

MEPC81 Quick Factsheet

by



#	Topic	Key facts	New/Amendment	Implementation	Brief/Outcome
1	GHG Emissions	<p>An interim report of the CIA on mid-term measures was presented. The final version will be submitted at MEPC 82. Approval and adoption expected at MEPC 83, with entry into force in 2027.</p> <p>IMO net zero framework was agreed:</p> <ul style="list-style-type: none"> ● net-zero by 2050, 40% carbon intensity cut by 2030, ● 20% reduction by 2030, and 70% by 2040. 	<p>Agreement to an illustration of future MARPOL Annex VI (new Chapter 5) regulations to implement mid-term GHG measures taking account of Well-to-Wake (WtW) GHG emissions of marine fuels and confirmation that the mid-term measures will include a fuel standard and an economic requirement.</p> <p>Approval of ECAs for SOx and NOx in the Norwegian Sea and Canadian Arctic with a view to adoption at MEPC 82.</p> <p>MEPC 81 adopted the draft MEPC resolution on the 2024 Guidelines on Life cycle GHG intensity of marine fuels (MEPC.391(81)). The amendments introduce elements to the guidelines concerning, amongst other things, clarification of emissions during bunkering and how these are assigned to WtW and TtW emissions and calculations of emissions from carbon stock changes caused by direct land-use change, calculation of emissions from soil carbon accumulation via improved agricultural management, and refinement of the approach to TtW default emissions factors.</p> <ul style="list-style-type: none"> ● Approved the draft terms of reference for the GESAMP Working Group on Life Cycle GHG Intensity of Marine Fuels (GESAMP-LCA WG) for a scientific review of the LCA Guidelines and submit a report to MEPC 82. ● MEPC 81 considered several proposals related to onboard carbon capture and the use of onboard carbon capture (OCC) technology onboard ships. MEPC 81 agreed to establish a Correspondence group to develop a work plan on the development of a regulatory framework for the use of onboard carbon capture. A report will be submitted to MEPC 83. 	<p>Mid-term measures expected to be adopted at MEPC 83 (Spring 2025).</p> <p>Approval of ECAs for SOx and NOx in the Norwegian Sea and Canadian Arctic with a view to adoption at MEPC 82, both expected to enter force 1 March 2026.</p>	<p>Mid-term measures:</p> <ol style="list-style-type: none"> 1. General convergence of the members of ISWG-GHG on the inclusion of flexible compliance strategies as an element of a goal-based marine fuel standard. 2. Agreement to develop, as part of the basket of mid-term measures, an economic element, on the basis of a maritime GHG pricing mechanism. 3. Agreement to an illustration of how an "IMO Net-Zero Framework" as amendments to MARPOL Annex VI could be set out, which follows a similar structure to the amendments used to bring CII and EEXI. <p>Mid-term timeline:</p> <ol style="list-style-type: none"> 1. Expected approval of regulations implementing the selected economic and technical measures will occur at MEPC 83. 2. The associated regulations will enter into force in the first half of 2027. <p>LCA Guidelines: The Committee adopted Resolution MEPC.391(81), 2024 Guidelines on life cycle GHG intensity of marine fuels.</p> <p>ECAs for SOx and NOx in the Norwegian Sea and Canadian Arctic:</p> <ol style="list-style-type: none"> 1. If adopted by MEPC 82, the Canadian Arctic ECA earliest entry into force date in accordance with the MARPOL Convention would be after 16 months on 1 March 2026. 2. The Committee approved the proposal by Norway to designate the Norwegian Sea an ECA for NOx emissions, as well as SOx and PM under regulation 14 of MARPOL Annex VI, with a view to adoption at MEPC 82. Sulphur oxides (SOX) and particulate matter: The Norwegian Sea ECA will impose a fuel oil sulphur content limit of 0.10 percent by mass. Nitrogen oxides (NOX): The Norwegian Sea ECA will apply to ships constructed on or after 1 March 2026 and operating in the Norwegian Sea Emission Control Area. <p>Onboard carbon capture system: MEPC 81 agreed to establish a Correspondence group to develop a work plan on the development of a regulatory framework for the use of onboard carbon capture. A report will be submitted to MEPC 83.</p>
2	Air pollution prevention	Adopted amendments affecting MARPOL Annex VI	Adopted requirements on low-flashpoint fuels and other fuel oil related issues, marine diesel engine replacing steam systems, accessibility of data in the IMO Ship Fuel Consumption Database (IMO DCS) and inclusion of data on transport work and enhanced level of precision in the IMO DCS	Adopted at MEPC 80. Entry into force: 1. August 2025 (early implementation from 1 January 2025 was considered in order to avoid double collecting and reporting). Applicable to all ships.	Definitions on " fuel oil " and "gas oil" have been updated, as well as requirements for regulation 14 and 18 and the modification of the IAAP Certificate form in Appendix I. Revised MEPC resolution and guidelines to meet Tier III requirements.

