INTERNATIONAL MARITIME ORGANIZATION

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Agenda item 2

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FURTHER CONSIDERATION OF CONCRETE PROPOSALS TO IMPROVE THE OPERATIONAL ENERGY EFFICIENCY OF EXISTING SHIPS, WITH A VIEW TO DEVELOPING DRAFT AMENDMENTS TO CHAPTER 4 OF MARPOL ANNEX VI AND ASSOCIATED GUIDELINES, AS APPROPRIATE

Comments on the implementation elements of the proposed short-term measures

Submitted by IACS

SUMMARY

Executive summary:	This document comments on several proposals regarding the regulatory framework for mandatory short-term measures to reduce the carbon intensity of international shipping
Strategic direction, if applicable:	3
Output:	3.2
Action to be taken:	Paragraph 29
Related documents:	MEPC.1/Circ.815; ISWG-GHG 6/1/1; ISWG-GHG 7/2/2, ISWG-GHG 7/2/6, ISWG-GHG 7/2/7, ISWG-GHG 7/2/9, ISWG-GHG 7/2/14, ISWG-GHG 7/2/21 and ISWG-GHG 7/2/24

Introduction

1 This document is submitted in accordance with paragraph 9 of Circular Letter No.4181/Rev.1 on the Resumption of the seventh session of the Intersessional Working Group on Reduction of GHG Emissions from Ships (ISWG-GHG 7) and 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.1).

2 The Working Group on Reduction of GHG Emissions from Ships, at its sixth intersessional meeting (ISWG-GHG 6), reviewed the proposals for the short-term measures and agreed that two approaches, i.e. a technical approach and an operational approach, should be further developed in parallel, taking into account the comments made at the meeting.

3 After informal discussions and improvement of the two approaches, the reworked measures were submitted to ISWG-GHG 7 for further consideration. At the virtual informal preliminary discussion session on short-term measures held in July 2020, delegations clarified their positions on the submissions and exchanged views on different measures for existing ships, including EEXI, goal-based operational energy efficiency measures, hybrid measures, etc.

4 IACS would like to offer its expertise to actively assist IMO and its Member States in developing and implementing relevant energy efficiency measures to achieve the GHG emission reduction targets. In pursuance of this desire, IACS has identified possible challenges from the perspective of subsequent implementation of the proposed measures. The below comments and suggestions are offered with a view to improving the ability to implement these measures and reducing the potential burden on Administrations.

Comments on the proposed technical approach

First survey for issuing the EEXI Certificate

5 Documents ISWG-GHG 7/2/6 and ISWG-GHG 7/2/7 (Greece et al.) propose substantive amendments to MARPOL Annex VI and associated Guidelines which provide sufficient detail and information to enable global and consistent implementation, either as a standalone measure or as a functional requirement under a hybrid framework.

6 The draft regulation 5.4.6 contained in annex 1 of document ISWG-GHG 7/2/6 proposes that the verification of the ship's EEXI according to regulations 20A and 21A of MARPOL Annex VI "[…] shall take place at the first [annual,] intermediate or renewal survey identified in paragraph 1 of this regulation or the initial survey identified in paragraphs 4.1 and 4.3 of this regulation, whichever is the first, on or after [date of entry into force]", wherein the annual survey is put in brackets for further consideration.

7 For "EEDI" ships under the proposed application scope of the EEXI regime, the annual survey is not expected to cause heavy burden for shipowners and Administrations and/or recognized organizations (ROs), because the proposal would allow the use of attained EEDI as attained EEXI. However, verification of EEXI may not be easily completed for "pre-EEDI" ships during the time window of the first annual survey of the IAPP Certificate after the date of entry into force of EEXI regulation. If shipowners choose engine power limit (EPL) or other innovative technologies to comply with the EEXI requirements, it is unlikely that engine manufacturers and shipowners would be capable of implementing relevant modifications and developing the EEXI technical file, and ROs verifying the attained EEXI, all within 1 year. In addition, if shipowners pursue a more accurate determination of V_{ref}, which is not underestimated, it would take more time to obtain the power-speed curve information even by tank test and to develop the EEXI technical file for "pre-EEDI" ships. In this regard, IACS suggests that the EEXI verification be carried out at the first intermediate or renewal survey for the IAPP Certificate on or after the date of entry into force of the amendments.

EEXI review mechanism and EEXI reporting scheme

8 In case the draft amendments to MARPOL Annex VI incorporating the EEXI enter into force in 2023 at the latest, as mentioned in document ISWG-GHG 6/1/1 (Chair), and the EEXI verification is aligned with the first intermediate or renewal survey for the IAPP Certificate after the date of entry into force of the amendments incorporating the EEXI, the proposed EEXI requirements review schedule is suggested to be set at 2027 at the earliest, as verifications of compliance with EEXI will not be completed until 2026.

