**MEPC 78 – 6-10 June 2022**

The 78th session of the IMO's Marine Environment Protection Committee (MEPC 78) was held online 6-10 June 2022.

***Adoption of mandatory instruments***

MEPC 78 adopted:

- Amendments to the MARPOL Convention and the IBC Code to clarify the damage stability requirements regarding the use of hinged watertight doors; and

- Amendments to MARPOL Annex II related to the revised GESAMP Hazard Evaluation Procedure (Column E1 is reassigned for the rating of the flashpoint, and Column C3 concerning inhalation toxicity was expanded to introduce sub-categorization with thresholds for mist and vapour concentrations).

Entry into force will be:

- 1 January 2024 for MARPOL Annex I;

- 1 July 2024 for the IBC Code;

- 1 November 2023 for MARPOL Annex II.

***Ballast water management***

MEPC 71 had established the Experience Building Phase (EBP) by resolution MEPC.290(71), and MEPC 72 had approved the related data gathering and analysis plan (DGAP), which had later been revised by MEPC 74 (BWM.2/Circ.67/Rev.1).

To support and complement the EBP, the Secretariat had engaged the World Maritime University (WMU) to gather and analyze data and prepare the data analysis report.

MEPC 78 set up the correspondence group (CG) to develop a convention review plan, including challenging uptake water quality for BWMS, areas for improving BWMS performance and reliability, including crew training and maintenance and the potential to verify BWMS performance outside of port State control.

***Revaluation of Ballast Water Management System (BWMS)***

MEPC 78 endorsed the report of the UN expert group and approved Guidelines for re-evaluations in cases where modifications had been made to a BWMS (BWM.2/Circ.66/Rev.3).

MEPC 78 noted that the revised Methodology incorporating these guidelines would be applicable to all cases where modifications are made after this session to an already approved ballast water management system.

***Designation of the Same Risk Area***

Denmark and Sweden have designated Öresund between Sweden and Denmark as a Same Risk Area (SRA) in accordance with the 2017 Guidelines for risk assessment under regulation A-4 of the BWM Convention (G7) (MEPC.289(71)).

***Sewage and grey water***

There was a question about the temporary storage of treated sewage and grey water in the ballast tank. MEPC 78 agreed that, any subsequent taking of ballast water in the tank and subsequent discharge must meet the discharge standard required by the BWM Convention.

Due to lack of a base document for further discussion, MEPC 78 invited members to submit a concrete proposal to MEPC 79.

***Ports with challenging water***

MEPC 78 addressed the problem concerning ports with challenging water quality (PCWQ), which is beyond the design limit of ballast water treatment systems. However, MEPC recognized that an agreement on the fundamental issue, e.g. whether PCWQ is an anticipated BWMS operation or a contingency should be agreed first.

The matter was tasked to the above CG on EBP.

***Viable organisms***

MEPC 78 approved the revised Guidance on methodologies that may be used for enumerating viable organisms for type approval of ballast water management systems for dissemination as BWM.2/Circ.61/Rev.1.

***Unified Interpretation on Ballast water management Certificate entries***

MEPC 78 reviewed the work undertaken by PPR 9 and approved the unified interpretation as BWM.2/Circ.66/Rev.3, which addresses:

* One-off exemption: to refer to BWM.2/Circ.52/Rev.1 - Compliance through other measures: to refer to regulation A-4 in the certificate;

- BWMS plus other measures: mark compliance D-2 standard; and

- Other approaches: For a ship which has employed an "other approach", the Ballast Water Management Plan should describe it and should be checked during the surveys; and

- In the case of an Administration that requires its ships which are subject to equivalent compliance under regulation A-5 to carry International Ballast Water Management Certificates, those certificates should refer to regulation A-5 in the item "other approach" as their principal ballast water management method employed.

***Flashpoint in bunker delivery note***

As a consequence of the approval of amendments to SOLAS Chapter II-2 by MSC 105 in relation to the flashpoint of oil fuel, MEPC 78 approved draft amendments to Appendix V of MARPOL Annex VI subject to adoption at MEPC 79.