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		<p>Clarification regarding Engine International Air Pollution Prevention (EIAPP) Certificate</p> <p>MEPC.340(77) Exhaust Gas Cleaning Systems (EGCS)</p> <p>New work programme: Amendments to AMARPOL Annex VI and NOx technical Code</p>	<p>Rejection of consideration of one-time certification</p>	<p>Proposal in future MEPC sessions</p> <p>Target completion 2025</p>	<p>Adaption to regulation 27 in order to share IMO DCS data to external parties.</p> <p>Adaption of new requirements of Appendix IX to include data on transport work in the IMO DCS</p> <p>The Reissuance of the EIAPP Certificate is quired by the administration surveying the validity at the time of change of flag.</p> <p>Member states are invited to make proposals for improving the guidelines for EGCS.</p> <p>Usage of multiple engine operational profiles for a marine diesel engine and on the clarification of test cycles</p>
3	<p>Energy Efficiency of ships</p>	<p>Adoption of: 2024 Guidelines on Ship Energy Efficiency Management Plans.</p> <p>Amendments to: the unified interpretations of regulations 2.2.15 and 2.2.18 of MARPOL Annex IV</p> <p>Review of: Data Collection System for fuel oil consumption of ships, CII regulations, and Energy Efficiency Existing Ship Index (EEXI).</p>	<p>Update to the definition of general cargo ship. The definition now excludes specialised cargo ships.</p> <p>Applicability of the phases for EEDI (specifically ships for which phase 1 commenced from 1 September 2015.)</p> <p>Power Limitation (SHaPoLi) or Engine Power Limitation (EPL) system under certain scenarios which may endanger the safe navigation of the ship.</p> <p>Heavy Load Carriers: Amendments were approved for the Unified Interpretations to MARPOL Annex VI, defining heavy load carriers which are exempted from the application of Energy Efficiency Design Index</p>	<p>Amendments with regards to the Data Collection System for fuel oil consumption: 01 January 2026</p> <p>Amendments with regards to the definition of the exemption of EEDI, EEXI and CII regulations for heavy load carriers:01 January 2026</p>	<p>MEPC81 adopted the 2024 Guidelines on Ship Energy Efficiency Management Plan (SEEMP), which provides a structured and methodical approach for improving energy efficiency. The fuel consumption data from 2022 and carbon intensity data from 2019-2022 were reviewed, providing valuable insights into the current state of energy efficiency in the shipping industry.</p> <p>Significant amendments were made to the Data Collection System (DCS) for fuel oil consumption of ships. The amendments, which are expected to come into effect on 1 January 2026, aim to improve the items to be reported and the granularity of reported data.</p> <p>The Energy Efficiency Existing Ship Index (EEXI) regulations were reviewed, along with guidelines on the Shaft/Engine Power Limitation System to comply with the EEXI requirements. These regulations, which started from 2023, aim to reduce the energy consumption and carbon emissions of existing ships.</p> <p>The Carbon Intensity Indicator (CII) regulations were also reviewed. These regulations aim to reduce the carbon intensity of international shipping by implementing technical and operational measures.</p> <p>Finally, MEPC 81 agreed on a draft outline of an "IMO net-zero framework" for cutting greenhouse gas emissions from international shipping. This includes 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.</p>