9 Since the proposed amendments to MARPOL Annex VI suggest that IMO should review the status of implementation and effect of this regulation, it is suggested that the establishment and management of the EEXI reporting scheme and EEXI database should be further considered by the Committee. IACS would like to assist in developing the voluntary or mandatory EEXI reporting scheme once the draft amendments to MARPOL Annex VI incorporating the EEXI are approved.

Verification of the contribution of innovative energy efficiency technologies

10 It is noted that a relevant guidance for a uniform assessment of contributions to energy efficiency is still absent for some innovative energy efficiency technologies. IACS Members have limited experience of assessment of the contribution of innovative energy efficiency technologies which are out of scope of the *2013 Guidance on treatment of innovative energy efficiency technologies for calculation and verification of the attained EEDI* (MEPC.1/Circ.815). Although innovative energy efficiency technologies may contribute to improving operational energy efficiency, the contribution of innovative energy efficiency technologies may not be reflected properly in the attained EEXI or the attained EEDI. In order to assist in the uniform implementation of requirements, IACS suggests that MEPC.1/Circ.815 be further updated to be adaptable to ever-increasing application of innovative energy efficiency technologies, based on more experience and concrete proposals on verification methods.

Comments on the proposed operational approach

Integration of CIIs audits with ISM audits

11 Document ISWG-GHG 7/2/14 (Greece et al.) suggests that the safety management system should take into account energy management and decarbonization in accordance with the objectives and functional requirements of the ISM Code. Further, it proposes that for ships to which chapter IX of SOLAS applies, the effectiveness of the SEEMP shall be subject to verification during the ISM Code shipboard and company audits.

12 IACS considers that making SEEMP Part I mandatory within the ISM Code audit regime is feasible; however, it should be clarified that when the safety management system takes into account energy management and decarbonization in accordance with the objectives and functional requirements of the ISM Code, this will not change the application scope of energy efficiency requirements as stipulated in MARPOL even though there is a gap of application scope between MARPOL Annex VI and the ISM Code under SOLAS. A gap analysis needs to be carefully carried out to identify any potential issues and/or discrepancies prior to the integration of MARPOL Annex VI into the ISM Code audit regime.

13 If the SEEMP Part I audit is to be conducted in conjunction with the ISM Code audit, then it needs to be considered whether it is necessary to issue the Statement of Compliance (SOC)/the International Energy Efficiency Certificate to the existing ship separately in addition to the SMC (Safety Management Certificate) subject to the ISM Code. Given that SOC for SEEMP Part II will be issued upon compliance with fuel oil data reporting requirements, it is recommended that the Statement of Compliance/the International Energy Efficiency Certificate could be issued in a similar manner for the existing ships which have implemented SEEMP Part I and meet the mandatory energy efficiency operational requirements/reduction objectives. Considering that the SEEMP Part I audits/verification may need to confirm related fuel oil consumption data, it is recommended that the entity to carry out the verification/audit of SEEMP Part I and SEEMP Part II should be consistent or should be harmonized by Administrations.

14 In addition, the definition of non-conformity and major non-conformity with respect to self-set carbon intensity reduction goals and the criteria for the downgrading or closing-out of a non-conformity are expected to be different from that in the ISM Code; therefore, these definitions should be further defined for uniform implementation.

15 With regard to the application scope of the operational energy efficiency measures, it is workable to harmonize the scope with that of DCS requirements, i.e. 5,000 GT and above for the operational energy efficiency measures such as CII target or CII rating.

Reduction of the burden on Administrations – first SEEMP Part I verification/audit

16 Document ISWG-GHG 7/2/9 (Denmark et al.) describes that for "existing ships at the [1 January 2022], an initial verification audit of the SEEMP shall take place at the anniversary date of the IAPP Certificate […] and no later than [31 December 2022]. Such initial verification audit shall result in the issuance of a new IEEC […]".

17 There is still a significant amount of unclarity regarding the CII metrics, targets, etc. This makes setting a fixed date such as 1 January 2022 difficult at this stage. In spite of the above, IACS understands that the implementation date would start on 1 January 20XX and that an initial verification audit of the SEEMP Part I would need to be completed at the time window of the ship's annual IAPP survey within the same year 20XX, before the application year of the targeted carbon intensity. It should be noted that if the SEEMP Part I/operational energy efficiency performance verification audit is coupled with the IAPP annual survey, there would be a possibility that the annual audit/survey would not take place within one year due to the HSSC survey window.

18 IACS recognizes that verification and auditing of ships will be indispensable and important once the measures come into force; however it should be noted that the annual verification/audit will also bring a large amount of work to the Administrations and/or ROs.