The amendments add flashpoint in the MARPOL bunker delivery note (BDN).

***Sampling point***

MEPC 78 instructed the PPR Sub-Committee to consider the proposal on fuel sampling point.

***Exhaust gas cleaning system discharge water***

MEPC 78 approved the following IMO MEPC Circulars prepared by PPR 9:

* MEPC.1/Circ.899 on 2022 Guidelines for risk and impact assessments of the discharge water from exhaust gas cleaning systems; and
* MEPC.1/Circ.900 on 2022 Guidance regarding the delivery of EGCS residues to port reception facilities.

***Biofuel***

MEPC 78 approved the Unified Interpretation on the use of biofuel in relation to the NOx emission (MEPC.1/Circ.795/Rev.6), which clarifies:

- The possibility of using biofuels and/or mixtures of fuel oil with biofuels with concentrations less than or equal to 30% and more than 30% by volume, which should not lead to the exceeding by the engine the applicable NOx emission limit set in paragraphs 3, 4, 5.1.1 and 7.4 of Regulation 13 of Annex VI to MARPOL.

***Engine family***

MEPC 78 approved the unified interpretation on paragraph 4.4.6.1 of the NOx Technical Code 2008 as MEPC.1/Circ.895/Rev.1, which states that if the number of engine cylinders is different, that engine cannot be considered in the same family unless clear evidence is provided.

***Sulphur emission control area***

The Mediterranean littoral States proposed to Designate the Mediterranean Sea, as a whole, as an Emission Control Area for Sulphur Oxides and particulate matter control, where, 0.10% m/m sulphur content fuels are required to be used.

MEPC 78 approved the proposal for final adoption at MEPC 79.

It is expected that legal entry into force to be 1 May 2024 with 12-month period of grace before taking full effect.

At this occasion, NOx control (Tier III) will not be introduced.

***Reduction of GHG emissions - COP 26***

MEPC 78 noted information provided by the IMO Secretariat, with appreciation, on the outcome of the United Nations Climate Change Conference held in Glasgow, United Kingdom, in November 2021.

***IMO GHG strategy***

MEPC 72 adopted the Initial IMO Strategy on reduction of GHG emissions from ships (MEPC.304(72)) with a vision to peak GHG emissions from international shipping as soon as possible and to reduce the total annual GHG emissions by at least 50% by 2050 compared to 2008 while, at the same time, pursuing efforts towards phasing them out entirely within this century. MEPC 77 has initiated the revision of the Strategy and invited submissions to MEPC 78. The initial strategy stipulates 5-year review of the strategy, i.e., next review has to be done in 2023 at MEPC 80.

There are several submissions on this subject. It turned out that the issue involved various complex technical as well as policy issues. For example, while several members proposed to enhance the level of ambition by revising the strategy to net-zero emission by 2050, several members insisted on comprehensive review of the strategy (i.e. not only the target) and also to examine the feasibility.

Due to the diversity of the opinions, MEPC 78 could not conclude on the issue. The next intersessional working group on GHG matter (ISWG-GHG 13) scheduled for December 2022 will further address the issue.

MEPC 78 requested the IMO Secretariat to consider carrying out additional studies and organizing information session(s) and/or symposia, as appropriate, supporting the revision process.

***Lifecycle GHG emission***

MEPC 78 considered the report of the ISWG-GHG. At ISWG-GHG 11, proposals were divided into groups, i.e., one group focused on shipping sector-specific issues. This group took the position that the LCA guidelines are for the evaluation of fuel, not emission from ships.

The other group explicitly repeated the importance of Tank to Wake (propeller) emissions in conjunction with implementation of the Carbon Intensity Indicator requirements entering into force on 1 January 2023, as currently, there is no mechanism to credit bio-fuel in calculating CO2 emissions.

However, the rest maintains:

- The LCA guidelines should be technical in nature and provide a neutral tool for the maritime sector, i.e., they should not prejudge the future development of GHG reduction measures or their application in existing GHG reduction measures;

- To focus on the whole Well to Wake process.

