectiveness of regulation 13 of MARPOL Annex VI to a future session of the MEPC.

Fuel sampling

Following the work of 107th session of the Maritime Safety Committee (MSC 107), MEPC 81 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 MSC 108. The circular provides a single unified sampling method for both SOLAS (flashpoint) and MARPOL (sulphur contents) and increases the amount of sample from 400ml to 600ml.

MEPC 81 also agreed to revoke resolution MEPC.182(59) on the *2009 Guidelines for the sampling of fuel oil for determination of compliance with the revised MARPOL Annex VI* when the joint MSC-MEPC circular is issued.

Fuel delivery – carriage of biofuel

A paper proposed an MEPC circular providing guidance on carriage requirements for biofuels for marine bunkering vessels certified to carry MARPOL Annex I cargoes up to a 30% mixture. MEPC 81 did not agree with the proposed interim guidelines but tasked the thirtieth session of the Technical Group on Evaluation of Safety and Pollution Hazards of Chemicals (ESPH 30), scheduled for October 2024, to review the matter further.

Special Areas, ECAs and PSSAs

MEPC 81 approved the new emission control areas as given below ECAs for the control of NO_x, SO_x and Particulate Matter (PM). The area is expected to be adopted at MEPC 82.

MEPC 81 also noted that amendments to the “Supplement to International Air Pollution Certificate (IAPP Certificate) Record of Construction and Equipment” in Appendix I of MARPOL Annex VI needed updating.

Norwegian sea

Norwegian sea area has the three dates application criteria for new building in relation to the NO_x control, i.e.:

- Contract on or after 1 March 2026; or
- Keel laying on or after 1 September 2026; or
- Delivery on or after 1 March 2020.

The SO_x control (0.10% sulphur contents (M/M) is expected to take effect on 1 March 2027.



Figures presented in the submission by Norway (MEPC 81/11/1)

Canadian Arctic

Canadian Arctic has a single application criterion on NO_x control based on keel laying i.e. ships constructed (keel laid) or after 1 January 2025.

The SO_x control (0.10% sulphur contents (M/M)) is expected to take effect on 1 March 2027.



Figures presented in the submission by Canada (MEPC 81/11)

Ballast water management

BWM Convention

MEPC 81 adopted resolution MEPC.383(81) on *Amendments to the International Convention for the Control and Management of Ship's Ballast Water and Sediments, 2004 (Use of Electronic Record Books)*. It addresses the use of electronic record books (Regulation A-1 and B-2). The expected enter into force date is 1 October 2025.

Review plan

July 2017, MEPC 71, through resolution MEPC.290(71) on *the experience-building phase associated with the BWM convention*, agreed to relax enforcement until data gathering, data analysis and convention review are completed. MEPC 81 further worked on this subject.

Sampling

MEPC 81 tasked the CG to develop amendments to Regulation E-1 (surveys) related to additional sampling and analysis of ballast water discharge during surveys to ensure BWMS is meeting Regulation D-2. As of MEPC 81, it was agreed that the sampling and analysis of ballast water should be carried out at intermediate and renewal surveys (i.e. twice every five years), which will be further addressed toward the revision of the Convention. The CG established under the Ballast Water Review Group will also consider whether indicative and detailed analysis could be allowed, who would undertake such sampling, and analysis what would be the purpose, acceptance criteria and resulting action.

Discharge of non-compliant ballast

MEPC 81 agreed to review regulation A-3 for possible discharge at the high seas and other areas.

Further work

MEPC 81 established the correspondence group (CG) for further work. Recognizing the short period between MEPC 81 and MEPC 82 and that the report of the CG needed to be submitted weeks before the session, MEPC 81 agreed that the report of the CG should be submitted to MEPC 83.

Challenging water

It has been a concern at the IMO that BWMS is not working properly for some ports (e.g. water with heavy Total Suspended Solids (TSS)/turbidity, etc.). MEPC 81 adopted resolution MEPC.387(81) on *Interim Guidance on the application of the BWM Convention to ships operating in challenging water quality conditions*.

The primary purpose of this Guidance is to assist ships in planning for compliance with the BWM Convention and the D-2 discharge standard when a type-approved ballast water management system (BWMS) that has been properly installed, operated and maintained encounters operational limitations or has difficulty meeting operational demand in challenging water quality (CWQ) conditions. The guidance may also serve as a practical operational guide for ships and voyage planners in this regard. The key features of the interim guidance are:

- Invite BWMS manufacturers and shipyards to improve the performance of BWMS that will enable to cope with challenging waters;
- Include onboard measures when the BWMS is unable cope with the water, e.g. ballast water exchange plus treatment, ballast water flushing, etc.;
- Inclusion of shipboard pre-planning in the Ballast Water Management Plan, which should include assessment, troubleshooting and mitigation, triggers of the CWQ actions (such as turbidity, UV transmissivity, etc.), alternative to bypass, bypass procedure, decontamination, communication and record-keeping; and
- Detailed guidance to the flag Administration and port State control authorities.