19 Considering that the operational energy efficiency approach is a goal-based measure, and that the targeted carbon intensity is mandatory and clearly stated in the proposed amendments to MARPOL Annex VI, Administrations or ROs have no need to verify the different methods which ships intend to apply to achieve the CII target before implementation. Therefore, IACS believes there is no need for Administrations or ROs to approve the SEEMP Part I before the application of the targeted carbon intensity. It is suggested that prior to the first year in which there is a carbon intensity reduction target (e.g. 2022, if the targeted carbon intensity starts from 2023), the SEEMP Part I should be prepared in accordance with the requirements of MARPOL Annex VI and associated guidelines, and submitted to Administrations or ROs for information. The SEEMP Part I does not need to be approved and will be retained onboard purely as a reference. The SEEMP would be reviewed only if a ship fails to achieve a carbon intensity reduction target. Following the submission of the SEEMP Part I, a new IEEC or a supplement to an existing IEEC or a statement of compliance may be issued to the ship.

Reduction of the burden on Administrations – subsequent annual verification audits of SEEMP Part I

20 It should be noted that there may be cases when, depending on the anniversary date of each ship, the verification to confirm the compliance of ship's carbon intensity reduction objective at the time of the annual audit (3 months before or after each anniversary date) would be difficult. For example, if the anniversary date is in January, then the determination of achievement of CII figure for the previous year would be very likely unavailable due to the short period of time.

21 To address this challenge, SEEMP Part I verification/audit may be harmonized with the data collection system (DCS) certification scheme. Considering that the ship shall report fuel oil consumption data to its Administration or any organization duly authorized by it within 3 months after the end of each calendar year, it may be appropriate that the annual verification audit of the SEEMP Part I is completed within 5 months after the end of each calendar year, after the fuel oil consumption data is collected, and could be used for the calculation of the relevant CIIs and the assessment of the carbon intensity reduction objective.

22 If SEEMP Part I audits are integrated with the ISM Code audits, the verification/audits should be considered from two aspects, i.e. a Company and the specific ship. A verification audit at a Company's premises would be used to review the data collected for all ships operated by the Company and to calculate the CIIs. The CIIs could then be validated using a rolling sampling method. The validation would involve the Company providing information such as the raw data used to calculate the CIIs, the data submitted to the IMO DCS, BDNs and fuel consumption records, and weather conditions in excess of those used to define minimum power requirements. These elements would then be used to validate the CIIs for the sample of ships. The same ship should not be part of the sample in 2 consecutive years. All ships would have to be sampled within 2 or 3 years.

23 Further, ships would be subject to the verification at the ISM Code shipboard periodical audit window, i.e. at least undergoing one intermediate verification (annual survey is not mandatory). If the ship is found to be in compliance with the targeted CIIs, a new IEEC or supplement to the IEEC would be endorsed, or a new statement of compliance would be issued.

24 Ships which are found not in compliance would be submitted to a more detailed verification audit to identify reasons for the non-conformity of the SEEMP Part I with the requirements of MARPOL Annex VI (i.e. a missed target would constitute the objective evidence that SEEMP Part I is either inadequate or not being followed). On the basis of a more detailed verification audit, action plans could be required, or enforcement action could be taken by the Administration. The multi-year approach described in document ISWG-GHG 7/2/2 (Denmark) and supported in document ISWG-GHG 7/2/24 (United States) could be used as a basis for enforcement action. Basing enforcement action on annual targets may undermine the ability of the measure to promote support for innovation and continuous improvement.

25 IACS is aware that an equivalent verification/audit scheme will need more time for an extensive discussion before it is accepted, especially on effectiveness and practicability. If time permits or the Group agrees with the phased-in implementation scheme/trial period for the operational measure, a flexible verification/audit scheme, as outlined above, could be considered as a potential solution for further discussion.

26 IACS would like to note that carbon intensity indicators such as AER and EEOI for an individual ship may be subject to significant variability on a year to year basis due to environmental, commercial, technical and operational conditions; this aspect should be reflected in the definition of CII compliance targets.

Implementation of the proposed Exemption

27 Document ISWG-GHG 7/2/21 (Brazil and China) proposes supplementary paragraphs under regulation 3 of MARPOL Annex VI. In general, IACS can support the concept of exemptions and that special consideration could be given to the voyages to SIDS and LDCs and the fluctuation of CIIs due to securing the safety in adverse weather. As with the latter situation, further consideration may be given to the mechanisms for granting exemptions to any voyage when securing ships' safety in regions with high prevalence of adverse weather.

28 From the perspective of implementation, it may be a challenge to clearly define high prevalence of adverse weather. IACS suggests that such exemptions could be covered in the verification Guidelines to be developed for uniform implementation to guarantee a level playing field. A similar approach, such as the stipulation of the use of a power reserve by unlimiting the shaft/engine power in the draft Guidelines annexed to document ISWG-GHG 7/2/7 under the specific occasions, may be considered to improve the ability to implement this proposed exemption.

Actions requested of the Working Group

29 The Group is invited to consider the foregoing and take action as appropriate.