 Submissions to MEPC 78 includes:

- The methods for calculating Well-to-Wake (WtW) carbon dioxide equivalent emissions from marine fuels using both 100-year Global Warming Potential (GWP100) and 20-year Global Warming Potential (GWP20); and

- The measurement of actual methane slip emissions from LNG dual-fuel engines in terms of Tank-to-Wake (TtW) emission factors by using the relevant procedures specified in the NOx Technical Code 2008.

MEPC 78 set up the CG to further work on the LCA guidelines.

***Carbon Capture***

There was a proposal to reflect onboard carbon capture in the calculation of EEDI, EEXI and CII calculation.

Several delegations, noting that CO2 capture was used in the oil and gas industry, was of the view that IMO should contribute to raising awareness, to improve the collective understanding of this issue and to send clear signals to the industry to encourage technology development in onboard CO2 capture.

However, there were delegations who were of the view that the technicality was still not matured and significant R&D efforts were still needed to advance the Technology Readiness Level (TRL) of this technology.

Following consideration, given the interest for further consideration of the concept of onboard CO2 capture, the MEPC 78 invited interested Member States and international organizations to submit further information and concrete proposals to future sessions.

***Review of short-term measures***

MEPC 78 approved the guidelines developed by ISWG-GHG 12 for implementing the short-term measures that will start on 1 January 2023.

***SEEMP***

- IMO Resolution MEPC.346(78) on 2022 Guidelines for the development of a Ship Energy Efficiency Management Plan (SEEMP); and

- IMO Resolution MEPC.347(78) on Guidelines for the verification and company audits by the Administration of the Ship Energy Efficiency Management Plan (SEEMP) Part III.

***DCS***

MEPC 78 approved the draft amendments to appendix IX of MARPOL Annex VI to include more information on the ship's carbon intensity performance developed by ISWG-GHG 11 for final adoption by MEPC 78. Expected entry into force is 1 April 2024.

In addition, MEPC 78 adopted the following guidelines prepared by ISWG-GHG 12:

- IMO Resolution MEPC.348(78) on 2022 Guidelines for Administration verification of ship fuel oil consumption data and operational carbon intensity; and

- IMO Resolution MEPC.349(78) on 2022 on Guidelines for the development and management of the IMO Ship Fuel Oil Consumption Database; and

- IMO Circular MEPC.1/Circ.871/Rev.1 for submission of data to the IMO data collection system of fuel oil consumption of ships from a State not Party to MARPOL Annex VI.

 MEPC 78 approved a dedicated workstream on the revision of the Ship Fuel Oil Consumption Data Collection System and invite interested Member States and international organizations to submit concrete proposals to a future session of ISWG-GHG.

***PSC Guidelines***

At ISWG-GHG 12, there was intense discussion about whether not implementing a corrective action plan would constitute detainable deficiency.

While many Members considered that it was essential not to undermine CII compliance, also many members stated that there could be legitimate reasons for the ships not to implement the corrective action plan at the time of the PSC inspection. In their opinion, a rectification of detained ship would also be an issue.

MEPC 78 instructed the IMO Sub-Committee on Implementation of IMO Instrument (III) to:

- Consider whether it should be regarded as a detainable deficiency if the implementation plan and/or the plan of corrective actions for a ship rated as D for three consecutive years or rated as E are not implemented by the ship as planned at the time of the inspection;

- Identify whether any further guidance needs to be developed on this issue.

***Energy Efficiency Existing Ship Index (EEXI)***

Among others, ISWG-GHG 12 discussed the draft amendments to the 2021 Guidelines on the method of calculation of the attained EEXI, taking into account the decision on the issue of the application of 75% or 83% MCRlim for ships fitted with a shaft power generator.

 However, by the slight majority, ISWG-GHG 12 agreed to use 75% MCRlim for ships fitted with a shaft power generator.

