

MARINE ENVIRONMENT PROTECTION  
COMMITTEE  
80th session  
Agenda item 7

MEPC 80/7/9  
28 April 2023  
Original: ENGLISH  
Pre-session public release:

## REDUCTION OF GHG EMISSIONS FROM SHIPS

**Draft MEPC resolution on biofuel that is certified by international certification scheme to conform to the sustainability aspects in the LCA guidelines being assigned a CO<sub>2</sub> emission conversion factor (C<sub>F</sub>) as zero to facilitate the uptake of biofuels and the reduction of GHG emissions**

**Submitted by India, Liberia, Norway, ICS, CLIA and IPIECA**

### SUMMARY

*Executive summary:* This document contains a draft MEPC resolution on biofuel that is certified to conform to the sustainability aspects in the LCA guidelines being assigned a CO<sub>2</sub> emission conversion factor (C<sub>F</sub>) as zero for use in IMO DCS and CII regulations and thus facilitate the uptake of biofuels and the reduction of GHG emissions.

*Strategic direction, if applicable:* 3

*Output:* 3.2

*Action to be taken:* Paragraph 5

*Related documents:* Resolution MEPC.308(73); resolution MEPC.346(78); MEPC 79/7/18 and MEPC 79/15

### Background

1 In document MEPC 79/7/18, India highlighted the need to recognize the conversion factor (C<sub>F</sub>) between fuel consumption and CO<sub>2</sub> emissions for biofuels and its blends based on life cycle assessment (LCA), by supporting the finalization and adoption of the guidelines on Life Cycle GHG intensity of marine fuels (LCA guidelines) at MEPC 80 and proposing that the Committee consider and adopt at the same time a resolution stating that any biofuel manufactured from residues and waste sustainable biomass or seed oil from tree species that do not compete for food and fodder and that is certified as a sustainable fuel as per the LCA guidelines be assigned zero (0) CO<sub>2</sub> equivalent value for use in the IMO Data Collection System (DCS) and Carbon Intensity Indicator (CII) regulations.

2 With regard to the development of the draft LCA guidelines and biofuels, MEPC 79 invited interested Member States and international organizations to consult with the delegation of India in their further consideration of developing a draft MEPC resolution on the uptake of sustainable biofuels for shipping at MEPC 80 (MEPC 79/15, paragraph 7.34.4). In this regard, the delegation of India invited the Committee to consider whether the LCA guidelines could be adopted in conjunction with the possible MEPC resolution on the uptake of sustainable biofuels for shipping at MEPC 80 (MEPC 79/15, paragraph 7.35).

I:\MEPC\80\MEPC 80-7-9.docx

3 The co-sponsors agreed with the rationale given by India in document MEPC 79/7/18, sharing, in particular, the view that it is urgent to start with actions towards the decarbonization of the shipping sector and that this could be immediately initiated by the use of biofuels, including biogas, and their blends.

4 The annex to this document contains a draft text proposed by the co-sponsors for an MEPC resolution for the Committee's consideration.

**Action requested of the Committee**

5 The Committee is invited to consider the proposal in paragraph 3 above and the draft MEPC resolution set out in the annex to the document, and take action as appropriate.

\*\*\*



**ANNEX**

**DRAFT MEPC RESOLUTION**

**BIOFUEL THAT IS CERTIFIED BY INTERNATIONAL CERTIFICATION SCHEME TO CONFORM TO THE SUSTAINABILITY ASPECTS IN THE LCA GUIDELINES BEING ASSIGNED A CO<sub>2</sub> EMISSION CONVERSION FACTOR (C<sub>F</sub>) AS ZERO TO FACILITATE THE UPTAKE OF BIO-FUELS AND THE REDUCTION OF GHG EMISSIONS**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee (the Committee) conferred upon it by or under international conventions for the prevention and control of marine pollution from ships,

RECALLING ALSO that the Committee, at its seventy-second session, adopted resolution MEPC.304(72) on the Initial IMO Strategy on reduction of GHG emissions from ships,

RECALLING FURTHER that the Committee at its seventieth session adopted amendments to MARPOL Annex VI through resolution MEPC.278(70) incorporating data collection system for fuel oil consumption of ships,

NOTING that the Committee adopted, at its seventy-sixth session, by resolution MEPC.328(76), the *2021 Revised MARPOL Annex VI*, which entered into force on 1 November 2022,

NOTING IN PARTICULAR that the *2021 Revised MARPOL Annex VI* (MARPOL Annex VI) contains amendments concerning mandatory goal-based technical and operational measures to reduce carbon intensity of international shipping,

NOTING FURTHER that regulation 28.1 of MARPOL Annex VI requires ships to which this regulation applies to calculate the attained annual operational carbon intensity indicator (CII) taking into account the guidelines developed by the Organization,

