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REDUCTION OF GHG EMISSIONS FROM SHIPS

Comments on document MEPC 81/7/4

Submitted by Australia, Belgium, Brazil, Canada, Denmark, France, Germany, Greece, Ireland, Japan, Netherlands (Kingdom of the), Norway, Switzerland, United States, ICS, OCIMF, INTERTANKO, INTERCARGO, IPIECA, RINA, IBIA, WSC, Pacific Environment, SGMF, IWSA, EDF and ZESTAs

SUMMARY

Executive summary: This document comments on document MEPC 81/7/4, providing the final report of the Correspondence Group on the Further Development of the LCA Framework, established by MEPC 80 and proposes the establishment of an expert group on LCA matters of a technical nature, including information and possible ways forward regarding its composition, operating rules, funding and work programme.

Strategic direction, if applicable: 3

Output: 3.2

Action to be taken: Paragraph 19

Related documents: Resolution MEPC.376(80); MEPC 74/18; MEPC78/WP.5; MEPC 80/7/4; MEPC 81/7/4 and ISWG-GHG 11/2/1

Introduction

1 This document is submitted in accordance with the provisions of paragraph 6.12.5 of the *Organization and method of work of the Maritime Safety Committee and the Marine Environment Protection Committee and their subsidiary bodies* (MSC-MEPC.1/Circ.5/Rev.5) and comments on document MEPC 81/7/4 (Brazil et al.).

2 During ISWG-GHG 11 (March 2022) the Group noted the broad support for a continuous technical expert group to be established by the Organization for expert review of both upstream and downstream (default) emission values in the maritime fuels life cycle assessment (LCA) process, taking into account the overview of existing processes and structures within the Organization for the continuous review of substances and/or technologies as set out in document ISWG-GHG 11/2/1 (Secretariat) (MEPC 78/WP.5, paragraph 70).

3 MEPC 78 (June 2022) established the Correspondence Group (CG) on Marine Fuel Life Cycle GHG Analysis, under the coordination of China, Japan, and the European Commission. The CG was tasked with the development of draft guidelines on life cycle GHG intensity of marine fuels, with a view to finalizing them at MEPC 80 (July 2023).

4 The CG discussed procedures that would allow for the continuous review of default emission factors. Most of the CG members supported the establishment of a technical expert group for this purpose, during round 4 of the CG. Additionally, during the CG consultations, other possible tasks for such an expert group have been identified on elements of the LCA methodology, requiring continued expert discussion, rather than consultation via CG questionnaires. Such tasks would include – but are not strictly limited to – the identification and assessment of new fuel pathways as well as further methodology refinements and development of specific scientific and technical elements that could not be addressed by the CG, partly due to the operating rules and partly due to the type of expertise required. In particular, expertise on fuel supply chains, feedstock sustainability, conversion/production processes, port and bunkering infrastructure and onboard fuel system technologies for pathways currently characterized by low technology readiness and maturity, would be relevant.

5 The LCA Guidelines were adopted at MEPC 80 (July 2023) by resolution MEPC.376(80). In addition to the adoption of the LCA Guidelines, the Committee endorsed the recommendation by ISWG-GHG 15 (June 2023) for intersessional follow-up, including establishment of the Correspondence Group on the Further Development of the LCA Framework, with a view to continuing the work on the items identified for further work, as proposed in paragraph 81.4 of document MEPC 80/7/4 (China et al.). To date, the LCA Guidelines provide a robust foundation for the further development of the LCA framework, but many parameters and elements are still missing to undertake a full life cycle GHG intensity assessment of marine fuels. Most of these aspects require technical expertise for refinement.

6 The Committee also invited interested Member States and international organizations to submit documents containing proposals on the establishment of an expert group on LCA matters to the next session, also taking into consideration document ISWG-GHG 11/2/1 (MEPC 80/17, paragraph 7.32).

7 During the discussions of the CG on the Further Development of the LCA Framework, with a view to continuing the work on the items identified for further work, it became evident that the operating rules of a CG could not allow to progress at the required pace and with the necessary confidence in achieving high-quality outputs, unless dedicated scientific and technical knowledge becomes available.

8 This document reiterates the need to establish an expert group on the LCA Guidelines and provides information and possible ways forward regarding its composition, operating rules, funding options and work programme. It should be noted that this framework will support the implementation of the midterm measures, and therefore it should be operationalized promptly.

Discussion

9 The co-sponsors of this document note that in accordance with part V (review) of the LCA Guidelines, in order to consider and reflect the technological developments as well as the progress in scientific knowledge, certain elements of the LCA Guidelines should be subject to further refinement and review. These elements include the identification of default emission factors and continuous scientific review thereof, the development of procedures and criteria to recognize certification, guidance for third-party verification, as well as other elements. The above-mentioned identified elements require continuity, and this process goes beyond the dedicated work of the CGs and the IMO expert workshop.

10 The outcome of consultation round 2 (ToRs 4 and 5 – advance consideration of certain methodological elements) of the CG on the Further Development of the LCA Framework, highlighted the need to further discuss certain elements of the LCA Guidelines, in order also to ensure their full operativity.

