

## Preliminary Report of IMO MEPC 80

The 80th session of the International Maritime Organization (IMO) Marine Environment Protection Committee (MEPC 80) was held from 3 to 7 July 2023. A summary of the outcome is given hereunder for your information.

### **1. Greenhouse Gases (GHG)**

#### **1.1 The 2023 IMO Strategy on reduction of GHG emissions from ships**

The 2023 IMO Strategy on reduction of GHG emissions from ships (2023 IMO GHG Strategy) was adopted at this session.

The Initial IMO Strategy on reduction of GHG emissions from ships, adopted in 2018, envisages to improve transportation efficiency by setting levels of ambition as shown in the following table. The Strategy is subject to a review every five years.

Target year	Levels of ambition (as of 2018)
2030 (compared to 2008)	<ul style="list-style-type: none"> <li>To reduce CO2 emissions per transport work by at least 40%</li> </ul>
2050 (compared to 2008)	<ul style="list-style-type: none"> <li>To reduce CO2 emissions per transport work by at least 70%</li> <li>To reduce total annual GHG emissions by at least 50%</li> </ul>
Within this century	<ul style="list-style-type: none"> <li>To reach zero GHG emissions</li> </ul>

At this session, the 2023 IMO GHG Strategy was adopted with improvements to the levels of ambition along with newly established indicative checkpoints towards GHG emission reduction from international shipping as shown in the following table.

Target year	Levels of ambition and indicative checkpoints (as of 2023)
2030 (compared to 2008)	<ul style="list-style-type: none"> <li>To reduce CO2 emissions per transport work by at least 40%</li> <li>To reduce total annual GHG emissions by at least 20% (striving for 30%)</li> <li>Uptake of zero GHG emission fuels etc. to represent at least 5% of the energy used (striving for 10%)</li> </ul>
2040 (compared to 2008)	<ul style="list-style-type: none"> <li>To reduce total annual GHG emissions by at least 70% (striving for 80%)</li> </ul>
2050	<ul style="list-style-type: none"> <li>To reach net-zero GHG emissions by or around 2050 at the latest</li> </ul>

It is also noted that the reduction of the total annual GHG emissions by 2030 and 2040 were agreed as indicative checkpoints to reach net-zero GHG reduction target for 2050.

#### **1.2 Adoption of the Guidelines on Life Cycle GHG Intensity of Marine Fuels**

For low/zero-carbon fuels, such as hydrogen, ammonia and biomass-based fuels which are expected to become more widely used in the future to decarbonize ships, it is recognized that GHG emissions during the manufacturing and distribution processes of these fuels should be taken into account. It is also recognized that GHG other than CO2, such as methane (CH4) and nitrous oxide

(N<sub>2</sub>O), may cause significant impact on global warming. Based on this background, MEPC has been developing Guidelines on Life Cycle GHG Intensity of Marine Fuels (LCA Guidelines) for assessing GHG emission intensity (GHG emission per unit of energy) from marine fuels comprehensively through its manufacturing, distribution, and use onboard ships.

At this session, MEPC reviewed the report from the Correspondence Group and adopted the LCA Guidelines, which provides a general framework on the calculation method of GHG emission intensity including CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O, Fuel Lifecycle Label (FLL: unified representation format of characteristics for individual fuel), procedures to determine default emission factors (default values of GHG emission intensity per fuel pathway) and elements subject to verification and certification by a third-party. On the other hand, the guidelines still require further refinements in certain areas, including establishment of comprehensible regulations on GHG emission intensity calculation procedures and verification/certification procedures (also taking into account land use changes (LUC) upon biomass-based fuel productions, such as changes from forestland to cultivated land etc.) and establishment of default emission factors. Therefore, an Expert Workshop will be held with an aim to further promote the operationalization of the guidelines.

### **1.3 Mid-term measures for reduction of GHG**

At this session, discussions were held to investigate measures to reach the levels of ambition and indicative checkpoints towards GHG emission reduction as set out in the 2023 IMO GHG Strategy.