Based on that discussion, MEPC 78 approved the following:

- IMO Resolution MEPC.350(78) on 2022 Guidelines on the method of calculation of the attained Energy Efficiency Existing Ship Index (EEXI) (Revoking 2021 guidelines (MEPC.333(76));

- IMO Resolution MEPC.351(78) on 2022 Guidelines on survey and certification of the attained Energy Efficiency Existing Ship Index (EEXI) (Revoking 2021 guidelines (MEPC.334(76)); and

- IMO Circular MEPC.1/902 on Guidance on methods, procedures and verification of in-service performance measurements.

MEPC 78 noted the following information presented by International Association of Classification Society (IACS):

- 2022 IACS guidelines for the use of Computational Fluid Dynamics (CFD) for the purposes of deriving the Vref in the framework of EEXI regulation, which will be incorporated in an IACS Recommendation;

- The EEXI certification guidelines.

***CII Correction factors***

MEPC 78 agreed with the outcome of ISWG-GHG 12, i.e., to include:

- ice voyages and ice class ships (structural enhancement);

- FCelectrical for refrigerated containers; cargo cooling/reliquefaction systems on gas carriers and LNG carriers and; discharge pumps on tankers;

- FCBoiler for cargo heating and cargo discharge on tankers;

- FCOthers for standalone engine driven cargo pumps on tankers;

- STS voyages on tankers meeting regulation 41.2 of MARPOL Annex I;

- Shuttle tankers equipped with dynamic positioning;

- EEDI cubic capacity correction factor fc for chemical tankers; and

- EEDI correction factor for voluntary structural enhancement, for self-unloading bulk carriers only.

Not to include:

- Rating boundary;

- Adverse weather;

- Short voyage correction;

- FCelectrical cargo handling for bulk carriers and self-unloading bulk carriers;

- FCBOG;

- FCextra weight for self-unloading bulk carriers;

- sludge correction;

- FCLaden.

- 25,000 dwt split of the reference line for ro-ro cargo ships

- Nitrogen in the boil of gas.

MEPC adopted the resolutions:

- MEPC.355(78) on 2022 Interim Guidelines on Correction Factors and Voyage Adjustments for CII Calculations (CII Guidelines, G5);

- MEPC.352(78) on 2022 Guidelines on Operational Carbon Intensity Indicators and the Calculation Methods (CII Guidelines, G1) (Revoking 2021 guidelines (MEPC.336(76));

- MEPC.353(78) on 2022 Guidelines on the Reference Lines for use with Operation Carbon Intensity Indicators (CII Reference Lines Guidelines, G2) (Revoking 2021 guidelines (MEPC.337(76)); and

- MEPC.354(78) on 2022 Guidelines on the Operational Carbon Intensity Rating of Ships (CII Rating Guidelines, G4) (Revoking 2021 guidelines (MEPC.339(76)).

In this regard, MEPC 78 invited interested Member States and international organizations to collect relevant data in the early years of implementation of the CII rating system and to report relevant information to the Committee ahead of the review of the CII regulations and guidelines to be completed at the latest by 1 January 2026.

***Mid-term measures***

MEPC 76 had set up the following work plan:

- Phase I (Spring 2021 – Spring 2022): Collation and initial consideration of proposals for measures;

- Phase II (Spring 2022 – Spring 2023): Assessment and selection of measures(s) to further develop and select measures identified by phase I and prioritize them;

- Phase III: Development of (a) measure(s) to be finalized within (an) agreed target date(s).

At ISWG-GHG 12, as a high-level (overarching) matter, the following opinions were expressed, but there was no conclusion as the group:

- Alignment with the UNFCCC goal;

- Guiding principles of the Initial Strategy, notably the principle of no-more favorable treatment as well as the principle of common but differentiated responsibilities and respective capabilities (CBDR-RC);

- Stress on Well to Wake (WtW) emission control, which implies Lifecycle Emission Assessment (LCA);

- Incentives for fast movers;

- Safety-related issues; and

- Need to reduce the administrative burden.

The conclusion of ISWG-GHG 12 on mid/long-term measures was:

- At this moment, no proposal was struck out;

- To further develop a “basket of candidate mid-term measures”, integrating both various technical and carbon pricing elements while recognizing the necessary flexibility; and

- Invite Member States to work together and revise the proposals for convergence.