11 For the establishment of an expert group to further develop the LCA Guidelines, knowledge and experience should not be limited to that available from the previous CGs: experience gained also in other sectors could be considered and used to the extent possible to exploit synergies, building on lessons learned, avoiding duplications but also critically reviewing the outcomes. A suitable reference from the aviation sector is that of the Alternative Fuel Task Force later converted into the Fuel Task Group (FTG) and the Working Group 4 (WG4)¹ of the Committee on Aviation Environmental Protection (CAEP) at ICAO, a committee similar to MEPC. The FTG has developed LCA methodology, technical rules, and the certification framework (together with the WG4). Valuable information on the conduct of these groups was provided by the ICAO Secretariat during the Expert Workshop on the life cycle GHG intensity of marine fuels held on 14 and 15 December 2023 (GHG-EW 4).

12 The FTG Expert Group aggregates the expertise in different areas (e.g. Core LCA, ILUC, sustainability, production projections and policy support, emissions reductions' accounting) to facilitate the discussions and promote a quick advance in the scientific and technical recommendations submitted to CAEP.

13 The terms of reference (ToRs) of the FTG are quite broadly defined and flexible to accommodate requests that do vary from one CAEP three-yearly cycle to the next one as well as incoming requests within cycles. Conversely, the tasks in the three-year work programme are quite detailed, but the FTG is not limited to the tasks detailed in the work programme, as additional request may be accommodated during the cycle. FTG experts can equally propose additional tasks to be included in the work programme that arise from the technical knowledge and scientific advancements, as well as industry needs.

Proposal

14 Based on the above considerations, the co-sponsors propose the establishment of an expert group on marine fuels life cycle assessment by MEPC 81, tasked to progress on the identification of default emission factors for the existing fuel pathways, further consider sustainability and its certification, specific methodological issues that are relevant for measuring actual emission factors, further refine methodological elements (e.g. e_f , e_{sca} , e_{ccs} , e_{occs} , e_{ccu}), catering for new technologies in the LCA guidelines, and provide guidance to certification and verification, building on the outcomes of GHG-EW 4. The expert group should report to the Committee and its technical and scientific recommendations may be first considered by ISWG-GHG.

15 The co-sponsors recommend establishing a LCA group under or in a similar operational mode as GESAMP, the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection.² It should be noted that IMO hosts the GESAMP office and is responsible for the administration and management on behalf of all the sponsoring organizations. Conducting scientific and technical work through GESAMP is a working arrangement familiar to the Organization and has over several years proven an effective format in advancing technical assessments in groups such as the GESAMP Working Group 1 on the Evaluation of the Hazards of Harmful Substances Carried by Ships and the GESAMP-Ballast Water Working Group. If this approach is pursued, the Secretariat, following consultations with

¹ <https://www.icao.int/environmental-protection/Pages/Caep.aspx#Description>

² [The New GESAMP: Science for Sustainable Oceans | GESAMP](#)

Member States and international organizations, would identify experts, considering a balanced geographical representation and sectoral knowledge, and propose nominees to the Chair of GESAMP. Given the international nature of the Organization, the activities of the expert group will be coordinated by nominated experts of IMO Member States, considering that the group's composition and coordination should be geographically balanced, appropriately represented by developed and developing countries, including small island developing States (SIDS) and least developed countries (LDCs). Nominated members should sign a declaration of no conflict of interest and a confidentiality agreement before each session.

16 To support the costs associated to the meetings, including the participation of experts from developing States, it is proposed to follow the same approach as the GESAMP task team to assess the available evidence relating to the environmental impact of discharges of exhaust gas cleaning systems effluent, established by MEPC 74, funded on a voluntary basis by Member States and stakeholders (MEPC 74/18, paragraphs 14.13 to 14.15).

17 It is proposed that the work model used by ICAO for the Fuel Task Group serve as the relevant reference for the expert group on marine fuels life cycle assessment, as it has proven over the years to be capable of delivering consensual high-quality results in a timely manner, while being adaptable to varying requests. The expert group should be created to aggregate expertise per specific area: LCA methodologies, sustainability themes, certification schemes, production potential and capacity-building and onboard technologies.

18 The basis of the work programme for the expert group should be agreed by the Committee and would include a list of tasks and deliverables. The expert group would be responsible to define its own internal functioning rules, to attribute tasks, to identify and flag possible gaps in available expertise. The group may recommend that the Committee includes additional tasks to its work programme based on technical and scientific considerations. An indicative proposed work programme for the first cycle of the expert group could include the following tasks that have been identified in the course of the previous CGs:

- .1 scientific review of the core LCA methodology;
- .2 scientific review of the WtT GHG default emission factors of fuel production pathways and technologies;
- .3 scientific review of the TtW GHG default emission factors of fuel usage and onboard technologies;
- .4 establishment of procedures for fuels certification schemes;
- .5 establishment and review of procedures to certify TtW actual values;
- .6 scientific review of the Fuel Lifecycle Label;
- .7 ILUC risk classification;
- .8 integrity of emission reporting;
- .9 sustainability themes/aspects review, including the social and economic dimensions of sustainability; and
- .10 sample calculations and/or validation methods on LCA and DLUC.

Action requested of the Committee

19 The Committee is invited to consider the proposal contained in this document and take action, as appropriate.