Temporary storage of treated sewage and/or greywater

MEPC recognized that there were exceptional situations where, to comply with coastal State regulations or inadequate reception facilities at ports, dry-docks and terminals, it may become necessary to store treated sewage or grey water in ballast water tanks. MEPC 81 approved BWM.2/Circ.82 on *Guidance for the temporary storage of treated sewage and/or grey water in ballast water tanks*. The Key elements of the guidance are:

- Temporary storage of TS/GW in BW tanks should only be used as an option in specific ports and areas which restrict the discharge of treated sewage (TS)/grey water (GW) and where the ship does not have dedicated tanks with adequate storage capacity for TS/GW;
- In case a ship uses BW tank(s) to store TS/GW, when transferring TS/GW to BW tank(s) the ship should take appropriate measures to prevent contamination of the ballast system by TS/GW and to prevent accidental discharge of TS/GW within restricted waters;
- The guidance also provides cautions when a ship changes the use of a BW tank from TS/GW storage back to ballast water storage, such as discharge of TS/GW, flushing of tank, piping, pump etc.;
- Inclusion of the procedure in the Ballast Water Management Plan and record keeping in the Ballast Water Record Book.

MEPC 81 agreed that the draft amendments to regulations A-2 and B-2 of the BWM Convention, concerning the discharge of treated sewage and/or grey water temporarily stored in ballast water tanks, were not necessary, while the corresponding draft amendment to regulation B-1 could be considered under the convention review.

Type-approval

MEPC 81 granted basic approval for ERMA FIRST FLOW ballast water management system in accordance *with Procedure for approval of ballast water management systems that make use of Active Substances (G9)* (resolution 169(57)).

MEPC 81 also noted the information provided by the Member States on the type approval of the following systems.

- RADClean® ballast water management system
- Semb-Eco ballast water management system
- Cyeco ballast water management system
- BalClor® Smart ballast water management system

Plastic litters

Recommendations for the carriage of plastic pellets

MEPC 81, as the first step, tackled the plastic pellets, and approved MEPC.1/Circ.909 on *Recommendations for the carriage of plastic pellets by sea in freight containers*. Key points of the circular are:

- Plastic pellets should be packed in good quality packaging which should be strong enough to withstand the shocks and loadings normally encountered during transport;
- Transport information should clearly identify, as an addition in the cargo information required by SOLAS regulation VI/2, those freight containers containing plastic pellets. In addition, the shipper should supplement the cargo information with a special stowage request.
- Freight containers containing plastic pellets should be properly stowed and secured:
 - under deck wherever reasonably practicable; or
 - inboard in sheltered areas of exposed decks.

Others

MARPOL Article V (Protocol I)

MEPC 81 adopted resolution MEPC.384(81) on the amendments regarding revised reporting procedures for the loss of containers. The expected entry into force date is 1 January 2026 to align with the requirements for the SOLAS Chapter V, which will be adopted at MSC 108 scheduled for May 2024.

Further information

For further information please contact: imo@lisscr.com

Annex

Provisional list of approved/adopted circular/resolution

ID	Title
MEPC.383(81)	Amendments to the International Convention for the Control and Management of Ship's Ballast Water and Sediments, 2004 (Use of Electronic Record Books)
MEPC.384(81)	Amendments to Protocol I of MARPOL concerning reporting procedures for the loss of containers
MEPC.385(81)	Amendments to MARPOL Annex VI concerning low-flashpoint fuels and other fuel oil related issues, marine diesel engine replacing steam system, accessibility of data and inclusion of data on transport work and enhanced granularity in the IMO Ship Fuel Consumption Database (IMO DCS)
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.387(81)	Interim guidance on the application of the BWM Convention to ships operating in challenging water quality conditions
MEPC.388(81)	Amendments to the 2022 guidelines for the development of a ship energy efficiency management plan (SEEMP) (Resolution MEPC.346(78))
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 on the temporary storage of grey water and/or treated sewage in ballast water tanks
MEPC.1/Circ.908	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
MEPC.1/Circ.795/Rev.9	Unified interpretations to regulations 2.2.1 and 2.2.18, and 2.2.15 of MARPOL Annex VI