As a result, it was agreed that the basket of candidate mid-term measures, which consist of both technology and economical elements, will be further developed under a proposed timeline.

Specifically, regarding the candidate measures such as year-by-year enhancements of reduction of annual GHG emission intensity (GFS, GHG Fuel Standard), payments on the basis of GHG emission amount (Levy) and a combination of implementing

both levy for using fossil fuels and rebate for using zero-emission fuels (Feebate), it was agreed to further conduct a comprehensive impact assessment (CIA) on the combination of technical and economical elements of respective basket of measures, followed by the finalization of measures based on the assessment results.

Furthermore, the timeline specifying adoption of specific mid-term measures by 2025 followed by entry into force by 2027 has been incorporated into the 2023 IMO GHG Strategy.

### **1.4 Review of Data Collection System for fuel oil consumption of ships**

The Data Collection System for fuel oil consumption of ships (DCS), under which operational data such as fuel oil consumption has been collected and reported since 2019, has been under review since 2022 to improve the items to be reported and the granularity of reported data.

At this session, draft amendments to MARPOL Annex VI Appendix IX were approved, amending/adding the following items required to be reported in the DCS.

1. Fuel oil consumption per combustion systems (main engines, auxiliary engines/generators and oil-fired boilers);
2. Fuel oil consumption while the ship is not under way;
3. Laden distance traveled (on a voluntary basis);
4. Transport work;
5. Total amount of on-shore power supplied; and
6. Category of Innovative energy efficiency technologies.

The amendments will be adopted at MEPC 81. It is also noted that the “transport work” above was agreed to be calculated based on the actual amount of cargo, the details of which will be further discussed at MEPC 81 along with amendments to the relevant guidelines.

### **1.5 CO<sub>2</sub> emission conversion factor for biofuels**

Upon consideration of switching to various alternative fuels to reduce GHG emissions,

switching to biofuels is investigated taking into account its ease of use under conventional ship designs.

At this session, the interim guidance, which is to be referenced in the interim pending the development of policy instruments for the use of LCA Guidelines, was approved to allow for assigning CO<sub>2</sub> Emission Conversion Factor for biofuels taking into account their life cycle (WtW, Well-to-Wake) for the purposes of DCS and Carbon Intensity Indicator (CII) regulations.

### **1.6 Use of power reserve in EEDI regulations**

At the previous session, it was agreed in general to introduce the concept of the use of power reserve, which is limited under normal operations, during emergency situations (i.e. in adverse conditions) in order to conform with the regulations on both Energy Efficiency Design Index (EEDI) and minimum propulsion power.

At this session, discussions were held with an aim to introduce the concept, particularly regarding the definition of power of main engines ( $P_{ME}$ ), referred maximum continuous rating (MCR) in NO<sub>x</sub> certification framework and possible implications on the NO<sub>x</sub> Technical Code. The discussions will be continued in future sessions as agreements could not be reached at this session.

### **1.7 Onboard Carbon Capture Systems**

There have been initiatives to develop onboard carbon capture (OCC) technologies for reducing GHG emissions by segregating and capturing CO<sub>2</sub> from exhaust gases onboard ships. At the last session, a proposal was made that the amount of CO<sub>2</sub> captured by OCC Systems should be taken into consideration when calculating the attained EEDI, Energy Efficiency Existing Ship Index (EEXI) and CII.

At this session, a new output under Intersessional Working Group on Reduction of GHG from Ships (ISWG-GHG) was agreed for further work to develop a regulatory framework to allow for uses of OCC technologies.

## **2. BWM Convention**

### **2.1 Review of BWM Convention**

When BWM Convention entered into force in 2017, it was agreed to monitor the application and to review the effectiveness of the Convention through the experience building phase (EBP), in which a relevant Correspondence Group was established to develop and prepare a Convention Review Plan (CRP).

At this session, MEPC approved the CRP that includes the issues to be finalized. Furthermore, a Correspondence Group will be reestablished to continue with the review of the BWM Convention by MEPC 81.