NOTING that the Committee, at its seventy-eighth session, adopted, by resolution MEPC.352(78), the *2022 Guidelines on operational carbon intensity indicators and the calculation methods* (CII Guidelines, G1),

RECOGNIZING that the current CII regulation only regulates CO<sub>2</sub> emissions from the combustion of fuels in ship's engine (tank to wake) and for the associated conversion factors (C<sub>F</sub>) provides reference to the *2018 Guidelines on the method of calculation of the attained Energy Efficiency Design Index (EEDI) for new ships* (resolution MEPC.308(73), as amended),

RECOGNIZING that the relevant *paragraph 2.2.1 "C<sub>F</sub>; Conversion factor between fuel consumption and CO<sub>2</sub> emission"* of resolution MEPC.308(73), as amended, does not address biofuel or its blends,

RECOGNIZING that the current CII regulation provides an option for the conversion factor to be obtained from the fuel oil supplier, supported by documentary evidence, in case the type of the fuel oil is not covered by the *2022 Guidelines on operational carbon intensity indicators and the calculation methods* (CII Guidelines, G1),

NOTING that *2022 Guidelines for the Development of a Ship Energy Efficiency Management Plan (SEEMP)* (resolution MEPC.346(78)) states that if fuel oils are used that do not fall into one of the categories as described in the *2018 Guidelines on the method of calculation of the attained Energy Efficiency Design Index (EEDI) for new ships* (resolution MEPC.308(73)), as amended, and have no  $C_F$ -factor assigned (e.g. some "hybrid fuel oils"), the fuel oil supplier should provide a  $C_F$ -factor for the respective product supported by documentary evidence,

RECALLING that as per the *2006 IPCC Guidelines for National Greenhouse Gas Inventories*, volume 2, chapter 3 (Mobile combustion), the emission factors for CO<sub>2</sub> for biofuels are set to zero. CO<sub>2</sub> emissions from the combustion of the biogenic carbon of these fuels are treated in the Agriculture, Forestry and Other Land Use (AFOLU) sector and are reported separately as an information item,

NOTING that the Committee, recognising the importance of lifecycle assessment (LCA) of emissions for the further decarbonization of shipping, is in the process of developing guidelines on lifecycle GHG intensity of marine fuels (LCA guidelines) and will be developing appropriate policy instrument in due course for use of the LCA guidelines once finalized,

RECOGNIZING that for decarbonization of shipping industry, biofuels are one of the most important transition fuels as they can be used on board existing vessels as drop-in fuels to make an immediate reduction in carbon dioxide emissions and the fact that other low/zero carbon alternate fuels and equipment are not at levels of maturity that could be put to use immediately,

RECOGNIZING that aligning the IMO approach with that of IPCC regarding the emission factor for CO<sub>2</sub> with respect to biofuel will remove the regulatory bottleneck that currently exists in giving due recognition and credit in reduction of GHG emissions from ships using biofuel and biofuel blends and improvement in CII rating of ships in particular and overall reduction of GHG, SO<sub>x</sub> and PM emission in general from the accelerated uptake of biofuel as marine fuel,

1 DECIDES that in the interim, pending development of policy instruments for the use of the LCA guidelines, biofuels that have been certified by international certification scheme to conform to the sustainability aspects in the LCA guidelines may use a CO<sub>2</sub> emission conversion factor ( $C_F$ ) of zero for the purpose of regulations 27 and 28 of MARPOL Annex VI for fuels consumed by the ships from the effective date. For blends, the  $C_F$  should be based on the weighted average of the  $C_F$  for the respective fuels by energy;

2 ALSO DECIDES that in the interim period, fuel oil suppliers will provide a sustainability declaration based on the certification of the bio-fuel being assigned emission conversion factor ( $C_F$ ) as zero CO<sub>2</sub>eq value;

3 AFFIRMS that this resolution does not prejudge how policy instruments will be framed in future for use of LCA Guidelines;

4 RESOLVES that the Ship Energy Efficiency Management Plan (SEEMP) may be amended to incorporate the conversion factor ( $C_F$ ) for applicable biofuels as per this resolution;

5 DECIDES that this resolution shall become effective from 1 October 2023;

6 REQUESTS Parties to MARPOL Annex VI and other Member Governments to bring this decision to the attention of shipowners, ship operators, bunker suppliers and any other interested groups;

7 REQUESTS the Secretary-General to notify all Parties to MARPOL Annex VI of the  
aforementioned decision;

8 ALSO REQUESTS the Secretary-General to notify all Members of the Organization  
which are not Parties to MARPOL Annex VI to the aforementioned decision.

---