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					<p>In summary, MEPC 81 made significant strides towards improving the energy efficiency of ships and reducing their environmental impact.</p> <p>Note: A Working Group (WG), chaired by Japan, regarding energy efficiency is constituted to review all documents presented (including deferred ones from previous session) and to advise at MEPC82 accordingly.</p>
4	Pollution prevention response	<p>Adoption of amendments to MARPOL Protocol I (MEPC Resolution.384(81))</p> <p>Improvement of Recommendations for the carriage of plastic pellets by sea in freight containers (circular MEPC.1/Circ.909).</p> <p>Review of MEPC.310(73) Action Plan to Address Marine Plastic Litter from Ships</p>	<p>Adoption of amendments to MARPOL Protocol I, referencing a procedure for reporting lost freight containers.</p> <p>The review, which was deferred from MEPC 80, was briefly discussed. However, noting the ongoing work in by PPR on this matter and that the outcome of PPR 11 would be considered at MEPC 82, the review of the action plan on Marine Plastic litter was deferred to that session.</p>	<p>The amendments to article V of Protocol I of the MARPOL Convention will enter into force on 1 January 2026 in alignment with SOLAS.</p> <p>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.</p>	<p>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."</p> <p>The approved recommendations for the carriage of plastic pellets by sea in freight containers are the <u>first step in a two-stage</u> approach aimed at reducing the environmental risks associated with the carriage of plastic pellets in packaged form by sea, pending consideration of future mandatory measures for the carriage of plastic pellets in freight containers. According to Recommendations, freight containers containing plastic pellets should be properly stowed and secured to minimize the hazards to the marine environment without impairing the safety of the ship and persons on board.</p> <p>Specifically, freight containers containing plastic pellets should be stowed under deck wherever reasonably practicable; or inboard in sheltered areas of exposed decks.</p>
5	Special Areas	<p>Approved proposals for two new ECAs in the Canadian Arctic and Norwegian Sea to reduce NOx, SOx, and PM emissions. For NOx control, the Norwegian ECA includes a "three dates application criterion".</p> <p>The amendments, including specific compliance dates, aim for adoption at MEPC 82 with enforcement starting March 2026, effective March 2027.</p>	<p>The establishment of these ECAs requires amendments to MARPOL Annex VI, which are set to be presented for adoption at MEPC 82.</p> <p>If adopted, the amendments would be scheduled to enter into force by 1 March 2026, with the regulations becoming effective from 1 March 2027. Notably, for the first 12 months ships operating in these ECAs will have a temporary exemption compliance.</p> <p>Assuming adoption at MEPC 82, the requirements take effect as follows:</p> <p>Canadian Arctic ECA:</p>	<p>The draft amendments to MARPOL Annex VI to establish the ECAs will be forwarded to MEPC 82 for adoption. The amendments would be scheduled to enter into force by 1 March 2026 (16 months from adoption), with the amendments becoming effective from 1 March 2027.</p> <p>There is a grace period of 12 months post-enforcement during which ships operating within the</p>	<p>Approved proposals to designate two new ECAs aimed at reducing air pollution. These areas include the Canadian Arctic waters and the Norwegian Sea. The Canadian ECA focuses on the control of NOx, SOx, and PM. In contrast, the Norwegian ECA targets NOx and SOx emissions. The establishment of these ECAs requires amendments to MARPOL Annex VI, which are set to be presented for adoption at MEPC 82.</p> <p>These amendments are scheduled to enter into force on 1 March 2026, with detailed requirements being implemented subsequently:</p>