### **2.2 Ballast water management in ships operating in challenging water quality, and temporary storage of treated sewage and/or grey water**

A draft guidance has been proposed in consideration of areas with challenging water quality (CWQ) in which continuous operation of ballast water management systems (BWMS) becomes difficult. In addition, another draft guidance has been proposed to set out measures to be taken when treated sewage and/or grey water should be temporarily stored into ballast tanks.

At this session, it was concluded that the discussion will continue at MEPC 81, taking into account that sufficient discussions on the guidance could not be made and no general agreement could be reached.

### **2.3 Protocol for verification of ballast water compliance monitoring devices**

The BWM Convention regulates the number of organisms per volume in treated ballast water. To verify compliance to the regulation, ballast water compliance monitoring devices (CMD) have been used as a rapid assessment of the concentration of viable organisms in treated water. In this regard, a framework for the verification of the performance of ballast water CMD has been discussed at the Sub-Committee on Pollution Prevention and Response (PPR).

At this session, the Protocol for Verification of

Ballast Water Compliance Monitoring Devices developed by PPR was adopted. The CMD approved in accordance with the protocol are expected to be utilized at scenes such as PSC sampling and onboard monitoring.

## **2.4 Unified interpretation on the format of BWM Certificate**

The unified interpretation drafted at PPR was adopted at this session, addressing the application of the BWM Certificate in terms of the date of construction for ships that went under a major conversion.

## **2.5 Guidance on BWRB**

In relation to the amendments to the mandatory requirement regarding ballast water record books (BWRB) adopted at this session, the guidance on matters relating to ballast water record-keeping and reporting was approved. In addition, the guidance for the use of electronic record books was adopted along with the approval of consequential amendments to the Regulation B-2 of the BWM Convention, the latter of which will be adopted at MEPC 81.

## **3. Air pollution**

### **3.1 Exemption of low-flashpoint fuels and gas fuels from bunker delivery note requirements**

At the previous session, amendments to MARPOL Annex VI were adopted to include flashpoint information of the fuel delivered to the ship into the bunker delivery note (BDN).

At this session, amendments to MARPOL Annex VI have been approved, requiring records in BDN to be made for low-flashpoint fuels and gas fuels while clarifying that the corresponding fuel sampling requirements do not apply to such fuels. These amendments will be adopted at MEPC 81.

## **4. Others**

### **4.1 Minimization of transfer of invasive aquatic species**

Since 2020, the 2011 Guidelines for the Control and Management of Ships' Biofouling to Minimize the Transfer of Invasive Aquatic Species (Res. MEPC.207(62)) have been reviewed in terms of their practicalities and effectiveness.

At this session, amendments to the Guidelines were approved, which include the provisions on hull inspection frequency on the basis of the anti-fouling system (AFS) application, recommended cleaning on the basis of the results from hull inspections, etc. It was also agreed that guidelines on matters relating to provisions on capture rates of biomass and particles during in-water cleaning will be developed by 2025.

### **4.2 Amendments to Guidelines for the Development of the Inventory of Hazardous Materials**

With respect to the restriction of the use of cybutrine as anti-fouling system since January 2023, amendments to the Guidelines for the Development of the Inventory of Hazardous Materials (Res. MEPC.269(68)) has been approved, adding cybutryne to hazardous materials to be listed in the inventory.

## **5. Amendments to mandatory instruments**

MEPC 80 adopted amendments to mandatory instruments as follows:

### **5.1 Amendments to the format of Ballast Water Record Book**

Amendments to the format of ballast water record book (BWRB) in the BWM Convention Appendix II were adopted, which requires records in terms of Codes (letter) and Items (number), similar to the format of the Oil Record Book.

Entry into force: 1 February 2025

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For any questions about the above, please contact:

NIPPON KAIJI KYOKAI (ClassNK)  
External Affairs Department, Administration Center Annex, Head Office  
Address: 3-3 Kioi-cho, Chiyoda-ku, Tokyo 102-0094, Japan  
Tel.: +81-3-5226-2038  
Fax: +81-3-5226-2734  
E-mail: [xad@classnk.or.jp](mailto:xad@classnk.or.jp)

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