MEPC 78 reviewed the report of ISWG-GHG 12 (MEPC 78/WP.6) and endorsed that the work is now moving into phase II.

***Biofuel***

There were submissions both on NOx-related and CO2 reduction-related issues on the use of biofuel.

MEPC 78, due to time constraints, deferred the substantial discussion to MEPC 79.

***Research fund***

Despite the additional submission for an urgent action, MEPC 78 repeated its previous position that Research Fund is a part of mid-term measures.

***Plastic litter***

MEPC 78 agreed to instruct the PPR Sub-Committee to develop a goal-based mandatory requirement for fishing gear marking in MARPOL Annex V. In addition, MEPC 78 also instructed PPR to develop an MEPC circular to promote the implementation of fishing gear marking systems and the FAO Voluntary Guidelines for the Marking of Fishing Gear.

MEPC 78:

- Invited to submit documents with draft guidelines on best practices related to response to and the clean-up of plastic pellet spills to a future session of the PPR Sub-Committee; and

- Noted that the correspondence group (CG) set up by PPR 8 is reviewing the document submitted to MEPC 77.

In addition, MEPC 78 noted the following information:

- A phased reduction of usage and carriage of materials made of single-use plastics on Indian-flagged ships;

- An update on the efforts of the Secretariat to recruit an external expert to review the terms of reference for the IMO Study on Marine Plastic Litter;

- Result of a national research conducted on the plastic litter including microplastic.

***Integrated bilge water treatment system (IBTS)***

PPR 7 had prepared the draft MEPC circular on the 2020 Guidelines for systems for handling oily wastes in machinery spaces of ships incorporating guidance notes for an integrated bilge water treatment system (IBTS).

However, since then various technical issues were raised at the MEPC level.

MEPC 78 sent the matter back to the PPR Sub-Committee with a clear instruction that forced evaporation of oily water should be allowed.

***Anti-fouling systems***

MEPC 78 adopted the following MEPC resolutions prepared by PPR 9 to reflect amendments to the convention on the inclusion of cybutryne:

* MEPC.350(78) on 2022 Guidelines for survey and certification of anti-fouling systems on ships
* MEPC.356(78) on 2022 Guidelines for brief sampling of anti-fouling systems on ships; and
* MEPC.357(78) on 2022 Guidelines for inspection of anti-fouling systems on ships.

MEPC 78 noted that there may be a need to consider amending the 2015 Guidelines for the development of the Inventory of Hazardous Materials (MEPC.269(68)).

There was a question on the practices of the coating material approval, which is not required by the AFS Convention.

MEPC 78 tasked the III Sub-Committee to address the issue.

***Reception facilities***

MEPC 78 approved the following outcome of PPR 9 subject to final adoption at MEPC 79:

- Draft amendments to MARPOL Annexes I, II, IV, V and VI, concerning regional reception facilities in the Arctic; and

- Draft amendments to the 2012 Guidelines for the development of a regional reception facility plan (MEPC.221(63)).

***Garbage***

MEPC 78 approved the draft amendments to MARPOL Annex V to make the Garbage Record Book mandatory also for ships of 100 gross tonnage and above and less than 400 gross tonnage, with a view to subsequent adoption by MEPC 79.

***Other matters***

MEPC 78 also:

- Approved, subject to concurrent decision by LEG, MSC and FAL, the draft joint circular FAL.2-MEPC.1-MSC.1-LEG.2 on the List of certificates and documents required to be carried on board ships, 2022 to supersede FAL.2/Circ.131-MEPC.1/Circ.873-MSC.1/Circ.1586-LEG.2/Circ.3;

- Approved the revised checklist for considering and addressing human element issues and associated draft amendments to the Organization and method of work of the Maritime Safety Committee and the Marine Environment Protection Committee and their subsidiary bodies, and the associated draft MSC-MEPC circular, to be issued as MSC-MEPC.1/Circ.5/Rev.3;

- Approved the new work programme on the definition of Heavy Fuel Oil;

- Approved the new work programme on revisiting the definition of personnel in conjunction of sewage control; and

- Approved a new work programme on a practical guide on the development of local-level marine spill contingency plans to support key authorities in effectively implementing the OPRC Convention.