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			<ul style="list-style-type: none"> ● The 0.10% fuel sulphur content requirement takes effect from 1 March 2027. ● Tier III NOx requirements will apply to ships constructed on or after 1 January 2025, although the requirements will enter into force at the earliest on 1 March 2026. <p>Norwegian Sea ECA:</p> <ul style="list-style-type: none"> ● The 0.10% fuel sulphur content requirement takes effect from 1 March 2027. ● Tier III NOx requirements will apply to ships contracted on or after 1 March 2026; or, in the absence of a contract, keel-laid on or after 1 September 2026; or delivered on or after 1 March 2030. 	<p>ECAs are exempt from certain emissions requirements.</p>	<p>Canadian Arctic ECA:</p> <ul style="list-style-type: none"> ● The requirement for marine fuel to have a maximum of 0.10% sulphur content by mass, from 1 March 2027. ● The Tier III NOx requirements will apply to ships constructed on or after 1 January 2025 (aimed at significantly reducing the NOx emissions from new ships). <p>Norwegian Sea ECA:</p> <ul style="list-style-type: none"> ● Similarly, the cap on sulphur content in fuel oil at 0.10% by mass, from March 2027. ● The Tier III NOx requirements are structured with a "three dates application criterion" under one of the following conditions: <ul style="list-style-type: none"> ○ Ships contracted on or after 1 March 2026; or ○ Ships keel-laid on or after 1 September 2026; or ○ Delivery on or after 1 March 2030. <p>The implementation of these ECAs marks a step forward in the global commitment to environmental protection and sustainable maritime practices in vulnerable marine regions. For the Canadian Arctic, the controls will help to improve air quality and reduce black carbon pollution, thereby protecting both the sensitive Arctic environment and the health of northern communities. Similarly, the Norwegian ECA aims to protect human health and reduce harmful deposits along Norway's coast. Projections indicate a 58% reduction in emissions of particulate matter, including black carbon, by 2030 compared to 2020 levels.</p>
6	Underwater radiated noise	<p>Revised URN Guidelines (MEPC.1/Circ.906) to reduce ship noise were adopted in 2023; as a next step, the Committee agreed in principle to establish an Experience-Building Phase and adopt a draft Action Plan</p>	<p>The draft action plan was agreed to in principle for final approval during MEPC 82</p> <p>The EBP, which is part of the Action Plan, can occur in parallel</p>	<p>If approved, the EBP will be extended until 2026 to allow sufficient time to identify lessons learned, carry out research, and conduct outreach to increase the awareness of the Guidelines</p> <p>Note that the timeline for the EBP may later be revisited and extended for up to 2 years</p>	<p>The work on URN was treated at this meeting as an "urgent matter".</p> <p>MEPC 81 agreed in principle to continue work on URN with an EBP, that is, to gather information on best practices as the Revised guidelines are implemented and, if needed, amend the Revised Guidelines.</p> <p>Simultaneously, activities under the Action Plan would be completed, e.g., increase awareness and seafarer training of the Revised guidelines, standardise the planning process for URN management (including refining methodologies to measure URN), develop URN targets, further develop policy for URN reduction, develop tools and processes to collect and share data, conduct research (e.g., on implications for</p>