***Safety and prevention of marine pollution in the Black Sea and the Sea of Azov***

MEPC 78 recalled that the 35th extraordinary session of the IMO Council (CES/35) instructed the IMO Committees to assess the impacts of the ongoing armed conflict between the Russian Federation and Ukraine and its effects on international shipping and the marine environment.

MEPC 78, based on the various opinions expressed under the agenda item “Decisions of other bodies” and took the following actions:

 - Noted discussions of various IMO fora on the subject, in particular, the discussions held during the 9th Session of IMO Sub-Committee on Pollution Prevention and Response (PPR 9), which highlighted the impacts of the Russian Federation’s armed aggression against Ukraine in the Black Sea and the Sea of Azov on the marine environment;

- Reaffirmed in this regard its strong commitment to the full implementation of the Sustainable Development Goals (SDGs) to ensure the sustainable use of the oceans and seas and protection of marine and coastal ecosystems;

- Expressed concern about the consequences of the Russian Federation's attacks directed at peaceful commercial vessels, which ended in spillage of substances harmful to the marine environment;

- Stressed in this regard the critical importance of protecting the environment in times of war, including in compliance with the relevant international obligations under international humanitarian law;

- Urged the Russian Federation to refrain from attacks aimed at commercial ships and critical port infrastructure, which may result in the pollution of marine areas from oil, chemicals and other harmful substances; and

- Resolved to keep this matter under review and invited Member States concerned to provide relevant reports to the Committee.

***List of adopted resolutions***

* Resolution MEPC.343(78) - Amendments to MARPOL ANNEX I (Watertight doors);
* Resolution MEPC.344(78) - Amendments to MARPOL ANNEX II (Abbreviated Legend to the Revised GESAMP Hazard Evaluation Procedure);
* Resolution MEPC.345(78) - Amendments to the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code) (Watertight doors);
* Resolution MEPC.346(78) - 2022 Guidelines for The Development of a Ship Energy Efficiency Management Plan (SEEMP);
* Resolution MEPC.347(78) - Guidelines for the Verification and Company Audits by the Administration of Part III of The Ship Energy Efficiency Management Plan (SEEMP);
* Resolution MEPC.348(78) - 2022 Guidelines for Administration Verification of Ship Fuel Oil Consumption Data and Operational Carbon Intensity;
* Resolution MEPC.349(78) - 2022 Guidelines for the Development and Management of the IMO Ship Fuel Oil Consumption Database;
* Resolution MEPC.350(78) - Guidelines on the Method of Calculation of the Attained Energy Efficiency Existing Ship Index (EEXI);
* Resolution MEPC.351(78) - 2022 Guidelines on Survey and Certification of the Attained Energy Efficiency Existing Ship Index (EEXI);
* Resolution MEPC.352(78) - 2022 Guidelines on Operational Carbon Intensity Indicators and the Calculation Methods (CII Guidelines, G1);
* Resolution MEPC.353(78) - 2022 Guidelines on The Reference Lines for Use with Operational Carbon Intensity Indicators (CII Reference Lines Guidelines, G2);
* Resolution MEPC.354(78) - 2022 Guidelines on the Operational Carbon Intensity Rating of Ships (CII Rating Guidelines, G4);
* Resolution MEPC.355(78) - 2022 Interim Guidelines on Correction Factors and Voyage Adjustments for CII Calculations (CII Guidelines, G5);
* Resolution MEPC.356(78) - 2022 Guidelines for Brief Sampling of Anti-Fouling Systems on Ships;
* Resolution MEPC.357(78) - 2022 Guidelines for Inspection of Anti-Fouling Systems On Ships; and
* Resolution MEPC.358(78) - 2022 Guidelines for Survey and Certification of Anti-Fouling Systems on Ships.