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					<p>ship safety), encourage research on the interactions of URN/GHG and URN/biofouling, and encourage research on the impacts on marine organisms and habitats.</p> <p>Note that the GEF-UNDP-IMO Global Partnership for Mitigation of Underwater Noise from Shipping (GloNoise Partnership) is under development. Its aim will be to assist developing nations to build awareness and capacity to address this environmental issue https://www.imo.org/en/OurWork/PartnershipsProjects/Page/GloNoise-Partnership.aspx</p>
7	Ballast Water Management	<p>Developed a long list of action items as the Ballast Water Management Convention is reviewed; items will be addressed by a Correspondence Group</p> <p>Adopted guidance for storing gray water or treated sewage</p> <p>Agreed that biological efficacy testing will be required at intermediate and renewal surveys (nominally 2x every 5 years)</p>	<p>The use of electronic record books will be allowable via amendments adopted to regulations A-1 and B-2 of the BWMC; Resolution MEPC.383(81)</p>	<p>EIF = 01 October 2025</p>	<p>The CG will address the terms of reference and report its progress to MEPC 83 (Spring 2025), where the plan is to again re-establish the CG with an anticipated completion date in 2026</p> <p>The list of action items is long, including amendments to many of the BWMC's regulations, including Regulation E-1 (to require biological efficacy testing; the details will be worked out in the CG)</p> <p>Additional outcomes:</p> <ul style="list-style-type: none"> · Approved a circular with guidance on temporarily storing grey water and treated sewage water in ballast water tanks (BWM.2/Circ.82) · Adopted <i>interim</i> guidance on ships operating in challenging water quality; the issue will be addressed more fully during the EBP (note that temperature and salinity are <i>not</i> defined as parameters leading to CWQ) · Deferred work (invited "concrete proposals" to MEPC 82) on guidance regarding modifications to BWMS with existing type approval <p>Note: ISO is developing a multi-part standard on commissioning testing for BWMS, starting with guidance for BWMS using electrolytic methods</p>
8	Other developments	<p>Container loss process and reporting of incidents involving harmful substances</p>	<p>Amendments to MARPOL Protocol I Article 5</p>	<p>1st January 2026</p>	<p>MEPC 81, adopted the amendments to MARPOL Protocol I regarding the container loss reporting process, amendments to Article V of Protocol I – regarding SOLAS regulations V31 & V32 on danger messages.</p>

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		<p>Secure stowage of plastic granule freight containers to protect the environment</p> <p>MEPC 80, in 2023, resolutions on noise pollution in the marine environment (MEPC.1/Circ.906)</p> <p>Transmission to IMO the list of recycling facilities and accredited persons</p>	<p>Adoption of the Circular on Recommendations for carriage of Plastic Pellets by sea in freight Containers</p> <p>Draft action plan for reducing underwater noise from commercial shipping</p> <p>Implementation of the Hong Kong Convention</p>	<p>22 March 2024</p> <p>June 2025</p>	<p>MEPC 81 adopted MEPC.1/Circ.909 on recommendations relating to the maritime transport of plastic granules in freight containers, reviews secure stowage and compliance with packaging standards in order to reduce environmental risks and human losses</p> <p>Following the work, an extension of the implementation period until 2026 is agreed in order to measure the impact and evaluate the results.</p> <p>Approval of MECP 81, concerning MEPC.1/Circ.910 on mandatory reporting formats under Article 12 of the Hong Kong Convention and the resolutions by IMO of a new GISIS module on ship recycling by parties</p>

List of abbreviations

Abbreviation	Definition
2023 IMO GHG Strategy	MEPC.377(80) 2023 IMO Strategy for the reduction of greenhouse gases from ships
BDN	Bunker Delivery Note
BWMC	Ballast Water Management Convention
BWMS	Ballast water management system
CG	Correspondence Group
CIA	Comprehensive Impact Assessment
CII	Carbon Intensity Indicator
CWQ	Challenging water quality
DCS	Data Collection System
EBP	Experience-Building Phase
ECA	Emission Control Areas
EIA	Entry into force
GEF	Global Environment Facility
GHG	Greenhouse gas

Abbreviation	Definition
IGF Code	International Code of Safety for Ship using Gases other than Low-Flashpoint fuels
IMO	International Maritime Organization
ISO	International Organization for Standardization
ISWG-GHG	Intersessional Working Group on Reduction of GHG Emissions from Ships
LCA Guidelines	MEPC.376(80) Guidelines on Life Cycle GHG Intensity of Marine Fuels
MARPOL	Marine Pollution
MEPC	Marine Environment Protection Committee (at IMO)
MSC	Maritime Safety Committee
NOx	Nitrogen Oxides
PM	Particulate Matter
PPR	Sub-Committee on Pollution Prevention and Response
SEEMP	Ship Energy Efficiency Management Plan
SDC	Ship Design and Construction (Sub-Committee at IMO)
SOLAS	Safety of Life at Sea
SOx	Sulphur Oxides
TWTD	Thermal Waste Treatment Devices
UNDP	United Nations Development Programme

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